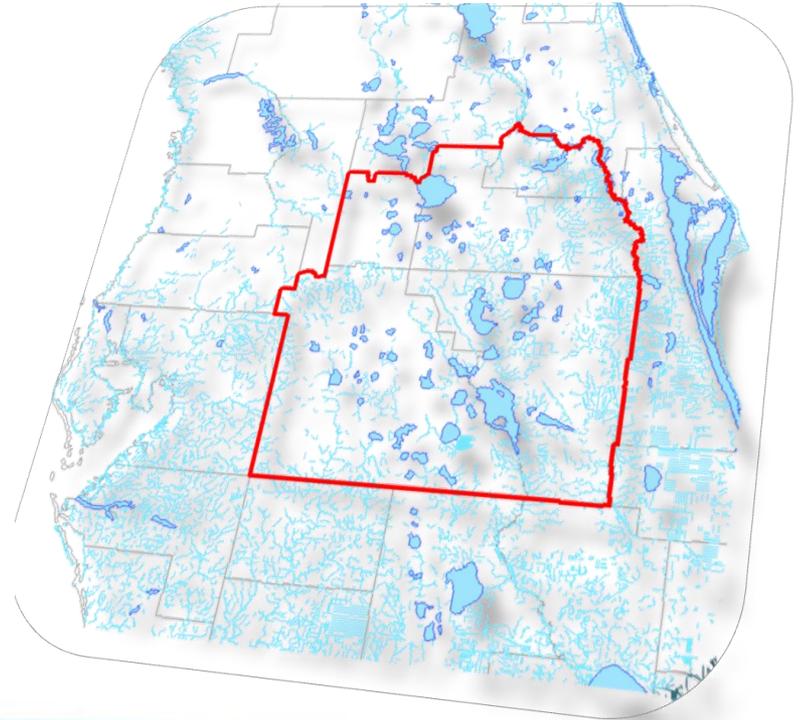


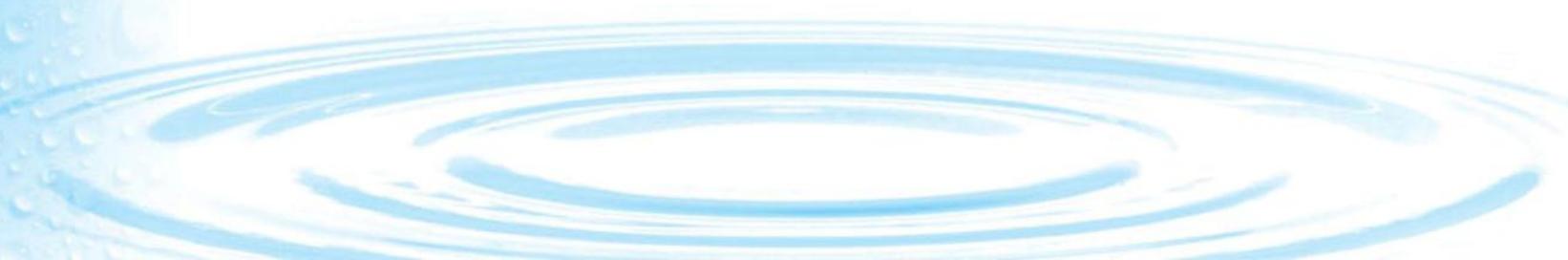
Central Florida Water Initiative

Water For Tomorrow



Welcome and Overview

**Glenda Hood & Shelley Lauten
triSect**



The Importance of Regional Collaboration

