



Loxahatchee Replacement Storage

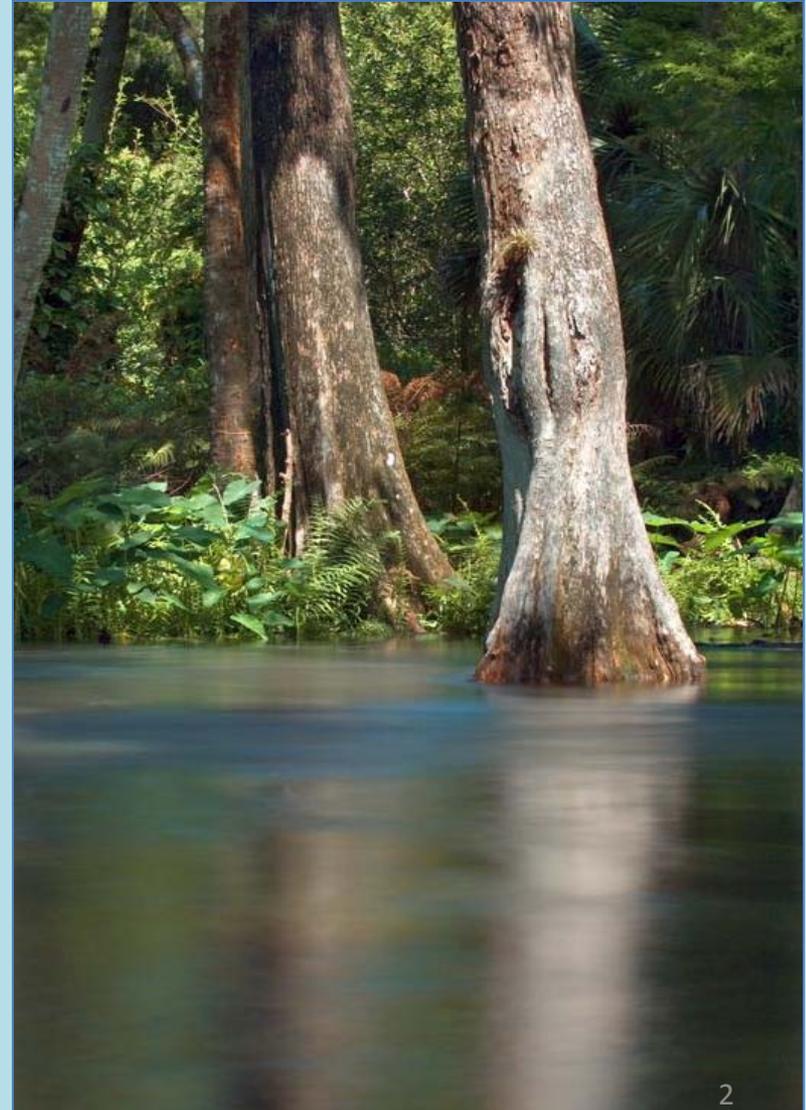
Governing Board Meeting

May 9, 2013

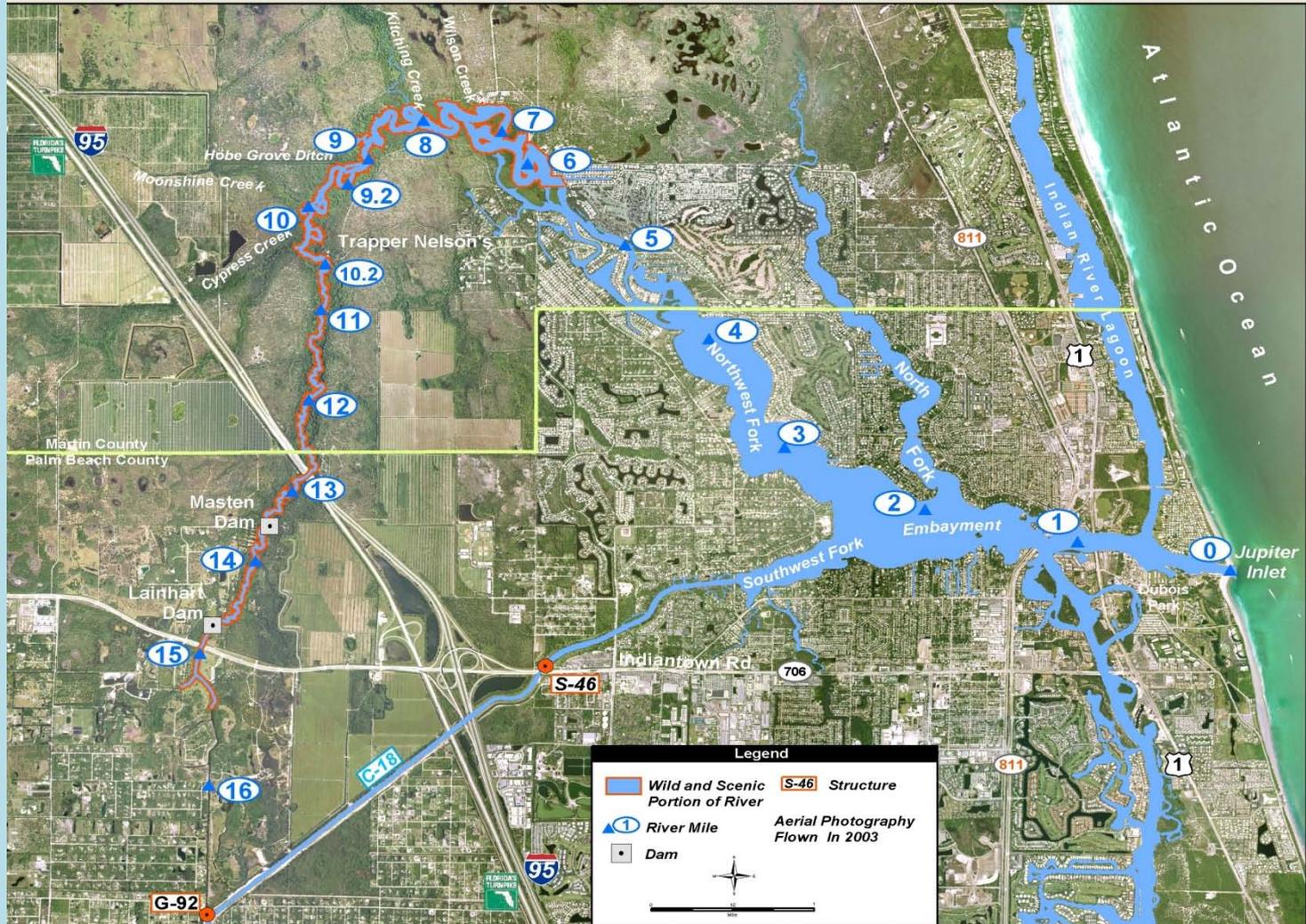
Ernie Barnett, Assistant Executive Director, Everglades & Water Resources

Presentation Overview

- Background
- L-8 Reservoir
- Mecca Storage
- Other Storage Options
- Proposed Mecca Acquisition
- Board Discussion and Direction



Loxahatchee River



Loxahatchee River Watershed Restoration Project (LRWRP)

- Initiated in 2002 as the CERP North Palm Beach County – Part 1, the project combined 6 components from the Restudy
 - 2 components screened out during plan formulation due to water quality and land availability issues
- Renamed as the Loxahatchee River Watershed Restoration Project (LRWRP) in 2010
- Identified Tentatively Selected Plan (TSP) – August 2010

Project Goals and Objectives

- Capture and store/ treat excess water currently discharged to the Lake Worth Lagoon
- Improve the quality, quantity, timing and distribution of water delivery to the Loxahatchee River and Estuary to meet restoration flow targets (Flow way 1, Flow way 2)
- Improve hydrologic connections between protected natural areas to increase wetland storage and connectivity (Flow way 3 - Cypress Creek, Palmar East and Loxahatchee Slough) and Moss Property

CERP Proposed Storage and Flow way Improvements (Tentatively Selected Plan)



Completed Activities

Component	Path	Completed	Cost
North Lake Bridge*	Flow way 1	2012	\$4,600,000
M-Canal Widening ⁺	Flow way 1	2007	\$2,500,000
G-160 Construction	Flow way 1	2004	\$2,085,084
G-161 Construction	Flow way 1	2007	\$2,468,034
Loxahatchee Slough Restoration [^]	Flow way 1/ 2	ongoing	
C-18 Project Culvert Replacements	Flow way 1/ 2	2011	\$1,800,000
C-51 Sediment Trap and Ibis Isle Restoration ^π	LWL Restoration	2008	\$4,100,000

*Project design and construction completed by Palm Beach County, SFWMD contributed \$800,000.00 toward design, the City of West Palm Beach and FDEP also contributed funding.

