

Project Name: C&SF: CERP Loxahatchee River Watershed Restoration - Part 1(X)(Y)(GGG)(K P1) (OPE)
Project ID: 1115 (CERP Project WBS # 17)
Lead Agency: USACE / SFWMD
Authority: Not specifically authorized
Funding Source: Federal/State

Strategic Plan Goal(s) Addressed: Primary: 1-A.1 (*Reservoir*)

Measurable Output(s): 46,000 acre-feet reservoir

April 1999 (Restudy) Project Synopsis: Projects elements were listed separately in the original concept as outlined in the Restudy (below):

1. and 2. Water Preserve Areas / L-8 Basin (K and GGG): A combination above-ground and in-ground reservoir with a total storage capacity of approximately 48,000 acre-feet located immediately west of the L-8 Borrow Canal, north of the C-51 Canal in Palm Beach County. Other construction features include aquifer storage and recovery wells with a capacity of 50 million gallons per day and associated pre- and post- water quality treatment to be constructed in the City of West Palm Beach (Lake Mangonia), a series of pumps, water control structures, and canal capacity improvements in the M Canal. The initial design assumed a 1,800-acre reservoir with 1,200 usable acres (water level fluctuating from 10-feet above grade to 30-feet below grade).

3. C-17 Back-pumping and Treatment: Back-pumping facilities and a stormwater treatment area with a total storage capacity of approximately 2,200 acre-feet located in northeastern Palm Beach County. The initial design for the stormwater treatment area assumed 550 acres (water level fluctuating up to 4-feet above grade).

4. C-51 Back-pumping and Treatment: Back-pumping facilities and a stormwater treatment area with a total storage capacity of approximately 2,400 acre-feet located in Palm Beach County. The initial design for the stormwater treatment area assumed 600 acres in size (water level fluctuating up to 4-feet above grade).

5. Lake Worth Lagoon Restoration (OPE): Sediment removal and trapping within the C-51 Canal, as well as sediment removal or trapping within a 2.5-mile area downstream of the confluence of the C-51 Canal and the Lake Worth Lagoon, located in Palm Beach County. A prototype project will be conducted to determine if the Lagoon sediments will either be removed or trapped.

6. Pal-Mar and J.W. Corbett Wildlife Management Area Hydro-pattern Restoration (OPE): Water control structures, canal modifications and the acquisition of 3,000 acres located between Pal-Mar and the J.W. Corbett Wildlife Management Area in Palm Beach County.

Current Project Synopsis: During the plan formulation process, the six CERP elements listed above and identified in the Yellow Book (1999) were combined into a single project. WRDA 2000 authorized the preparation of a PIR for the project.

The overall project area of 730 square miles is located in northeastern portions of Palm Beach County and Southern Martin County. The project purpose is to capture and store excess water that is currently discharged to the Lake Worth Lagoon and the Loxahatchee Estuary. L-8 Basin drainage will be captured in the L-8 Canal and routed to the L-8 reservoir during the wet season to reduce inland drainage and

damaging pulses of freshwater to the coast. During the dry season the stored water will be routed around Grassy Waters Preserve to the Loxahatchee Slough and then on to the Loxahatchee River to restore a hydrologic regime more natural to the region. Stored water will also be routed to the City of West Palm Beach for water supply which will reduce the reliance on Grassy Waters Preserve.

As a result of the FSM completed in 2004, two of the six separable features were removed from the project scope: C-51 and C-17 Pumping and Treatment. This decision was made due to lack of stakeholder support and insufficient available real estate in the area. Since the FSM, SFWMD has been modeling project components to develop an array of alternatives. Selection of the Tentatively Selected Plan was performed in June 2010, but approval was dependent upon receipt and review of the Alternative Formulation Briefing (AFB) document. In August 2010, the AFB was completed and submitted by South Florida Water Management District (SFWMD) for USACE review. During the course of the previous study efforts and identification of a draft TSP, several of the project components were screened out. The C-17 and C-51 back-pumping and treatment components were screened out because the volume of water required large land areas for treatment, which were not available in the nearby highly urban area. The Lake Worth Lagoon component was screened out because it required flow modifications that would be provided by the C-17 and C-51 back-pumping. The L-8 Reservoir was removed from further consideration as it is now included in the State's Restoration Strategies for achieving water-quality standards. The Pal-Mar J.W. Corbett WMA Hydropattern Restoration (OPE) and the Water Protection Areas/L-8 Basin (K & GGG) are project components that remain. The previous efforts did not consider several CERP ASR components proposed for the LRWRP study area: L-8 and C-51 Basin ASR (part of Component K), C-51 Regional Groundwater ASR (Component LL), and Palm Beach County Agricultural Reserve Reservoir and ASR (Component VV). The renewed/current effort is considering ASR technology as a potential measure for providing additional water storage within the watershed. Completed ASR pilot tests have demonstrated that the ASR technology will work for ecosystem restoration purposes.

Early constructed elements of Flowway 1 (G-160, G-161, M-canal widening) will also be evaluated. In addition, the planning process will examine a suite of alternatives associated with various other flowways and components with respect to providing beneficial flows to the Loxahatchee River, achieving hydro-pattern restoration.

Current Status: In October 2013, SFWMD purchased Mecca Farms to help restore Loxahatchee River flows. USACE's approval to re-start preparation of the Project Implementation Report was received in October 8, 2015. Current planning efforts are being conducted under the USACE Specific, Measurable, Attainable, Risk Informed and Timely (SMART) planning requirements. PIR is scheduled for completion in January 2019.

Est. Cost: \$744,601,000

Project Schedule:

2008 C-51 & L-8 Phase 1 (PBA) construction completed.
2016 SMART planning initiated
2019 SMART planning complete
TBD Congress authorize project
TBD Project design begins

Detailed Project Budget Information (rounded):

Loxahatchee Watershed Restoration	Obligations Thru FY 2016
USACE	\$6,540,170
SFWMD	\$11,532,950
Total	\$18,073,120

Hyperlink: <http://www.saj.usace.army.mil/Missions/Environmental/EcosystemRestoration/>

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Source: Original project description summarized from the *Central and Southern Florida Project Comprehensive Review Study (Restudy) (1999)*. Cost estimate information is based on planning level TSP cost estimate and is updated to reflect current price levels in October 2012 dollars. Actual expenditures include all federal expenditures through FY14 (Sep, 2014) and sponsor requested in kind credit through 4th quarter FY14 for the Project Implementation Reports efforts.

Additional Information:



