

Dispersed Water Storage/Treatment



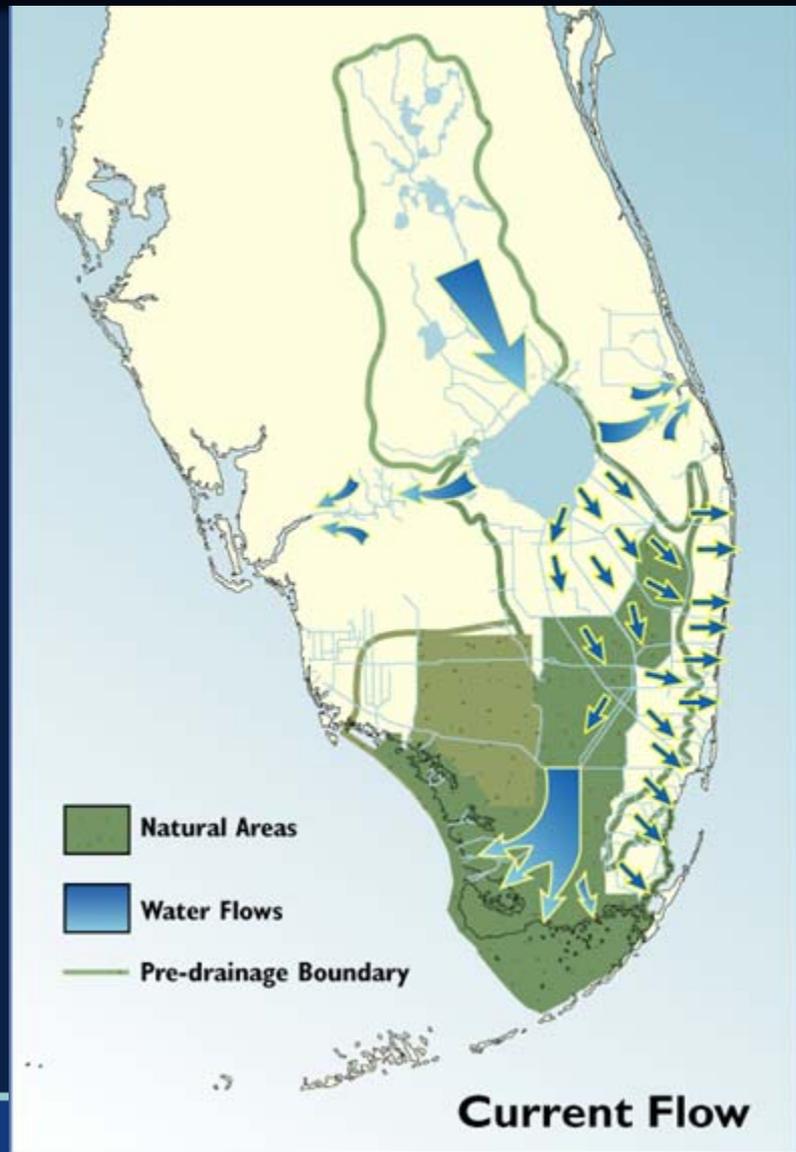
Water Resources Advisory Commission
Lake Okeechobee Committee
March 25, 2009



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Environmental Resource Regulation Department
South Florida Water Management District*



Challenge: Everglades Yesterday and Today





Dispersed Water Storage Status Update

Partner Programs:

- **USDA NRCS Wetland Reserve Program and Environmental Quality Incentives Program**
- **Florida Ranchlands Environmental Services Program**
- **FL Department of Ag & Consumer Services BMPs**

SFWMD Programs:

- **Alternative Water Storage/Disposal**
- **Alternative Water Supply**
- **Watershed efforts and St. Lucie and Caloosahatchee Initiatives**



Dispersed Water Storage Update cont.

- **As of March 2009 combined program total of dispersed water storage in place since October 2005 is ~113,000 ac-ft ('bath-tub' storage).**
- **Planned Projects (anticipated for implementation) will provide an additional 295,000 ac-ft of storage in the near future.**



Dispersed Water Storage Update cont.

