



Payment for Environmental Services

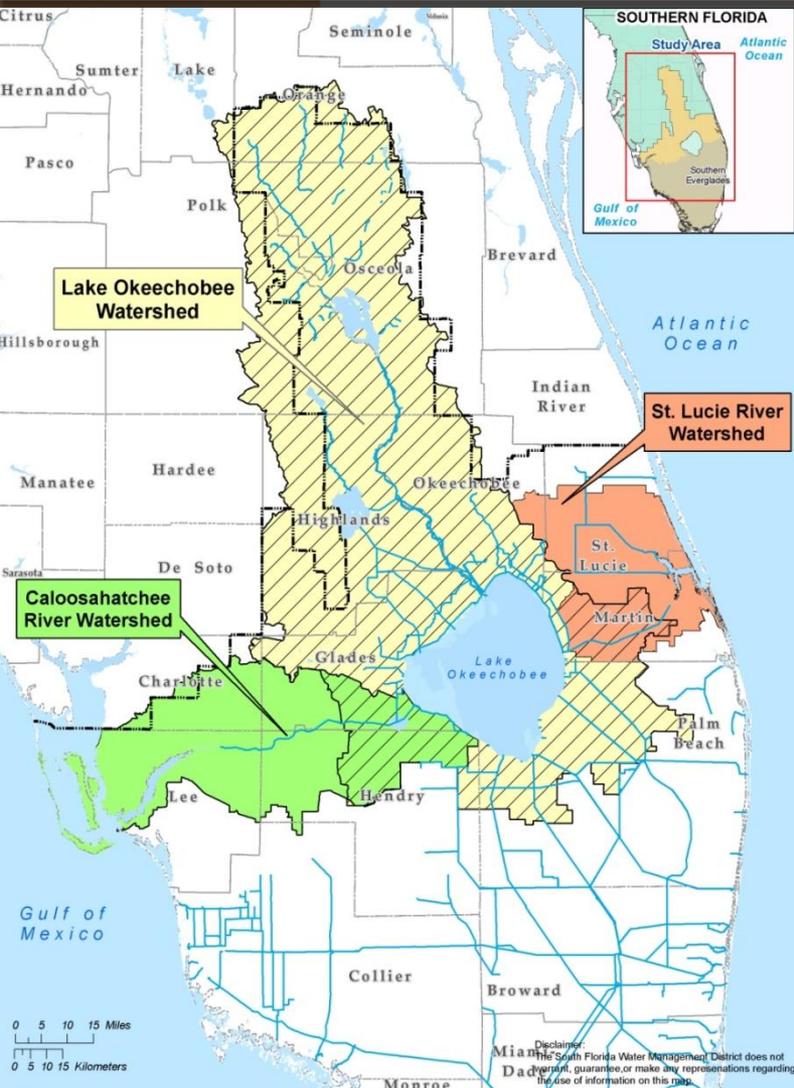
Governing Board Workshop, August 11, 2010

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Water Resource Regulation Department

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Northern Everglades and Estuaries Protection Program Legislation (2007)



- **Required development of Plans to identify water quality and storage projects in three northern watersheds**
 - **Lake Okeechobee Watershed Construction Project Phase II Technical Plan - by February 1, 2008**
 - **Caloosahatchee and St. Lucie Rivers Watershed Protection Plans - by January 1, 2009**

Northern Everglades Dispersed Water Management



- **Developed all three Protection Plans through public planning process**
- **Storage and Treatment Targets**
 - **Lake Okeechobee - 900,000 to 1,300,000 ac-ft**
 - **Caloosahatchee - 400,000 ac-ft**
 - **St. Lucie - 200,000 ac-ft**
 - **Lake Okeechobee TP TMDL=140 MT**
 - **Combination of regional storage, dispersed water management and Aquifer Storage and Recovery**

