



## **Loxahatchee River Preservation Initiative**

**[www.lrpi.us](http://www.lrpi.us)**

### **Meeting Minutes**

**June 17, 2019, 12:00 p.m.**

**Town of Jupiter Emergency Operations Center**

**3133 Washington Street**

**Jupiter, FL 33458**

- I. Attendance – Refer to attached attendance sheet.
- II. Approval of the April 15, 2019 minutes  
A motion to approve the April 15, 2019 minutes was offered by Pat Magrogon and seconded by John Maehl. Minutes were approved unanimously.
- III. Old / New Business
  - A. Old Business
    1. Project Update
      - a. Mike Grella, Jupiter Inlet District, provided an update on Mangrove Island and Moonshine Creek. Construction for the Mangrove Island project is expected to begin this week and be completed at the end of July. Construction for the Moonshine Creek Oxbow project is expected to begin in early August and be completed at the end of September. Mike will look into getting signage at these project sites.
      - b. Regarding the Oxbow project – John Maehl, Martin County BOCC, inquired with Rob Rossmanith, Jonathan Dickinson State Park (JDSP), about the contractor's request for a resource monitor and whether or not the park could provide one. Rob confirmed that it had been taken care of.
    2. Discuss 2019 legislative funding
      - a. Deb Drum, Palm Beach County Environmental Resource Management, stated that the legislative team recommends critical field trips essentially for Senator Powell and Representative Magar. The committee offered ideas for the field trips; Deb will coordinate this week.

- b. The committee agreed that 2019 legislative funding has been approved.

**B. New Business**

**1. Distribution of FY20 Initiative Funding Request Applications**

- a. Deb Drum confirmed that Nestor, who was not present during this meeting, will be distributing FY20 applications soon. Deb urged the committee to have FY20 applications in by late August/early September.
- b. Albrey Arrington, Loxahatchee River District, proposed moving the due date for FY20 Funding Request Applications from August 19<sup>th</sup> to August 5<sup>th</sup> and revising the presentation of FY20 projects and committee ranking from August 26<sup>th</sup> to August 12<sup>th</sup>. A motion to approve rescheduling of these dates was offered by Deb Drum and seconded by Pat Magrogan. The new dates for FY20 Funding Request Applications were approved unanimously. Albrey will communicate with Nestor regarding public notice of this change.

**2. Agency Update – Deb Drum, PBC ERM**

Deb Drum provided an agency update for Palm Beach County Environmental Resource Management. Please see attached for presentation materials.

**3. Other Business**

- a. Deb notified the committee about the upcoming event, Night for the Natural Areas as well as the South Florida Ecosystem Restoration Joint Working Group/Science Coordination Group meeting which is scheduled for June 20<sup>th</sup> at South Florida Water Management District.
- b. Albrey and Pat Magrogan, Palm Beach County at Large, discussed the return of turtle and manatee sea grasses in the river and intracoastal water way.
- c. Rob Rossmanith announced that JDSP is having another planting on Saturday, June 22<sup>nd</sup>.

*Adjourn*

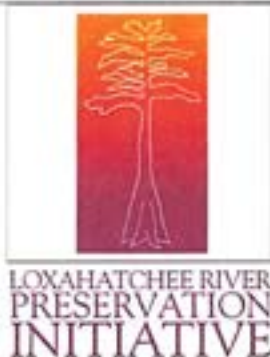
**2019 Initiative Meeting Schedule**

July 08: Confirm allocation of project funding

August 5: FY20 Funding Request Applications due

August 12: Presentation of FY20 projects and committee ranking

October 14: General Meeting



## SIGN-IN SHEET

**June 17, 2019**

## Loxahatchee River Preservation Initiative

**Town of Jupiter Emergency Operations Center**  
3133 Washington Street, Jupiter, FL 33458

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# **Palm Beach County's Efforts in the Loxahatchee River Watershed**

