

**COMMITTEE MEETING EXPANDED AGENDA**

**ENVIRONMENTAL PRESERVATION AND CONSERVATION**

**Senator Dean, Chair**

**Senator Abruzzo, Vice Chair**

**MEETING DATE:** Wednesday, October 9, 2013

**TIME:** 4:00 —6:00 p.m.

**PLACE:** *Toni Jennings Committee Room, 110 Senate Office Building*

**MEMBERS:** Senator Dean, Chair; Senator Abruzzo, Vice Chair; Senators Altman, Bullard, Gardiner, Grimsley, Latvala, Simpson, and Soto

TAB	BILL NO. and INTRODUCER	BILL DESCRIPTION and SENATE COMMITTEE ACTIONS	COMMITTEE ACTION
1	Overview of agricultural water policies and procedures affecting water quality and quantity by Rich Budell, Director, Office of Agricultural Water Policy, Department of Agriculture and Consumer Services		Discussed
2	Annual status report on regional water supply planning by the Department of Environmental Protection		Discussed
Other Related Meeting Documents			

# FDACS Role in Water Resource Protection, Conservation and Planning

Florida Senate Environmental Preservation and  
Conservation Committee  
Senator Charles Dean, Chair

October 9, 2013

Presentation by: Rich Budell, Director  
FDACS Office of Agricultural Water Policy



# Water Resource Protection

- Watershed Restoration Act (s.403.067 F.S.)
- Northern Everglades & Estuaries Protection Act (s. 373.4595 F.S.)
- Nitrogen Control (s. 576.045 F.S.)
- Aquaculture Policy Act (Ch. 597 F.S.)

## BMP Implementation Status-

- Forestry – 5.64 Million acres
- General Agriculture – 3.7 Million acres
- Certified Aquaculture Facilities – 900+



# Water Quality BMPs – What are they?

- Practice or combination of practices based on research, field-testing and expert review, to be the most effective and practicable on-location means, including economic and technological considerations, for improving water quality in agricultural and urban discharges
- Nutrient (nitrogen & phosphorus) Management
- Stormwater Management
- Irrigation Management
- Fencing / Buffers near Waterways



# BMPs – What do they look like?



# BMPs – What do they look like?



# BMPs – What do they look like?

## Observation Wells



## Weather Stations



## Soil Moisture Monitoring



# Statewide BMP Enrollment as of 6/30/13

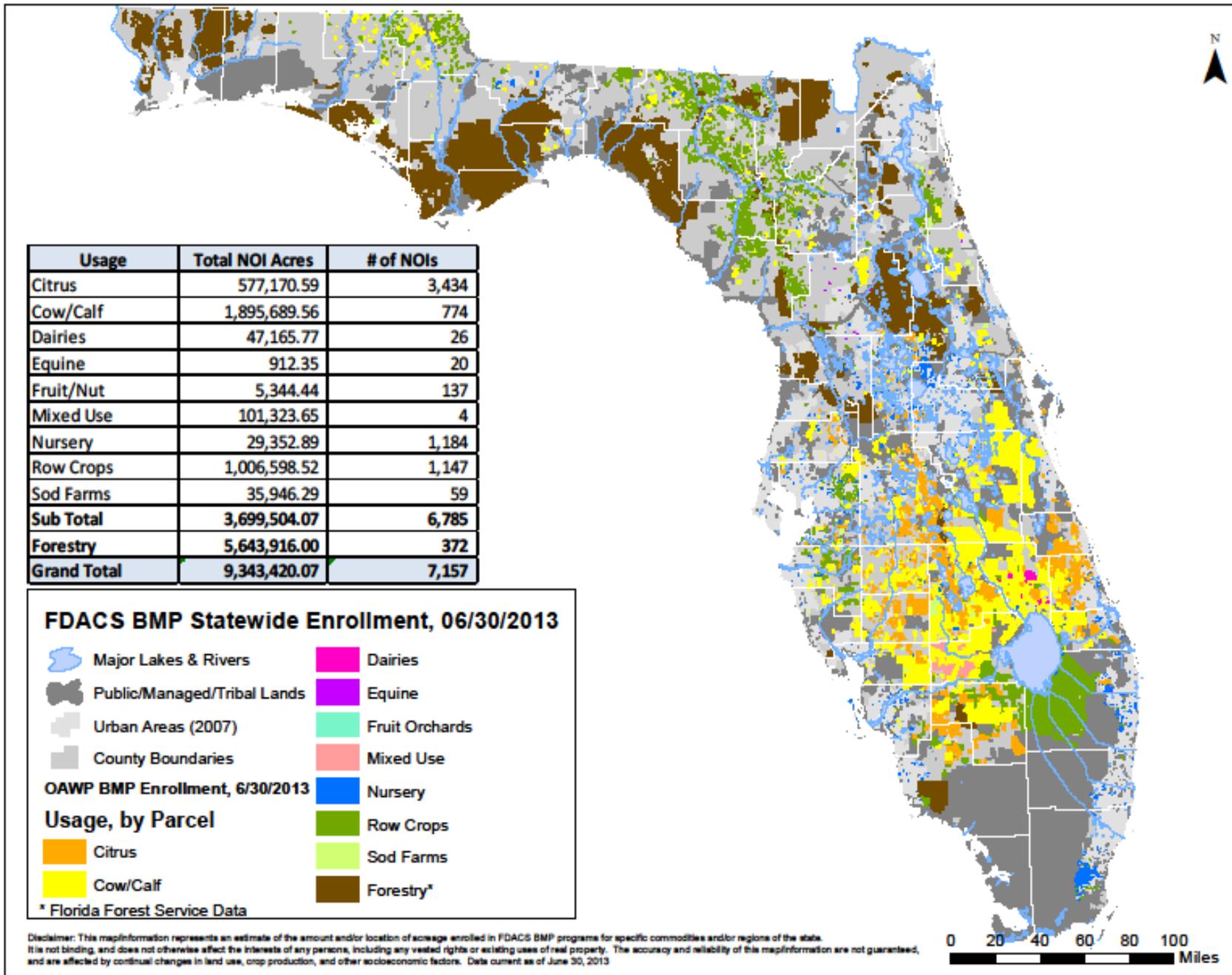
**Statewide Non-Forestry - 3.7 million acres, including  
(rounded numbers):**

- **Cow/Calf - 1.9 million acres**
- **Row Crops - 1 million acres**
- **Citrus - 580,000 acres**
- **All other - 220,000 acres**

