Historical Seagrass Extent
Northeast United States
February 2026

1. INTRODUCTION

Maps of the historical extent of seagrass meadows provide resource managers with information about habitat loss and potential for restoration. In addition, because seagrass meadows expand and contract throughout the year and year-to-year, maps of historical extent can also provide a guide to locations where seagrass may naturally appear on its own (i.e., outside of restoration efforts).

The historical seagrass extent layer was created from several separate datasets for the states of Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, and New York. Datasets that were included in the historical layer were derived from quantitative surveys such as aerial photography and/or field verification. The range of historical data available varied greatly by state. The data user is encouraged to read this and the metadata of each individual dataset carefully, as geometry, attribute details, and timeliness are not necessarily consistent among datasets used to develop this layer.

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.

2. PURPOSE

The purpose of mapping the historical distribution of seagrass (Submerged Aquatic Vegetation - SAV) is to create a reference layer depicting areas where seagrass was present in the past and/or could be present again in the future throughout coastal New England waters in order to support coastal and ocean planning.

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
- Connecticut Department of Energy and Environmental Protection
- Peconic Estuary Partnership
- New York Natural Heritage Program
- NYSDEC Seagrass Management Program

4. DATABASE DESIGN AND CONTENT

Native storage format:

Feature types:

Eelgrass polygons

Data Dictionary:

Line	Name	Definition	Type	Size
1	Shape	Geometric representation of the feature	geometry	*
2	OBJECTID	Automatically generated	ObjectID	*
3	Shape Length	Length of polygon circumference	double	*
4	Shape Area	Area of polygon	double	*

Feature Class Name: ne_regional_eelgrass_historical

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, Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, Long Island Sound

Recommended Cartographic Properties:
(Using ArcGIS ArcMap nomenclature)

Simple Fill Symbol: No Fill, 2 point, outline color. Varying colors based on survey scheme field.

Scale range for optimal visualization: 5,000 to 3,000,000

6. DATA PROCESSING

The following datasets were included in the historical composite layer. For each state, all available historical data were merged and dissolved so that overlapping polygons were merged into singular features, representing the maximum extent of recorded historical seagrass. Detail regarding SAV species observed, density, acreage, and other field observations were removed from each dataset for consistency when merging and combining datasets into a single regional layer. The data user is encouraged to obtain the original source data and refer to the metadata to examine these source details.

State	Years available	Source
Maine	1993-1997, 2001-2010, 2013, 2018-2019, 2021-2024	Maine Department of Environmental Protection/Maine GeoLibrary
New Hampshire	1981, 1986-2017, 2019, 2021-2024	NH GRANIT
Massachusetts	1995, 2001, 2006-2007, 2010-2013, 2015-2017, 2019	Massachusetts Department of Environmental Protection
Rhode Island	1988, 1996, 2000, 2006-2021	RIGIS/University of Rhode Island
Connecticut	1974-1996, 2002, 2006, 2009, 2012, 2017	Connecticut Department of Energy and Environmental Protection
New York	1930, 2000, 2003-2015	Peconic Estuary Partnership (Sarah Schaefer); New York State Department of Environmental Conservation; New York Natural Heritage Program

Processing environment: ArcGIS Pro 3.5.2, Windows 11 Enterprise

	Process Steps Description
1	Available shapefiles 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	Polygons for each dataset were combined into a single regional feature class using the MERGE tool
3	Overlapping polygons were combined into a single feature using the DISSOLVE tool

7. QUALITY PROCESS

Attribute Accuracy: Original content was acquired from authoritative sources.

Logical Consistency: This dataset integrates seagrass habitat polygon features from numerous separate sources. Any polygon across historical datasets representing presence of seagrass was included in this dataset, source files were merged, and overlapping features dissolved. Feature attribution was removed.

Completeness: Data are based upon historically available seagrass habitat GIS datasets available for coastal New England states. The dataset is considered complete.

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. Data is compiled for all years of data up to, and excluding, the current snapshot of seagrass by state, as shown in the accompanying Seagrass Meadows dataset.

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.