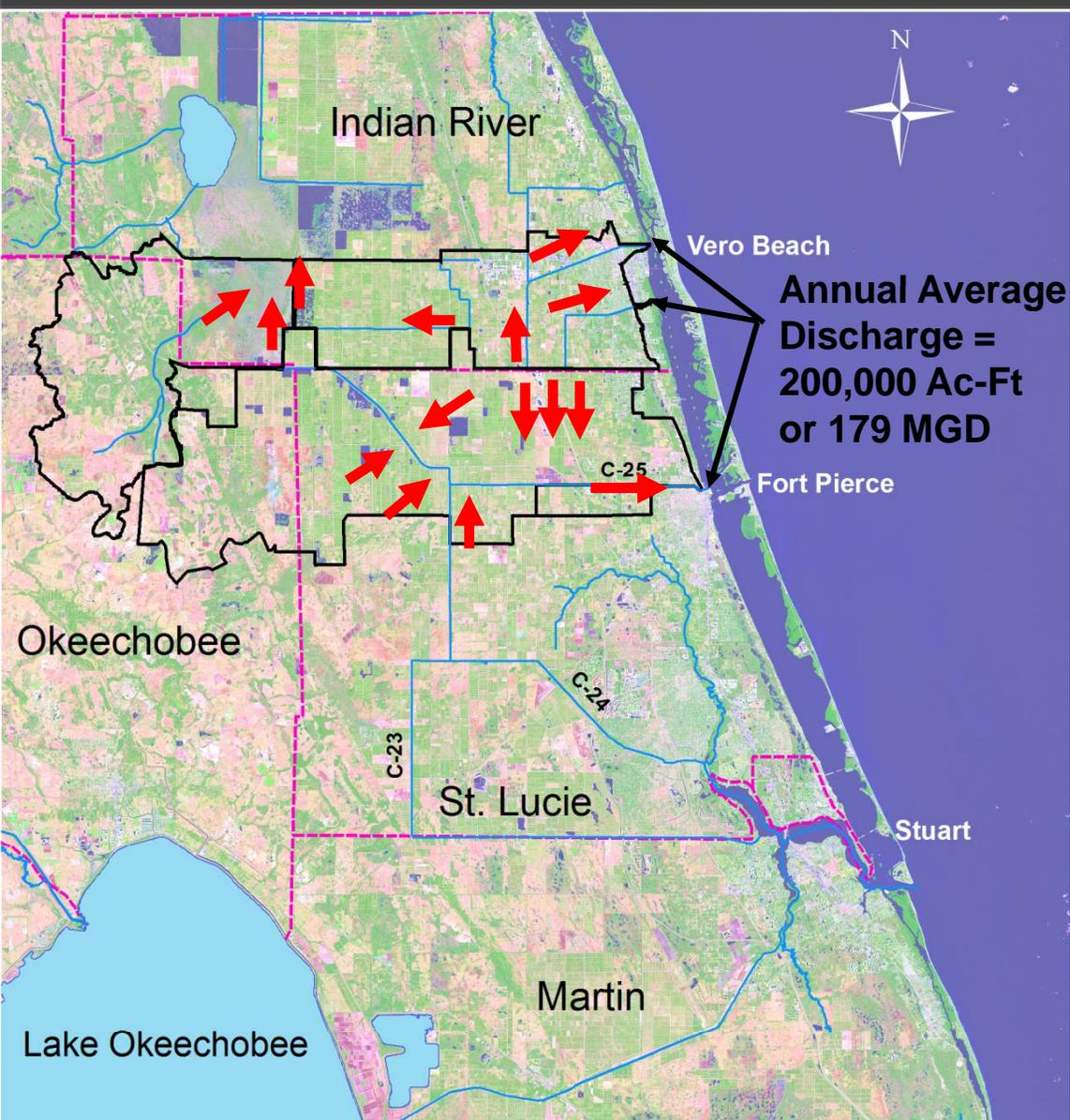




# St. Lucie and Indian River Counties Water Resource Study

**Mark Elsner, P.E., Director  
Water Supply Development Division**

# St. Lucie and Indian River Counties Water Resource Study



## Study Background

- Construction of C&SF Project significantly effected historic drainage in this area
- Large volumes of water discharged during the wet season through canals
- Upper East Coast Water Supply Plan recommended studying capturing this water for beneficial uses

# St. Lucie and Indian River Counties Water Resource Study



## Study Overview

- Co-sponsored by SFWMD & SJRWMD
- Initiated February 2009
- Completed November 2009
- Extensive outreach
  - Interagency project team meetings
  - Stakeholder meetings and workshops