**Statewide Forestry (rounded number): 5.64 million acres**



# Statewide BMP Enrollment



# Water Resource Conservation

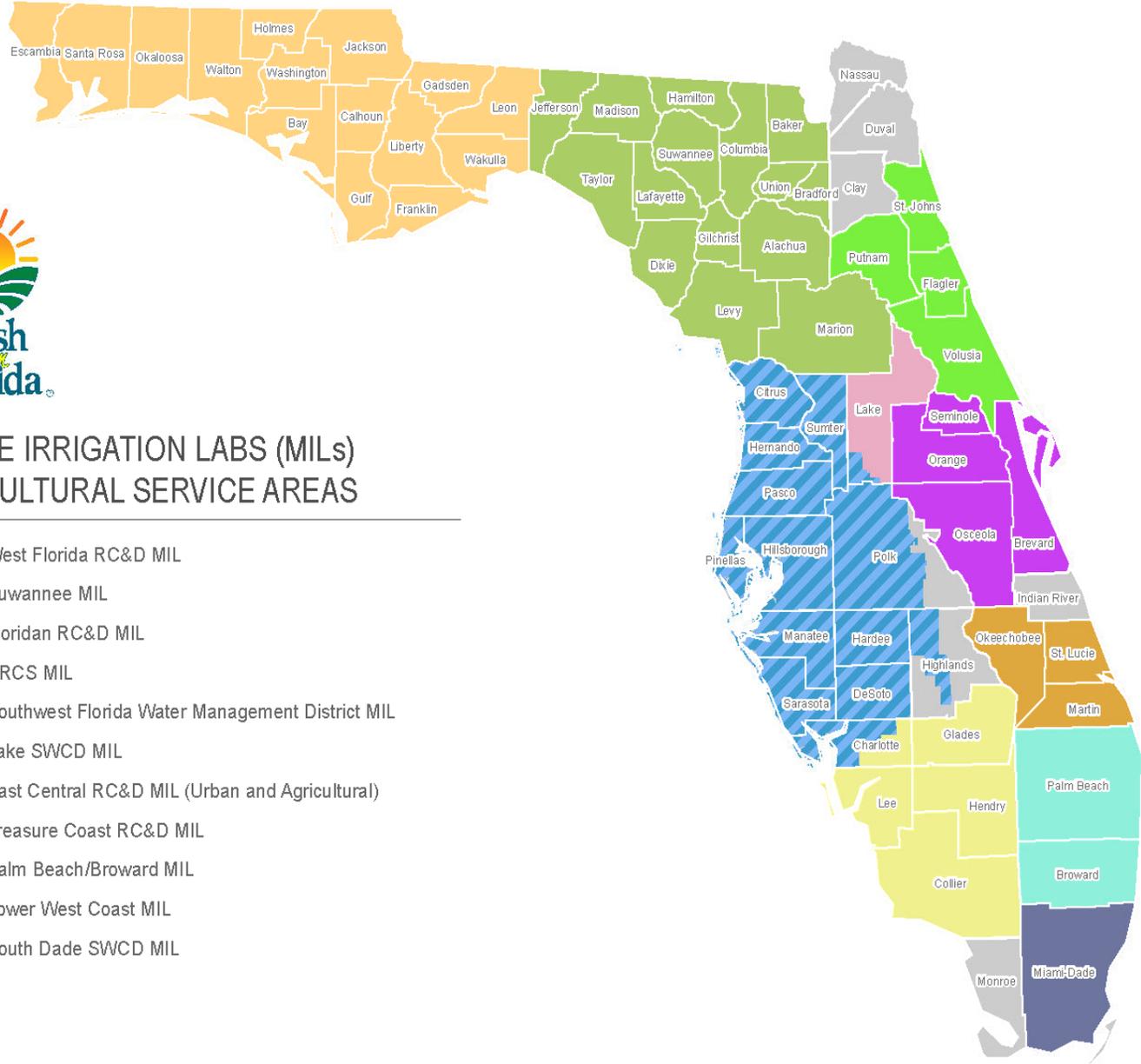
- Agriculture is second largest user of fresh water in Florida
- Access to adequate quantities of fresh water is critical
- Commitment to conservation/efficiency (Mobile Irrigation Laboratories)
- In partnership with water management districts to develop alternative water supply projects
- Participate with stakeholders to develop innovative water storage programs on private lands
- Preserving agricultural lands is critical for water storage and treatment, ground water recharge, and wildlife corridors





## MOBILE IRRIGATION LABS (MILs) AGRICULTURAL SERVICE AREAS

-  West Florida RC&D MIL
-  Suwannee MIL
-  Floridan RC&D MIL
-  NRCS MIL
-  Southwest Florida Water Management District MIL
-  Lake SWCD MIL
-  East Central RC&D MIL (Urban and Agricultural)
-  Treasure Coast RC&D MIL
-  Palm Beach/Broward MIL
-  Lower West Coast MIL
-  South Dade SWCD MIL



June 2012









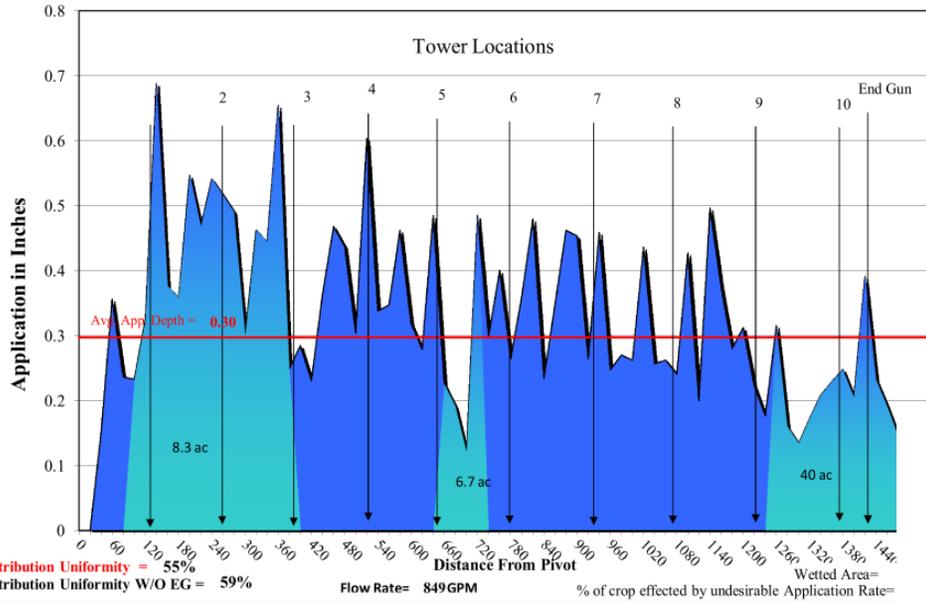
### Radford Farms Left Side

Resource Conservation Partners  
P.O. Box 961, 1303 Riverside Dr.,  
Steinhatchee, FL 32359  
(386)-209-5301

