

# C-139 Flow Equalization Basin

Jose Otero, P.E.

Section Administrator, Everglades and Local Projects

South Florida Water Management District

Governing Board Workshop

September 9, 2020



# Background of C-139 Flow Equalization Basin (FEB) Project

## Restoration Strategies

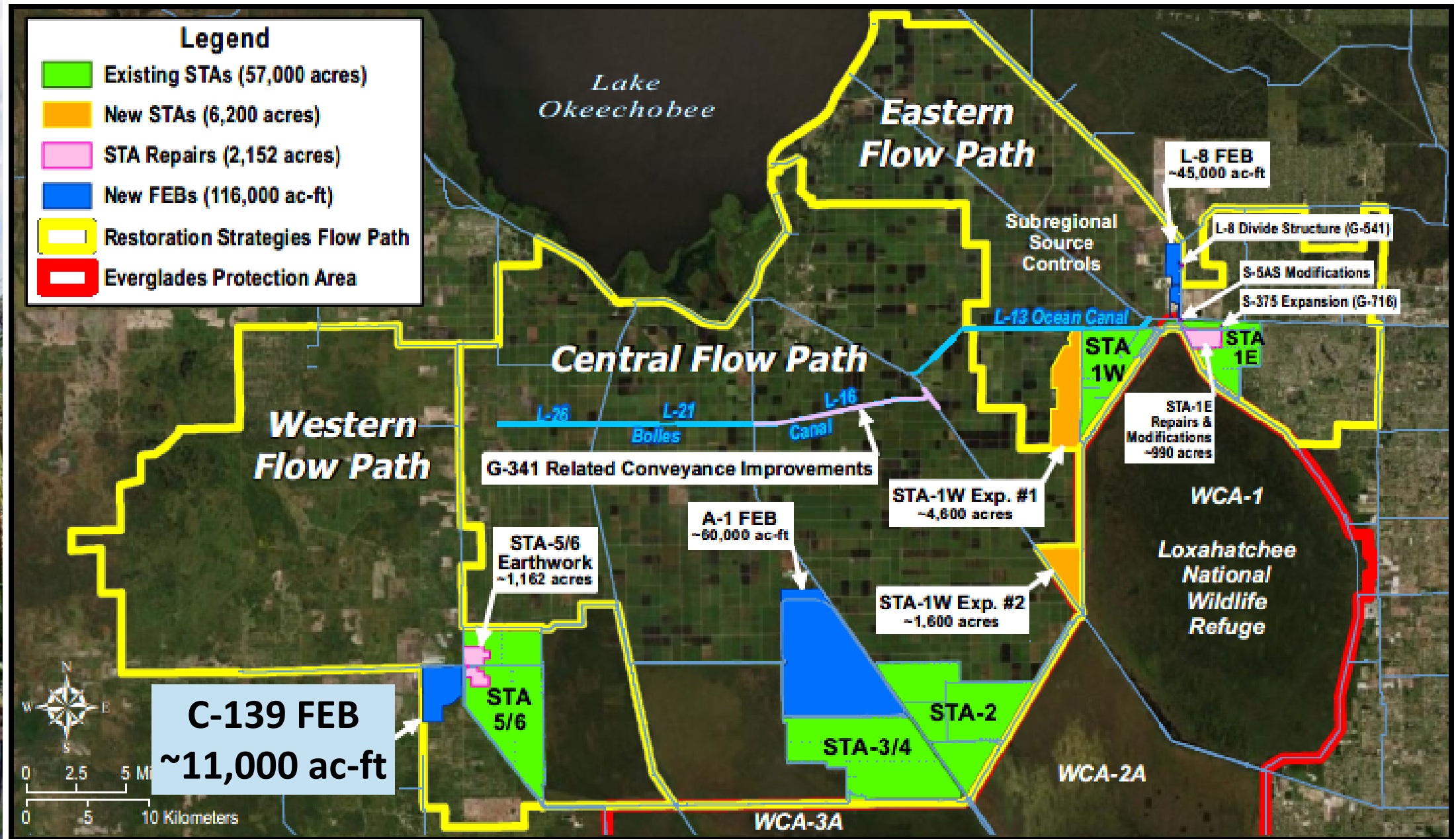
- 2012 Restoration Strategies Water Quality Regional Plan
- 2012 Consent Orders to build, expand, and repair STAs and FEBs and to collect data to show that Water Quality-Based Effluent Limit (WQBEL) is met
- 2012 Permits (updated in 2017) to operate Stormwater Treatment Areas (STAs) until Restoration Strategies are completed by 2025 after which the STAs must begin to meet the WQBEL