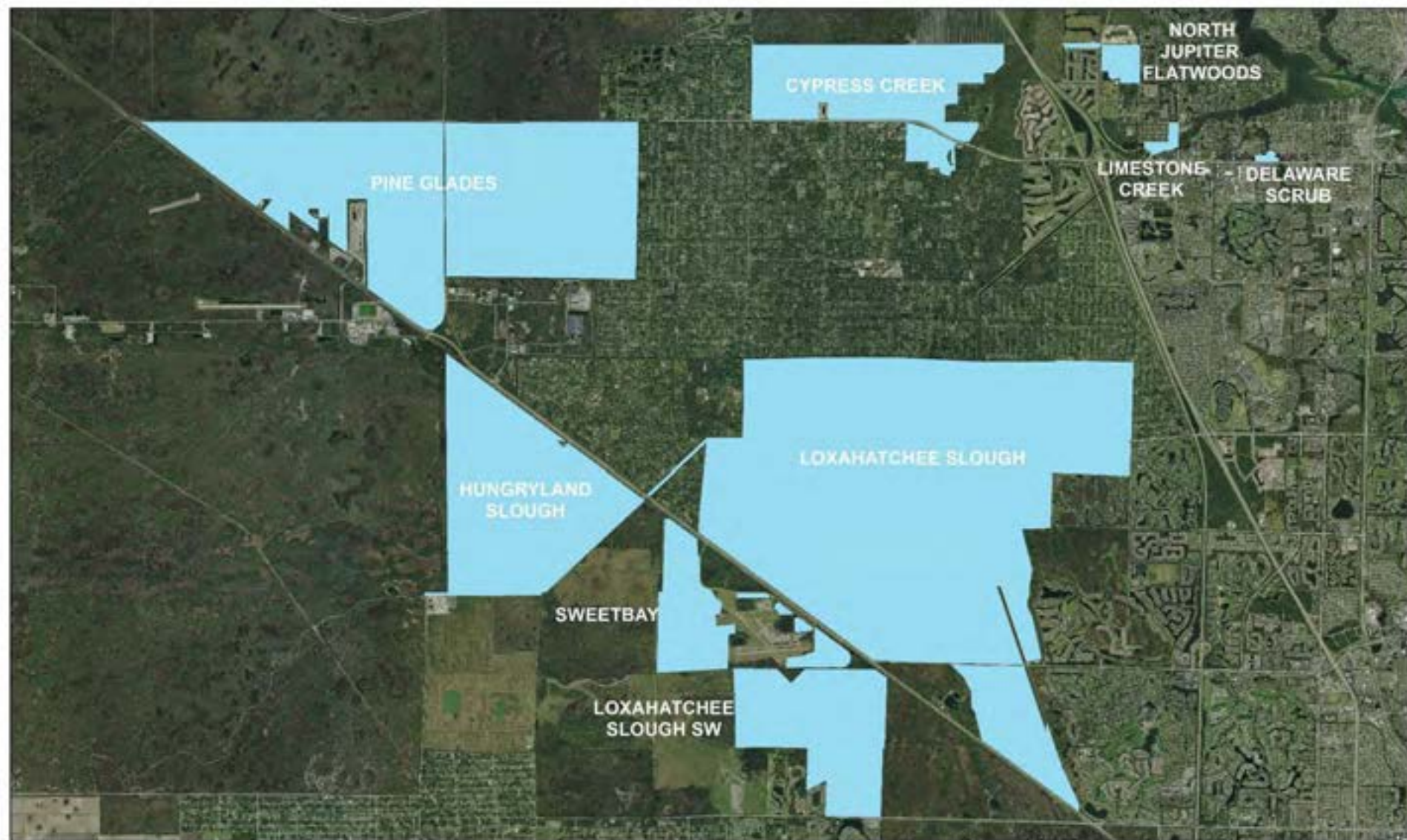
Deborah Drum, Director  
Palm Beach County Environmental Resources Management

Melissa Tolbert, Sr. Environmental Analyst  
Palm Beach County Environmental Resources Management

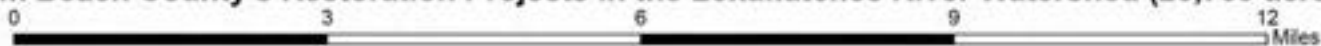
# Palm Beach County's Restoration Projects in the Loxahatchee River Watershed

Timeframe	Natural Area	LRPI Funds	Other Funds
2003-2015	Loxahatchee Slough – 6 Projects	\$3,000,000	\$3,000,000
2004-2007	Hungryland Slough		\$2,830,000
2005-2016	Cypress Creek – 5 Projects	\$1,050,500	\$1,050,500
2006-2013	Pine Glades		\$2,360,000
2005-2008	Limestone Creek – 3 Projects	\$805,000	\$805,000
2006-2009	Delaware Scrub – 2 Projects	\$300,000	\$300,000
2011-2016	North Jupiter Flatwoods – 3 Projects	\$689,356	\$689,356
		<b>\$5,844,856</b>	<b>\$11,034,856</b>





**Palm Beach County's Restoration Projects in the Loxahatchee River Watershed (25,789 acres)**



# Hungryland Slough Restoration

## Project 2004-2007

- Project area 2,896 acres
- 38 miles of dirt roads were removed/regraded
- 12.5 miles of canals were filled in/regraded
- 3.5 miles of perimeter berm and ditch were removed
- Installation of water control structures and the establishment of higher control elevations
- Mechanical and herbicide treatment of exotic vegetation
- Implementation of a prescribed burn program and exotic animal removal