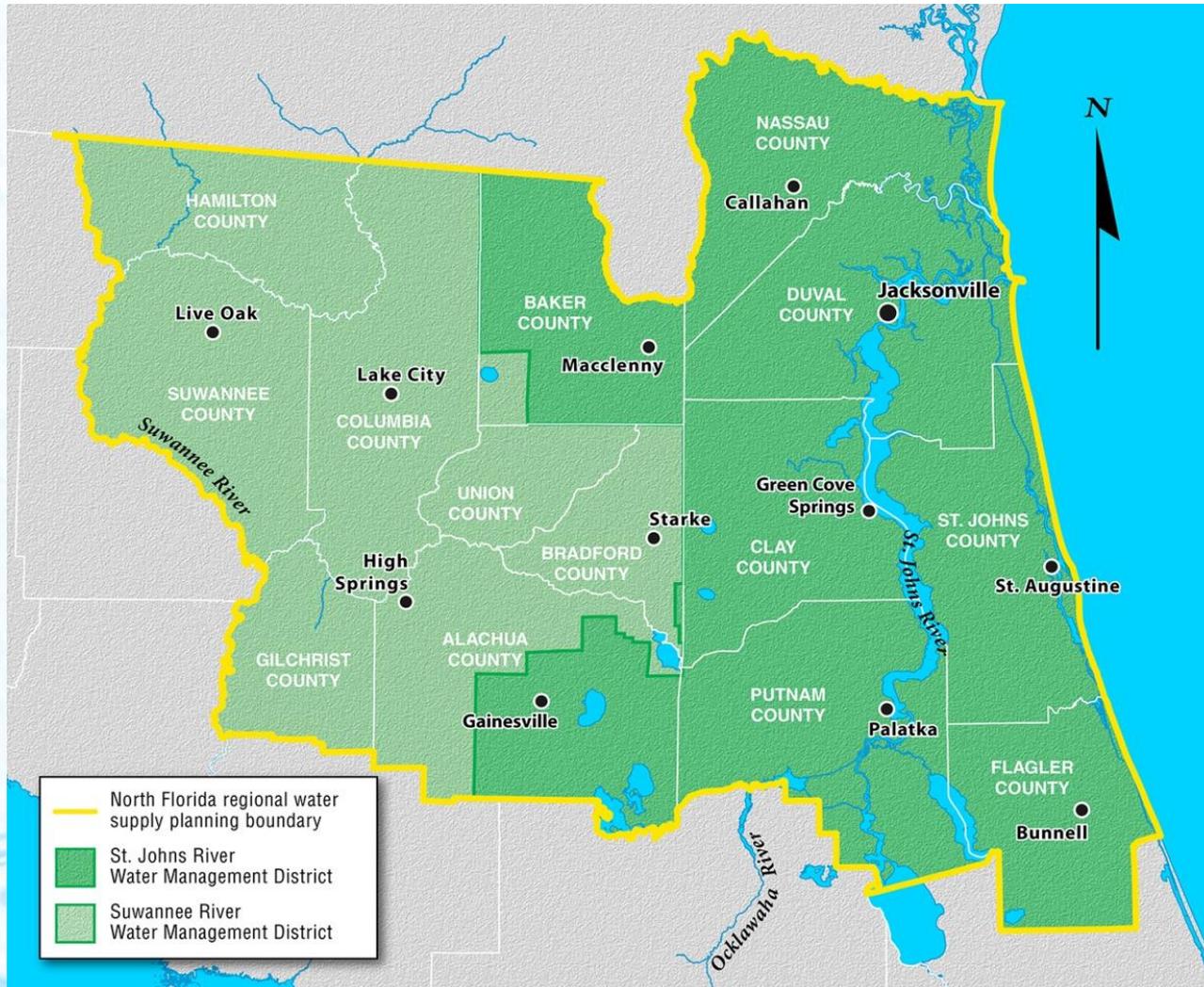
Dr. Ann Shortelle

Executive Director,
St. Johns River WMD

Michael Register

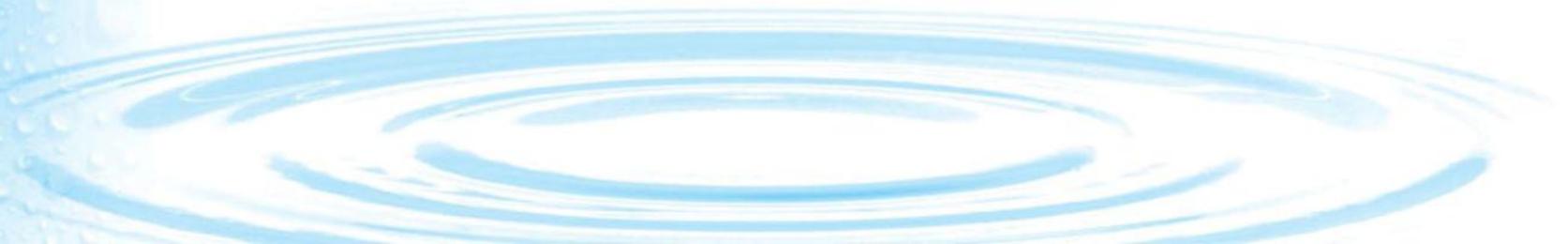
Director, Division of Regulatory,
Engineering and Environmental,
St. Johns River WMD