Approaches with Landowners



- **Easements**
 - e.g. Fisheating Creek Wetland Reserve Program

- **Cost-share**
 - e.g. Istokpoga Marsh Watershed Improvement District

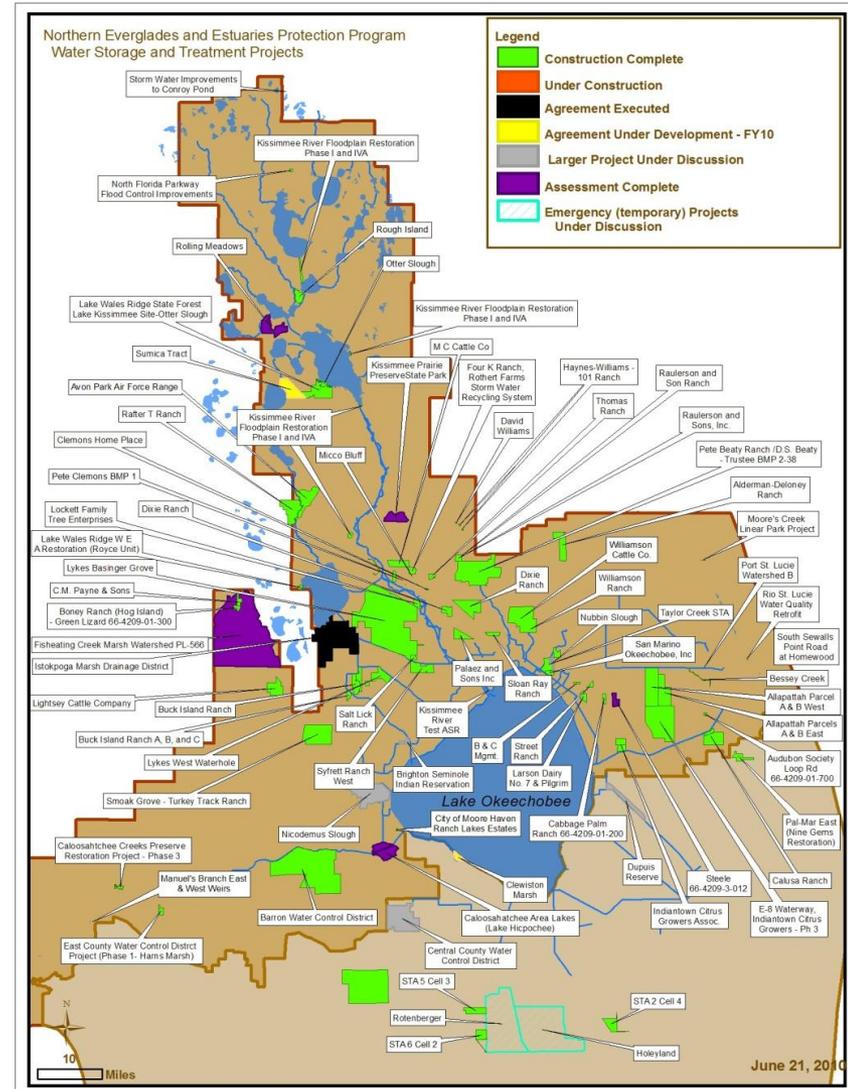
- **Payment for Environmental Services**

Approaches with Landowners (continued)

- **Easements**
 - **USDA NRCS Wetland Reserve and Reserved Rights Pilot Program**
- **Cost-share**
 - **FL Department of Ag & Consumer Services (BMPs)**
 - **USDA NRCS Environmental Quality Incentives Program (EQIP)**
 - **Alternative Water Storage/Disposal**
 - **Alternative Water Supply**
 - **Watershed restoration efforts and St. Lucie and Caloosahatchee initiatives**
- **Payment for Environmental Services (PES)**
 - **Florida Ranchlands Environmental Services Project**
 - **Water Farming concept**

Status Update: All Projects

- ~128,250 ac-ft (equates to approximately 3" off lake) since Oct 2005
- Assessed/Planned Projects may provide an additional 326,400 ac-ft of storage in the future