#### Application Uniformity

Ver. 5.3.2

As of: March 9, 2012



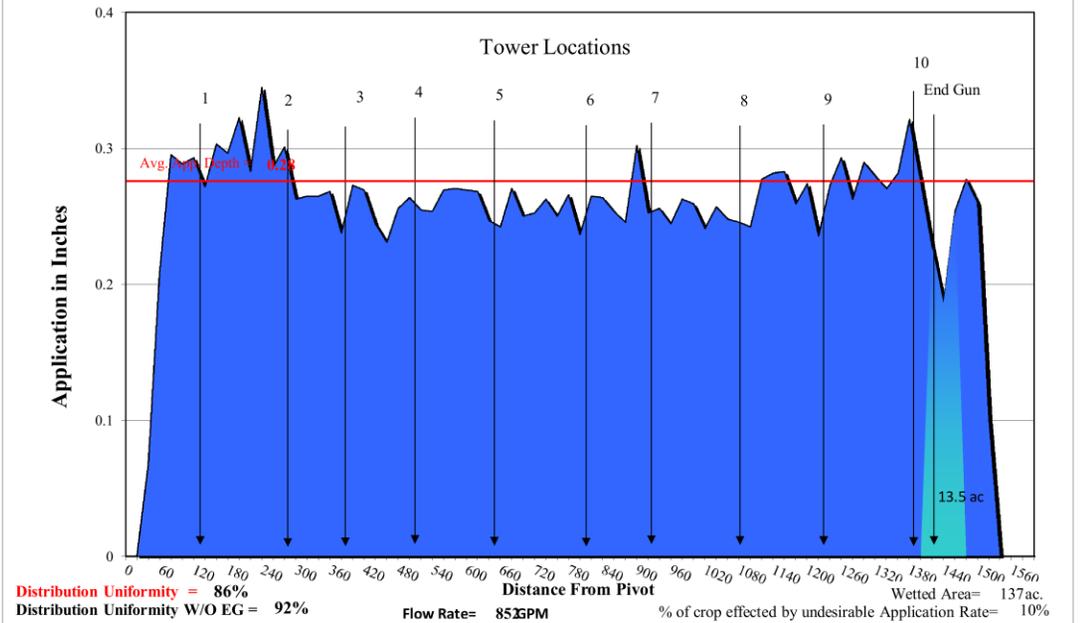
### Radford Farms Left Side

Resource Conservation Partners  
P.O. Box 961, 1303 Riverside Dr.,  
Steinhatchee, FL 32359  
(386)-209-5301

#### Application Uniformity

Ver. 5.4.4

As of: June 19, 2012



# Water Resource Conservation

- Conducted nearly 6000 system evaluations
- Covering 220,000 acres
- Documented conservation of nearly 30 mgd
- Estimated conservation of over 50 mgd



# Agricultural Water Supply Planning

## A Simple Process:

- Determine existing irrigated agricultural acreage
- Project future irrigated agricultural acreage
- Project future agricultural water supply demand



# Agricultural Water Supply Planning

Challenges in characterizing crop trends:

- Diversity of Florida agriculture
- Changing economic conditions
- Climate events (droughts, storms)
- Pests and diseases
- Changing markets and consumer preferences



# Water Supply Challenges

- For the first time, domestic supply has overtaken agriculture as the largest permitted water user.
- By 2030 Florida's overall demand for fresh water is projected to increase by 30% - agricultural supply demand is projected to remain flat.
- Minimum Flows and Levels (MFLs)
- Competition issues:
  - Dover/Plant City
  - Central Florida Water Initiative
  - North Florida Regional Water Supply Plan
  - Lake Okeechobee



# Water Supply Challenges

- Agriculture is a “self-supplier” of water – cannot pass on the costs of wells, pumps, etc.
- Only 2.8% of all water on the planet is fresh
  - 75% of which is tied up in ice caps and glaciers
  - Remaining 25% of fresh water is ground water and surface water
  - A whopping 0.7% of all the water on the earth....
- Projected population growth from 7 to 9 billion by 2050
- Food production will have to increase 70%
- Water available for agriculture will decrease



“We live in a highly industrialized and urban culture, but it is important to remember that there is no such thing as a post-agricultural society. Policy decisions concerning agriculture, our environment, water supply and land use need to reflect this fundamental truth.”

- Timothy Weiskel 1990



# Florida Department of Environmental Protection



## Regional Water Supply Planning and Reservoirs

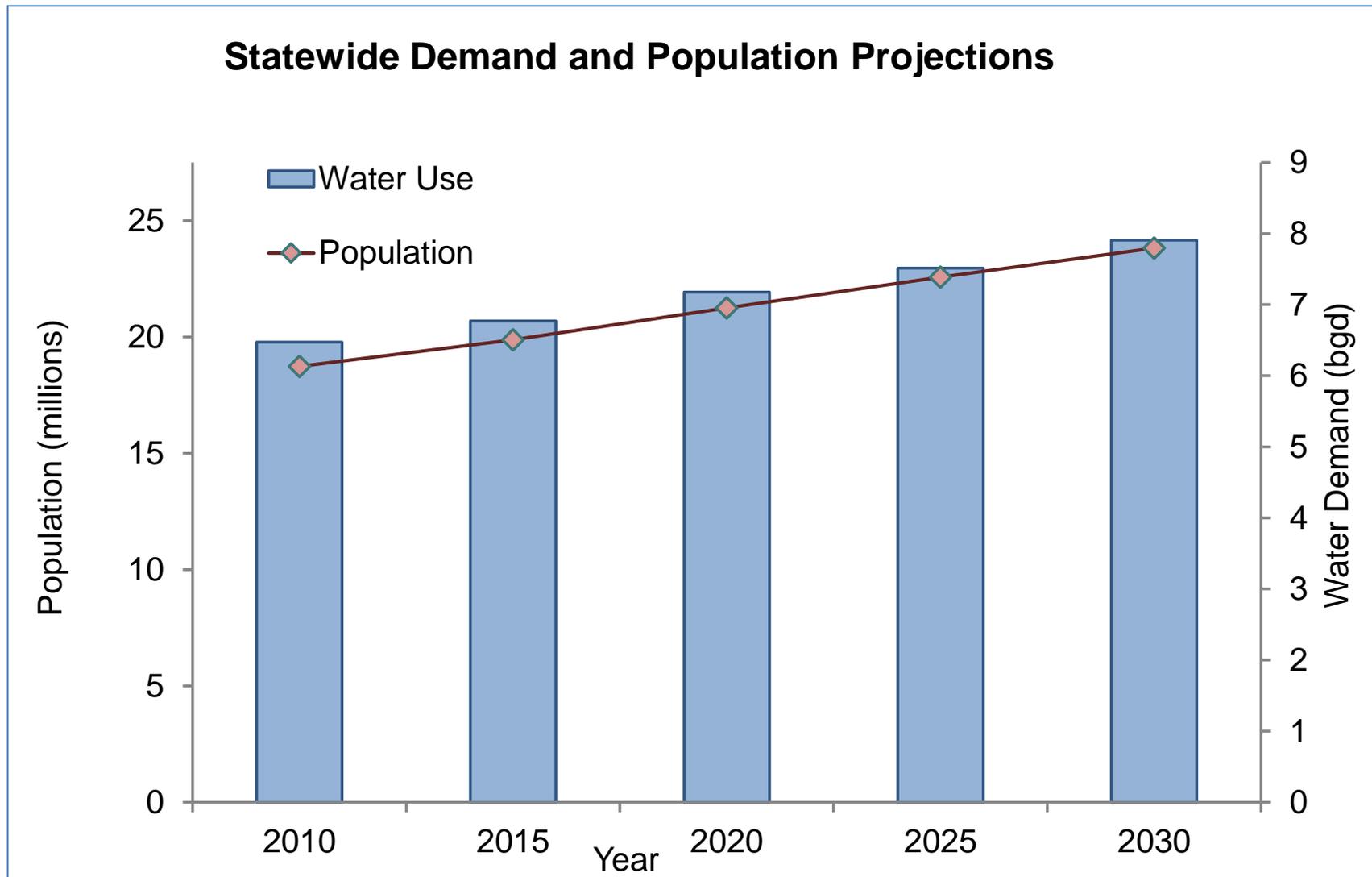
Senate Environmental Protection Committee

