

# Large Scale Ecosystem Restoration

Walt Thomson - -Retired Guy



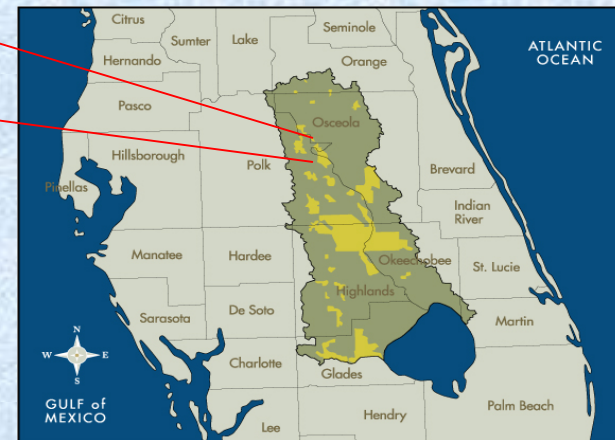
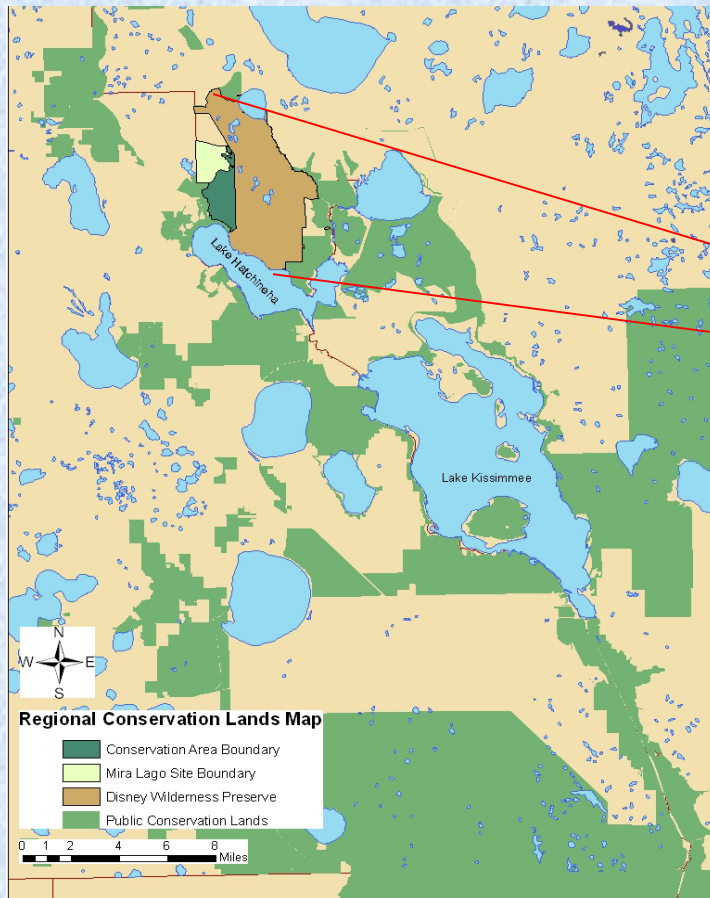
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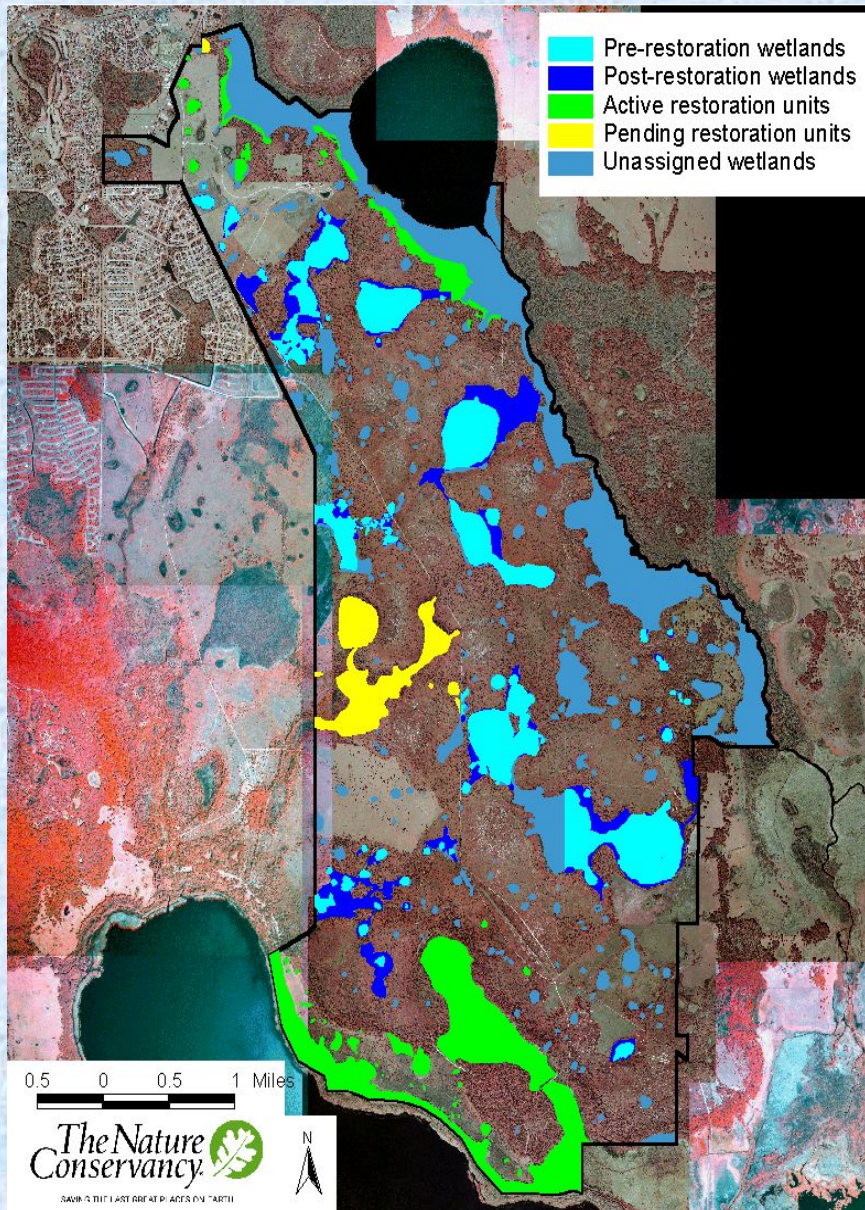
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# Regional Location Context

