



# Addressing Institutional Challenges to Implementing a Contract Based PES Program: A Collaborative Approach to Program Design



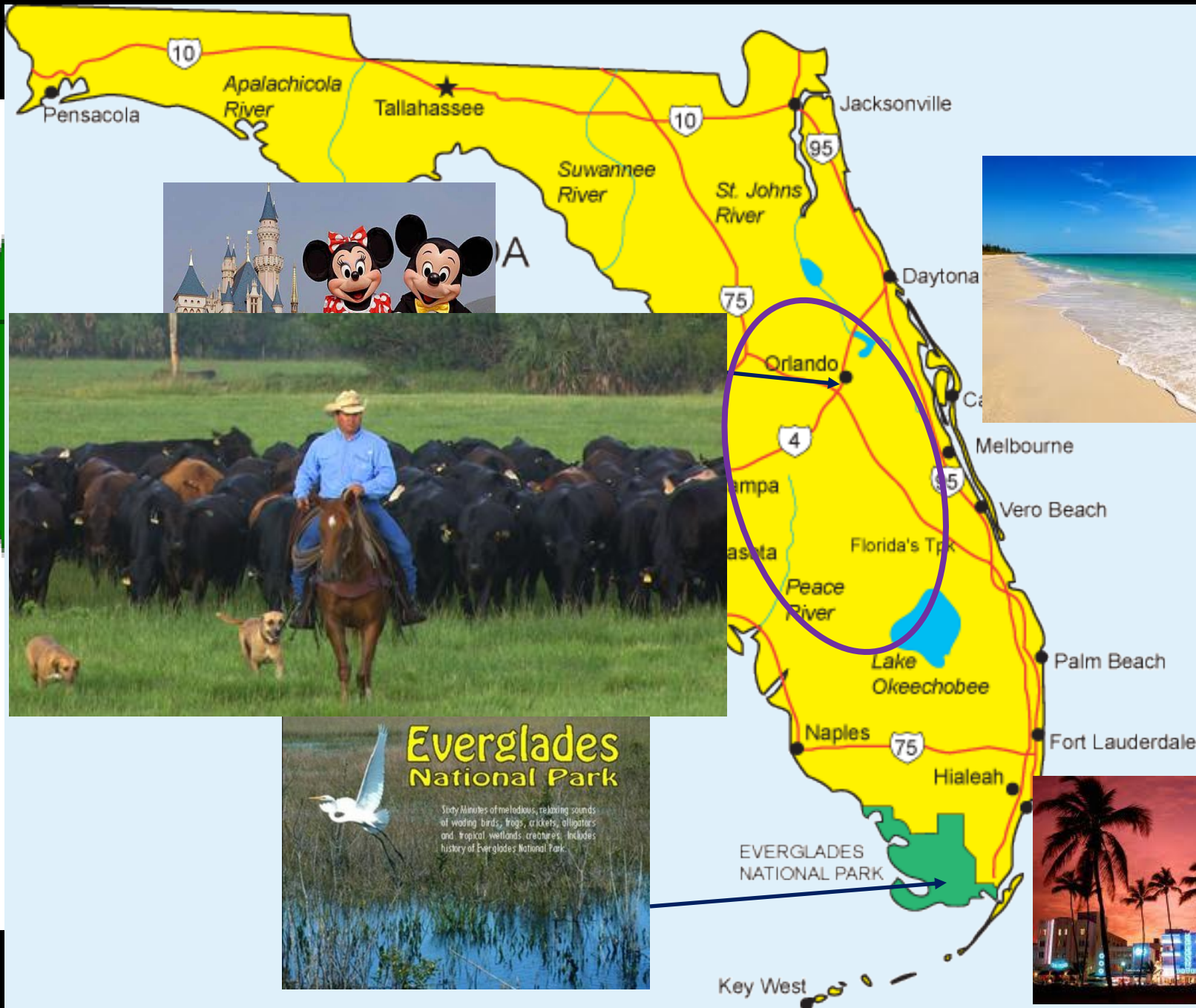
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RFF

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# Northern Everglades -- Payment for Environmental Services Program



- Key Design Elements
  - Site specific issues
  - Buyer – Government/User Hybrid
  - Use-Modifying => Contract not easement
  - Developed country => Regulatory issues
  - Program developed thru a collaborative stakeholder process driven by WWF



A



## Everglades National Park

Sixty Minutes of melodious, relaxing sounds of wading birds, frogs, crickets, alligators and tropical wetlands, creatures, includes history of Everglades National Park.