# UNIT 11 TRACT RESTORATION PROGRESS TIME SERIES



N

2004 - PRE RESTORATION

2006 - DURING RESTORATION

2008 - POST-RESTORATION



# Hungryland Slough/Unit 11 Mitigation Area



## Exotic Treatment



## Culvert Replacement





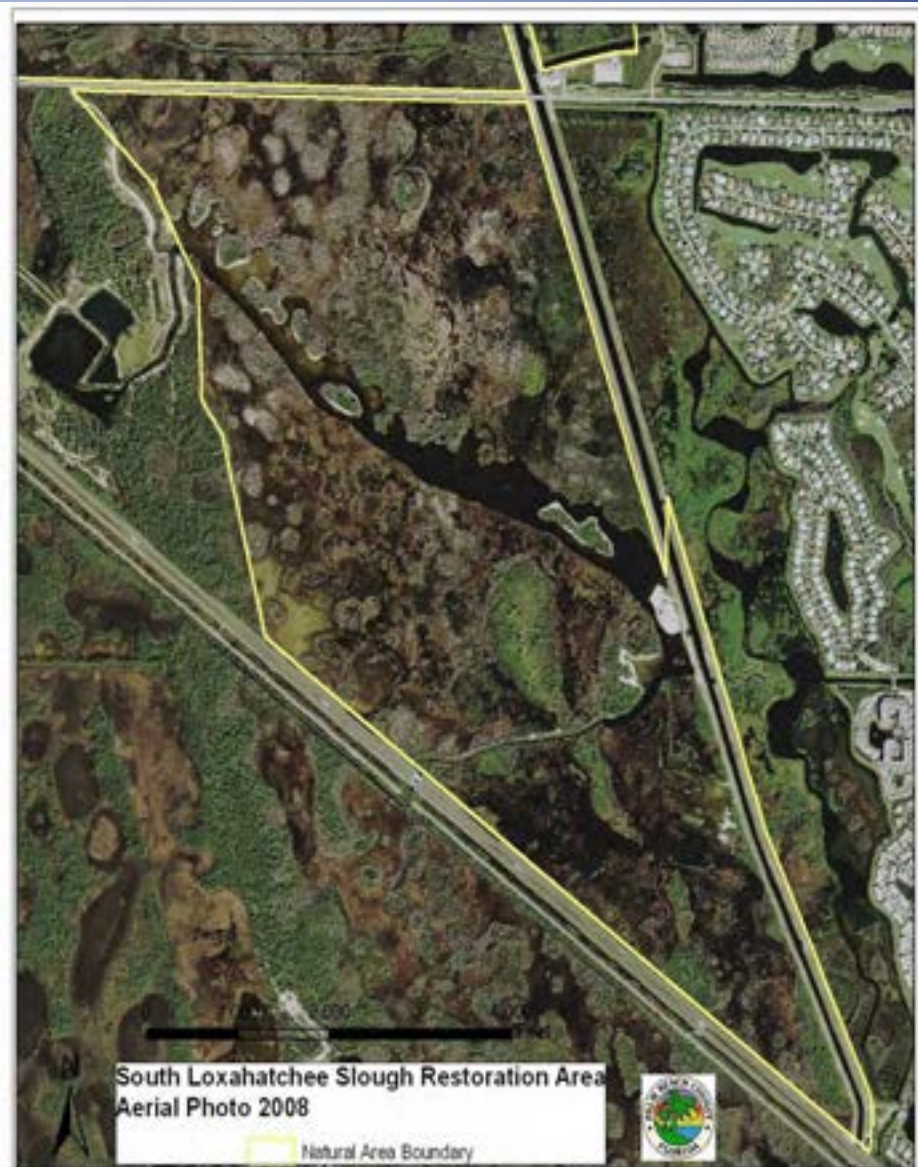


# South Loxahatchee Slough Restoration Project 2003-2007

- Project area 780 acres
- Restored 46 acres of wetlands by excavating spoil berms and backfilling ditches
- Mechanically treated 255 acres of monocultures of Australian pine, Melaleuca and Brazilian pepper
- Herbicide treatment of exotic vegetation



# South Loxahatchee Slough Restoration





# Mechanical Treatment of Melaleuca Monoculture





# Cypress Creek Restoration Project 2006-2009

- Project area 1,850 acres
- Major tributary to the Loxahatchee River contributing a third of the flow to the Wild and Scenic Northwest Fork
- Mechanical treatment of Australian pine and Melaleuca
- Herbicide treatment of exotic vegetation
- Removed berms and backfilled 6 miles of ditches
- Improved water quality, storage and wetland habitat functions



