

## Everglades Restoration L-8 Reservoir

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## L-8 Reservoir



#### Existing

- Northwestern Palm
   Beach County
- Former 950-acre rock mine
- 46,000 ac/ft of storage
- Benefit South
   Florida's ecosystem
- Assist in sustaining regional water supplies

# **C-51 Reservoir**



#### Proposed

- Located in western Palm Beach County
- 75,000 ac/ft of storage
  - Capture and store excess surface water from C-51 basin
- Increased water storage and delivery to help benefit South Florida's regional water supplies
- Reduce harmful discharges to the Lake Worth Lagoon

### Restoring America's Everglades Three-Part Strategy

#### Part 1: State-Federal Partnership

- Comprehensive Everglades Restoration Plan (CERP)
- Kissimmee River Restoration

#### Part 2: State Projects and Programs

 Northern Everglades and Estuaries Protection Program (source controls, Dispersed Water Management, construction projects, Alternative Treatment Technologies)

#### Part 3: Water Quality

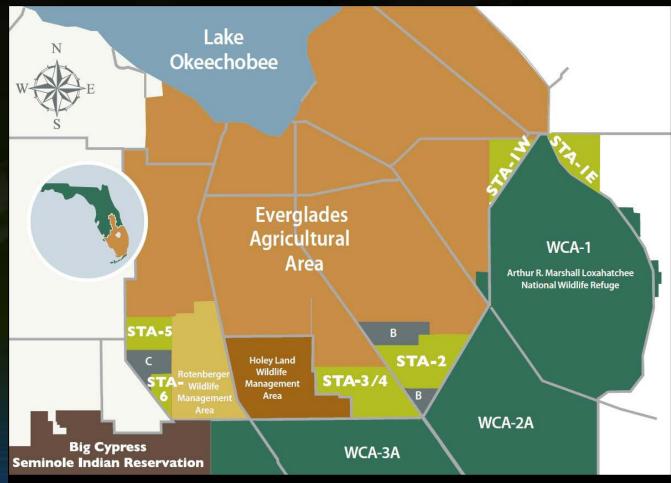
- Stormwater Treatment Areas (57,000 acres)
- Best Management Practices





### Key Projects Existing Treatment

- 5 Stormwater Treatment Areas
- 57,000 acres of effective treatment
- 11,500,000 acre-feet (3.75 Trillion gallons) of water treated
- 1,470 Metric Tons of phosphorus removed
- Total phosphorus discharge concentrations for best performing STA (3/4) is 17 ppb for period of record

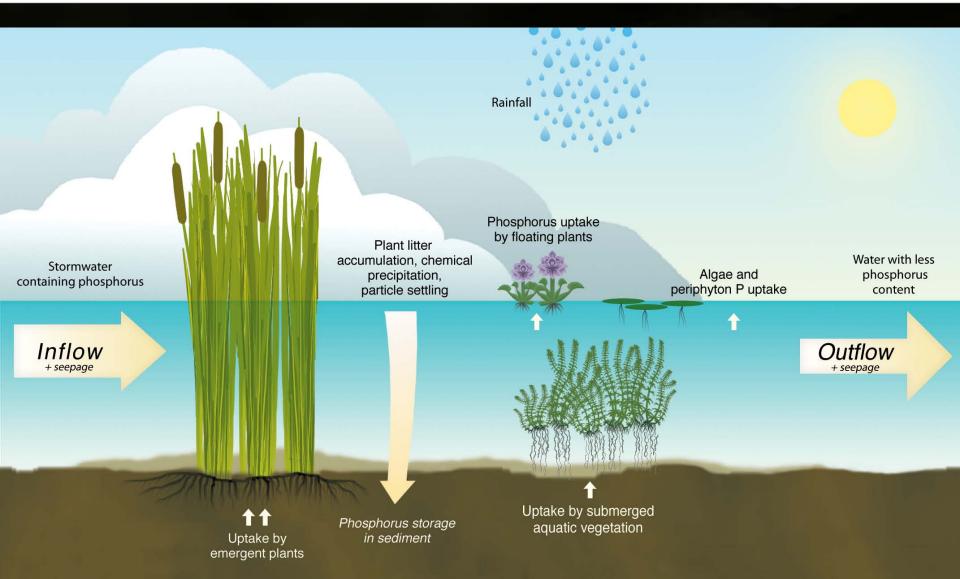


Areas in gray marked with a "B" or "C" represent the current expansion of existing Stormwater Treatment Areas

