Seagrass Survey Areas
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 survey areas layer shows seagrass survey schemes and approaches by state. Survey approaches vary based on seagrass mapping program goals and resources, with some states planning annual survey rotations by geographic region, and others taking a more intermittent approach and surveying as time and resources allow. Understanding the specific boundaries of each survey is important, as it helps distinguish between areas where changes in seagrass have been detected and areas that were not surveyed, where changes are unknown. Details of each state's survey program are described in the table below.

State	Dataset Name / Link	Source
Maine	MaineDEP Seagrass Data Viewer	Maine DEP
New Hampshire	Great Bay Estuary Eelgrass	UNH
Massachusetts	MassDEP Eelgrass Mapping Project	MassDEP
Rhode Island	RI CRMC Submerged Aquatic Vegetation Tier1_Mapping_SAV_2021.pdf	RI CRMC, URI EDC, Narragansett Bay National Estuarine Research Reserve
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

2. PURPOSE

The purpose of mapping the seagrass survey area polygons is survey approaches vary based on seagrass mapping program goals and resources. Understanding the specific boundaries of each survey is important, as it helps distinguish between areas where changes in seagrass have been detected and areas that were not surveyed, where changes are unknown.

3. SOURCES AND AUTHORITIES

- Maine Department of Environmental Protection
- New Hampshire Department of Environmental Services
- University of New Hampshire, Geospatial Science Center
- Massachusetts Department of Environmental Protection
- Rhode Island Coastal Resources Management Council
- Long Island Sound Partnership
- Bureau of Ocean Energy Management
- NOAA Office for Coastal Management

4. DATABASE DESIGN AND CONTENT

Native storage format:

Feature types:
Seagrass survey area polygons

Data Dictionary:

Line	Name	Definition	Type	Size
1	OBJECTID	Automatically generated	ObjectID	*
2	SurveyArea	Geographic description of survey area	text	255
3	state	State in which the seagrass bed is located	text	5
4	YearOfStudy	Year of the most recent survey in a given area	long	*
5	SurveyType	Survey methodology	text	255
6	Source	Source of survey area definition	text	255
7	SurveyScheme	Frequency of repeat survey effort	text	255

Feature Class Name: SeagrassSurveyAreas

Total Number of Unique Features: 18

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.

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.

Data were provided from Maine DEP as the most recent data available. Feature attribution was standardized and added to describe source information, year, and survey scheme.

New Hampshire

Data on survey extent was not provided and was assumed to be the entirety of New Hampshire state waters. Feature attribution was added to describe source information, year, and survey scheme.

Massachusetts

Source: Massachusetts Department of Environmental Protection (MassDEP)

The MassDEP Eelgrass Mapping Project conducted surveys to map eelgrass using remote sensing since the 1990's. Mapping efforts are separated into six phases. The MassDEP Eelgrass Mapping Project and the areas of the Massachusetts coast covered by each dataset are further described here.

Data were downloaded using the MassDEP Eelgrass Viewer. Feature attribution was standardized and added to describe source information, year, and survey scheme.

Rhode Island

The presence or absence of eelgrass and widgeon grass are 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.

Data on survey extent was not provided and was assumed to be the entirety of Rhode Island state waters. Feature attribution was added to describe source information, year, and survey scheme.

Connecticut & New York

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

Seagrass 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.

Information on seagrass survey areas along the Connecticut coast and northern Peconic Estuary were provided by the Long Island Sound Partnership. Feature attribution was added to describe source information, year, and survey scheme. An area defining seagrass survey area extents in the Peconic Estuary and southern coast of Long Island was defined by enveloping mapped seagrass meadows polygons. This polygon is intended to show generally where survey efforts have occurred.

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	Datasets from each state were combined using the MERGE tool to create the regional eelgrass feature class
3	Attribution was updated based on information available from data providers to further describe survey efforts in each 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 survey 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.

Completeness: Data are based upon the most recent available GIS datasets available for coastal New England states. The dataset is considered complete.

Positional Accuracy: Feature delineations are considered approximate in order to generally inform users of survey procedures 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.

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.