- **Another 80,000 ac-ft could be provided through implementation and funding of the Potential Projects list. Further evaluation would be necessary.**
- **Some projects (estimated to provide a total of 3,500 ac-ft) have been evaluated but are not moving forward due to high-cost and low-benefits.**

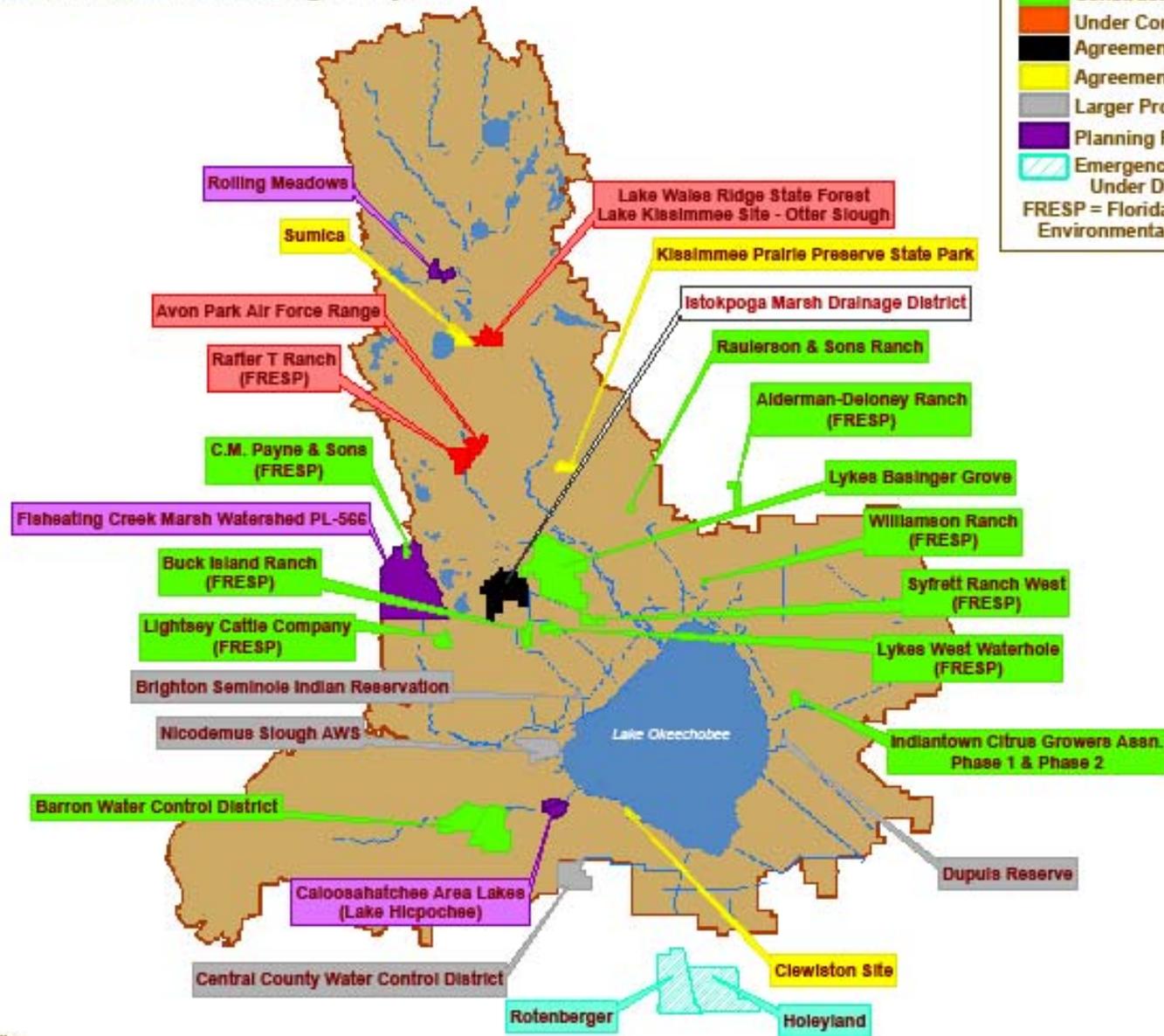
Lake Okeechobee and Estuary Recovery

Ongoing Alternative Water Storage Projects

Legend

- Construction Complete
- Under Construction
- Agreement Executed
- Agreement Under Development
- Larger Project Under Discussion
- Planning Phase
- Emergency (temporary) projects Under Discussion