October 9, 2013

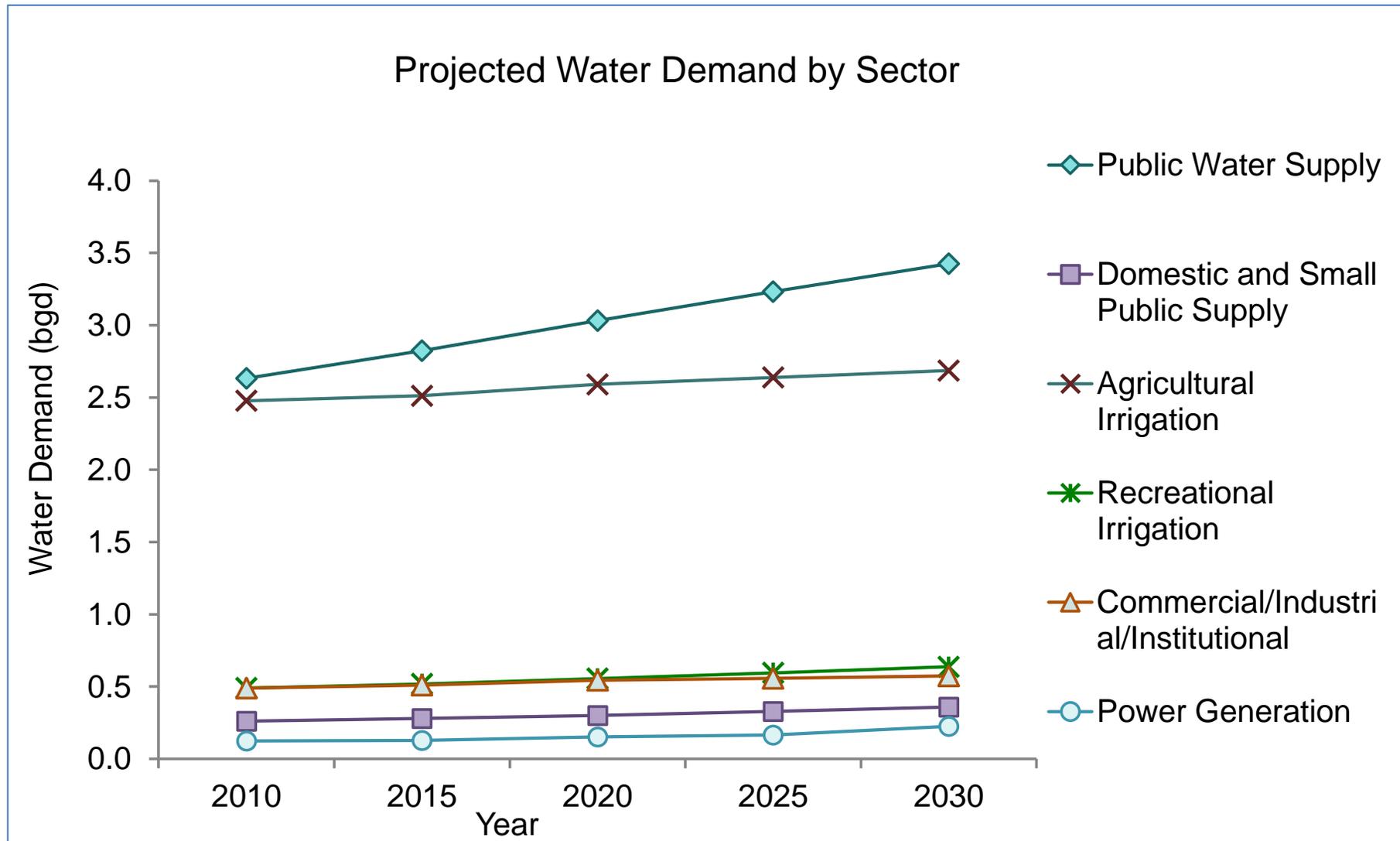




# Water Use and Population



# Who Uses the Water ?



# *How to Meet Future Demand?*

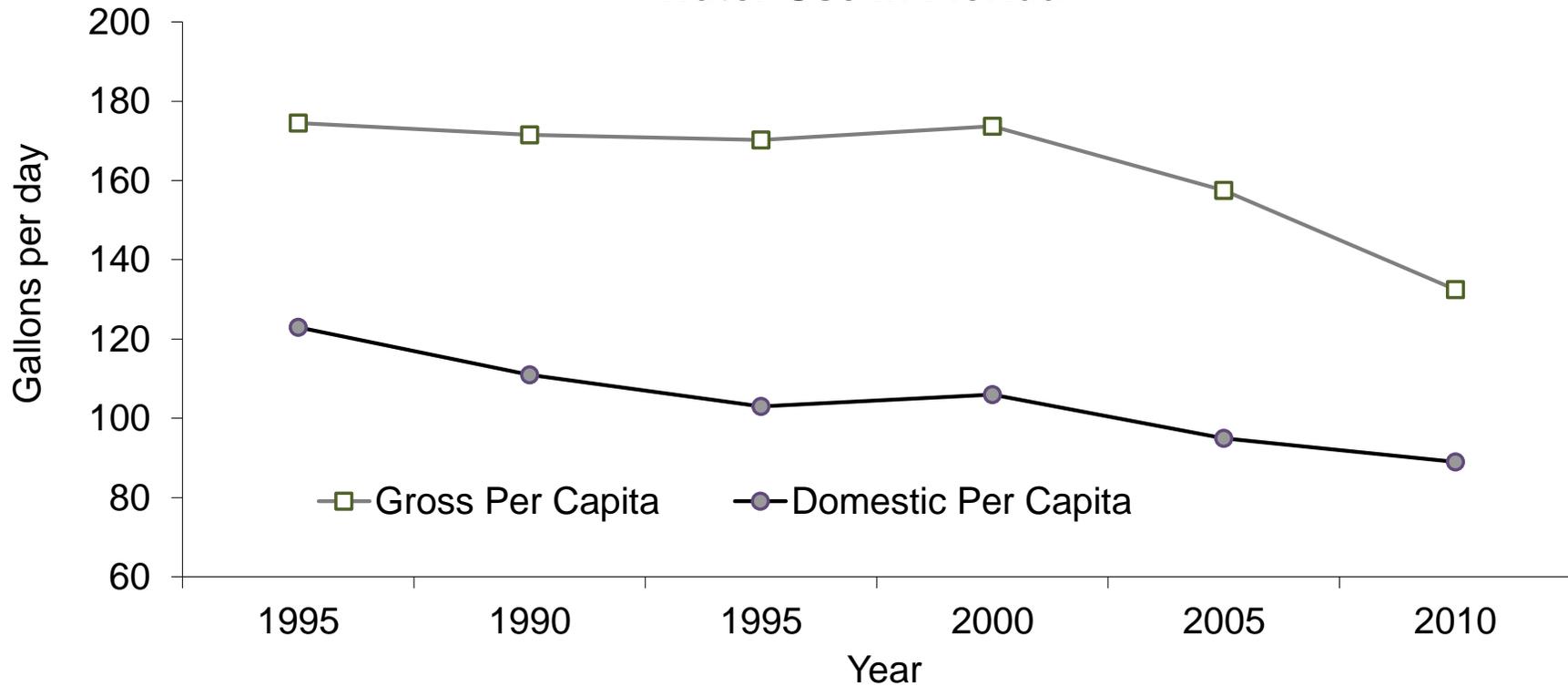
- Develop more water supplies
  - Traditional fresh groundwater
  - Alternative Water Supplies (defined in Ch.373.019(1), F.S.)
- Conservation
  - Increased water use efficiency





