EVALUATING BENEFICIAL USE OF SEDIMENT FOR COASTAL HABITAT RESTORATION

ABOUT

Beneficial use of sediment (using dredged sediment to enhance or create coastal habitat) is growing in popularity as a way to increase coastal habitat resilience. Dredged sediments are used to rebuild areas lost to erosion and raise the elevation of marsh areas at risk of drowning as sea levels increase. Currently, the long-term performance and implications of beneficial sediment use for marsh restoration are poorly understood.

WHAT WE’RE DOING

We are examining beneficial use sites (5 or more years post-construction) to understand how they performed over time with respect to site-specific conditions (wave exposure, tide range, sediment characteristics). This project will inform: the range of conditions where beneficial use can be a successful habitat restoration strategy; development of design, monitoring, and adaptive management guidance for beneficial use projects.

2022

Beneficial Use Site Selection
Texas and Maryland

2023

Site Evaluations & Historic Data Collection
Including as-built surveys, environmental and monitoring data

2024 - 2025

Performance Analysis
For each site and across sites

WHY IT MATTERS

This project will improve our understanding of the persistence of beneficial use projects and optimize site selection and design. It will inform the range of environmental settings in which beneficial use can be expected to perform successfully.

This information is also needed by funding agencies to guide funding decisions, regulatory agencies charged with permitting similar projects, and practitioners doing the on-the-ground work to implement projects.

PRODUCTS & ANALYSES

Performance Over Time
Knowledge Gaps Defined
Evaluation Guidance
Decision Support Tools

WANT TO HELP?

If you are researching, permitting, or installing beneficial use projects or a regulating or funding agency we would love to talk with you. Your information and needs are essential to making our products useful. See contact information below.

FOR MORE INFORMATION, EMAIL: JENNY.DAVIS@NOAA.GOV