

**Project Name:** C&SF: CERP Indian River Lagoon – South (IRLS)  
*C-23/C-24/C-25/Northfork and Southfork Storage Reservoirs (UU P1 & UU P2) and C-44 Basin Storage Reservoir (B)*

**Project ID:** 1101 (CERP Project WBS # 07)

**Lead Agency:** USACE / SFWMD

**Authority:** WRDA 2000; WRDA 2007; (“C-44 Basin Storage Reservoir (B)” was a WRDA 2000 Initially Authorized Project; uncompleted portions were de-authorized in WRDA 2007 when the broader IRL-S project was authorized for construction)

**Funding Source:** Federal/State

**Strategic Plan Goal(s) Addressed:** Primary: 1-A.1 Secondary: 2-A.3, 1-B.1, and 1-B.2

**Measurable Output(s):**

- 130,000 acre-feet reservoir storage (12,000 acres of above-ground storage)  
(C-23/24 N: 43,920 ac-ft; C-23/24 S: 48,900 ac-ft; C-44: 33,150 ac-ft; C-25: 5,176 ac-ft)
- 9,000 acres of manmade wetlands (C-23/24: 2,363 acres; C-44: 6,000 acres; C-25: 142 acres)
  - 122 metric tons/yr. phosphorus expected load reduction
  - 475 metric tons/yr. nitrogen load expected reduction
- 99,781 acres of habitat improvement/restoration and additional water storage
  - Mosaic: 95,230 acres natural upland/wetlands habitat
    - Allapattah: 42,348 acres
    - Palmar: 17,143 acres
    - Cypress Complex: 32,639 acres
    - North Fork: 3,100 acres (flood plain preservation)
  - Aquatic Habitat: 4,551 acres in St. Lucie River and Estuary
    - Benthic: 2,650 acres
    - Submerged: 922 acres aquatic vegetation restoration  
90 acres artificial submerged vegetation habitat
- 889 acres or more of oyster habitat (muck removal at 1.8 ft = 7.9 M yd<sup>2</sup>)

**April 1999 (Restudy) Project Synopsis:** Included above-ground reservoirs with a combined storage capacity of approximately 349,400 acre-feet located in the C-23/C-24/C-25/ Northfork and Southfork basins in St. Lucie and Martin Counties, as well as an above-ground reservoir with a total storage capacity of approximately 40,000 acre-feet located in the C-44 Basin in Martin County. The initial design of the reservoirs in the C-23/C-24/C-25 Basins assumes 39,000 acres (water levels up to 8 feet above grade) and 9,350 acres (water levels up to 4 feet above grade). And the initial design of the reservoir in the C-44 basin assumes 10,000 acres (water levels up to 4 feet above grade). Features are to capture runoff and provide water quality improvement including reduced loading of nutrients, pesticides and runoff pollutants.

**Current Project Synopsis:** This project is located in the Martin, St. Lucie and Okeechobee counties.

The C-44 storage area feature was one of the initially authorized projects for implementation in WRDA 2000 and was recommended by the Chief of Engineers in August 2004. Plans and specifications for the C-44 Reservoir and STA were also part of the SFWMD early start work.

Since that time, the combined cost for the IRL-S project was estimated at \$1.365 billion when the entire project was authorized for construction in WRDA 2007, dependent on appropriations from Congress. Based on the feasibility study and the PIR, and further refinements, the entire IRL-S project is expected to include the following components:

- Construction and operation of an additional 12,000 acres of above-ground storage and their connecting canals, control structures, levees and pumps to capture water from the C-44, C-23, C-24 and C-25 canals.
- Construction and operation of four new stormwater treatment areas to reduce sediment, phosphorus, and nitrogen going to the St. Lucie River estuary and the lagoon. STAs are planned for each of the basins: C-44 basin (1), C-23/24 basin (2) and C-25 basin (1) reducing damaging effects of watershed runoff
- Restoration of the upland/wetland mosaic with ditch plugging, berm construction, and periodic fire maintenance at three locations.
- Redirection of water from the C-23/24 basin to the Northfork of the St. Lucie River attenuating freshwater flows to the estuary.
- Muck removal from the north and south forks of the St. Lucie River and the middle estuary reducing nutrients (nitrogen and phosphorus). Oyster shell, reef balls, and artificial submerged aquatic vegetation near muck removal sites will be added for habitat improvement.