# Water Conservation

**Public Supply Gross and Domestic (Residential) Per Capita Water Use in Florida**

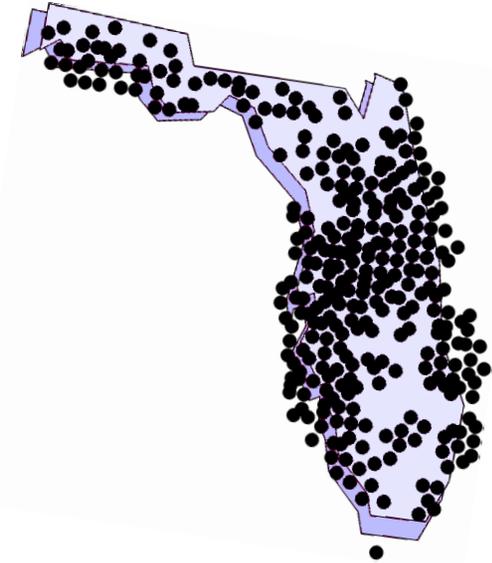




# *AWS -Reclaimed Water*

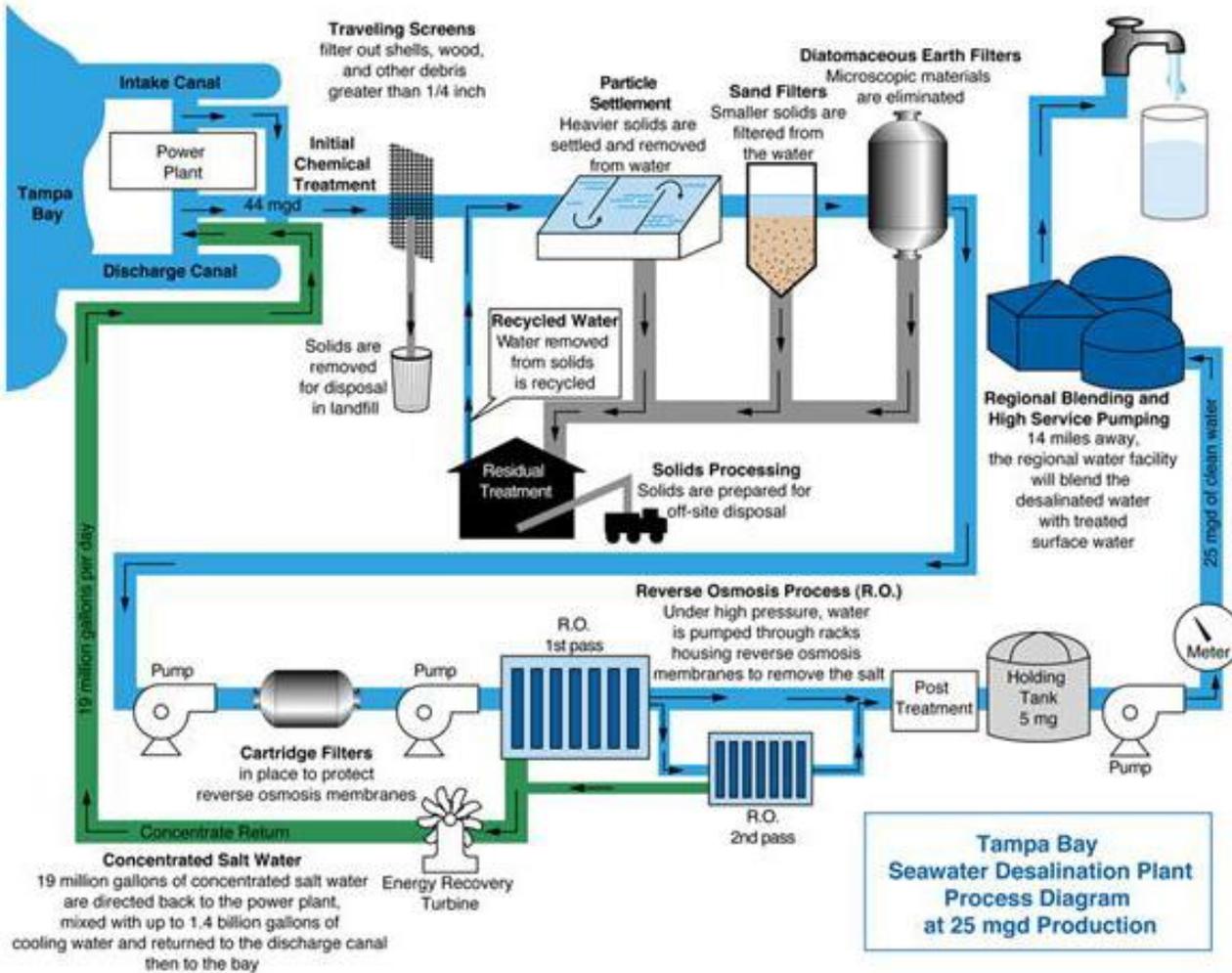


- 486 Reuse Facilities Statewide
- 725 MGD Reused in 2012
- 45% of Wastewater Flow reused
- National Leader in Reuse



**We're # 1!**

# AWS - Seawater and Brackish Groundwater





# *AWS - Water Storage*

Aquifer Storage  
and Recovery  
(ASR)



Surface Water Reservoirs





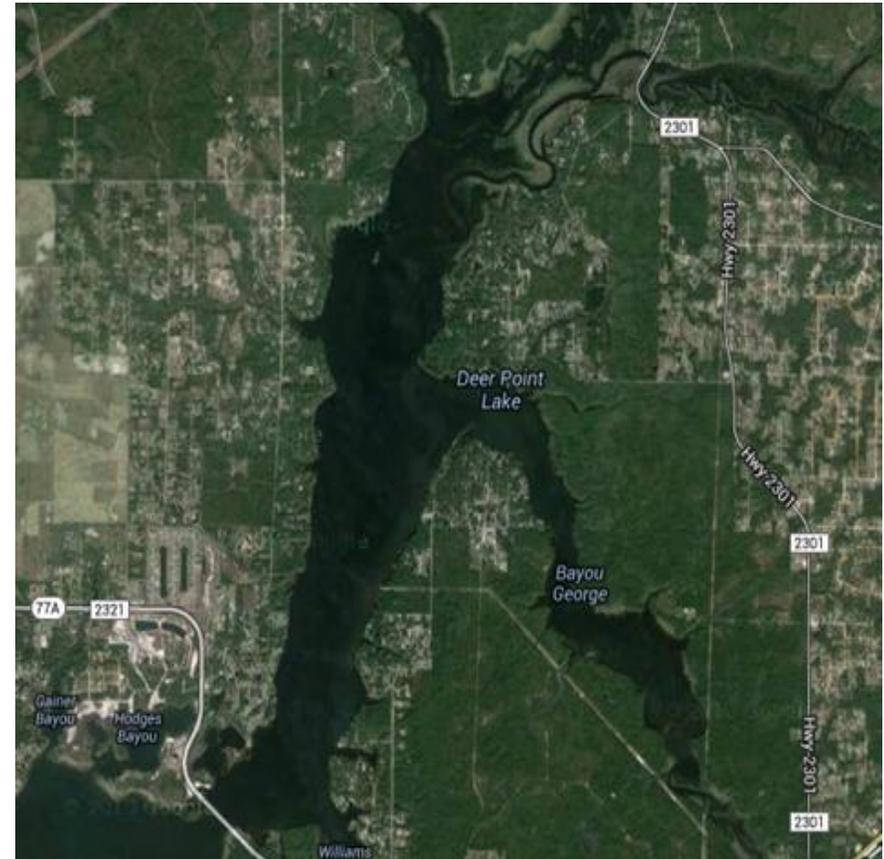
# Existing Water Supply Reservoirs

## Eight Older Reservoirs

- Built in 1960s or earlier
- “On-line” or within natural water bodies
  - Hillsborough River Reservoir (City of Tampa) – 82 MGD
  - Deer Point Lake – 98 MGD (Bay County)