## C-139 FEB Needed for STA-5/6 to Meet WQBEL

- Necessary for STA-5/6 to meet the WQBEL after completion of Restoration Strategies in December 2025

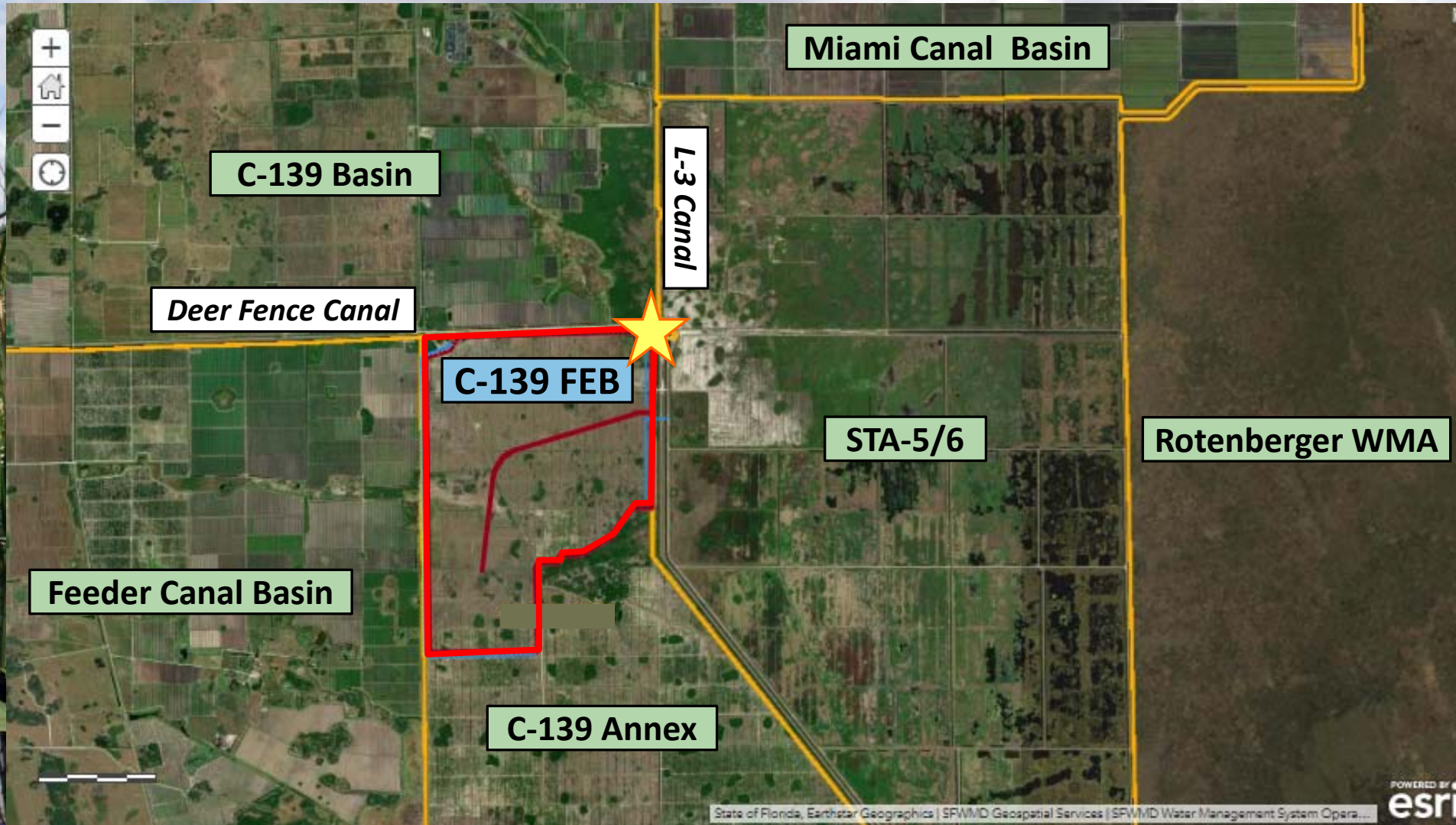
## C-139 FEB Key Component of Everglades Restoration