⁺Completed by the City of West Palm Beach, SFWMD contributed \$300,000 toward construction

[^]Design and Construction completed by Palm Beach County, includes Loxahatchee Slough and Palm Beach County portion of Cypress Creek

^π Work completed by Palm Beach County, and included CBIR grant and SFWMD match

Completed Activities

Component	Path	Completed	Cost
Nine Gems Restoration	Flow way 3	2010	\$50,000
Culpepper Hydrologic Restoration *	Flow way 3	2011	\$199,000
Cypress Creek Weir Installation *	Flow way 3	2012	\$140,000
Cypress Creek Berm/Water Control Structures*	Flow way 3	ongoing	\$1,850,000
Cypress Creek, Culpepper and Nine Gems fuel reduction and exotic plant treatment and removal activities *	Flow way 3	ongoing	\$1,560,000

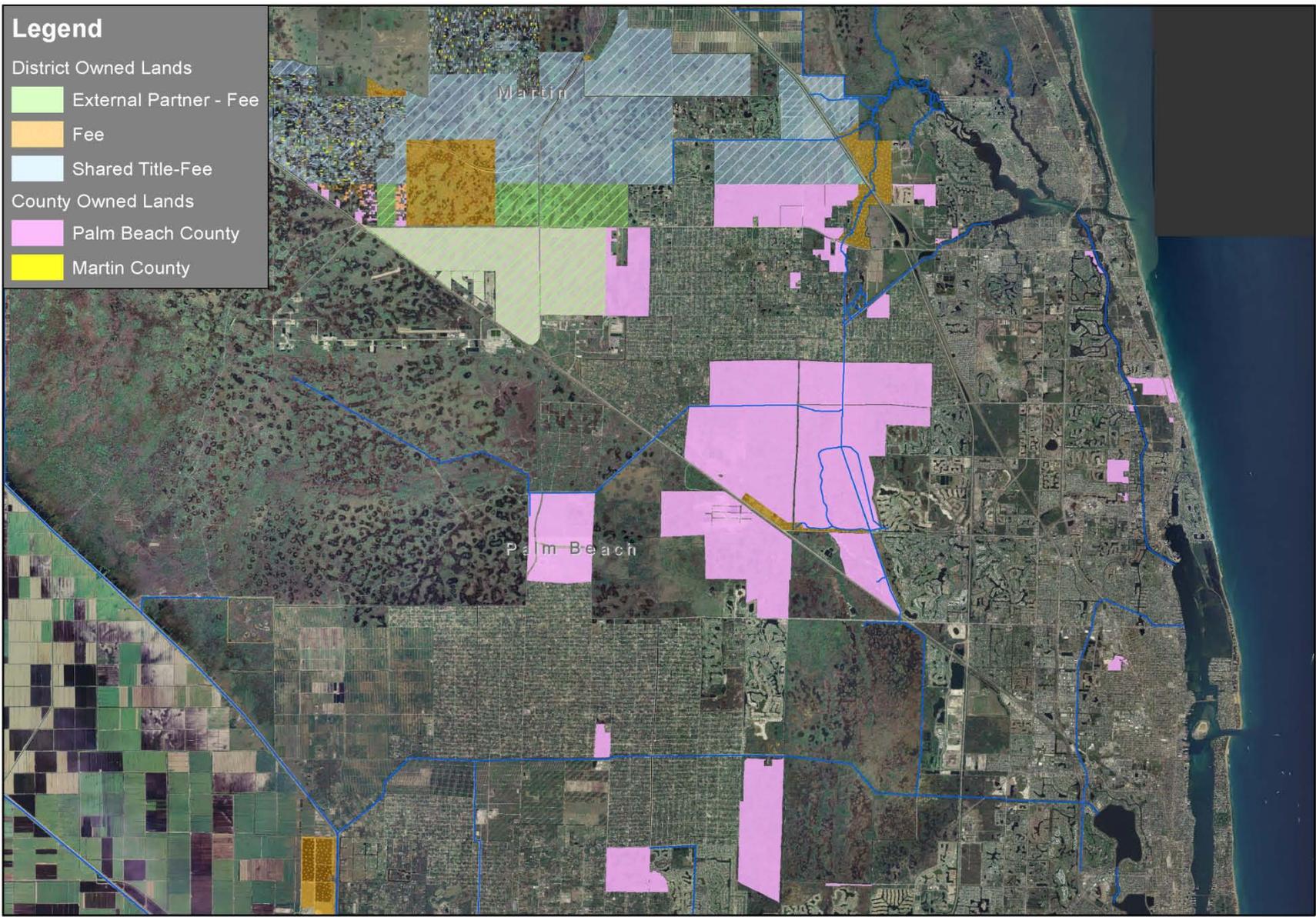
*Design and Construction completed by Martin County, matching with Loxahatchee River Initiative Funding. Cooperative land management between SFWMD and Martin County

