Seagrass Meadows
Northeast United States | February 2026

1. INTRODUCTION

Seagrass meadows are critical wetlands components of shallow coastal ecosystems throughout the region. Seagrass meadows provide food and cover for a great variety of commercially and recreationally important fauna and their prey. Eelgrass and other seagrasses are often referred to as "Submerged Aquatic Vegetation" or SAV. This distinguishes them from algae, which are not classified as "plants" by biologists (rather they are often placed in the kingdom protista) and distinguishes them from the "emergent" saltwater plants found in salt marshes. In addition to the term SAV, some coastal managers use the term SRV or submerged rooted vegetation.

The seagrass meadows layer was created from separate datasets for the states of Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, and New York. Where possible, polygon datasets depicting the most recent eelgrass surveys were used. Attributes with common themes for each dataset were integrated in order to better represent SAV extent and year sampled. The data user is encouraged to read this and the metadata of each individual state's data carefully, as geometry, attribute details, and timeliness are not necessarily consistent among datasets used to develop this layer. Details of each state's data source are described in the table below.

State	Dataset Name / Link	Source	Year
Massachusetts	MassDEP Eelgrass Phase 6: 2019 - 2023	MassDEP	2019 - 2023
Maine	MaineDEP Acadia Seagrass 2025	Maine DEP	2025
	MaineDEP Penobscot Bay Seagrass 2024		2024
	MaineDEP Mid-Coast Seagrass 2023		2023
	MaineDEP Casco Bay Seagrass 2022		2022
	MaineDEP Seagrass 2021 (South Coast - Elliot to Cape Elizabeth)		2021
	MaineDMR - Eelgrass 2010		2009
New Hampshire	Great Bay Estuary Eelgrass	UNH	2024
Connecticut & New York	NYSDEC Statewide Seagrass Map	Long Island South Shore Estuary Reserve Program, Long Island Sound Partnership, Peconic Estuary Partnership, NYSDEC Seagrass Management Program	2019 - 2024
Rhode Island	Eelgrass Locations	RI CRMC, URI EDC, Narragansett Bay National Estuarine Research Reserve	2024

2. PURPOSE

The purpose of mapping the distribution of seagrass (Submerged Aquatic Vegetation - SAV) is to determine areas where eelgrass is present throughout coastal New England waters in order to support coastal and ocean planning. This dataset represents a current snapshot of mapped seagrass, it does not retain historical seagrass extent from older surveys.

3. SOURCES AND AUTHORITIES

- Maine Department of Marine Resources, Bureau of Resource Management
- Maine Department of Environmental Protection
- University of New Hampshire, Geospatial Science Center
- New Hampshire Department of Environmental Services
- NH GRANIT (New Hampshire Geographically Referenced Analysis and Information Transfer System)
- Piscataqua Region Estuary Partnership
- Massachusetts Department of Environmental Protection
- Massachusetts Division of Marine Fisheries
- MassGIS
- Rhode Island Coastal Resources Management Council
- URI Environmental Data Center
- Narragansett Bay National Estuarine Research Reserve
- Long Island South Shore Estuary Reserve Program
- Long Island Sound Partnership
- Peconic Estuary Partnership
- NYSDEC Seagrass Management Program

4. DATABASE DESIGN AND CONTENT

Native storage format:

Feature types:

Eelgrass bed polygons

Data Dictionary:

Line	Name	Definition	Type	Size
1	OBJECTID	Automatically generated	ObjectID	*
2	Shape_Length	Geometric representation of the feature	geometry	*
2	Shape_Area	Geometric representation of the feature	geometry	*
3	state	State in which the seagrass bed is located	text	5
4	SurveyYear	Year in which the seagrass bed was surveyed	long	*
5	sav	Species description as document in source data	text	50
6	acres	Area of the eelgrass bed measured in acres, as defined in source data	double	*
7	UpdateYear	Year source data was integrated in regional composite layer	long	*

Feature Class Name: SeagrassBeds

Total Number of Unique Features: 6712

Dataset Status: Complete

5. SPATIAL REPRESENTATION

Geometry Type: vector polygon
Reference System: GCS_North_American_1983
Horizontal Datum: North American Datum 1983
Ellipsoid: Geodetic Reference System 1980