## Cypress Creek Natural Area





# Backfilled Ditches



2009



2012



# Limestone Creek Restoration Project 2006-2009

- Project area 53 acres
- Creation of oxbows reduced erosive velocities of waters in the tributary, improved tidal flushing, enhanced estuarine habitat and improved water quality
- Existing canal bank excavated and regraded to create intertidal mangrove wetlands
- Exotic vegetation treatment
- Construction of canoe/kayak launch



# LIMESTONE CREEK NATURAL AREA LRPI CONSTRUCTION





**Footbridge Weir**



**Hiking Trail**



**Fishing Pier**



**Oxbow**





# Pine Glades Restoration Project 2006-2013

- Mitigation area 3,142 acres
- Mechanical and herbicide treatment of exotic vegetation
- Installed outfall structure and 3 miles of seepage barrier to restore hydrology
- Removed existing drainage system of canals, berms and ditches



# Pine Glades Mitigation Areas



## Legend

- Major Roads
- Seepage Barrier
- Pine Glades South Mitigation Area
- Pine Glades North Mitigation Area
- Pine Glades West Mitigation Area
- Mechanical Exotic Removal and Re-grading
- Slough - Scrapedown Restoration
- Roads, Berms, Filled Area Restoration

Palm Beach County  
Department of Environmental  
Resources Management



0 0.25 0.5 1 Miles

# Pine Glades Mitigation Area - South/Minto

May 2006



January 2008







**Seepage Barrier  
Installation – Spring 2011**

# New Flow Ways and Tern Nesting Island at Pine Glades Natural Area



November 2011





# Delaware Scrub Restoration Project 2007-2010

- Project area 16 acres
- Mechanical treatment of Melaleuca monoculture
- Herbicide treatment of exotic vegetation
- Construction of public use facilities included a parking lot, hiking trail, boardwalk crossing restored cypress dome, observation deck overlooking Jones Creek, and informational kiosks