**Current Status:**

Substantial progress has been made on plans and specifications (P&S) conversion (for the USACE) for the first phase of the C-44 Reservoir STA. A PPA with the sponsor is scheduled to be executed in July 2010. The first contract is planned for advertisement on October 2010 with award date expected in December 2010. Construction will take about two years and include canals, roads, culverts, and bridge work. Contract for P&S conversion for the reservoir and pump station is planned for award in summer 2010.

**Est. Cost:** \$ 1,694,302,000

**Project Schedule:**

2011	C-44 reservoir construction begins
2018	C-23/24 north and south reservoirs construction begins
2020	C-25 reservoir and STA construction begins
2024	Allapattah complex construction begins
2022	Palmar complex construction begins
2026	Cypress Creek / Trail Ridge complex construction begins
2028	Muck removal & artificial habitat construction begins
2032	North fork land acquisition (flood plain) begins

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

<b>IRLS</b>	<b>Expenditures Thru FY 2009</b>
USACE	\$12,257,752
SFWMD	\$3,602,201
<b>Total</b>	<b>\$15,859,953</b>

**Hyperlinks:** [http://www.evergladesplan.org/pm/projects/proj\\_07\\_irl\\_south.cfm](http://www.evergladesplan.org/pm/projects/proj_07_irl_south.cfm)

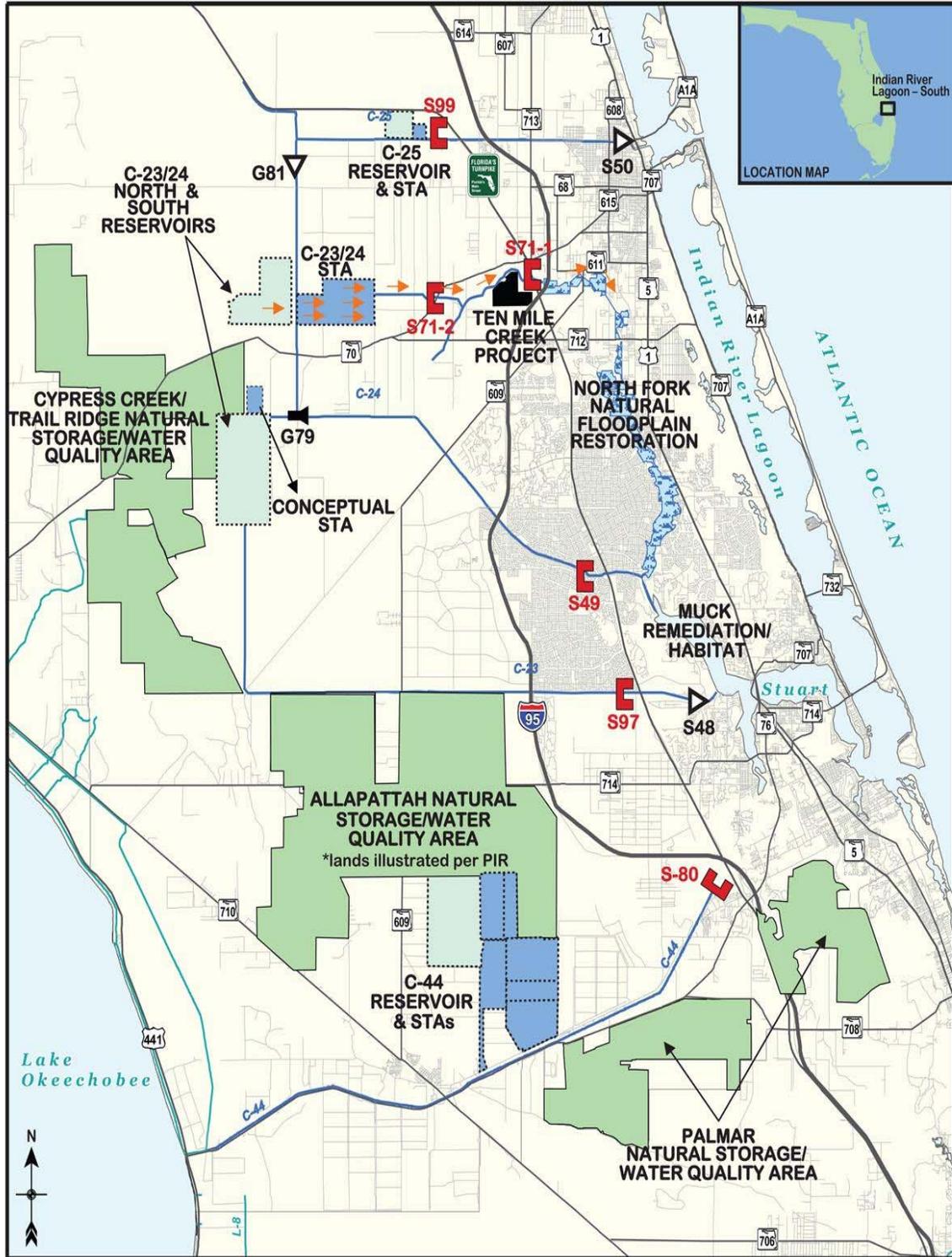
**Contact:** Orlando Ramos-Gines, Senior Project Manager, Everglades Division, USACE  
(904) 232-1662, [Orlando.Ramos-Gines@usace.army.mil](mailto:Orlando.Ramos-Gines@usace.army.mil)