# Water Management



# Citrus



# Wildlife habitat and open space

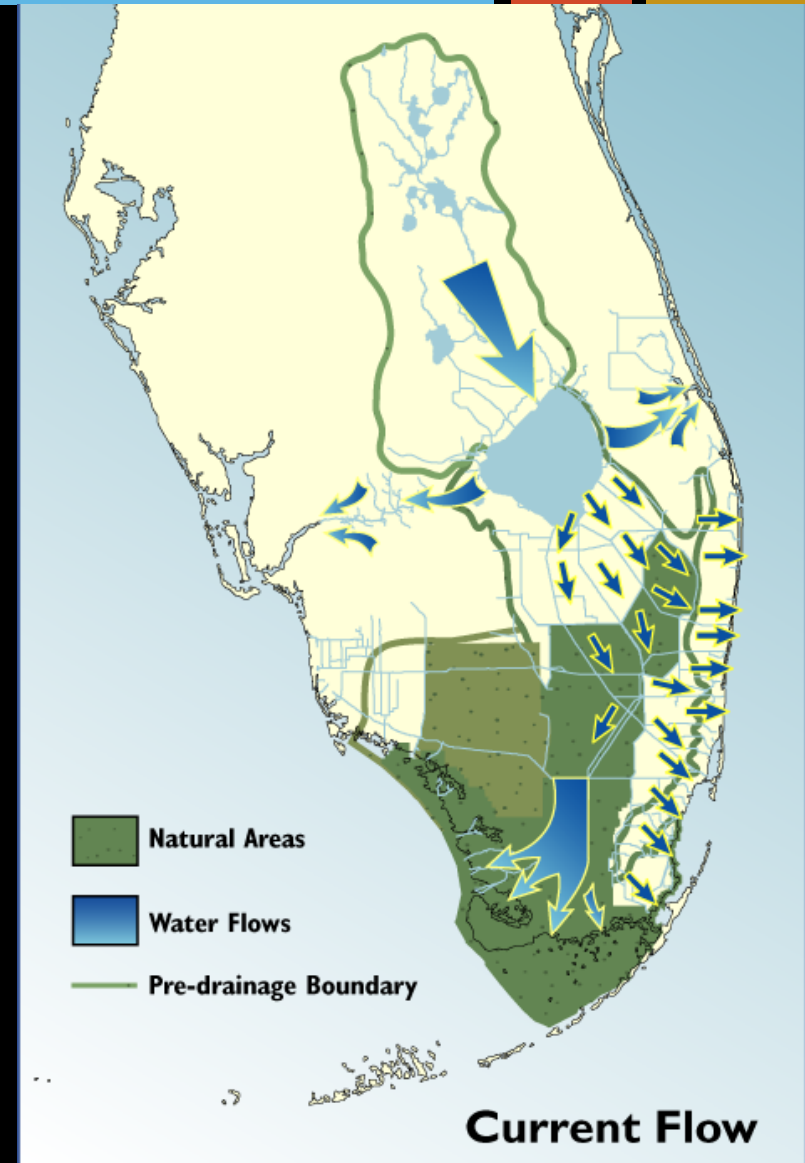


# Sod



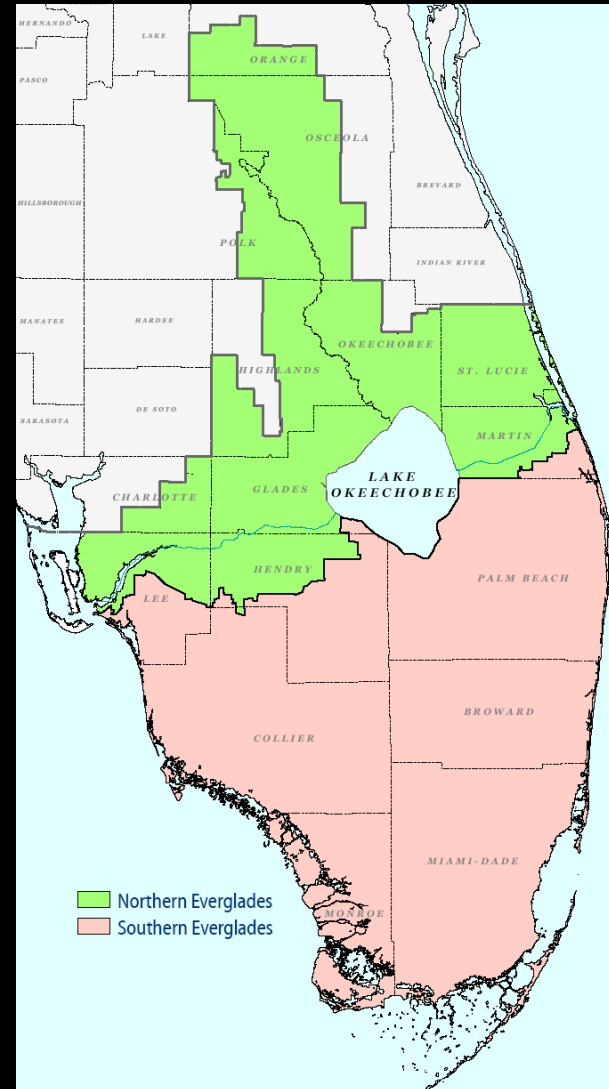


# The Northern Everglades & Estuaries are plagued with water quality & quantity problems, land conversion, & habitat loss



# The Buyer – South Florida Water Management District (SFWMD)

- Agency of state of FL responsible for:
  - Flood control
  - Water supply & quality
  - Everglades Restoration
  - Taxing & regulatory authority



# The Sellers – Ranchers in the Northern Everglades

Pumps



Culverts & riser boards



Impoundments



Ditch networks

Utilizing and modifying existing ranch water management infrastructure could sell water management services if it can be made economically profitable and fit regulatory constraints.



# 2005 Launched Florida Ranchlands Environmental Services Project (FRESP)



\$ 8 million pilot phase  
6 years (2005-2011)  
10,000 acres (4046 ha)  
8 Ranch Pilot Projects

- Goal to design a program to resolve institutional questions:
  - What services
  - How to provide cost effective documentation
  - Contract terms & enforcement
  - Links to regulatory programs
- WWF managed stakeholder process, fund raising, pilot projects

# FRESP: Collaboration created the operational PES Program



Participating Florida Ranchers



NRCS Natural Resources  
Conservation Service





# Market Design Concept for a PES Program

Extensive *working ranch landscapes*, relying on modification to existing water management structures and strategies, enter into *fixed term contracts* to provide *documented* water related environmental services, *above and beyond regulatory requirements* creating a new *profit center* for ranch enterprises.