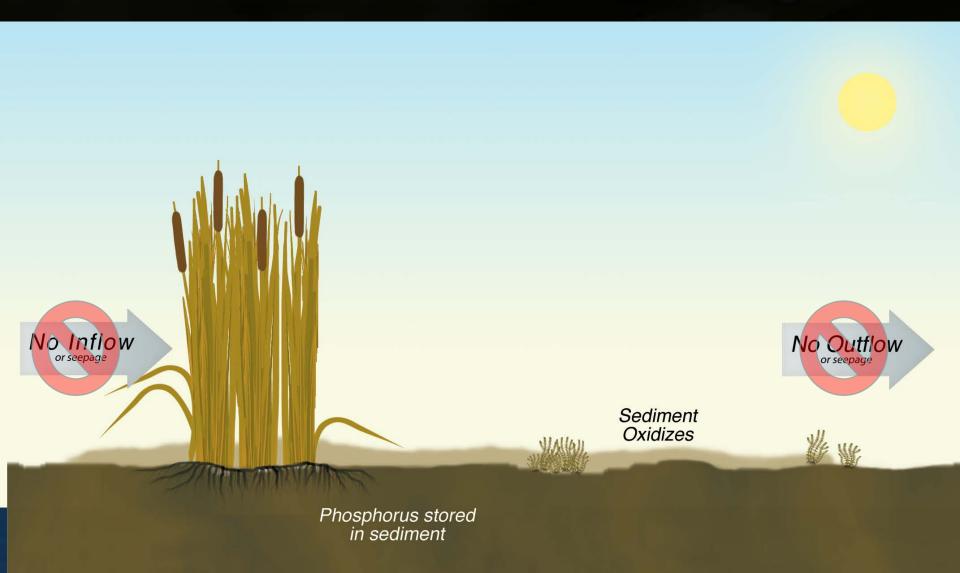
### Water Quality Key Projects

- Proposed projects developed to meet discharge limit necessary to achieve 10 parts per billion ambient water quality criterion established in rule for Everglades Protection Area
  - More than 100 modeling simulations
- Project Types
  - STA expansions
  - Flow equalization basins (FEBs)
- Additional Components
  - Sub-regional source controls
  - Habitat restoration

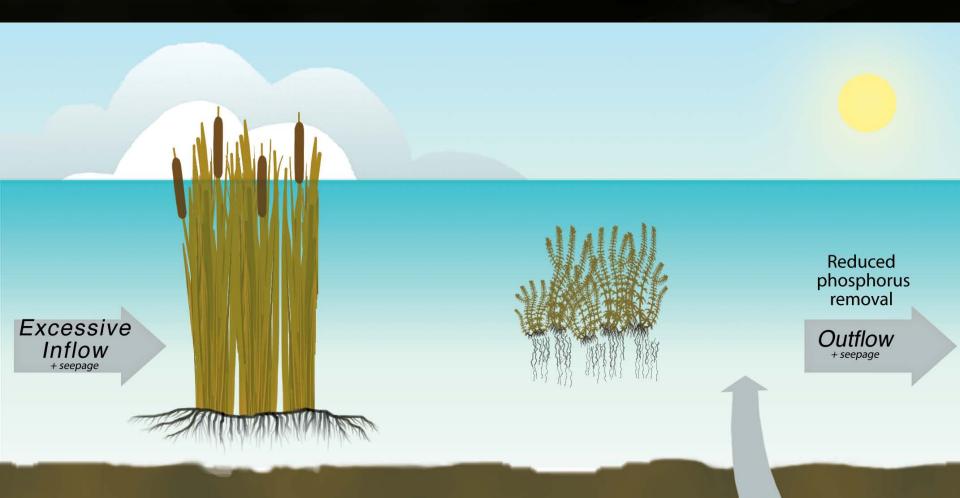
#### Stormwater Treatment Areas Optimized Conditions