- One of 29 projects to advance Governor DeSantis' Executive Order 19-12





# C-139 FEB and Surrounding Watersheds



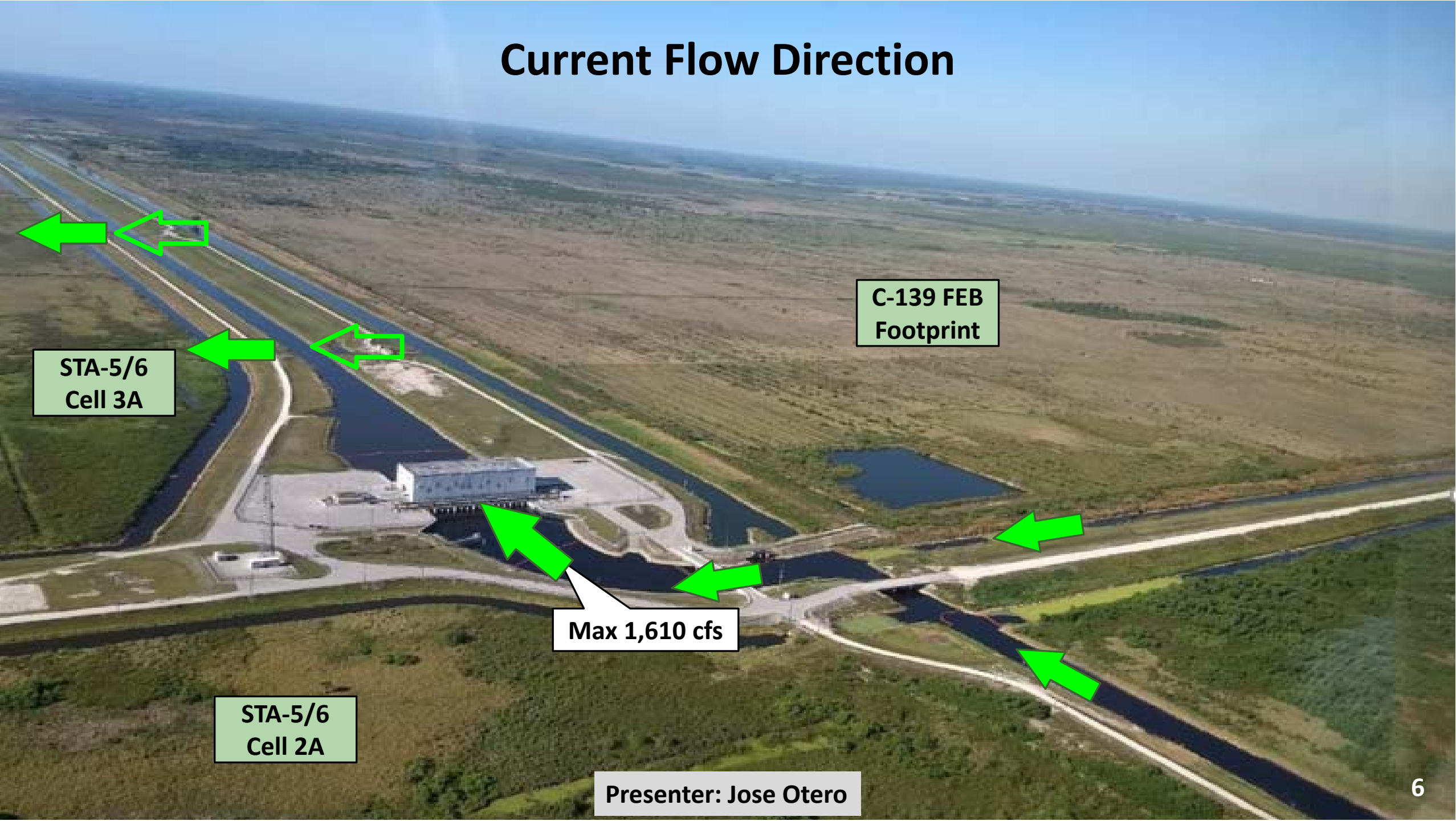
# Existing STA-5/6 Related Canals and Structures