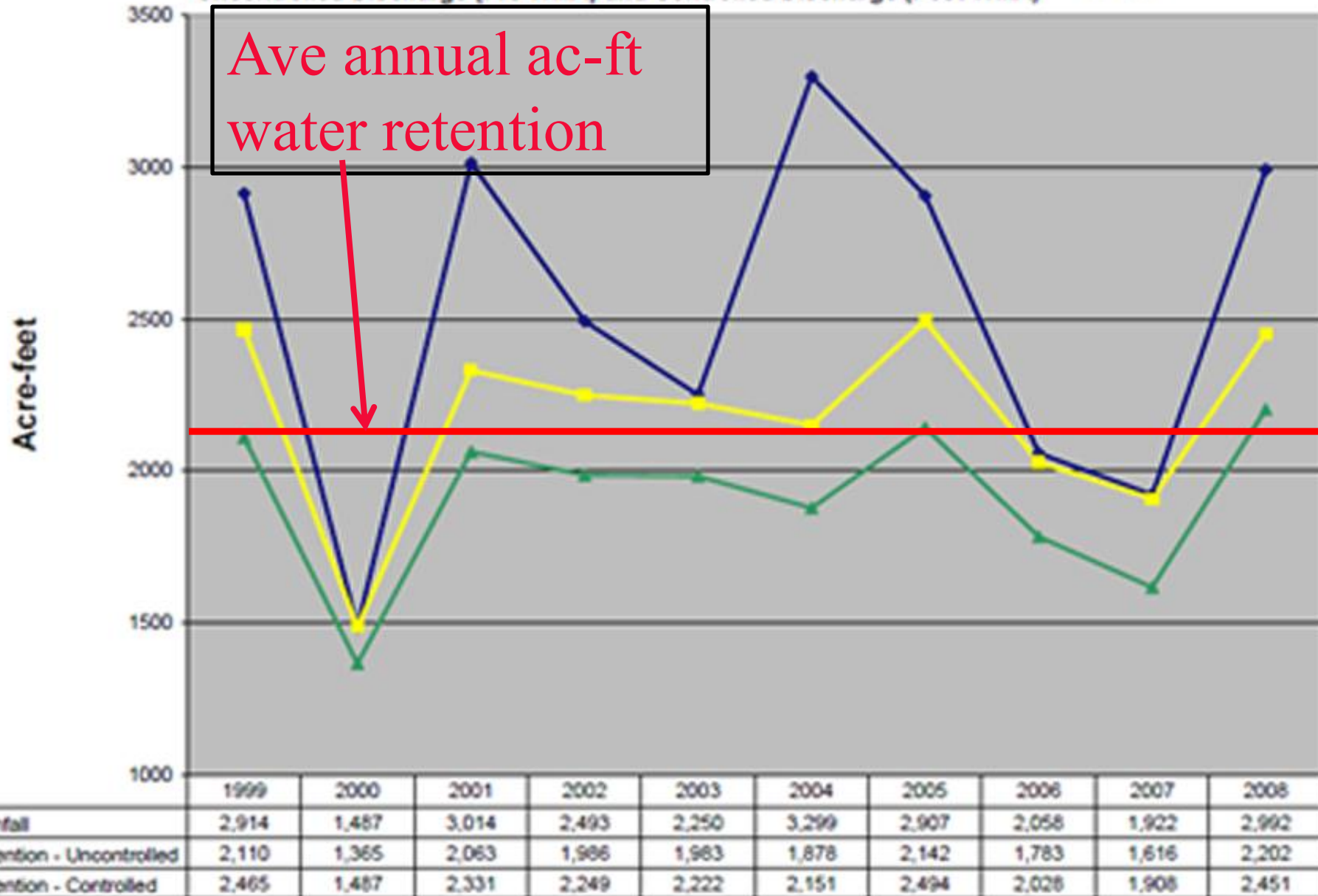
# POTENTIAL WATER RETENTION MODEL

Williamson Cattle Company - Basin 1

Annual Retention

Uncontrolled Discharge (Pre-WMA) and Controlled Discharge (Post-WMA)

Average Annual Retention  
(Post - Pre) = 266 ac-ft  
Average Annual Discharge (ac-ft)  
Pre = 621  
Post = 355





# Key contract elements



- Gov Agency-Buyer is acquiring ***a water management option that depends on rainfall.***
- Agency-buyer agrees to pay rancher-seller a fixed amount per year for the option to retain water.
- Payment in contract is based on estimated average annual water retention offered by the rancher seller (\$/af retained)
- Contract compliance related to rainfall
- Regulatory requirements and protections

# Annual payment conditional on verification of contract compliance not estimate of service

Payment for services

Annual service payment

Monthly Rancher Report

THB Service Level Spreadsheet

Address	Total Units	Landlord	Total THB	Record ID
Units 30, 35, 36 Beach Drive AB1 2CD	3	Anywhere HA	20.00	21
Units 1-10 Beach Drive AB1 2CD	10	Anywhere HA	24.00	22
Units 1-10 & 8190 Coast Road EF1 2GH	20	Somewhere HA	16.00	20
Units 1125 Coast Road EF1 2GH	15	Somewhere HA	10.80	19
..	..	..	..	..