# St. Lucie and Indian River Counties Water Resource Study

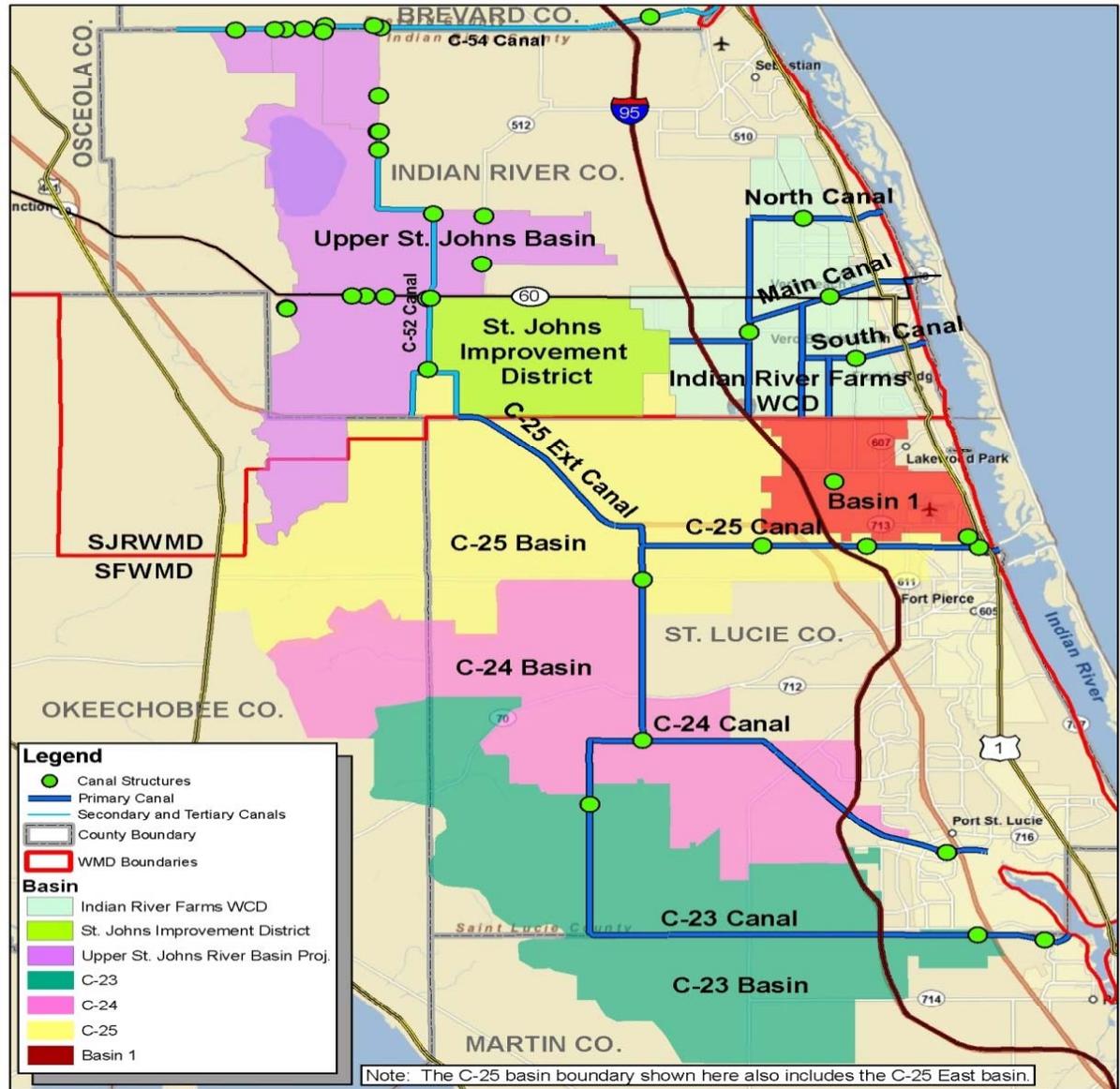


## Study Objectives

- Evaluate potential of capturing excess water being discharged to Indian River Lagoon & making it available for beneficial uses
- Evaluate options for increased flexibility in water management
- Identify & evaluate conceptual alternatives
- Provide a conceptual design for a preferred alternative
- Develop an implementation strategy

# St. Lucie and Indian River Counties Water Resource Study

## Study Area



# St. Lucie and Indian River Counties Water Resource Study



## Final Alternative Plans

- C-25 Central Storage Reservoir
- C-23, 24, and 25 Central Storage Reservoir
- C-25/Basin 1 Central Storage Reservoir
- Indian River Farms WCD Reservoir
- Dispersed storage/water farming

# St. Lucie and Indian River Counties Water Resource Study

## Evaluation Matrix

Alternative Plan	Discharge Delivery Rate – 90% Reliability (cfs/mgd)	Flow Reductions to IRL (acre-ft/yr)	Present Value Life Cycle Costs
ICS-01(A)	90/58	78,897	\$177,875,000
ICS-01(B)	67/48	58,563	\$131,478,000
ICS-02(A)	185/120	142,236	\$309,072,000
ICS-02(B)	140/90	113,139	\$211,396,000
ICSB-01	108/70	84,462	\$193,074,000
IRFWCD-R(A)	63/41	44,295	\$98,239,000
IRFWCD-R(B)	53/34	40,214	\$61,656,000

