



US Army Corps  
of Engineers  
Wilmington District

## Wilson Bay Restoration, Jacksonville, NC Aquatic Ecosystem Restoration (CAP Section 206)

- Sponsor: Jacksonville, NC
- Project cooperation agreement (PCA) signed in April 2004
- Proposed Coastal America Project



CONGRESSIONAL DISTRICT: NC 3

DATE: 6 March 2014

1. **AUTHORIZATION:** Section 206 of the Water Resources Development Act of 1996, as amended.
2. **STUDY AREA:** Wilson Bay is a 106-acre shallow estuarine embayment of the New River within the city of Jacksonville, Onslow County, North Carolina.
3. **IMPROVEMENTS DESIRED:** The Wilson Bay aquatic ecosystem restoration project is a collaborative, multifaceted project to restore the Wilson Bay ecosystem. The ecosystem was degraded by many years of urban effects including wastewater discharges from a sewage treatment plant and urban runoff. The primary goals of this restoration project are to improve water quality within the bay, restore the bay's benthic community, improve the status of the bay as a nursery area for aquatic species, and to restore use of the bay as a self-sustaining aquatic habitat, recreational, and economic resource for the urban community.

Restoration of the bay is a priority of the city of Jacksonville and Onslow County. The city has already taken several actions important to the rehabilitation of the Wilson Bay ecosystem including decommissioning the wastewater treatment plant which previously released effluents into the bay and replacing it with a modern upland waste application system; purchasing three mechanical water column aeration units and operating them for several years to increase circulation and dissolved oxygen (DO) levels in the bay; planting bivalves in the bay to implement bioremediation and biological filtering of the water column; and planting wetlands along the shoreline to restore habitat and improve water quality. The components of the proposed Wilson Bay aquatic ecosystem restoration project complement the ongoing non-Federal measures. These actions to date have had positive impacts on the ecosystem.

PROJECT INFORMATION - Wilson Bay Restoration, Jacksonville, NC (Aquatic Ecosystem Restoration – CAP Section 206) – Continued

The Wilson Bay project will include measures to improve aquatic and benthic habitat in Wilson Bay, increase freshwater and brackish habitat, restore floodplains, and address water pollution in the urban environment.

The Wilson Bay aquatic ecosystem restoration project includes: mechanical water column aeration by the purchase, installation, and operation of three aerators and the use of three existing aerators; restoration of wetlands along creeks and drainages within the Wilson Bay urban watershed; restoration of a viable benthic community by bivalve planting at Wilson Bay Park; plantings of submerged aquatic vegetation in five areas on the perimeter of the bay; planting of a bioswale in an area characterized with relatively heavy surface runoff within the Wilson Bay urban watershed; and planting of rain gardens in areas characterized with sheet flow.

Work completed to date includes rain gardens, bivalve beds, re-planting of staging areas and re-planting of the Thomas school area.

4. **COST ESTIMATE:** Feasibility phase \$ 290,000  
Design and implementation phase \$ 6,290,000  
Total \$6,580,000  
(\$4,277,000 Federal/\$2,303,000 non-Federal)

5. **FEDERAL FUNDING ALLOCATION THRU FY 2013:** \$2,251,437.

6. **FY 2014 FUNDING ALLOCATION:** \$ 0. Carry-in funds are being used for construction management and limited re-design work.

7. **FY 2015 OPTIMUM AMOUNT:** \$1,200,000. These funds could be used to continue construction and award a contract for the second portion of work.

8. **KEY DATES:**

December 2012	Completed 1st Construction Contract
Subject to Funding	Award 2 <sup>nd</sup> Construction Contract
Subject to Funding	Construction substantially complete
Subject to Funding	Monitoring/complete
Subject to Funding	Close-out

9. **STATUS:** Due to real estate issues and funding availability, the work for this project was split into two portions and therefore need two separate construction contracts would be ultimately awarded to perform the work. In FY 2011, the Corps of Engineers completed design and assisted the sponsor with acquisition of needed real estate and advertising of a contract for the 1<sup>st</sup> portion of the work. The 1<sup>st</sup> contract was awarded in December 2011. The advertising and award of the 2<sup>nd</sup> contract is on hold pending the acquisition of real estate and the availability of Federal and non-Federal funding.

PROJECT INFORMATION - Wilson Bay Restoration, Jacksonville, NC (Aquatic Ecosystem Restoration – CAP Section 206) – Continued

9. **OTHER INFORMATION:** The sponsor is providing their share of project costs by work-in-kind construction of several project sites, provision of required real estate and cash. This project is a proposed Coastal America Project. Coastal America is a unique partnership of federal agencies, state and local governments, and private organizations. The partners work together to protect, preserve, and restore our nation's coasts. The partnership accomplishes tasks that no one group could accomplish alone.