## Public Use Facilities





## **Mechanical treatment of Exotic Vegetation**



## **Wetland Area with Exotics Removed**



## **Restored Wetland Area**



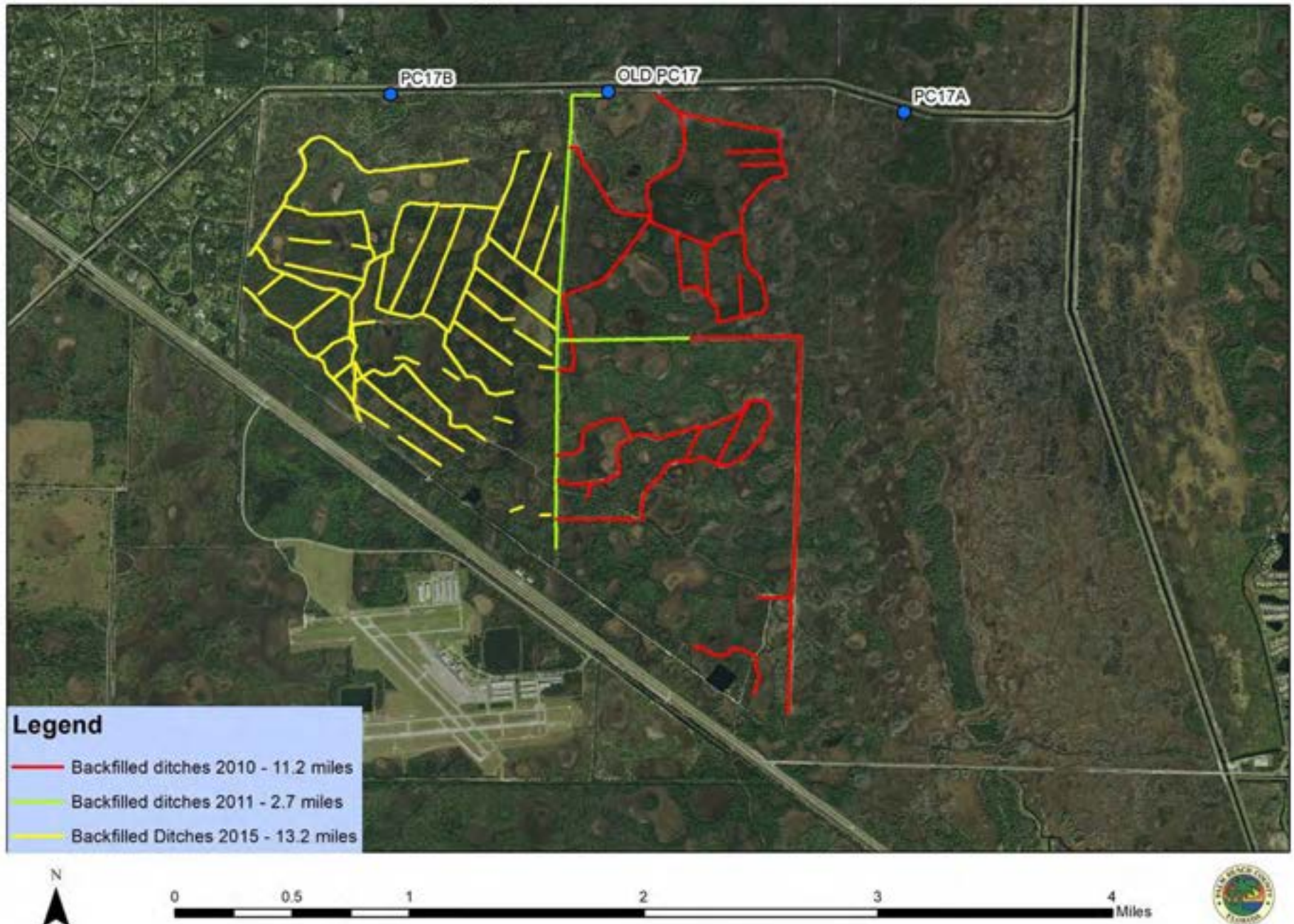


# Loxahatchee Slough Sandhill Crane Restoration Project 2008-2015

- Project area of 3,184 acres
- 81 acres of mechanical treatment of Australian pine, Melaleuca and Brazilian pepper monocultures
- Herbicide treatment of exotic vegetation
- Restored hydrology and reconnected wetlands by removing berms and backfilling 27 miles of ditches
- Replacement of PC17



# Loxahatchee Slough Sandhill Crane Restoration Project







Removing berm and backfilling agricultural ditch



Mechanical treatment of Melaleuca



**Aerial view of ditch filling work**



**Earth work in progress**





**Rusted Out  
PC-17  
Culverts  
On West  
Leg of  
C-18 Canal**





# New PC-17a Under Construction





# Cypress Creek East –Jupiter Ranch Restoration Project 2010-2011

- Project area includes 251 acres
- 65 acres of wetlands restored and created from shell pit areas by re-sculpting to natural contours
- Mechanical treatment of Australian pine from spoil piles that were left from the shell mining
- Planted areas that were cleared
- Herbicide treatment of exotic vegetation



# Mechanical Exotic Vegetation Removal and Wetland Restoration





# Mechanical Exotic Removal and Wetland Sculpting

Cypress Creek East - Jupiter Ranch 2008





# Post Construction

Cypress Creek East - Jupiter Ranch 2013





March 4, 2010



October 18, 2010







# North Jupiter Flatwoods Restoration Project 2011-2016

- Project area 143 acres
- Constructed public use facilities
- Exotic vegetation control and mechanical fuel reduction
- Replaced culvert with a fixed weir water control structure
- Installed 2,600 feet of seepage barrier
- Backfilled 0.40 acres of ditches



- Backfilled Drainage Ditches (0.40 acres)
- ERM NA BOUNDARY
- Seepage Barrier and Berm
-  Water Control Structure