FRESP = Florida Ranchlands Environmental Services Program



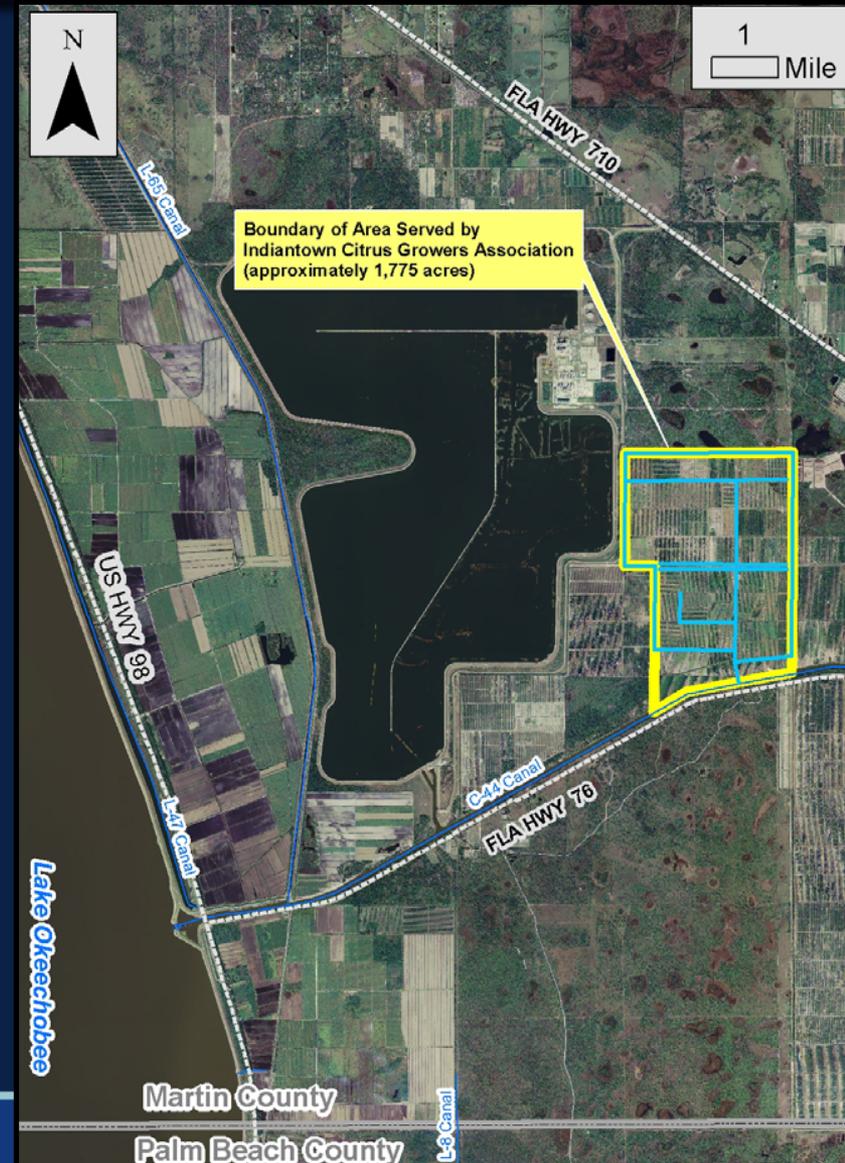
20 Miles

March 19, 2009



Project: Indiantown Citrus Growers Assoc. Alternative Water Storage/Disposal

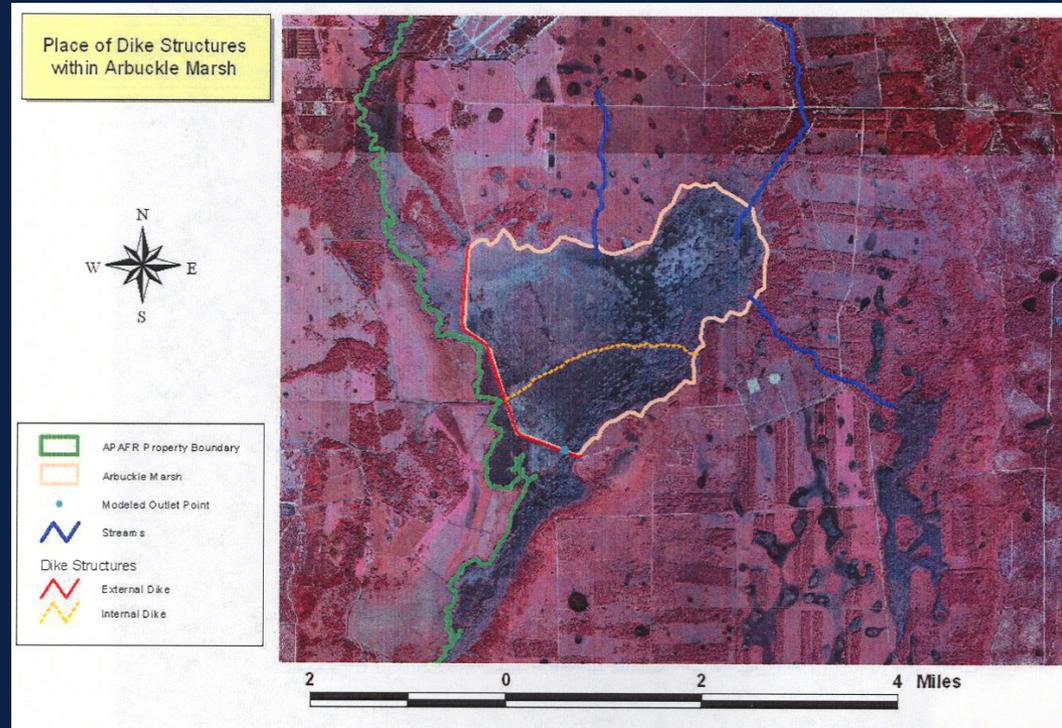
- ❖ 1,775 of agricultural land within service area
- ❖ Phase I: Pump rehabilitation (complete)
- ❖ Phase II: Internal canal widening (FDACS – complete)
- ❖ Phase III: Internal structures 60+ (NRCS, SLRIT – complete)
- ❖ Storage within system:
 - 7,000 acre-feet
- ❖ Volume from St. Lucie Canal during LO regulatory releases:
 - 3,550 acre-feet





