

Natural Infrastructure Opportunities Tool (NIOT)



How can NIOT support dredging projects?

NIOT is a useful tool during the planning stages of projects by providing map-based visualizations of active placement areas, channel navigation pathways, and oyster and combined environmental sensitivity to dredging/placement activities.

2. View Local Conditions

3. Explore Subsidence

4. Shoreline Change

6. Resource Needs



USACE conducts dredging projects to deepen and widen the navigation channels and then uses the dredged material for environmentally acceptable purposes. For example, 1,000 acres of marsh was created in Lower Galveston Bay using dredged material with the goal to enhance the capacity of coastal resilience via the reduction of waves and erosion.

Tab 5: Sediment Baseline Conditions: NIOT displays active USACE placement areas near the project site. Clicking the placement cells provides more information such as initial volume, placement type, etc.



What type of environmental data is available in NIOT?

Tab 9: Environmental Impacts provides sensitivity indexes that can be used as planning tools for environmental sensitivity to dredging and placement activities. Sensitivity layers are available for the following environmental resources 1) oyster reefs, 2) submerged aquatic vegetation, 3) wetlands (special lands), and 4) threatened and endangered species.



How can NIOT support project managers?

Tab 9: Environmental Impacts of the NIOT web-viewer can display navigation channel areas which is useful when determining how to get material to project sites. A unique feature of NIOT is to the ability to display multiple data layers on a single map.