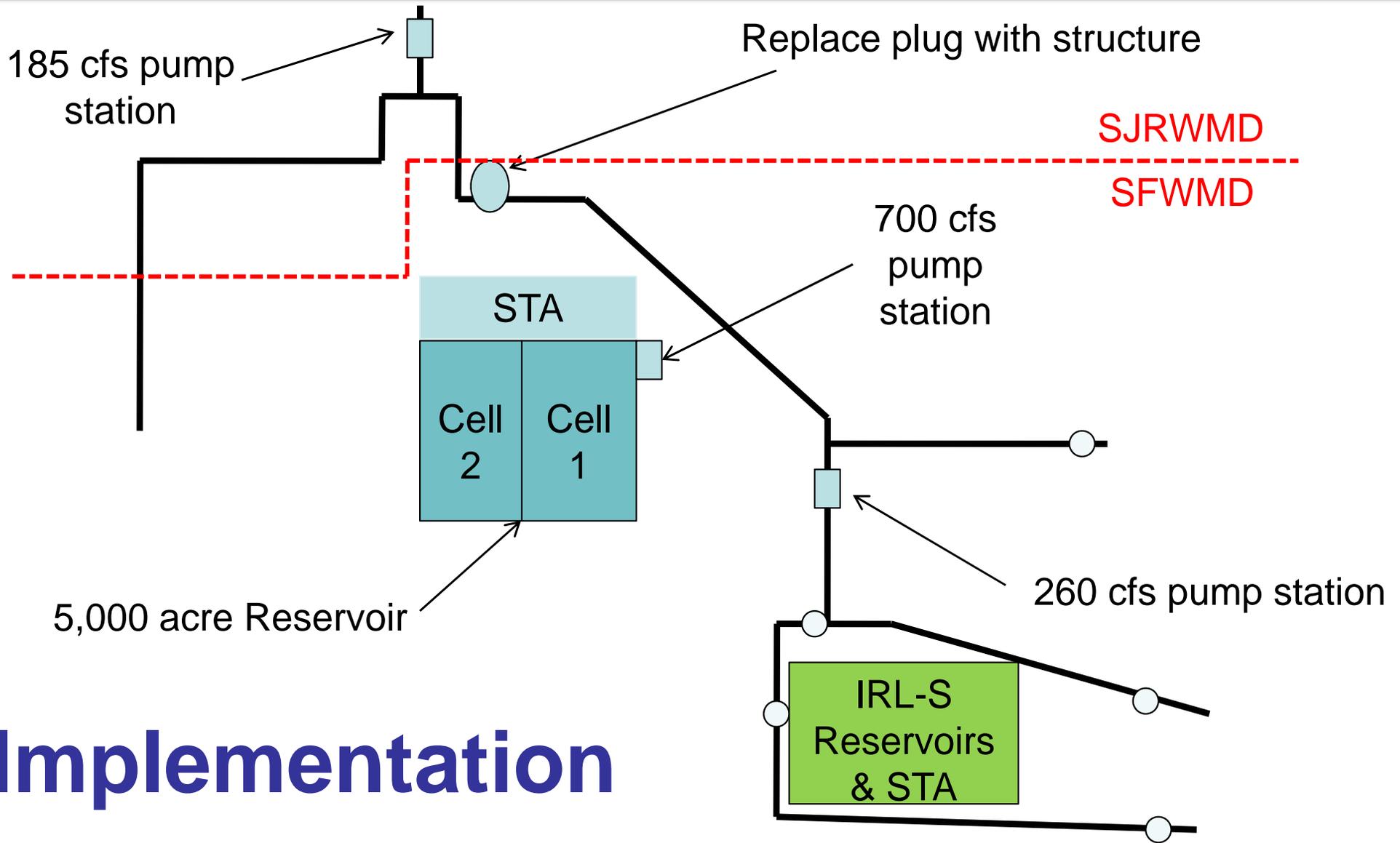
# St. Lucie and Indian River Counties Water Resource Study



## C-23, 24, 25 Central Reservoir Plan – Preferred Alternative

- 5,000-acre central storage reservoir
- 5,000-acre stormwater treatment area
- Replace C-25 plug with water control structure
- C-25 canal improvements
- G-81 pump station
- S-253 pump station

# St. Lucie and Indian River Counties Water Resource Study



## Implementation

# St. Lucie and Indian River Counties Water Resource Study

An aerial photograph of a mangrove wetland. The image shows a complex network of dark, winding waterways that meander through dense, vibrant green mangrove forests. The water appears calm, reflecting the surrounding greenery. The landmasses are irregularly shaped, with many peninsulas and inlets. The overall scene is a typical representation of a coastal wetland ecosystem.

## Questions