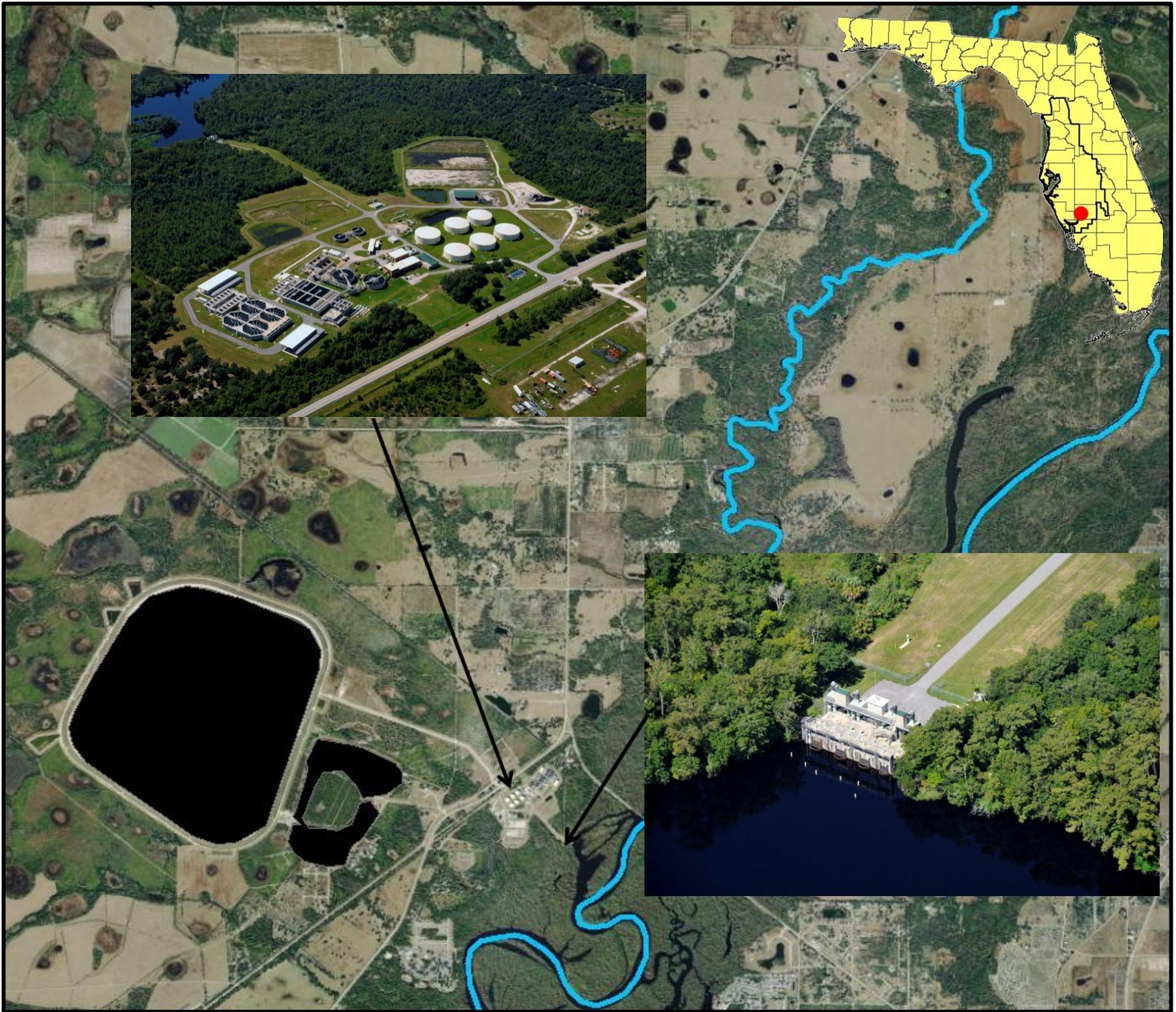
## Two Newer Reservoirs

- Built “Offline”
  - Peace River – 32.7 MGD (PRMRWSA)
  - C.W. Bill Young - 99 MGD (Tampa Bay Water)