# Stormwater Treatment Areas Dry Out - No Flow Conditions

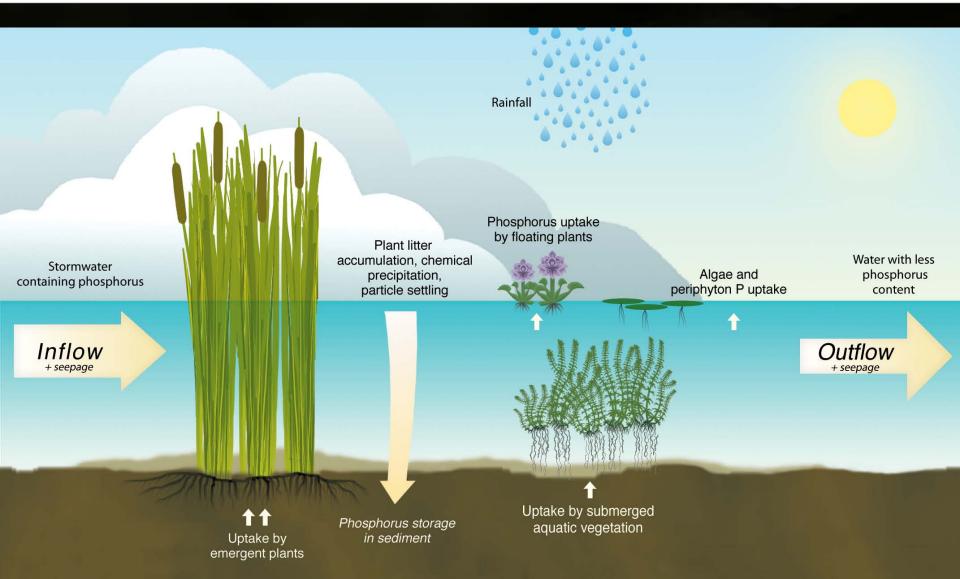


# Stormwater Treatment Areas Deep Water or Rewetting after Dry Conditions



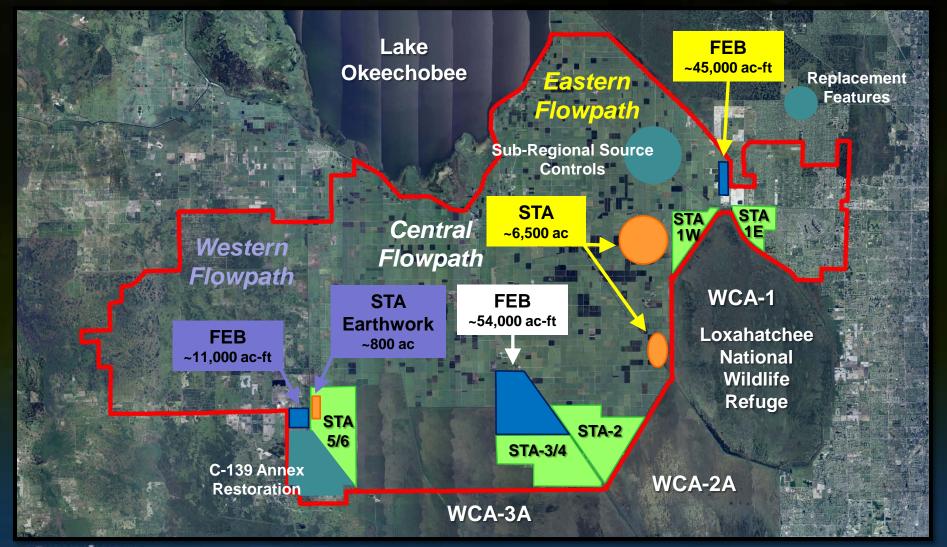
Temporary phosphorus flux from sediment following dry out