(Looking Southwest)





# Current Flow Direction



STA-5/6  
Cell 3A

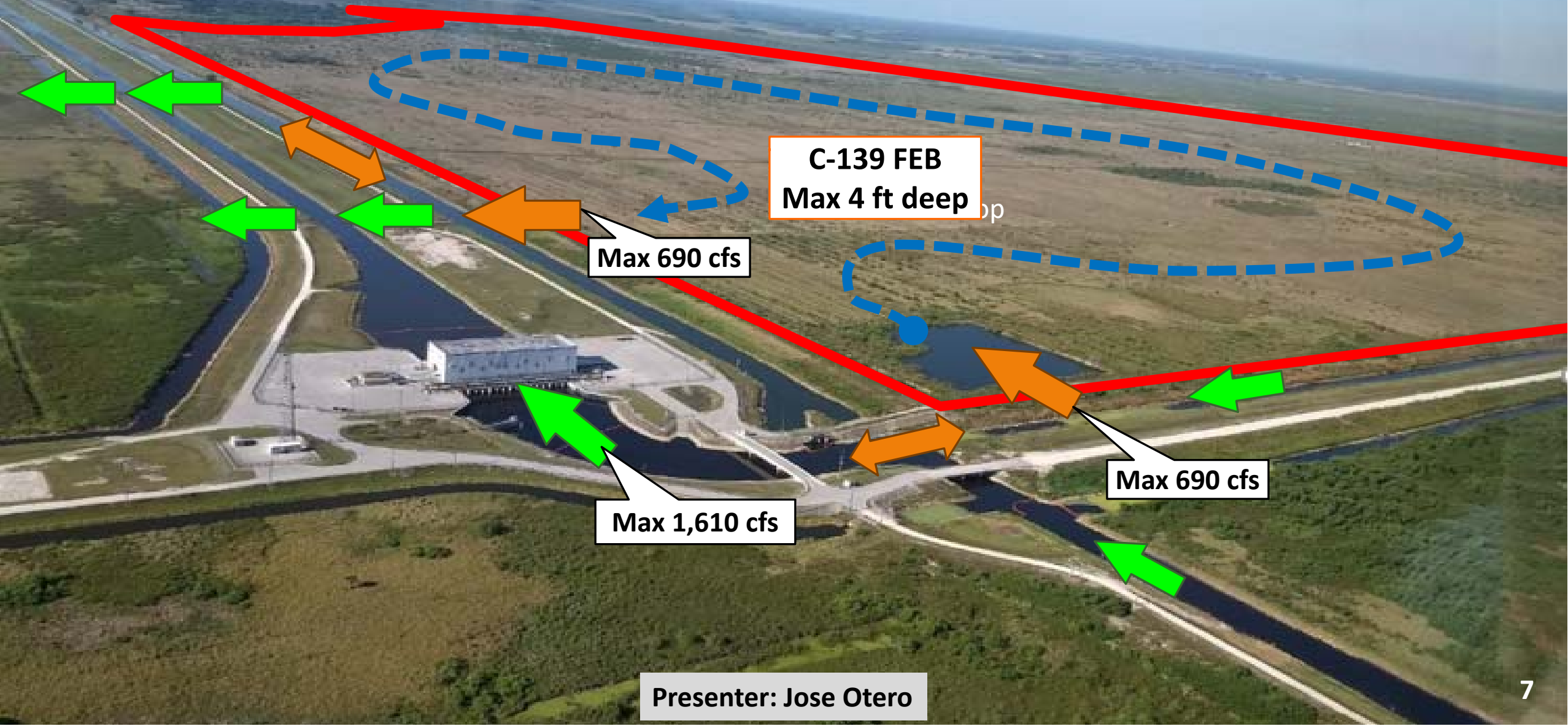
C-139 FEB  
Footprint

Max 1,610 cfs

STA-5/6  
Cell 2A

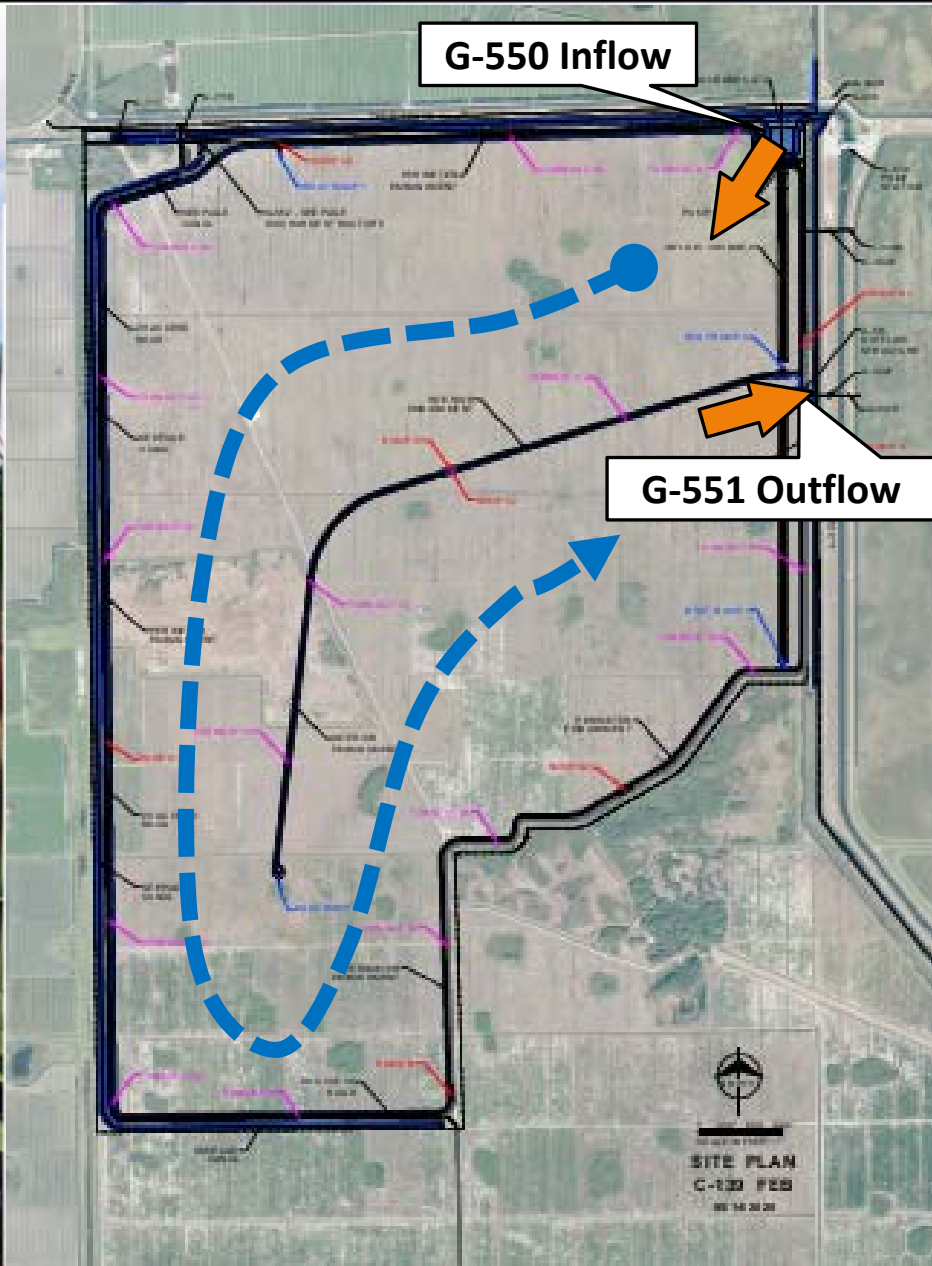
Presenter: Jose Otero

# C-139 FEB Flows



# C-139 FEB Project Plan

- FEB provides approximately 10,500 acre-feet of storage and pre-treatment at its maximum storage of 4-feet deep
- A 690-cfs Inflow Pump Station captures runoff from the C-139 Basin
- A 690-cfs Outflow Gated Spillway releases stored water to STA-5/6 for treatment
- FEB expected to fill and empty multiple times each year, and to store and release water simultaneously