- Large project site--Integrated at the landscape scale – with other protected sites
- Comprised of a matrix of Restoration Projects at the Large Site Scale
- A 12,000 acre mitigation funded, 20 year restoration project.





## Three Phases of Wetlands

**Projects (30+):** Repairing a network of interconnected ditches

- **Phases I and II:** Projects that did not impact adjacent lands hydrology
- **Phase III:** Projects that impacted adjacent land or were dependent on Kissimmee River restoration

## Three Types of Upland

**Strategies:** (Not mutually exclusive)

- **Process Restoration:** Restore fire regime and hydrology. Basic native veg structure and diversity still intact.
- **Above With Mechanical Augmentation:** tree grinding, shredding, timber removal.
- **The Full Monte:** Soup to nuts habitat restoration. *The other speakers will cover.*

# Phases of the Wetland Restorations

## 18.5 Years to Success

- **Phase I** (289 acres of restoration, enhancement & protection)
  - Consists of HUs 2, 3, 8 & 1
  - Declared successful: Nov 01, 2000 (SFWMD); Aug 10, 2001 (FDEP); Dec 18, 2001 (ACOE)
- **Phase II** (262 acres of restoration, enhancement & protection)
  - Consists of HUs 1, 4, 6 & 7. HU 5 deferred to Phase III
  - Declared successful: Aug 13, 2003 (SFWMD); FDEP & ACOE pending
- **Phase III** (830 (+ 253 of HU 5) acres of restoration, enhancement & protection)
  - Consists of HUs 9, 10 & 12 plus HU 5
  - Could be declared successful as early as 2008.

**TOTAL Phase I, II & III**  
**1,673.2 acres**

Pre-restoration wetlands  
559.5 acres

Restored, enhanced and  
protected wetlands  
793.1 acres

Large Connected Wetlands  
enhanced and protected  
(HUs 12 & 5)  
749.5 acres

# Large Scale Restoration = Large Scale Equipment





HU 31 Ditch and Spoil Pile Prior to any Treatment Aug. 1995



HU 31 Ditch and Spoil Piles Following Removal of Oaks and Pines, Prior to Filling of Ditch Sept. 1996



## Process:

- Grind away old live oaks (store chips)
- With track hoe, remove and store ditch vegetation
- With JD450/650, push berms from ditch into ditch
- With dozer and track hoe, smear stored vegie stuff and chips over top of ditch
- Hydrology restored!! Yea!!
- Hope nobody discovers what was done.



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# What it really Takes

## \$Money\$

- Ecosystem restoration is a **25 Billion** dollar industry in the US (2021)
- The DWP project was an approximately 65 million dollar project:
  - 40 million for the land
  - The remainder for:
    - Operating capital
    - Annual management funds
    - Staff
    - Endowments
  - **Staff** is the largest annual expense, but, the most important (talented, committed, experienced people)

# *Those Dangling Participles!!!*



An aerial photograph of a vast, green landscape, likely a wetland or marsh. A winding river or stream flows through the center of the image. Several small, irregularly shaped ponds are scattered throughout the terrain. The sky is filled with large, white, fluffy clouds. The overall scene is lush and expansive.

*! THANKS!*