

Integrating Flood Risk Management and South Florida Everglades Ecosystem Restoration

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The Civil Works program in the U.S. Army Corps of Engineers Jacksonville District (Corps) includes water resource development activities including flood risk management, navigation, coastal storm risk management, and ecosystem restoration. In the past, these projects have been planned individually, but our current goal is to understand how these projects work together to improve the overall regional resiliency and how we can tie them together through integration. As part of the Federal resiliency effort, the Corps planning approach supports an integrated strategy for reducing coastal risks and increasing human and ecosystem community resilience through a combination of the full array of measures: natural, nature-based, nonstructural, and structural. This approach considers engineering attributes of the component features and the dependencies and interactions among these features over both the short and long term. It also considers the full range of environmental and social benefits produced by the component features. In southeast Florida, the Corps has several projects in the planning phase under ecosystem restoration (Biscayne Bay and Southeastern Everglades Ecosystem Restoration, Broward County Water Preserve Area, and Biscayne Bay Coastal Wetlands), flood risk management (Central & South Florida Flood Resiliency), coastal storm risk management (Miami-Dade Back Bay, Key Biscayne, and Dade County), and navigation (Port Everglades Deepening and Miami Harbor Navigation Improvements). All of these projects are addressing many of the same issues such as drainage and land use changes, exposure to sea level rise, flat topography, porous substrate, flood protection level of service requirements, water level requirements for different habitats, and vulnerable infrastructure. Projects across multiple mission areas can be implemented and work in coordination to achieve each project's objectives and improve the resiliency of southeast Florida. The Corps is using an integrated approach to plan and implement these projects across multiple mission areas to ensure functionality of all projects.

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