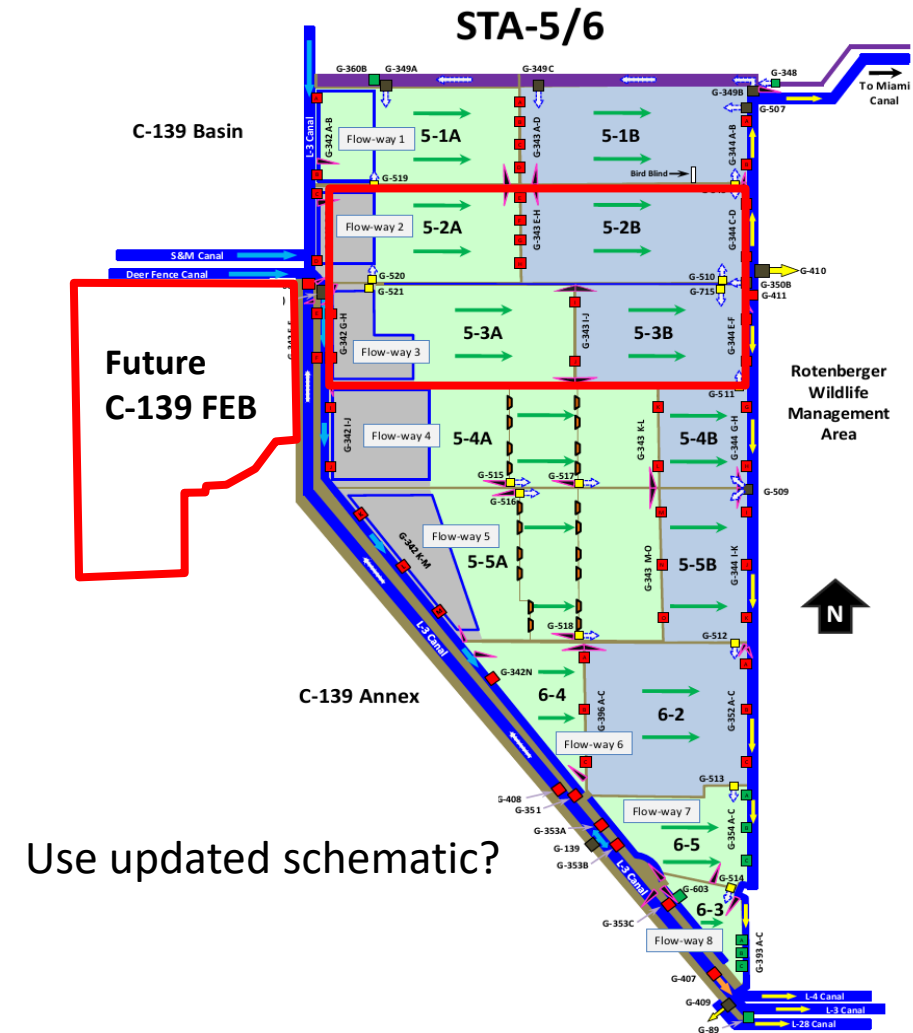
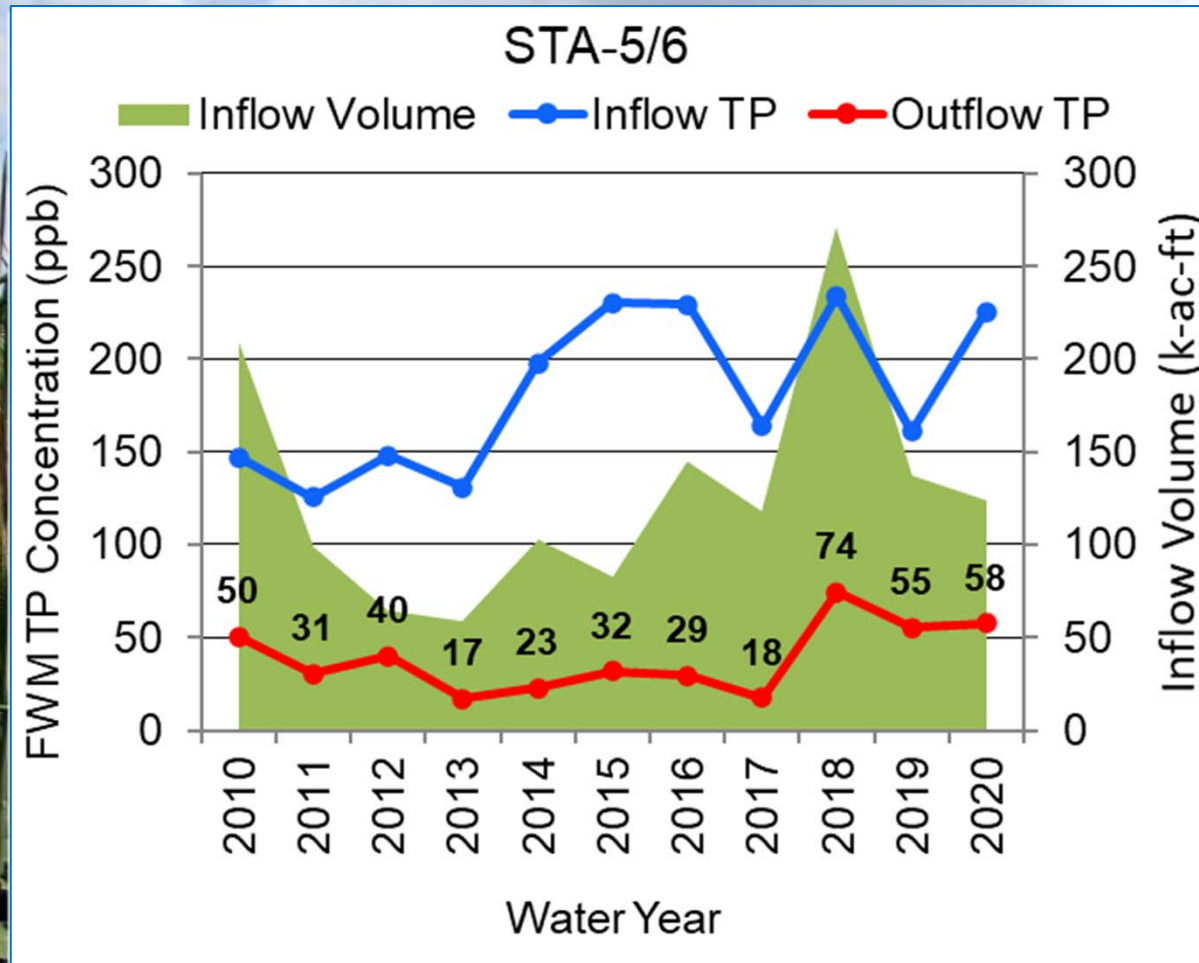