#### Stormwater Treatment Areas Optimized Conditions

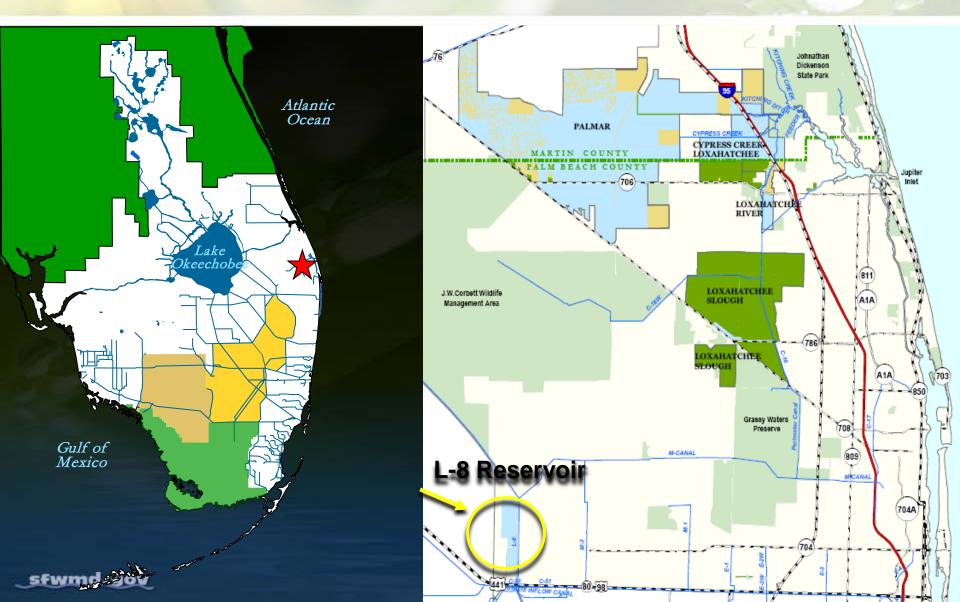


SOUTH FLORIDA WATER MANAGEMENT DISTRICT

## **Restoration Strategies Proposed Projects – June 2012**



# Replacement Features Loxahatchee River Watershed Restoration



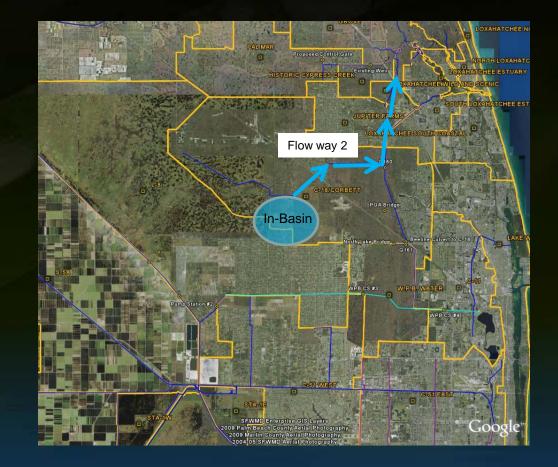
# Replacement Features Loxahatchee River Watershed Restoration

- Comprehensive Everglades Restoration Plan (CERP) Project
- Designed to capture, store and treat excess water that is currently discharged to the Lake Worth Lagoon and use that water to enhance the Loxahatchee River and Slough
- CERP project is the MFL recovery plan for the Loxahatchee River



### Additional Components Replacement Features

- Acquire and construct replacement storage to capture flows from C-18 western basin and then discharge those flows down Flow-way 2 to the Loxahatchee River
- Non-binding letter of Intent to Negotiate submitted to Palm Beach County
- Initiate discussions regarding Mecca property
- Utilize L-8 reservoir as Flow Equalization Basin



### Path Forward Replacement Features

- Continue North Palm Beach Project Implementation Plan
  - Formulate for all three flow ways
- In the interim, L-8 serves multiple functions while Mecca Reservoir is constructed
- Ultimately, utilize L-8 Reservoir primarily as Flow Equalization Basin for Everglades Water Quality
- C-51 Reservoir remains a viable alternative water supply



## Questions