Sue Ray, Chief Engineer, SFWMD  
(561) 681-2563 x3721, [sray@sfwmd.gov](mailto:sray@sfwmd.gov)

**Source:** Original project description summarized from the *Central and Southern Florida Project Comprehensive Review Study (Restudy)* (1999). Cost estimate and current project status includes information summarized from the *Central and Southern Florida Project Indian River Lagoon – South Final Integrated Project Implementation Report (PIR) and Environmental Impact Statement (EIS)* (2004) and is updated to reflect current price levels in October 2009 dollars; along with the authorization in WRDA 2007. Current status was provided by the project manager. Actual expenditures include all federal expenditures through FY09 (Sept, 2009) and sponsor verified and recorded in kind credit through 4th quarter FY07. Schedule is updated based on the approved *Integrated Delivery Schedule Through 2020* (February 10, 2010).

**Additional Information:** (see next page)

# Indian River Lagoon – South



**Program Name:** Infrastructure  
**Project Name:** C&SF: CERP - Indian River Lagoon South - C-23/C-24/  
 C-25/Northfork and Southfork Storage Reservoirs (UU) and C-44 Basin Storage  
 Reservoir (B) - Expedited project includes C-44 (St. Lucie Canal) Reservoir /  
 Stormwater Treatment Area (STA)  
**Project ID:** 1101A (CERP Project WBS #07)  
**Lead Agency:** SFWMD  
**Authority:** C-44 initially authorized in WRDA 2000;  
 Memorandum of Agreement Regarding Acceleration of the CERP  
 WRDA 2007  
**Funding Source:** State and Federal

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

**Measurable Output(s):** 50,600 ac-ft reservoir, pump station and 6,300-acre STA (C-44 measurable outputs are part of the overall project total.)

**Project Synopsis:** A 3,400-acre, above-ground reservoir approximately 15 feet deep (50,600 acre-feet) to capture local C-44 basin runoff with 6,300 acres of Stormwater Treatment Areas. This SFWMD-expedited project is a component of the Indian River Lagoon South (IRL-S) Project Implementation Report (PIR) and is located in southern Martin County, adjacent to the C-44 Canal, between Lake Okeechobee and the east coast.

**Current Status:** Plans and specifications for the C-44 Reservoir and STA were part of the early-start work by the SFWMD and were completed in 2007 and updated in 2008. The design for the C-23/C-24 STA component was suspended in mid-2009 so that the agencies could concentrate on converting the C-44 design documents to the appropriate format for USACE procurement. Beginning in May 2010, the SFWMD will initiate construction for several project-related items that are considered to be relocation efforts. These include a communication tower, the C-132 and northern C-133 canal modifications and Troup Indiantown Water Control District temporary and permanent modifications. Execution of the IRL-S Project Partnership Agreement to establish the legal partnership on construction of the project is planned for June 2010.

**Total Estimated Project Cost:** \$366,553,294

**Scheduled Construction Start Date:** May 2010 (SFWMD contract)

**Scheduled Project Completion Date:** August 2017

**Actual Expenditures to date by SFWMD\*:**

	Thru 2006	2007	2008	2009	2010	Total
SFWMD	\$16,231,952	\$12,867,935	\$2,255,176	\$108,156	\$1,785,915	\$33,249,134

\*Credit for expedited work subject to inclusion in authorized Federal project.

**Contact:** Sue Ray, 561-242-5520, x4019