

Abstract

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GIS and IMS Support for Gulf Intracoastal Waterway Re-certification Process

Track: Water Resources

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The U.S. Army Corps of Engineers has developed a Geographic Information System (GIS) to aid in building sound Environmental Assessments to satisfy the waterways re-certification process for the Florida Department of Environmental Protection. This process involves an assessment of potential environmental impacts associated with the maintenance of the Federal navigation project. The preparation of the environmental assessment and re-certification process involves review and coordination with multiple State and Federal agencies. The goal is to insure that continued maintenance of the waterway is conducted in a manner consistent with applicable law and guidance such as the National Environmental Policy Act (NEPA), Clean Water Act, Endangered Species Act and Coastal Zone Management Act.

The GIS provides baseline information for 300 miles of shoreline including shoreline position, multi-spectral imagery, dredging records, nautical charts, soils, land use, and vital environmental data. The project combines fragmented CADD channel and disposal area information into a comprehensive, continuous, centralized waterway channel data set.

An Internet Map Server (IMS) was developed to allow individuals and organizations to interact with the GIS on the Intranet or Internet in order to create maps, integrate information, and visualize scenarios. Specifically, the Coastal Navigation IMS allows the user direct access to large amounts of channel data and environmental information, and includes the capability to zoom in/out and turn on/off specific map features; perform queries based on colloquial geographic names and site specific disposal areas, and print maps at several selectable scales.

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