

Engineering With Nature Project Fact Sheet



Identification of Opportunities for Beneficial Use of Dredged Material Within the Atlantic Intracoastal Waterway

Background

This project capitalizes on an opportunity to develop tools for evaluation and identification of beneficial use of dredged material (BUDM) options within the Atlantic Intracoastal Waterway (AIWW). The AIWW, also known as Marine Highway 95 by the U.S. Department of Transportation, is a portion of a larger 3,000-mile inland intracoastal waterway that runs along the Atlantic seaboard and Gulf coast. Upcoming BUDM opportunities, resulting from operations and maintenance (O&M) projects within the Savannah District (SAS), make the Georgia and South Carolina portion of the AIWW an ideal waterway stretch to develop strategies for placement of dredged material that incorporate BUDM principles and supports the Nation's Marine Transportation System. BUDM can enhance and restore habitat for a variety of aquatic and terrestrial species, rebuild eroded shorelines, and increase recreational and commercial opportunities.

Objectives

The initial goal of this project is to prioritize potential BUDM options within the AIWW based on a suite of relevant constraints including but not limited to sediment quality, sediment availability, hydrodynamics, sediment erosion and accretion rates, navigation/usage statistics, distance from waterway reach, critical habitat (e.g., designated sturgeon habitat), and environmental conditions. The work will identify a suite of sites along 36 operational waterway reaches within the Georgia and South Carolina portion of the AIWW through the development of a site selection tool and the identification of innovative, environmentally sound, and feasibly engineered placement options. In addition to the Southeastern regional focus, we plan to develop an approach to expand the prioritization process to other intracoastal waterways.

Approach

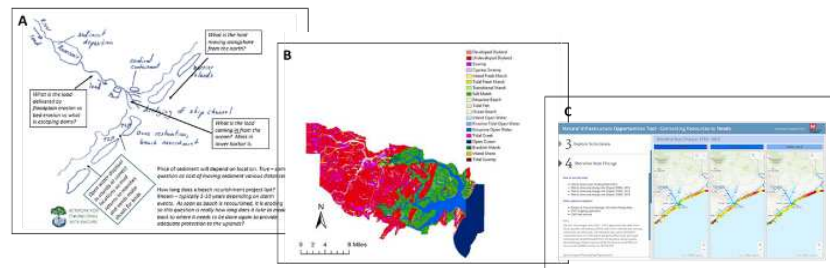
This project will prioritize BUDM options through conceptual and numerical integration of existing tools, approaches, and data, and work strategically with federal, state, and local partners across Georgia and South Carolina, including the University of Georgia's Skidaway Institute of Oceanography and Institute for Resilient Infrastructure Systems, and the Atlantic Intracoastal Waterway association. With these partners, we can plan the BUDM from the AIWW to leverage natural sand migration processes to build resilient ecosystems and achieve cost savings to the public while improving navigation, recreation, and terrestrial and aquatic fish and wildlife habitat. This project will be used to garner support for innovative EWN® efforts and codify the process to make similar approaches more achievable nationally.

Outcomes

The BUDM site selection tool will help incorporate EWN® principles directly into the management strategy of the AIWW and can be used by the Savannah District to support their BUDM efforts. The BUDM site selection tool can also be expanded and evaluated to identify BUDM opportunities along the entirety of the AIWW or other intracoastal waterways.



Skidaway River, a reach of the AIWW



Examples of tools and approaches that may be used in prioritization process

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