Palm Beach County  
Department of Env. Resources Mgmt.  
September 2015, JB

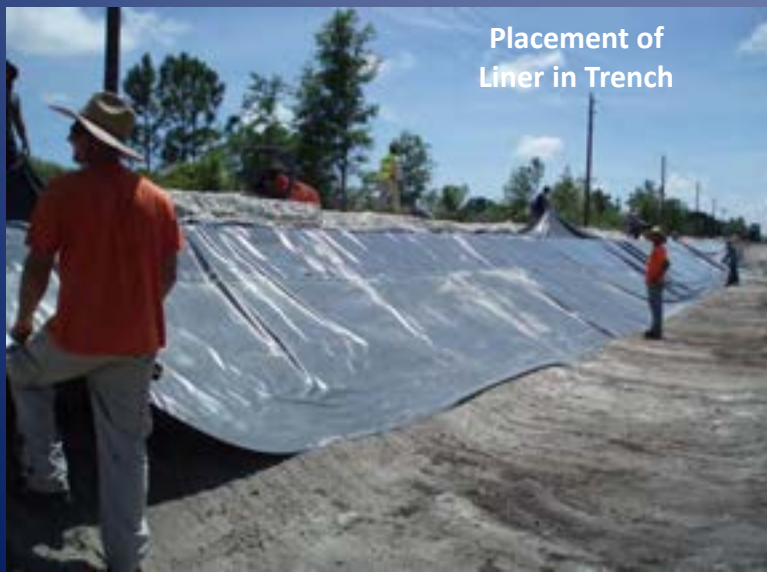




# Installation of Water Control Structure



# Installation of Seepage Barrier

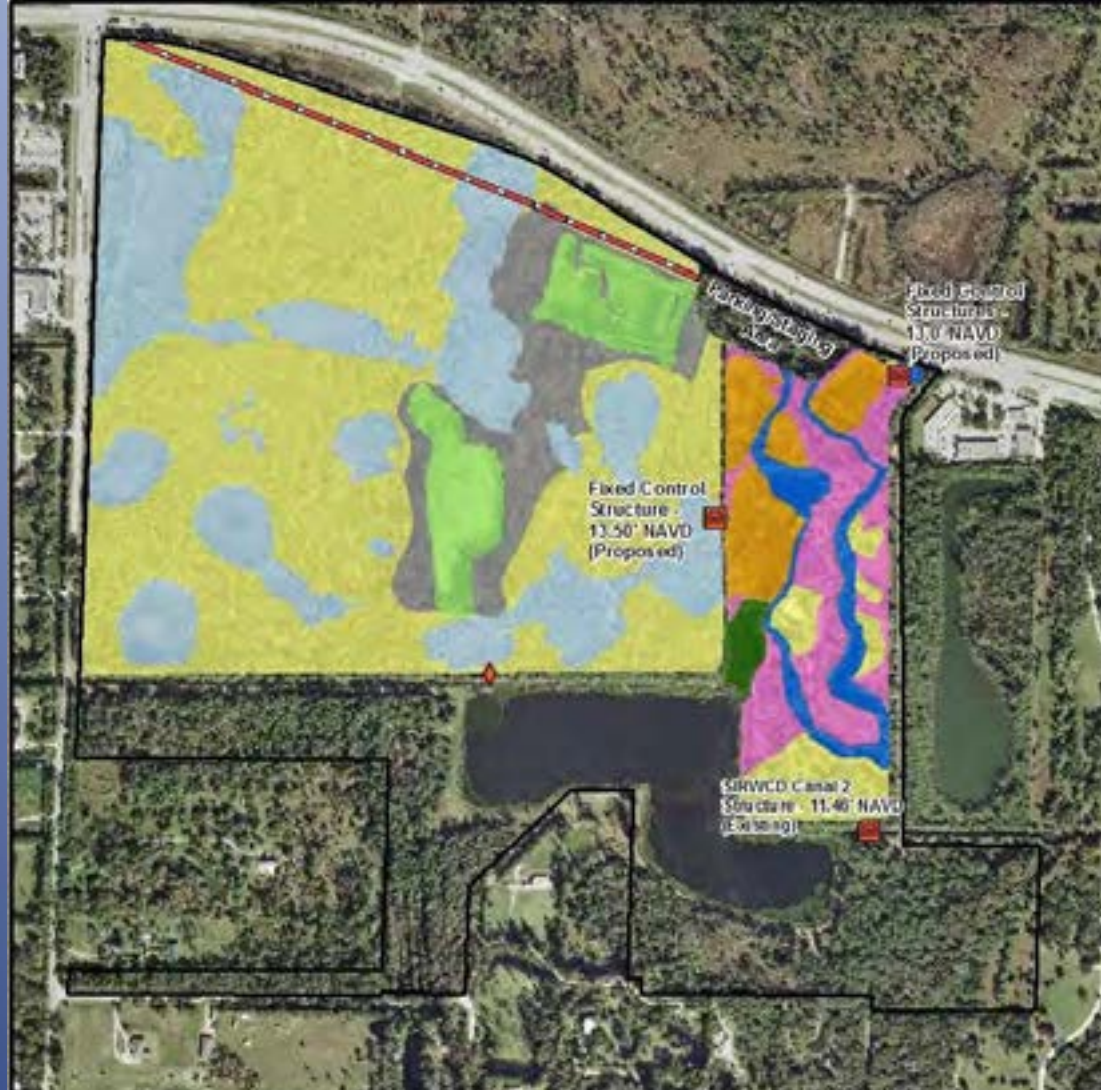






# Cypress Creek Hatcher Restoration Project 2014-2016

- Project area 159 acres
- Backfilled 2,500 feet of ditch and repaired perimeter berm
- Created 22 acres of wetlands through scrape-down of disturbed uplands
- Restored 16 acres of disturbed wetlands through scrape-down and backfilling
- Connected created/restored wetlands with the lake to increase water quality treatment prior to discharge to the River
- Exotic vegetation control



