Information for the 2016 Integrated Financial Plan
Volume 2
Data provided should be as of June 30, 2016

Project Name: C&SF: West Palm Beach Canal STA-1E/C-51 West
Project ID: 1513
Lead Agency: USACE / SFWMD
Authority: Flood Control Act 1968; WRDA 1996
Funding Source: Federal/State

Strategic Plan Goal(s) Addressed: Primary: 1-B.1 Secondary: 3-B.1

Measurable Output(s): 6,500-acre storm water treatment area

Project History: Stormwater Treatment Area 1 East (STA-1E) is located in Palm Beach County and runs east/west from Water Conservation Area 1 (Loxahatchee National Wildlife Refuge) to West Palm Beach at Lake Worth. Construction of the STA-1E complex was authorized by the US Congress in section 316 of the Water Resources Development Act of 1996 (WRDA 1996). A Design Memorandum was executed in 1998. Construction of STA-1E was started by USACE in 2000, and was completed in 2004.

The STA-1E complex was transferred to the SFWMD for operations and maintenance in 2005, except for the eastern portion of the complex (also known as the PTSA area [periphyton stormwater treatment area]), which was retained temporarily by USACE in order to evaluate the ability of periphyton to reduce phosphorus concentrations in the water as it passed through the treatment cells in the complex. Testing was completed and the PTSA portion of the complex was transferred to SFWMD in 2014.

During the conduct of O&M activities SFWMD determined some components of the STA-1E project did not function as intended. A modification report was prepared and authorization to address identified deficiencies was obtained. Contracts were issued by USACE to remediate identified deficiencies. Remediation work on the culverts and the trash rakes was completed in 2016. During the conduct of remediation work on the culverts corrosion damage on the gate assemblies was identified. A second modification report was prepared and authorization to address identified deficiencies was obtained. A contract to address the corrosion damage on the gate assemblies was issued in September 2015. Work to remediate the corrosion damage on the gate assemblies is underway and is anticipated to be completed in summer 2017.

Current Project Synopsis: STA-1E is a modification of the C-51 West Palm Beach (WPB) Canal project. The modification expanded an existing 1,600-acre floodwater detention area into what is currently a 6,500-acre STA. It provides both 30-year flood risk management to the urbanized eastern basin and 10-year flood protection to the western basin. In addition to the flood damage/reduction benefits, the modified plan provides water quality treatment, reduction of damaging freshwater discharges to Lake Worth, and increased water supply for the Everglades and other users.

Major components include construction of the following: STA 1E, pumping station S-319 and S-362, Canal C-51 enlargement, and gated structure S-155A. The project will operate in parallel with STA 1W to reduce runoff from both the C-51 West and S-5A basins improving water quality prior to discharge into the Water Conservation Area (Arthur R. Marshall Loxahatchee Wildlife Refuge).

Current Status: The complex is being operated by SFWMD. Renovation work on the culvert gate is scheduled to be completed in 2017. Analysis of effluent demonstrates the complex is performing in accordance with the congressionally established performance standard of reducing the concentration of total phosphorus to a level not to exceed 50 parts per billion (≤ 50 ppb).
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**Est. Cost:** $369,790,000 (Cost Certification date 21 March 2014)

**Project Schedule:**
- 1994: Start of preliminary design work
- 2017: Finish of culvert gate renovation work

**Detailed Project Budget Information** (rounded):

<table>
<thead>
<tr>
<th>STA 1E/C-51</th>
<th>Obligations Thru FY 2016</th>
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<tr>
<td>USACE</td>
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**Hyperlink:** [http://www.saj.usace.army.mil/Missions/Environmental/EcosystemRestoration/](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 (1999).* Current status information was provided by the project manager. Last cost estimate reflect price levels in 2014 dollars.

**Additional Information:**