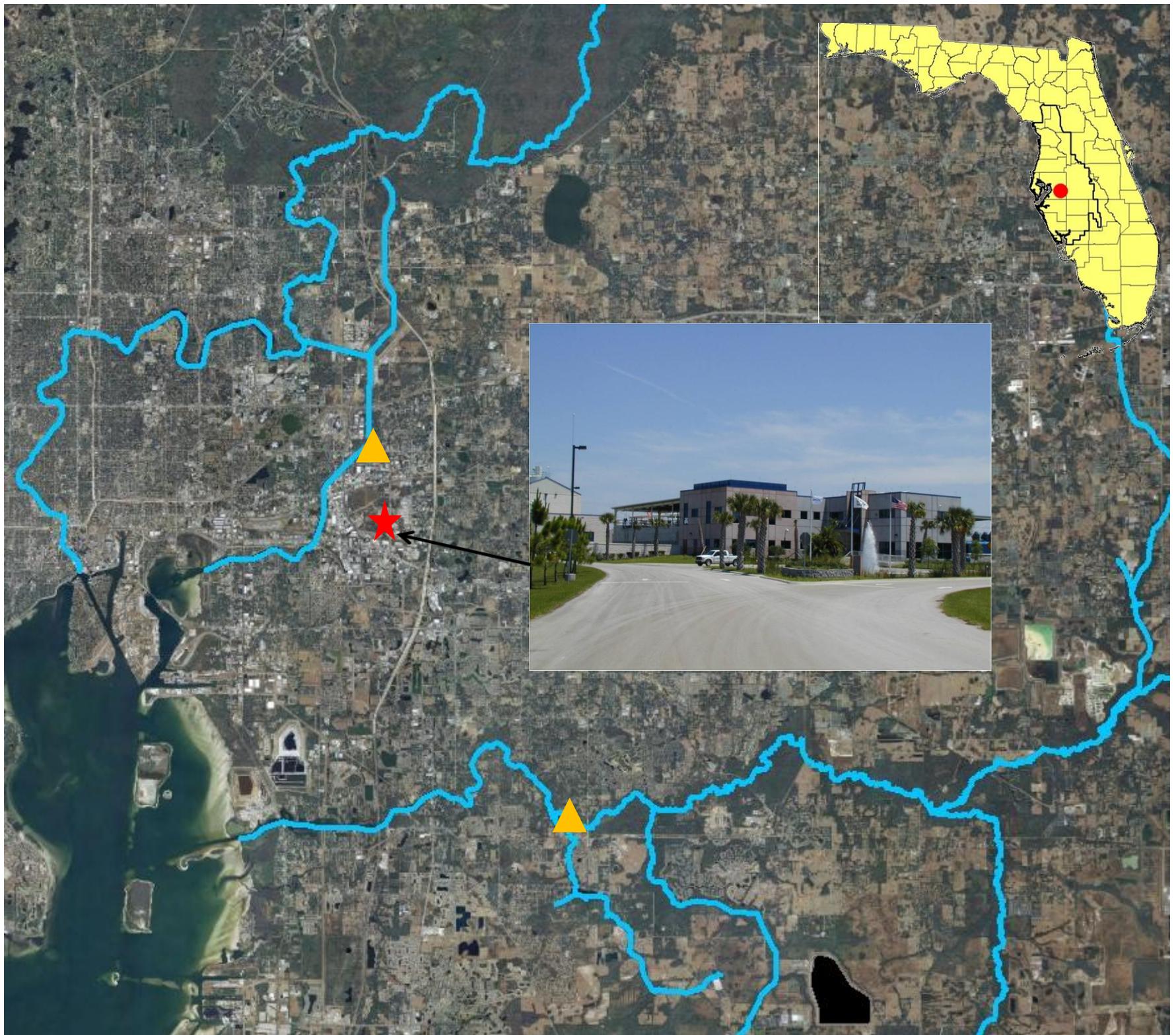
# Peace River Regional Reservoir





# C.W. Bill Young Reservoir





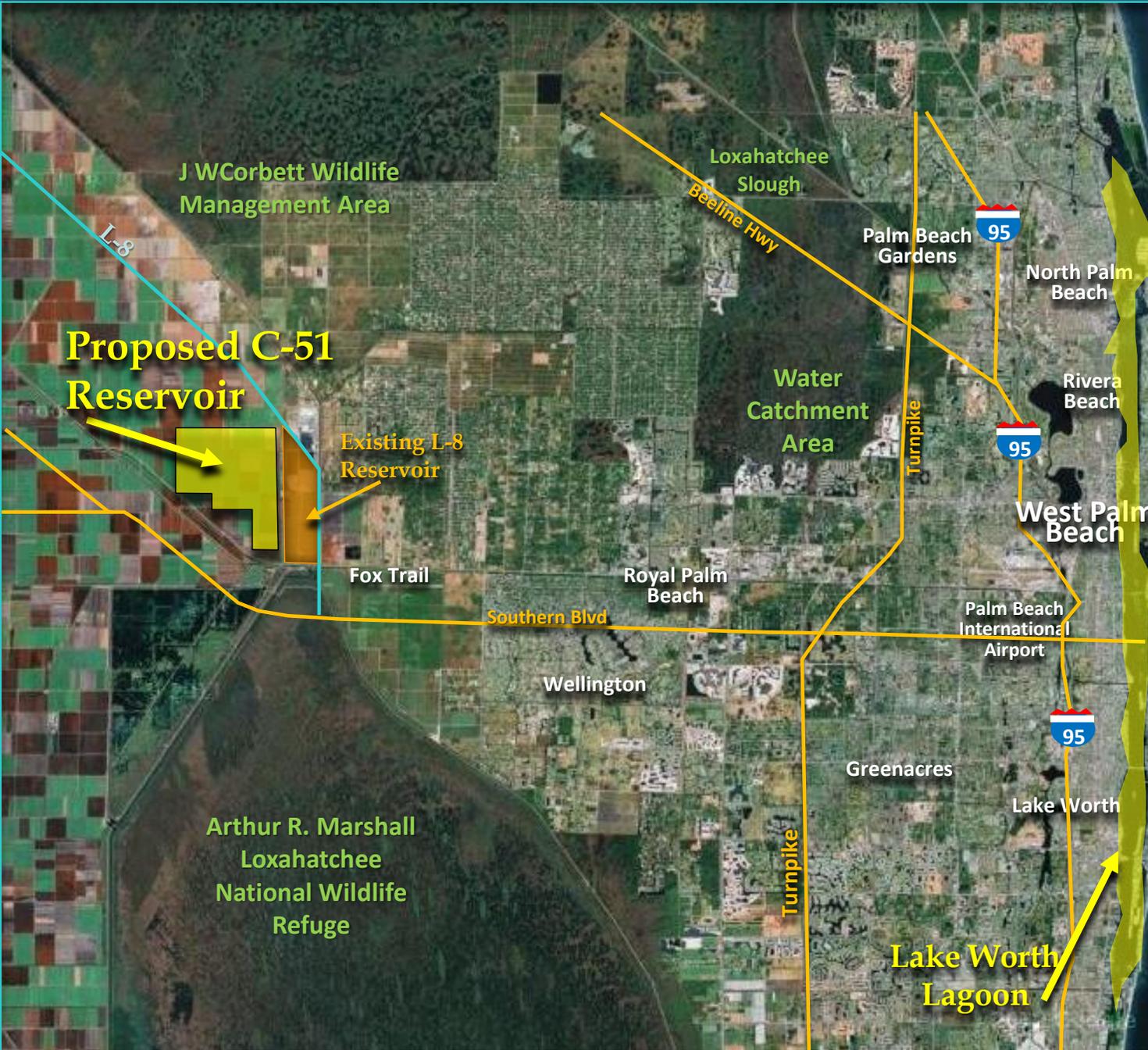


# Proposed Reservoir Options in RWSPs

<b>WMD</b>	<b>Number of Reservoirs &gt; 10 MGD</b>	<b>Water Source</b>	<b>Range of Estimated Yield (MGD)</b>
NWFWMD	1 (Conceptual)	Yellow River Watershed	25
SFWMD	1 (C-51 Reservoir)	C-51 Canal Basin	185
SJRWMD	1 (Taylor Creek Reservoir)	Taylor Creek and St. Johns River	40
SWFWMD	6	Withlacoochee, Alafia, Peace Rivers, Cowpen Slough	10 - 25



# C-51 Reservoir



- **Proposed**
- **Located in western Palm Beach County**
- **75,000 ac/ft of storage**
- **Capture and store excess surface water from C-51 basin**
- **Increased water storage and delivery to help benefit South Florida's regional water supplies**
- **Reduce harmful discharges to the Lake Worth Lagoon**