### Legend

▬ Hatchers/Halpin Property Boundary

■ Control Structure

◆ Berm Repair

— Ditch Backfill

**Natural Area (western portion) - 131 Acres, C.E. 13.50' NAVD**

■ Exotic Removal Only

■ Wetland Enhancement

■ Wetland Restoration

■ Scrape-down/Restoration



0 420 840 1,680  
Feet

**Restoration Area (eastern portion) - 28 Acres, C.E. 11.46' NAVD**

■ Exotic Removal Only

■ Existing Lake

■ Wetland Restoration

■ Canoe/Kayak Trail - ground el. 8.00' NAVD

■ Wetland Creation - ground el. 8.00' NAVD

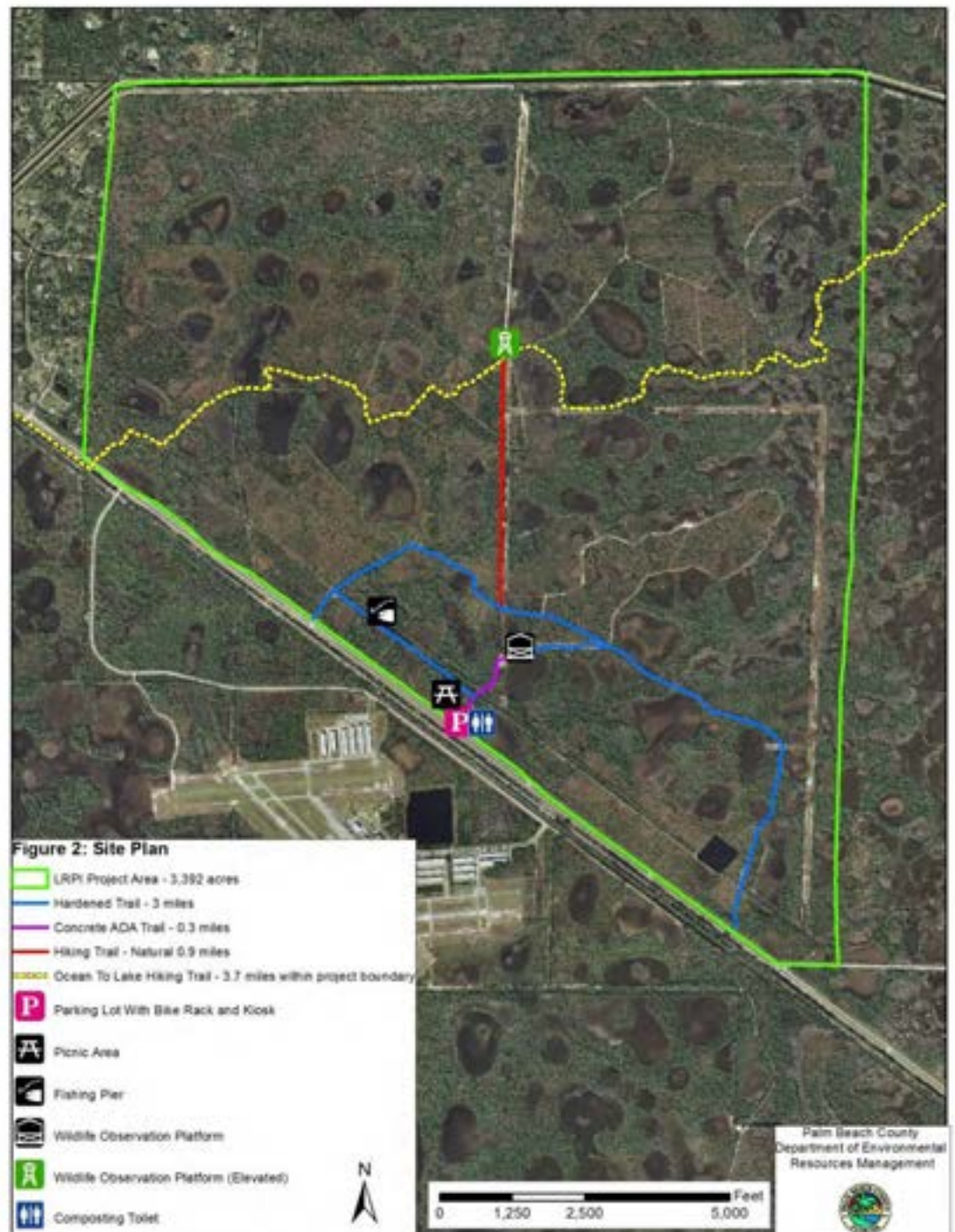


# Projects Underway and Future Restoration Efforts



**Loxahatchee Slough Natural Area**

# Loxahatchee Slough Educational Public Use Facilities Project in Progress







**Picnic Area**



**Composting Toilet**



**Educational Kiosk**

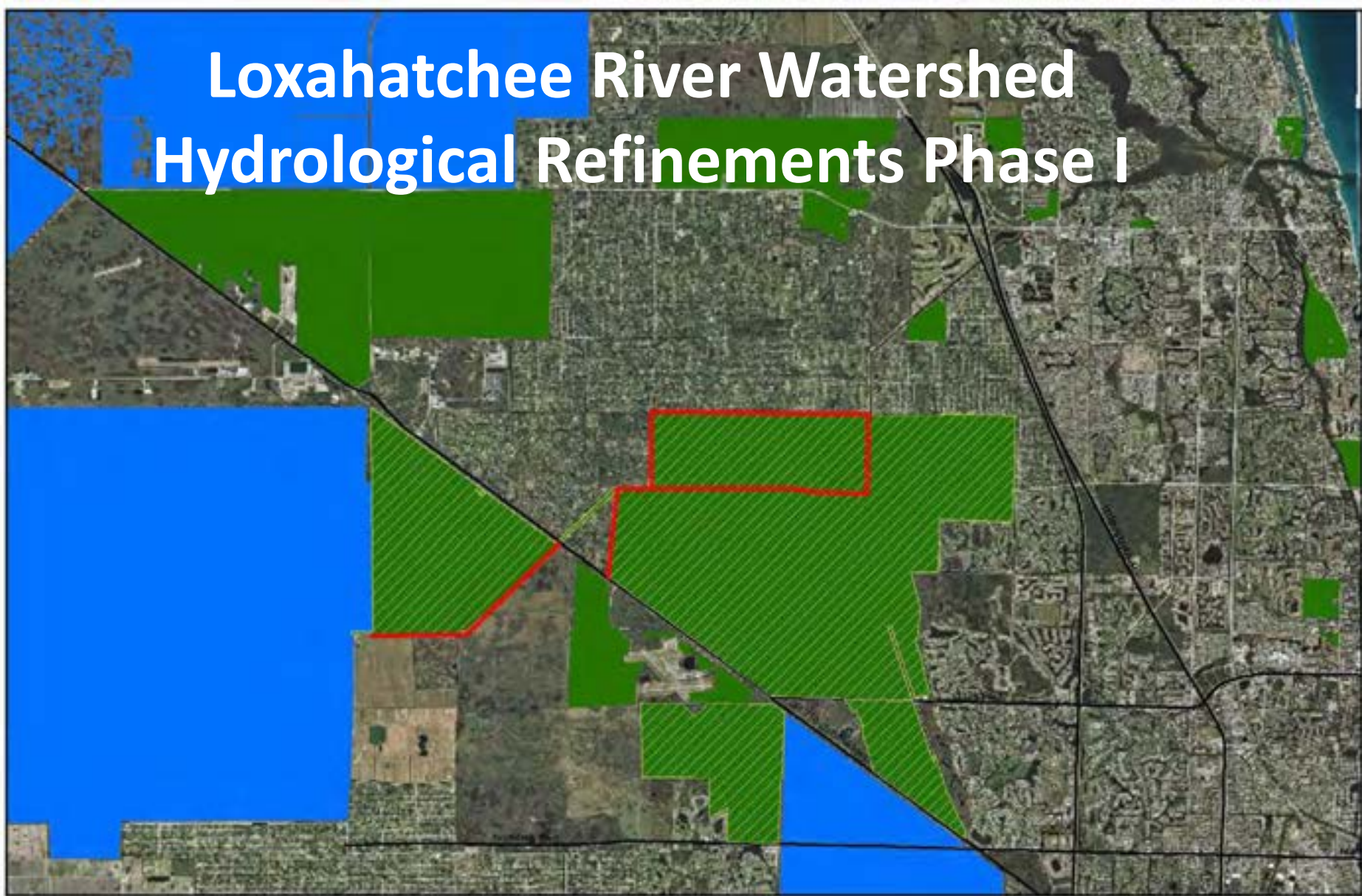