# 2012 Regional Water Quality Plan – C-139 to help STA-5/6 meet the WQBEL

	Annual Range TP FWMC in ppb		Average Annual TP FWMC in ppb
	min	max	
C-139 FEB Inflow	126	173	147
C-139 FEB Outflow	47	72	59
STA-5/6 Inflow	81	135	117
STA-5/6 Outflow	12	17	13.1

Based on collected water quality data from water years 2000-2009 and long-term 1965-2005 simulation of flows that were combined with mean monthly concentrations to produce long-term daily loads using DMSTA. The results in the last column were presented in the 2012 Restoration Strategies Regional Water Quality Plan.

# STA-5/6 Performance 2010-2020





# C-139 FEB Schedule and Estimated Cost

	Consent Order Milestone Due Date	Expected/Actual Completion Date
Complete Design	10/31/2020	8/27/2020
Advertise Bid	Not a CO milestone	10/15/2020
Bid Opening	Not a CO milestone	11/30/2020
Initiate Construction	1/31/2021	12/11/2020
Complete Construction	12/31/2023	12/31/2023
Operational Monitoring and Testing Period	12/31/2024	12/31/2024

Engineer's estimate for construction is \$100 million

# March 2019, Hauling Excess Material from STA-5/6 Internal Improvements Project for Future Construction of C-139 FEB



Future Site of C-139 FEB

STA-5/6 Cell 3A

## Questions