

THE LOSS OF SEAGRASS IN MASSACHUSETTS

WHAT IS SEAGRASS?

Seagrass is a type of marine plant that lives in subtidal coastal waters. Seagrasses grow in beds or meadows that can span small patches or reach up to miles in size. These plants have leaves, roots, and rhizomes, and can produce flowers and seeds.

Globally, there are 72 different seagrass species. In Massachusetts, the most common species is called eelgrass.



THE VALUE OF SEAGRASS

COASTAL PROTECTION



Seagrass slows down wave action and stabilizes sediment, acting as a natural buffer to protect our coasts from storm events.

OXYGEN PRODUCTION



Seagrass is considered to be "The Lungs of the Sea" due to its ability to produce oxygen. One square meter of seagrass can produce up to 10 liters of oxygen a day!

CARBON SINK



Seagrass can absorb and store 2x as much carbon as tropical forests. The carbon is stored in sediments where it remains for thousands of years, helping to mitigate climate change.

WATER QUALITY



Seagrass beds absorb nutrients from land. By processing and storing these nutrients in roots and leaves, the plants improve local water quality, which helps to prevent harmful algal blooms and maintains a healthy environment for other species.

NURSERY HABITAT



Seagrass provides critical habitat for many of our marine species that we love and rely on such as flounders, lobsters, crabs, bay scallops, and cod. By providing shelter and foraging habitat, eelgrass supports commercial fishers and marine biodiversity.

Photo: Hakai Institute

HISTORY OF EELGRASS IN MASSACHUSETTS

While eelgrass habitat has long been a defining feature of Massachusetts coastal waters, it has recently experienced significant declines. Since the state started mapping eelgrass in 1995, over 50% (~19,000 acres) of areal coverage has been lost. Declines have been attributed to a number of factors including degradation of water quality due to increased nutrients, suspended sediments from urban and agricultural wastewater and runoff, and physical impacts from boating and coastal development.



SEEDING THE FUTURE

RESTORING EELGRASS & BUILDING COMMUNITY

To combat eelgrass loss and ensure continued benefits for our communities and environment, restoration efforts are underway! With funding from Restore America's Estuaries (RAE), a collaborative team is working to restore eelgrass at 4 locations across the Massachusetts coast! By advancing eelgrass restoration techniques using seed-based approaches, the group aims to bring eelgrass back to key sites across the state while piloting techniques that will inform and guide future efforts.

EELGRASS RESTORATION SITES

Marblehead &
Beverly, MA

Gloucester, MA

Nahant, MA

Duxbury &
Plymouth, MA

PROJECT GOAL:

By working with local municipalities, neighbors, recreators, schools, and community groups, the team aims to restore 1 acre of eelgrass at each site between the spring of 2026 and the fall of 2027.

This project is led by the Massachusetts Bays National Estuary Partnership (MassBays) in collaboration with the Merrimack Valley Planning Commission, Salem Sound Coastwatch, Northeastern University, and the North and South Rivers Watershed Association; and funded through the U.S. EPA and Restore America's Estuaries (Agreement #NEPWG24-MassBays). For more information, please contact MassBays at jillian.carr@umb.edu



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