SFWMD Lands Acquired

Tract	Acres	Acquisition Completed	Associated Component	Cost
Culpepper	1,282*	2008	Flow way 3	\$37,836,996
Cypress Creek	3,398*	2003	Flow way 3	\$35,327,500
Palmar East (Nine Gems)	2,895*	2006	Flow way 3	\$40,410,960
Loxahatchee Slough	592	2008	Flow way 1	\$38,540,000
Total				\$152,115,456

*Martin County contributed funds toward the acquisition of these properties

Palm Beach County initiated acquisition of land within the Loxahatchee River Watershed in 1996 and now owns and/or manages nearly 26,000 acres, including 12,841 acres of the Loxahatchee Slough



Public Land Ownership - Loxahatchee Watershed



L-8 Reservoir



M-Canal Widening

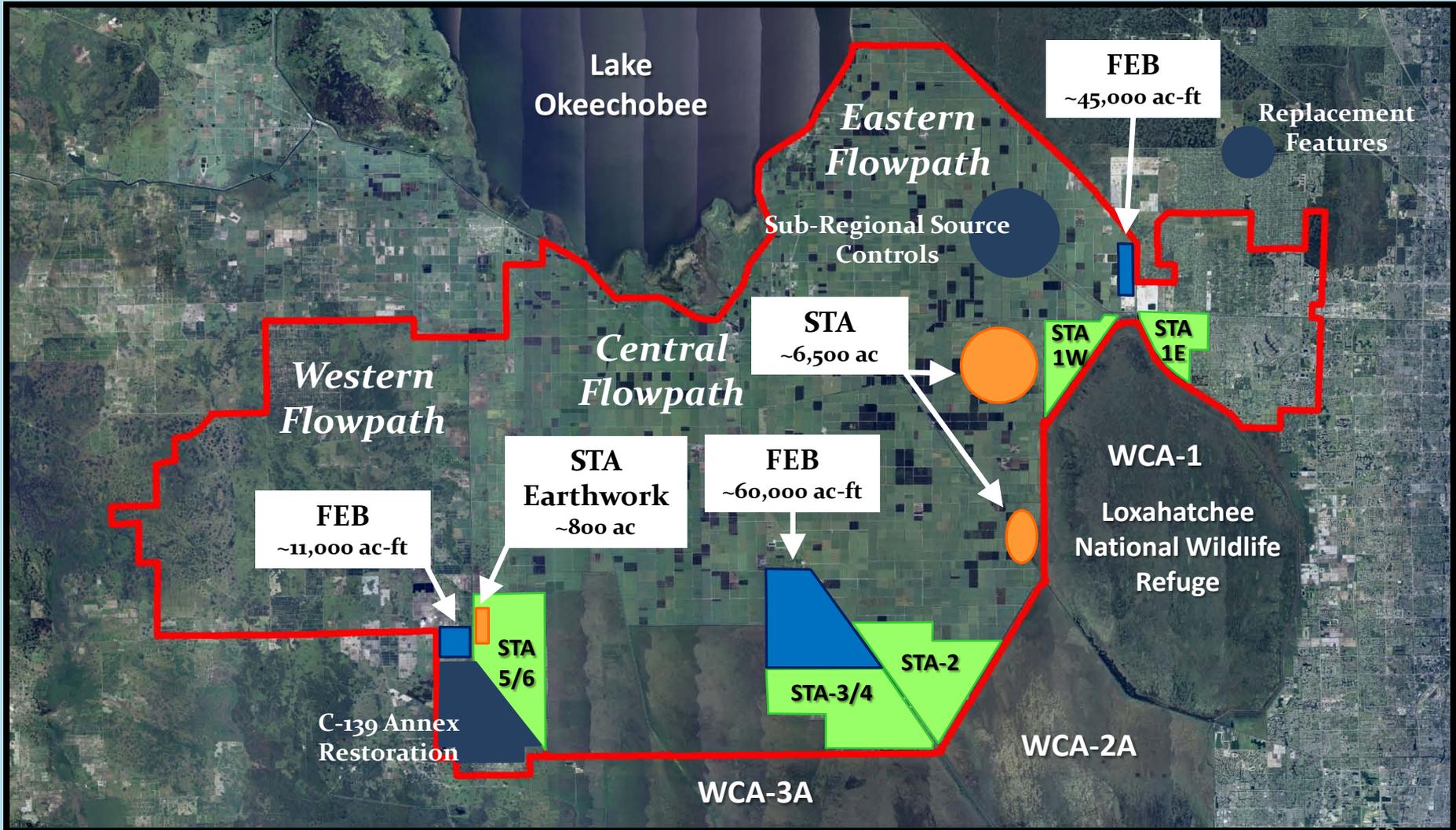


G-161



G-160

Restoration Strategies Key Projects

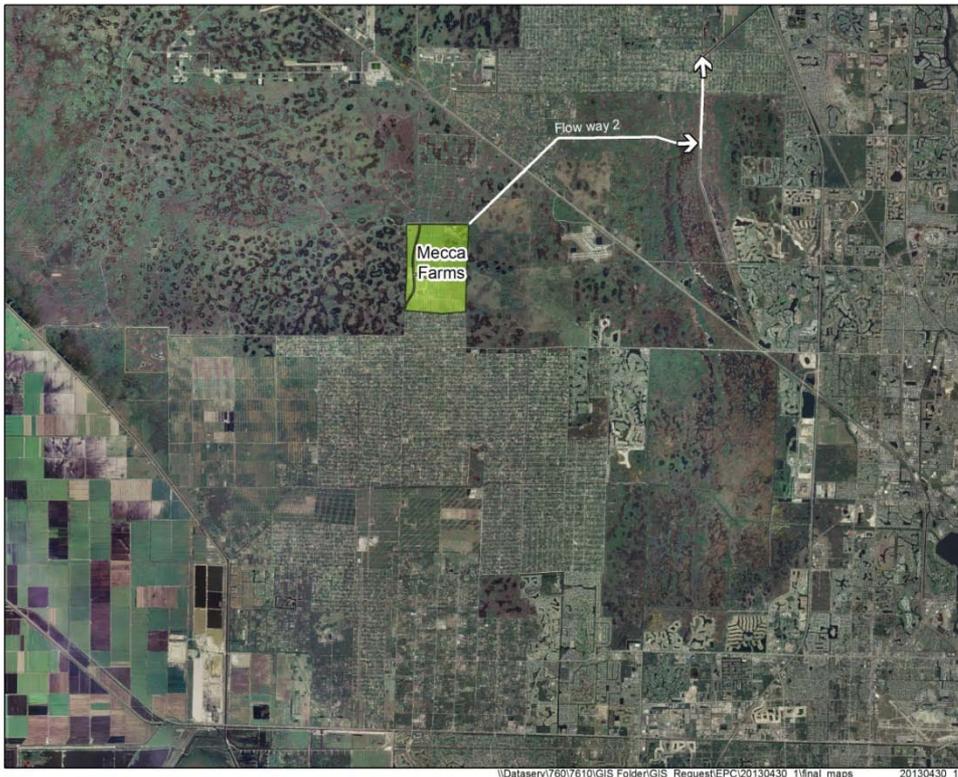


L-8 Reservoir Redirection

- Opportunity to capitalize on existing infrastructure needed for water quality projects
- Use of the L-8 Reservoir was redirected to Restoration Strategies to become the L-8 FEB
- Commitment to stakeholders to replace storage
 - Moving forward with L-8 FEB infrastructure can aid Loxahatchee MFL /Recovery Strategy
- L-8 FEB in interim operations until completion of replacement feature(s)

Mecca Property

- 1,800 acre parcel owned by Palm Beach County
- Provides in basin storage minimizes loss to seepage and evaporation
- 4 ft depth (7,200 ac-ft)
- 10 ft depth (18,000 ac-ft)



Water source

- C-18 West
- L-8 Basin
- Uses Flow way 2 to provide direct benefit to Loxahatchee River

Model Results

- MFL exceedances: 15 - 3
- Dry season target: 89% - 94%
- Wet season target: 74% - 75%

Multiple Replacement Storage Options

Moss Property

- 2,200 acres at 2 - 3ft (4,400 - 6,600 ac-ft)

