

Engineering With Nature Project Fact Sheet



Title

Documentation of EWN Successes: Filling the Beneficial Use Gap

Background

Dredged materials can be used to improve environmental outcomes while maximizing navigation benefits. Few studies document mid- to long-term project benefits and USACE success stories remain poorly advertised. The purpose of the work unit is to “fill the gap” between recently restored systems and their mature counterparts, providing a framework to develop restoration trajectory curves allowing for extrapolation of EWN benefits throughout a projects lifespan (Fig 1).

Objectives

The work unit promotes 2 objectives including 1) document USACE EWN success stories by conducting a survey of completed projects focusing on the application of dredged materials in the USACE Baltimore District and 2) document the functions, goods, and services being produced by a set of mid- to long- range complete USACE project to fill the restoration trajectory gap.

Approach

The work unit is employing multi-factor assessments at a variety of EWN project sites located in TX, OR, CA, OH, GA, FL, and MD (Fig 2) composed of various ages, construction techniques and target resources.

Outcomes

Final project findings will be presented in a journal paper and technical report, including analysis of resource utilization and the development of restoration trajectory curves (Fig 3). The primary technology transfer platform will be the published findings and webinars with state and federal working groups, such as the Coastal Working group, DOTS webinar, and Regional Sediment Management teams, supplemented by conference presentations to generate USACE and public awareness.

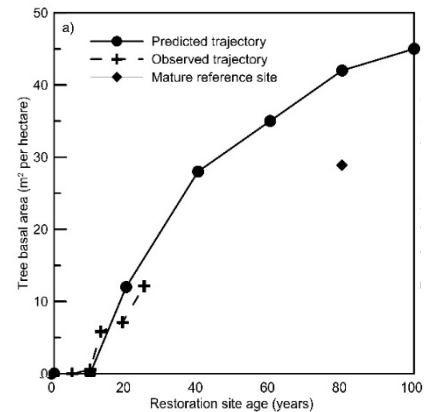


Figure 1. Example of restoration trajectory curve (Berkowitz 2018).



Figure 2. Study locations.



Figure 3. Monitoring restoration sites of varying age supports trajectory development.

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