

Engineering With Nature

Project Fact Sheet



Using EWN to Create Habitat for Threatened and Endangered Species in the Gulf of Mexico: Demonstration of Conservation Planning with the USFWS

Background

While the New Orleans District uses dredged material to create bird habitats, benefits are assigned to individual waterways without a coordinated regional strategy to improve bird habitats along coastal migratory routes. Here, we aim to build on an existing DOTS activity by investigating the value of dredged material



Figure 1. Black Skimmers (*Rynchops niger*) and a Gull-billed Tern (*Gelocheidon nilotica*) using dredged material habitat in the New Orleans District, USA. (Photo Credit: Jake Jung, ERDC-EL).

islands and placement areas that have been created during maintenance dredging of the Baptiste Collette Bayou navigation channel. This value will be assessed through seasonal coastal-waterbird monitoring data and a habitat-value assessment for threatened and endangered species. The resulting seasonal data and habitat assessment will be presented to the US Fish and Wildlife Service during ESA Section 7(a)(1) consultation, along with a portfolio of regional waterways that employ similar placement practices. This consultation will help determine whether modifications to placement practices can be made to improve regional conservation goals.

Objectives

This project will characterize features of the dredged material islands and placement areas that benefit seasonal coastal birds and other species. Island size, elevational gradient, and habitat availability will be assessed through analysis of airborne imagery and seasonal habitat use by coastal birds. Coastal modeling will relate channel dynamics and habitat availability for ESA listed species (e.g., Piping Plover (*Charadrius melodus*) and Red Knot (*Calidris canutus*), plus other state-listed or sensitive species and regional species of concern.

Approach

Island features and habitat availability will be related to bird use collected through monthly or semimonthly seasonal monitoring efforts. These data will inform the New Orleans District and other USACE districts along the Gulf Coast, on efficient use of dredged material to benefit seasonal birds.

Outcomes

This project will demonstrate the value of ESA Section 7(a)(1) conservation consultation with the USFWS to provide best practices to USACE Districts for ESA compliance, mission flexibility and goal setting, while promoting the best outcomes for listed species. This approach also serves to encourage proactive conservation efforts with collaborators to minimize future listing of additional coastal bird species.

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