

Shoreline Restoration

Smithsonian Environmental Research Center Living Shoreline

KEY METRICS

970 LF

Shoreline restored

5,000 TN

Clean washed sand

3,700 TN

Stone nearshore breakwaters

25,850 SF

Tidal marsh vegetation

PROJECT DETAILS

 Client
Smithsonian Environmental Research
Center (SERC)

 Location
Edgewater, MD

 Dates
Aug 2021 - Nov 2025

 Construction status
Construction complete

 Construction value
\$2M

SERVICES

Shoreline design, Permitting,
Construction administration,
Topographic/bathymetric survey,
Post-construction monitoring,
Wave/erosion analysis

STAKEHOLDERS

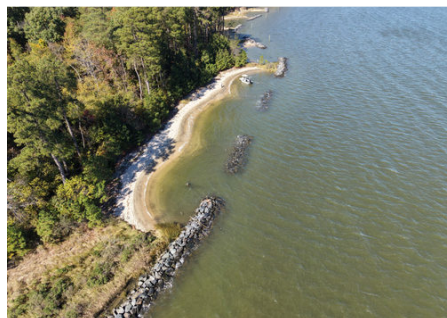
MDE, USACE, Smithsonian Institution,
Edwin A. and John O. Crandell, Inc.,
Associated Builders, Inc., NMFS

PROJECT DESCRIPTION

The Smithsonian Environmental Research Center's shoreline along the Rhode and West Rivers was eroding, threatening forested bank and tidal habitat. Sustainable Science designed a phased living shoreline for SERC's Cheston Point, combining stone breakwaters, groins, reef balls, sand fill, and tidal marsh plantings, and provided permitting support, construction administration, and survey services. Edwin A. and John O. Crandell, Inc. built the Phase 1B and 1C breakwaters, placed sand fill, and completed plantings by October 2025. The project restored the eroding shoreline, created new tidal marsh habitat, and reduced wave energy, with Sustainable Science continuing five years of post-construction marsh monitoring for MDE.

HIGHLIGHTS

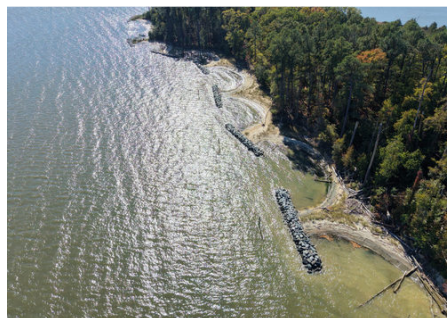
- Restored eroding shoreline at SERC's Cheston Point
- Built five rock breakwaters (BW-1 to BW-5), Phase 1C
- Completed Phase 1B breakwaters and stone groin
- Placed over 8,500 tons of material to restore shoreline
- Planted over 25,000 SF of tidal marsh vegetation
- Secured USACE and MDE permits for construction



Looking north along Phase 1A



Looking north along Phase 1C



Looking south along Phase 1C



Aerial view of portion of Phase 1C