1 For Record ID 21, a query using postcode has multiple hits

2 Upon inspection of the entire address, three records are assigned the Record ID 21

Transitional Service User Means Schedule

User Surname	User Forename	Address Line 1	Address Line 2	Postcode	NINO	Service Id	Total THB	HB Award
Brown	Thomas	Unit 35	Beach Drive	AB1 2CD	NY333333C	21	20.00	14.00
Jones	Richard	Unit 1	Beach Drive	AB1 2CD	NY555555E	21	24.00	28.00
Newton	Sally	Unit 4	Beach Drive	AB1 2CD	NY888888H	21	24.00	23.50
Sinclair	Frank	Unit 36	Beach Drive	AB1 2CD	NY222222B	21	20.00	6.00
Watkins	Anne	Unit 30	Beach Drive	AB1 2CD	NY111111A	21	20.00	60.00
..	..	..	..	..	..	..	..	..

Stage & Rainfall Measurement

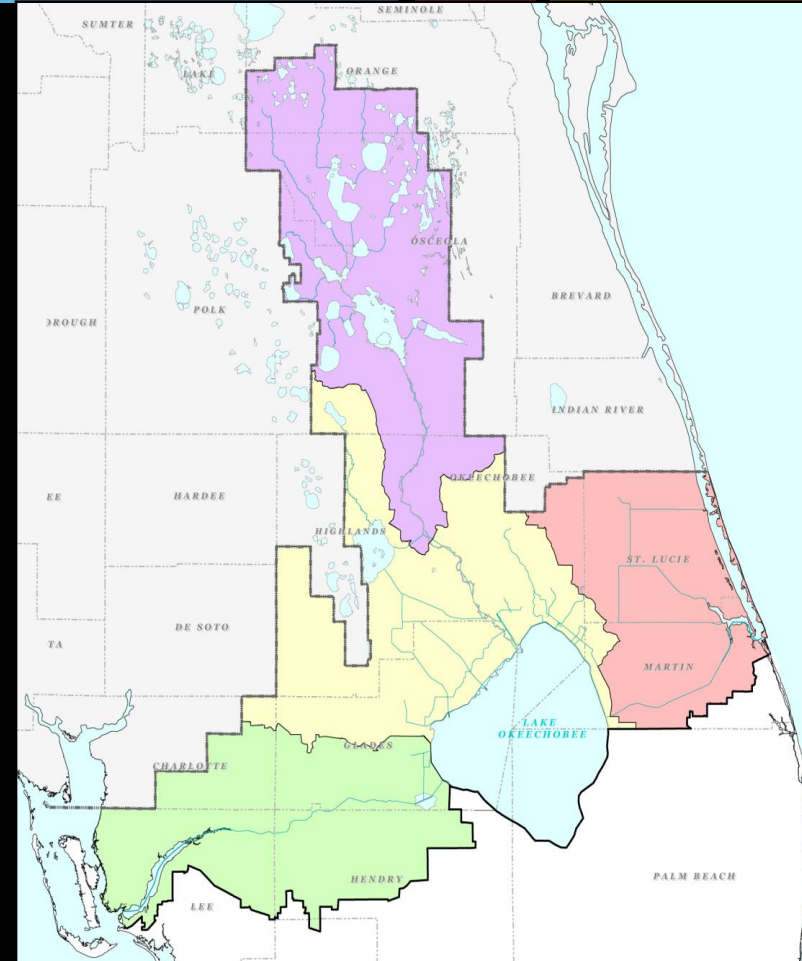


Monthly site visit



# NE PES Program Launched Jan 2011

- First Solicitation
  - 14 proposals/8 projects selected providing 4,800 ac-ft/yr retention
  - Contract obligation of \$7 mill over 10 yr life of contract
  - Price per ac-ft ranged from \$99 to \$158
- Preparing for 2<sup>nd</sup> solicitation - winter 2012



# Contact Information

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