XY Resolution: XY Scale is .000000001
Tolerance: 0.0000000089831583

Geographic extent: -72.48 to -66.97, 41.15 to 45.10

IS0 19115 Topic Category: environment, oceans, biota

Place Names:

Atlantic Ocean, Beverly Harbor, Block Island, Blue Hill Bay, Boston Harbor, Broad Cove, Broad Sound, Buzzards Bay, Cape Cod Bay, Cape Neddick Harbor, Casco Bay, Chatham Harbor, Cobscook Bay, Cohasset Harbor, Connecticut, Dennys Bay, Duxbury Bay, Dyer Bay, Englishman Bay, Falmouth Harbor, Fishers Island Sound, Frenchman Bay, Gloucester Harbor, Goosefare Bay, Gouldsboro Bay, Great Bay, Gulf of Maine, Hingham Bay, Hull Bay, Ipswich Bay, Johns Bay, Little Narragansett Bay, Little Bay,

Little Kennebec Bay, Little Machias Bay, Long Island Sound, Machias Bay, Maine, Manchester Bay, Massachusetts, Muscongus Bay, Nantucket Harbor, Nantucket Sound, Nauset Harbor, Narragansett Bay, Narraguagus Bay, Narrow River, New Hampshire, Ninigret Pond, Oarweed Cove, Passamaquoddy Bay, Penobscot Bay, Pigeon Hill Bay, Piscataqua River, Pleasant Bay, Plymouth Bay, Plymouth Harbor, Portsmouth Harbor, Point Judith Pond, Portsmouth Harbor, Potter Pond, Prospect Harbor, Quonochontaug Pond, Rhode Island, Saco Bay, Sakonnet River, Salem Sound, Sandy Bay, Scituate Harbor, Seal Cove, Sheepscot Bay, Spinney Creek, Vineyard Sound, Westport River, York Harbor

Recommended Cartographic Properties:
(Using ArcGIS ArcMap nomenclature)

Simple Fill Symbol: .4 point, outline color: same as fill, color model: HSV 167-100-66
Scale range for optimal visualization: 5,000 to 3,000,000

6. DATA PROCESSING

A description of each state's datasets and the subsequent processing are described below.

Maine

Source: Maine Department of Environmental Protection (Maine DEP)

Since 2013, the Maine Department of Environmental Protection (DEP) has conducted eelgrass surveys in Casco Bay, which culminated in the creation of DEP's Marine Vegetation Mapping Program (MVMP) in 2023 (38 M.R.S. §1805) with a mandate to map and delineate the extent of seagrass, including eelgrass, throughout Maine every 5 years. More information on Maine Department of Environmental Protection seagrass mapping program can be found here: Monitoring and Assessment of Coastal (Marine) Waters.

Data were downloaded from the Maine GeoLibrary, and verified with Maine DEP as the most recent data available. Polygon features from the source data were preserved in the regional composite layer. Feature attribution was standardized and added to describe source information and year. If available, the acres attribute was retained as calculated in the source data. Species descriptions were left as provided from the original source downloads.

The Maine DEP Seagrass Data Viewer provides more information on the marine vegetation mapping program, the current status of mapping efforts, and direct links to seagrass data downloads.

New Hampshire

Source: University of New Hampshire, Geospatial Science Center

Data were downloaded from the New Hampshire GRANIT GIS Clearinghouse for the most recent survey year. Polygon features from the source data were preserved in the regional composite layer. Feature attribution was standardized and added to describe source information and year. The source data discriminated between sites with just eelgrass, just widgeon grass, and sites with both eelgrass and widgeon grass. This information was retained in the regional dataset.

Massachusetts

Source: Massachusetts Department of Environmental Protection (MassDEP)

Data were downloaded for phase 6 of the MassDEP eelgrass mapping project at the following link: MassGIS Data: MassDEP Eelgrass Phase 6: 2019-2023. Polygon features from the source data were preserved in the regional composite layer. Feature attribution was standardized and added to describe source information and year. If available, the acres attribute was retained as calculated in the source data. The source data did not discriminate between seagrass species. All polygons were described as species "Eelgrass" to remain consistent with information in the source data.