Project: Avon Park Air Force Range Alternative Water Storage/Rehydration

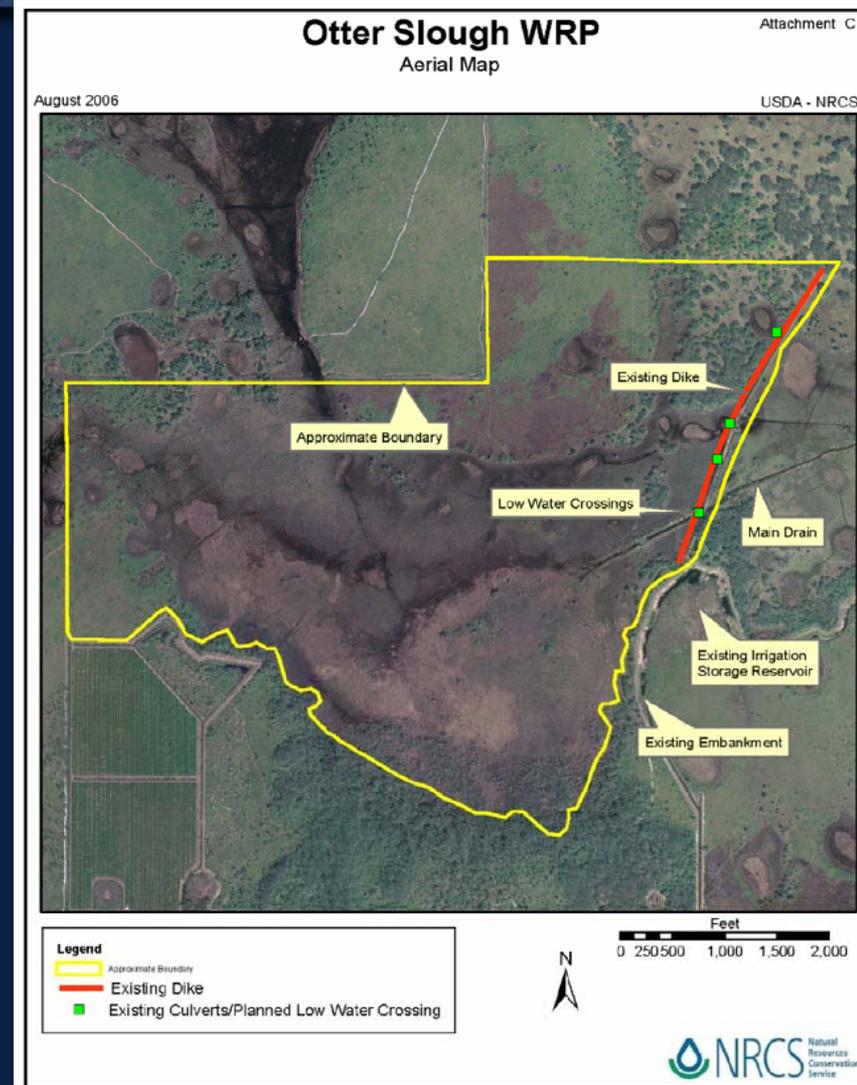
- ❖ 106,073 acres of range complex
- ❖ 30,000 acres of marsh/impoundment
- ❖ Restoration of existing perimeter levee (under construction) and replacement of water control structures (complete)
- ❖ Storage within marsh system:
 - 10,000 acre-feet





Project: Lake Wales Ridge State Forest Otter Slough Wetland Reserve Program

- ❖ 550 acres of agricultural lands
- ❖ Restore hydrology to the site both upstream and downstream of the dike
- ❖ Restoration of the hydrologic features will result in the restoration and enhancement of 400 acres of wetland habitat and make available 220 acre-feet of natural water storage on the landscape
- ❖ Engineering design/complete
- ❖ Agreement executed
- ❖ Under construction





Project: FRESP Williamson Cattle Company

- ❖ Restoration of the hydrologic features will result in the enhancement of 250 acres of wetlands. Project originally estimated to provide 150 acre-feet of natural water storage on the landscape
- ❖ 2009 operations documented 256 acre-feet of storage/disposal





Project: FRESP Lykes Bros. Inc. West Waterhole Pasture

- ❖ Indian Prairie Canal runoff pumped into 2500 acre detention area, originally estimated at providing 5000 acre-feet of natural water storage on the landscape
- ❖ Eleven week operational period in 2009 resulted in 3.3 metric tons of TP reduction





Dispersed Water Storage Next Steps

- **Continue beneficial cost-share partnerships**
- **Continue representation in FRESP development**
- **Complete/refine project cost estimates & complete cost effectiveness (\$/ac-ft) evaluation NOT 'apples to apples'**
- **Continue to update GIS Program project tracking and storage accounting**
- **Northern Everglades to develop larger project solicitation program**