**Examples of Fishing Pier with wheelchair user/child viewing/fishing cut out in side rails and covered Wildlife Observation Platform**





# Loxahatchee River Watershed Hydrological Refinements Phase I



- LRPI - Loxahatchee Slough/Hungryland Slough Project Area
- Proposed Seepage Barrier
- Palm Beach County Natural Areas
- Other Publicly-Owned Natural Area



Figure 1: Location Map





JUPITER FARMS

14 MILES OF SEEPAGE BARRIER

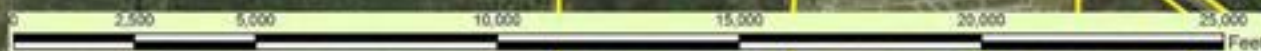
HUNGRYLAND SLOUGH  
NATURAL AREA

LOXAHATCHEE SLOUGH  
NATURAL AREA

3 MILES OF SEEPAGE BARRIER

PROPOSED SEEPAGE BARRIER LOCATION

NATURAL AREA BOUNDARY







# Benefits of Restoration Efforts

- Restoration of > 24,000 acres of natural areas providing improved habitat and recruitment areas for flora and fauna
- Improved water quality
- Estimated increase of > 28,000 acre-feet of water storage
- Improved stormwater attenuation
- Improved base flows to the River

Thank you to LRPI for making restoration possible!