# Contact

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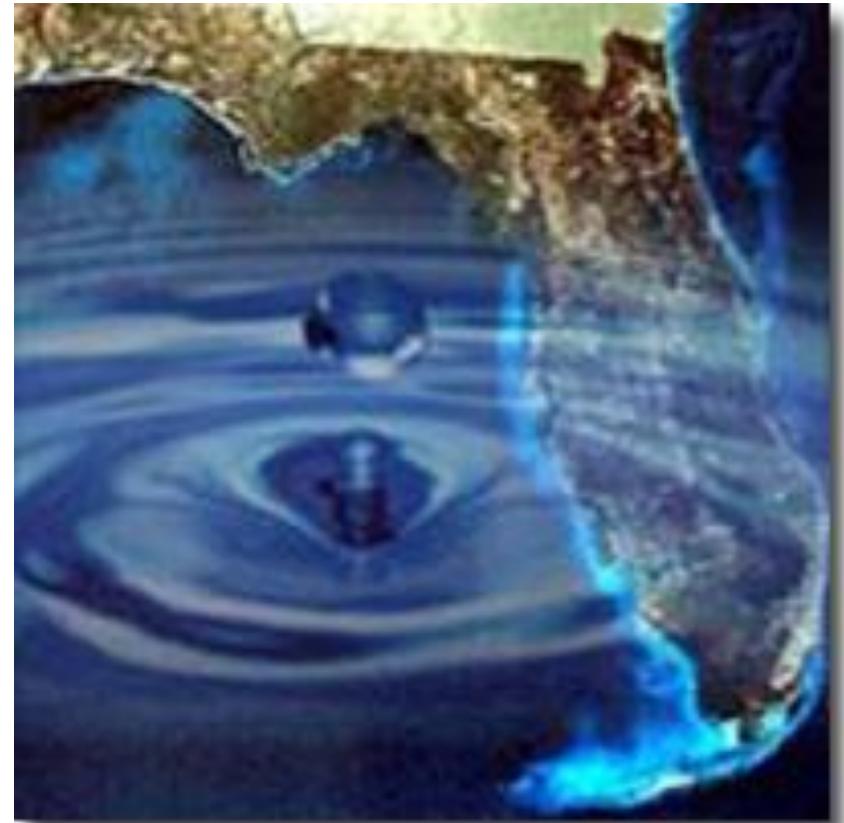
Janet G. Llewellyn

Policy Administrator

Office of Water Policy

[Janet.Llewellyn@dep.state.fl.us](mailto:Janet.Llewellyn@dep.state.fl.us)

850/245-3139



DEP Annual Report on Regional Water Supply Planning available at:  
[http://www.dep.state.fl.us/water/waterpolicy/docs/2012\\_annual\\_rwsp.pdf](http://www.dep.state.fl.us/water/waterpolicy/docs/2012_annual_rwsp.pdf)

TAB 1  


THE FLORIDA SENATE  
**APPEARANCE RECORD**

(Deliver BOTH copies of this form to the Senator or Senate Professional Staff conducting the meeting)

10/9/2013  
Meeting Date

Topic WATER RESOURCES

Bill Number \_\_\_\_\_  
*(if applicable)*

Name RICH BUDELL

Amendment Barcode \_\_\_\_\_  
*(if applicable)*

Job Title DIRECTOR OF WATER POLICY

Address 1203 GOVERNORS Sq. Bldg

Phone 850 617 1704

Street

TLH

City

FL

State

32317

Zip

E-mail \_\_\_\_\_

Speaking:  For  Against  Information

Representing FDACS

Appearing at request of Chair:  Yes  No

Lobbyist registered with Legislature:  Yes  No

*While it is a Senate tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this meeting. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard.*

**This form is part of the public record for this meeting.**

THE FLORIDA SENATE  
**APPEARANCE RECORD**

TAB 2 

(Deliver BOTH copies of this form to the Senator or Senate Professional Staff conducting the meeting)

10/4/13  
Meeting Date

Topic Water Storage Bill Number \_\_\_\_\_ (if applicable)  
Name Janet Lewellyn Amendment Barcode \_\_\_\_\_ (if applicable)  
Job Title Policy Advisor  
Address 3400 Commonwealth Dr. Phone \_\_\_\_\_  
*Street*  
Tallahassee E-mail \_\_\_\_\_  
*City State Zip*

Speaking:  For  Against  Information

Representing DEP

Appearing at request of Chair:  Yes  No Lobbyist registered with Legislature:  Yes  No

*While it is a Senate tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this meeting. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard.*

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THB2



THE FLORIDA SENATE  
**APPEARANCE RECORD**

(Deliver BOTH copies of this form to the Senator or Senate Professional Staff conducting the meeting)

10/9/13  
Meeting Date

Topic RWSP/ Reservoirs

Bill Number \_\_\_\_\_  
*(if applicable)*

Name Robert Beltran

Amendment Barcode \_\_\_\_\_  
*(if applicable)*

Job Title Executive Director

Address 2379 Broad St.  
*Street*

Phone 800 423 1476

Brooksville FL 34604  
*City State Zip*

E-mail robert.beltran@  
watermatters.org

Speaking:  For  Against  Information

Representing SWFWMD

Appearing at request of Chair:  Yes  No

Lobbyist registered with Legislature:  Yes  No

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THE FLORIDA SENATE  
**APPEARANCE RECORD**

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10/9/13

Meeting Date

Topic Water Storage

Bill Number \_\_\_\_\_  
*(if applicable)*

Name Drew Bartlett

Amendment Barcode \_\_\_\_\_  
*(if applicable)*

Job Title Deputy Secretary

Address 3900 Commonwealth Dr.

Phone \_\_\_\_\_

Tallahassee, FL  
City State Zip

E-mail \_\_\_\_\_

Speaking:  For  Against  Information

Representing \_\_\_\_\_

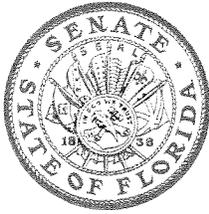
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**This form is part of the public record for this meeting.**

S-001 (10/20/11)



# THE FLORIDA SENATE

Tallahassee, Florida 32399-1100

## COMMITTEES:

Appropriations Subcommittee on Transportation,  
Tourism, and Economic Development, *Chair*  
Appropriations  
Appropriations Subcommittee on Finance and Tax  
Environmental Preservation and Conservation  
Ethics and Elections  
Gaming  
Judiciary  
Military Affairs, Space, and Domestic Security  
Rules

## JOINT COMMITTEE:

Joint Legislative Budget Commission

**SENATOR ANDY GARDINER**

13th District

October 9, 2013

The Honorable Charlie Dean, Chair  
Environmental Preservation and Conservation Committee  
325 Knott Building  
404 South Monroe Street  
Tallahassee, FL 32399

Dear Chair Dean,

I am writing to respectfully request that I be excused from the Environmental Preservation and Conservation Committee meeting scheduled for Wednesday, October 9. I have a scheduling conflict and unfortunately will not be able to attend the meeting.

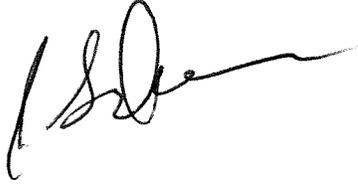
If you have any questions regarding this request, please do not hesitate to call my office. Thank you for your time and consideration of this matter.

Sincerely,

  
Senator Andy Gardiner  
District 13

AG:svc

Cc: Pepper Uchino, Staff Director

OK 

## REPLY TO:

- 1013 East Michigan Street, Orlando, Florida 32806 (407) 428-5800
- 420 Senate Office Building, 404 South Monroe Street, Tallahassee, Florida 32399-1100 (850) 487-5013

Senate's Website: [www.flsenate.gov](http://www.flsenate.gov)

**DON GAETZ**  
President of the Senate

**GARRETT RICHTER**  
President Pro Tempore