Palm Beach Catchment

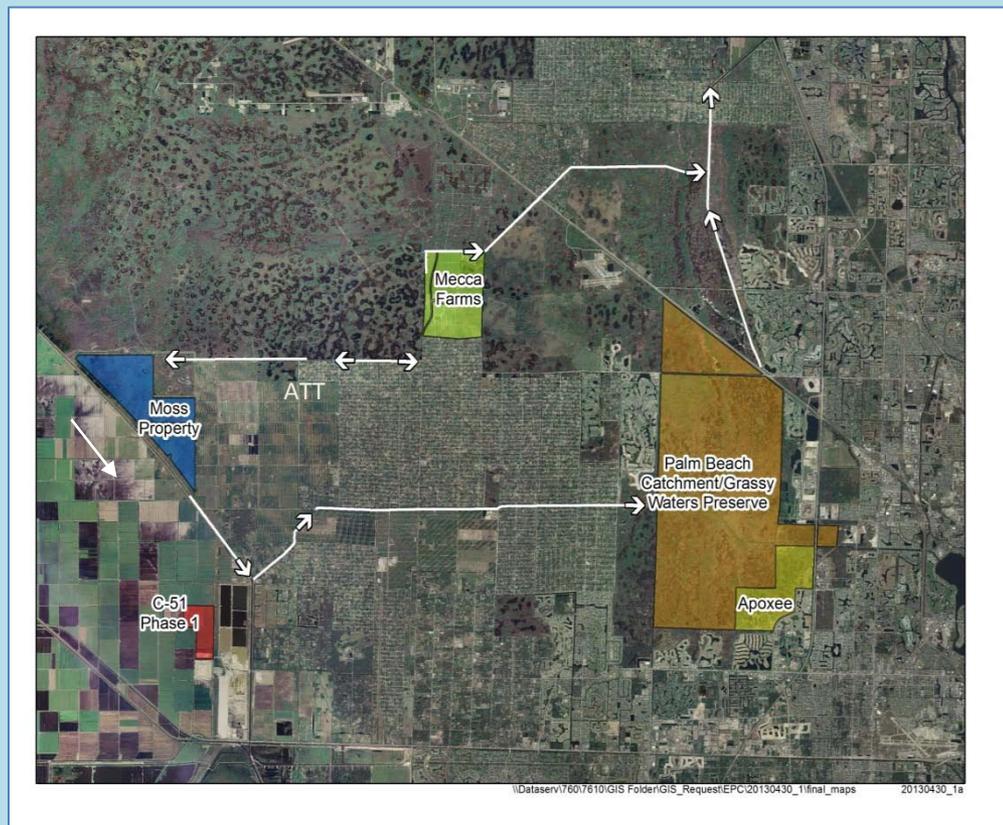
- ~ 12,500 acres assuming 3" of additional water = ~3,700 ac-ft
- Operational changes

Apoxee

- 1,450 acres (2,900 ac-ft)
- Seepage losses

C-51 Phase I

- Assumed 15,000 ac-ft as mined



City of West Palm Beach

Palm Beach Catchment

- ~ 12,500 acres assuming 3" of additional water = ~3,700 ac-ft
- Requires operational changes and agreement
- Potential impacts to Snail Kite habitat