Payment For Environmental Services Initiatives

- **Time-limited federal research grants**
 - **BMP cost-share**
- **Term Land Retirement/Reservation**
 - **Competitive lease rate**
- **Offset programs in water quality trading and mitigation banking renamed to PES**
- **St. Johns River Water Management District's Lake Jessup Water Quality project (pre-negotiated rate of \$227 for each pound of TP removed)**
- **Northern Everglades PES**
 - **Unique; Buyer directed revenues to purchase defined water management services (acre-feet of retention and pounds of TP)**

Payment For Environmental Services FL Ranchlands Environmental Services Project

FRESP Objectives:

- **Create additional options for water retention and nutrient load reduction on working agricultural lands (contracts not easements)**
- **Contribute to rural economic sustainability**
- **Design solicitation and contracting process that is transparent, scalable, and feasible to administer**

Payment for Environmental Services FRESP Pilot Projects

Annual Average Estimate of FRESP WMA Acres, Water Retention and P Retention

	WMA Service Area (Acres)	PWRM Estimate of Incremental Retention (Ac Ft)	Annual Estimated P Reductions Post WMA (Lbs P)	Annual Estimated P Reductions (MT P)
Rafter T* Ranch	1624	850	795	
Lightsey XL Ranch	364	227	295	
Payne & Sons Ranch	367	164	295	
Syfrett* Ranch	2197	939	878	
Williamson Ranch	659	303	139	
Alderman – Deloney Ranch	322	138	40	
Buck Island Ranch	3748	2411	3434	
Total Water Retention WMAs	9281	5032	5876	2.7
Lykes West Waterhole Pasture	2500	NA	7220	
Total Across P Reduction WMA	2500	5600	7220	3.3
Total All WMAs	11781	10632	13096	6

Payment for Environmental Services FRESP Implementation Team

- Includes staff from SFWMD, FDACS, NRCS, FDEP and FRESP
- Program tools/processes:
 - Wetlands – ACOE General Permit
 - Threatened and Endangered Species – USFWS Consultation Key
 - Baseline BMP water retention
 - Models – comparable service estimates
 - Nutrients – site assessment resulting in start-up and contract close-out actions
 - Pricing – tool for ranchers, competition driven
- Technical staff from FDACS and NRCS are being trained to provide assistance

Payment for Environmental Services

FRESP Lessons Learned

- **Dispersed water management is the commodity produced on ranch**
 - **Buying the option to retain water in the project footprint**
 - **Water retention commodity IS NOT REGIONAL STORAGE**
 - **Rancher is active manager not District**
- **Characteristics of buying services (water or P load retention)**
 - **Immediacy, flexibility, reversibility and phasing but not permanent**
 - **Secondary benefits include habitat enhancement and the other complimentary service**
 - **Paying ranchers maintains tax rolls & rural employment and sustains communities; no payment in lieu of taxes**

Proposed PES Program Concepts

- **Northern Everglades Ranchlands**
- **Baseline Best Management Practices under executed FDACS Notice of Intent**
- **Services provided above-and-beyond**
- **General models for consistent services estimation**
- **Competitive requests for payment**
- **Separation of larger and smaller sized service providers**

Proposed PES Program Concepts Funding Timeline

	Year	1	2	3	4	5	6	7	8	9	10*
SMALLER Projects	Capital	\$2M	\$3M	New capital	→						
	Service Payment		\$1M	\$1M	Out-year service payment commitment increases with new annual capital investment						
LARGER Projects	Capital	\$500K	\$3M	New capital	→						
	Service Payment			\$2M	Out-year service payment commitment increases with new annual capital investment						
	Total	\$2.5M	\$7M	\$3M	Include new capital expenditures plus service payments from all contracts						

*Renewal options

Board Considerations

- **Adaptive Management (incorporating lessons learned)**
- **Dedicated multi-year funding source**
- **Monitor performance/scale-up decision**
- **“Rent” versus Own**
- **Integration of large projects**