

Eelgrass Donor Meadow Site Selection Flow Chart

About this resource:

This resource is a decision-support tool that helps identify suitable donor sites for *Zostera marina* (eelgrass) restoration. Using a flowchart-style framework, it guides users through key criteria such as meadow stability, seed production, water quality data, and stakeholder interest.

This tool supports restoration practitioners, resource managers, and collaborative partners in science-based decision-making and can be adapted to different estuarine systems and restoration goals. It is adaptable to different estuarine systems and can be modified based on region- specific data availability and restoration goals.

Citation: Jarvis, J., & Shields, E. (2025). *Eelgrass donor meadow site selection flow chart*. NERRS Science Collaborative.

About the project:

This resource was developed through a 2022-2025 Collaborative Research project titled *Evaluating and Enhancing Eelgrass Resiliency and Restoration Potential in a Changing Climate*.

In the lower Chesapeake Bay, Virginia, warmer water temperatures in recent years have resulted in large scale diebacks of eelgrass meadows (*Zostera marina*). In contrast, many eelgrass populations in Back Sound, North Carolina appear to be more resilient to warming water temperatures. Understanding the drivers of these regional differences in eelgrass resilience could help more effectively restore eelgrass meadows in a changing climate.

With a network of the intended users from reserves, state agencies, and Chesapeake Bay nonprofits, this project compared resiliency traits of eelgrass populations in Virginia and North Carolina by conducting reciprocal restoration trials and genomic sequencing. The project results indicate the importance of seed sources in potential future eelgrass restoration, in addition to site selection.

This [webpage](#) provides more information about the project.