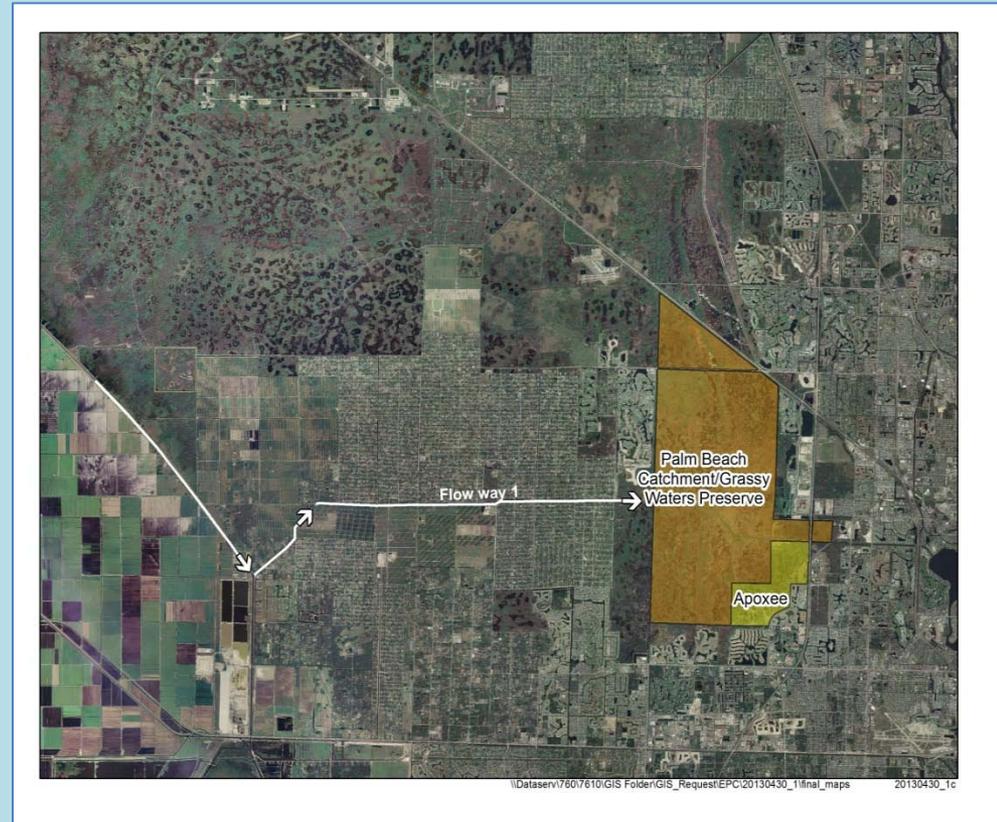
Apoxee

- 1,450 acres (2,900 ac-ft)
- Significant loss to seepage

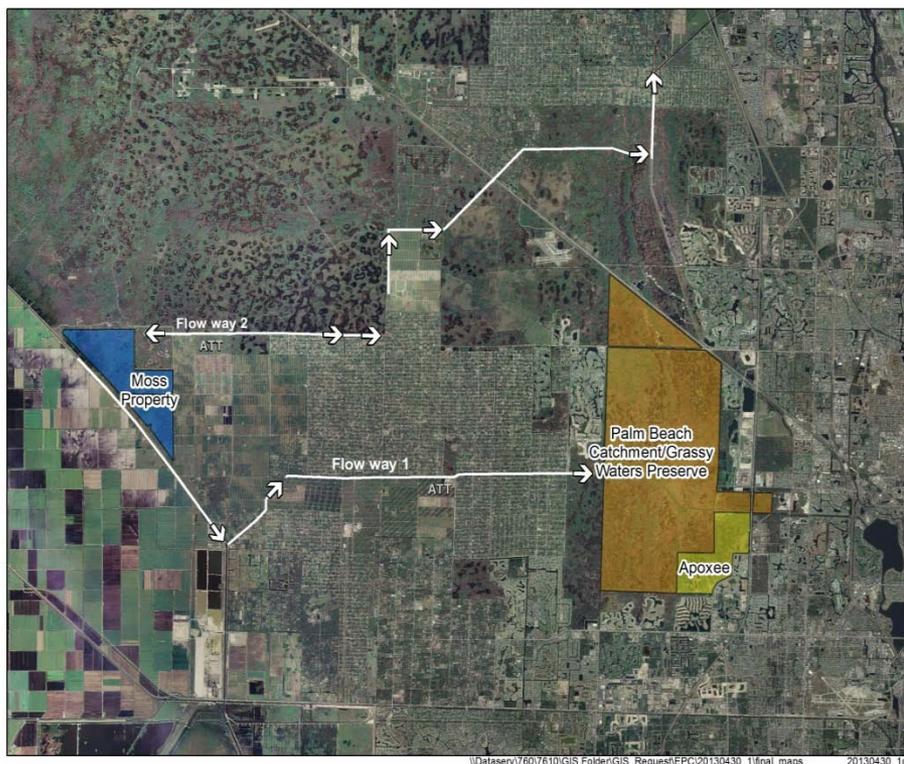
Water source

- L-8 Basin
- Lake Okeechobee

Uses flow way 1 to deliver water to the River via G-161



City of West Palm Beach and Moss Property



Primarily flow way 1, flexibility to send water directly to Loxahatchee River via flow way 2

Moss Property

- 2,200 acres at 2 - 3ft (4,400 - 6,600 ac-ft)
- Requires additional conveyance
- Meet FWC objectives: benefits to wildlife, remain as a buffer corridor, achieve deep water marsh objectives similar to DuPuis