The MassDEP Eelgrass Mapping Project conducted surveys to map eelgrass using remote sensing since the 1990's. Mapping efforts were separated into six phases. Only data for phase 6 was included in the composite layer, as it covered most of the Massachusetts coastline and was most current. The MassDEP Eelgrass Mapping Project and the areas of the Massachusetts coast covered by each dataset are further described here.

Rhode Island

Source: Rhode Island Coastal Resources Management Council, URI Environmental Data Center, Narragansett Bay National Estuarine Research Reserve

Data were downloaded from the University of Rhode Island Environmental Data Center. Polygon features from the source data were preserved in the regional composite layer. If available, the acres attribute was retained as calculated in the source data. Feature attribution was standardized and added to describe source information and year. Additional attribute fields, including those describing ground-truthing status and methodology and site locations were eliminated due to lack of corresponding fields in the majority of the other states' datasets.

The presence or absence of eelgrass and widgeon grass was delineated for coastal Rhode Island using tidally-coordinated orthophotography, GPS, and underwater video recordings. These 2021 data utilize consistent mapping methodology with previous mapping efforts in 2016, 2012, and 2006. Therefore, these data may support SAV dynamics (see accompanying report by Bradley et.al), conservation, marine spatial planning, coastal resource management.

Connecticut & New York

Source: Long Island South Shore Estuary Reserve Program, Long Island Sound Partnership, Peconic Estuary Partnership, NYSDEC Seagrass Management Program

Data were exported from features services available from the NYSDEC Statewide Seagrass Map. Data represented the most current available seagrass maps in Connecticut and New York. Polygon features from the source data were preserved in the regional composite layer. Feature attribution was standardized and added to describe source information and year. If available, the acres attribute was retained as calculated in the source data. Additional attribute fields, including those describing ground-truthing status were eliminated due to lack of corresponding fields in the majority of the other states' datasets. The source data discriminated between sites with just eelgrass, eelgrass and boulders, Ruppia, and a general 'Seagrass Bed' description for the 2019 study on the Long Island South Shore. This information was retained in the regional dataset.

Data in these states depicts presence and absence of seagrass based on aerial photography captured in 2019 for the south shore, and 2024 for the Long Island Sound and Peconic Estuary. More information about the programs that contributed to this work:

- South Shore Estuary Reserve
- Long Island Sound Study
- Peconic Estuary Program

For more information about the NYSDEC Seagrass Management Program visit https://www.dec.ny.gov/lands/110813.html.

Processing environment: ArcGIS Pro 3.5.2, Windows 11 Enterprise

	Process Steps Description
1	Available data were obtained from each state/entity and loaded into ArcGIS, and if necessary converted to the GCS North American 1983 coordinate system using the PROJECT tool.
2	In selected datasets, additional attribute fields, such as those describing ground-truthing status were eliminated due to lack of corresponding fields in the majority of the other states' datasets.
3	Information on the seagrass survey area was collected, where available, to inform where appropriate to replace older surveyed polygons with a more current version. Polygons that did not represent the most current information were deleted in the editing environment.
4	Datasets from each state were combined using the MERGE tool to create the regional eelgrass feature class
5	Domains were added to better characterize the fields Year and State

7. QUALITY PROCESS

Attribute Accuracy: Original content was acquired from authoritative sources. Any attribute editing was informed by specific information in the metadata.

Logical Consistency: This dataset integrates seagrass habitat polygon features from separate sources. Common themes were identified across attribute fields that unify the datasets, and these were incorporated to provide consistency and efficient communication of information. For fields that persisted in the regional layer, field descriptions were kept consistent with source data records. Attribution was added one source data products were merged to describe the state, survey year, and data update year.

Completeness: Data are based upon the most recent available seagrass habitat GIS datasets available for coastal New England states. Not all records have complete information for each field due to the differences in sampling and recording programs for each state.

Positional Accuracy: May vary by state. The user should consult the metadata of each individual state for positional accuracy information.

Timeliness: This dataset is based on best available information as of February 2026; however, the timeliness of the dataset varies by state. Due to the biological characteristics of seagrass, the user should not assume that all sites are up to date and should consult each state's metadata for more detailed information as to the timeliness of the data.

Use restrictions: Data are presented as is. Users are responsible for understanding the metadata prior to use.

Distribution Liability: All parties receiving these data must be informed of caveats and limitations.