Palm Beach Catchment

- Requires operational changes and a operational agreement

Apoxee

- 1,450 acres (2,900 ac-ft)
- Significant loss to seepage

Water Source

- L-8 Basin
- L-8 FEB
- ITID
- Lake Okeechobee

Water supply and well recharge

C-51 Phase I, Mecca

C-51 Phase 1

- 15,000 ac-ft of storage as mined
- Requires polishing

Water source

- C-18 West
- S-5A
- C-51 West
- L-8 Basin

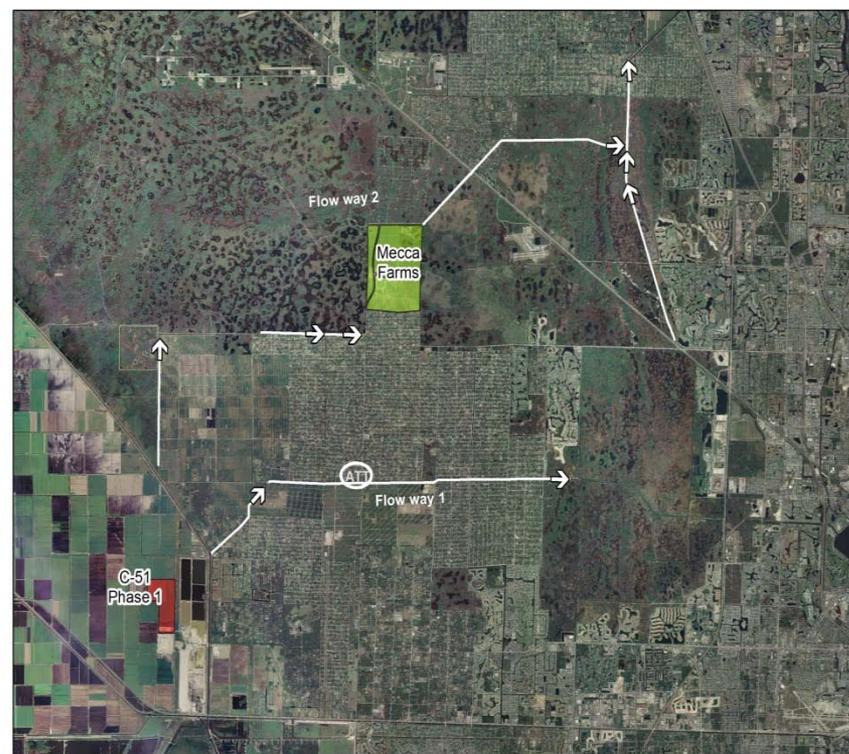
Flow way 2

- Shallow polishing flow way on Mecca
- 100 ppb inflow = ~450 acres
- 200 ppb inflow = ~1,000 acres

Flow way 1

- Polishing via advanced treatment technologies within the flow way 1 corridor

Flow way 1 or 2 depending on the locations of polishing features



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Proposed Mecca Acquisition



District Contracted Appraiser

District contracted Appraiser

- Steve Shaw, MAI, Callaway & Price, Inc.
- Date of Value: July 31, 2012

Highest and Best Use

- Interim agricultural use and future low density residential development

Market Value Estimate

- \$21,000,000 (\$11,000± per acre based on 1,902.43 acres*)

Palm Beach County Contracted Appraiser

PBC contracted Appraiser

- Bob Banting, MAI, SRA, Anderson & Carr, Inc.
- Date of Value: October 22, 2012

Highest and Best Use

- Interim agricultural use and future mixed use residential development to include residential uses along with a mixture of supporting civic, governmental, educational and retail and office uses

Market Value Estimate

- \$26,000,000 (\$14,000± per acre based on 1,845.31 acres*)

Variance Between Appraisals

Highest and Best Use Conclusions

- Shaw: Future low density residential development
 - Consistent with a lower density comparable to similar residential use in the area
- Banting: Future mixed use residential development to include residential uses along with a mixture of supporting civic, governmental, educational and retail and office uses
 - Concluded that it would be possible to obtain land use change for higher density
- Subjective adjustments to comparable sales were inconsistent between the two appraisers

Palm Beach County Offer

- \$30,000,000 Cash
- County Staff does not believe that the appraisals accurately reflect the value of the property.
“Appraisals are inherently backward looking and the lack of large comparable sales in a distressed market make valuation more subjective than would typically be the case. There is substantial evidence pointing to an improving market for raw land, however, that has not yet resulted in comparable sales substantiating the improvement.”

Governing Board Direction