North Florida Regional Water Supply Partnership

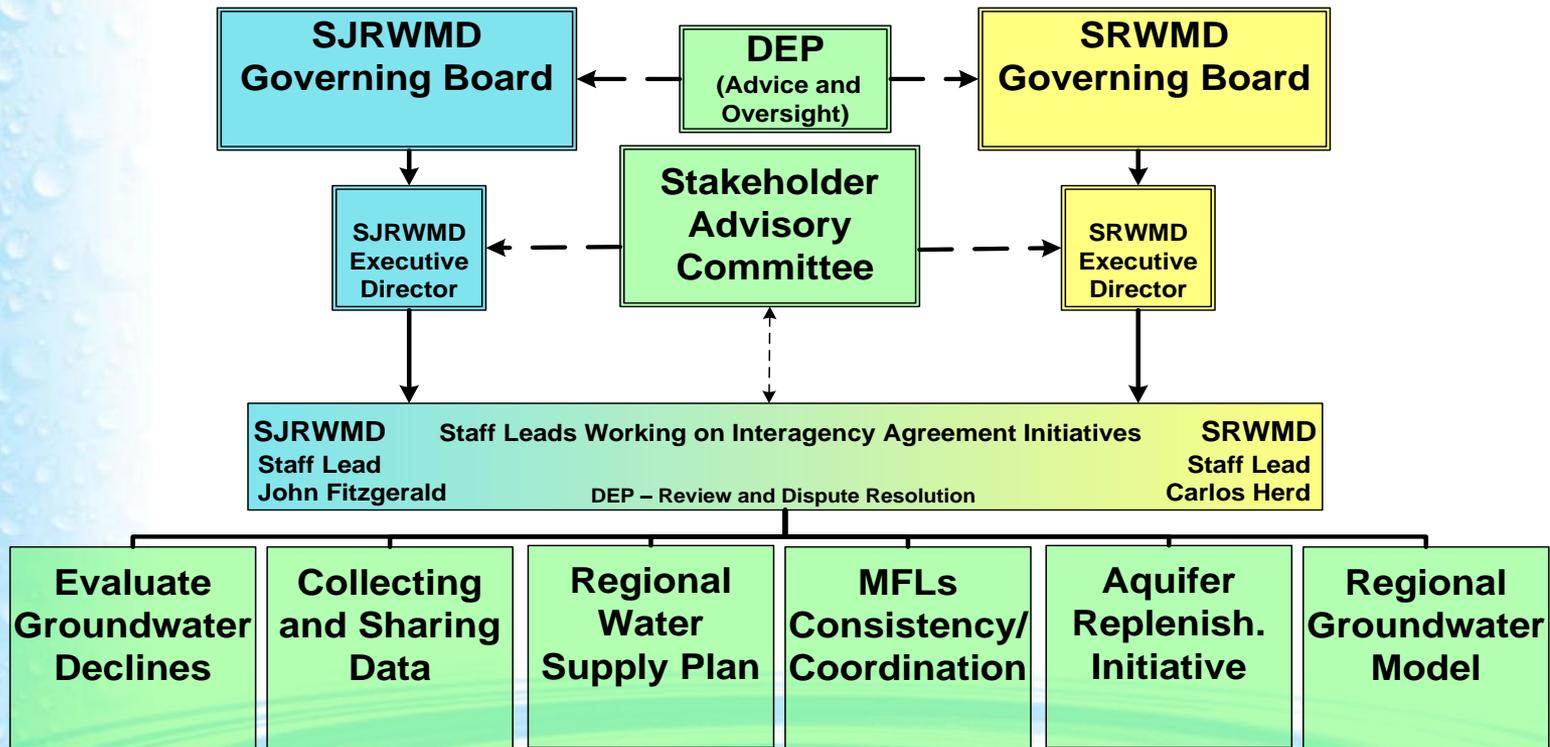


North Florida Water Supply Partnership Guiding Principle

Protection of natural resources and cost-effective, sustainable water supplies in the St. Johns River and Suwannee River water management districts through collaborative planning, scientific-tool development and other partnership efforts

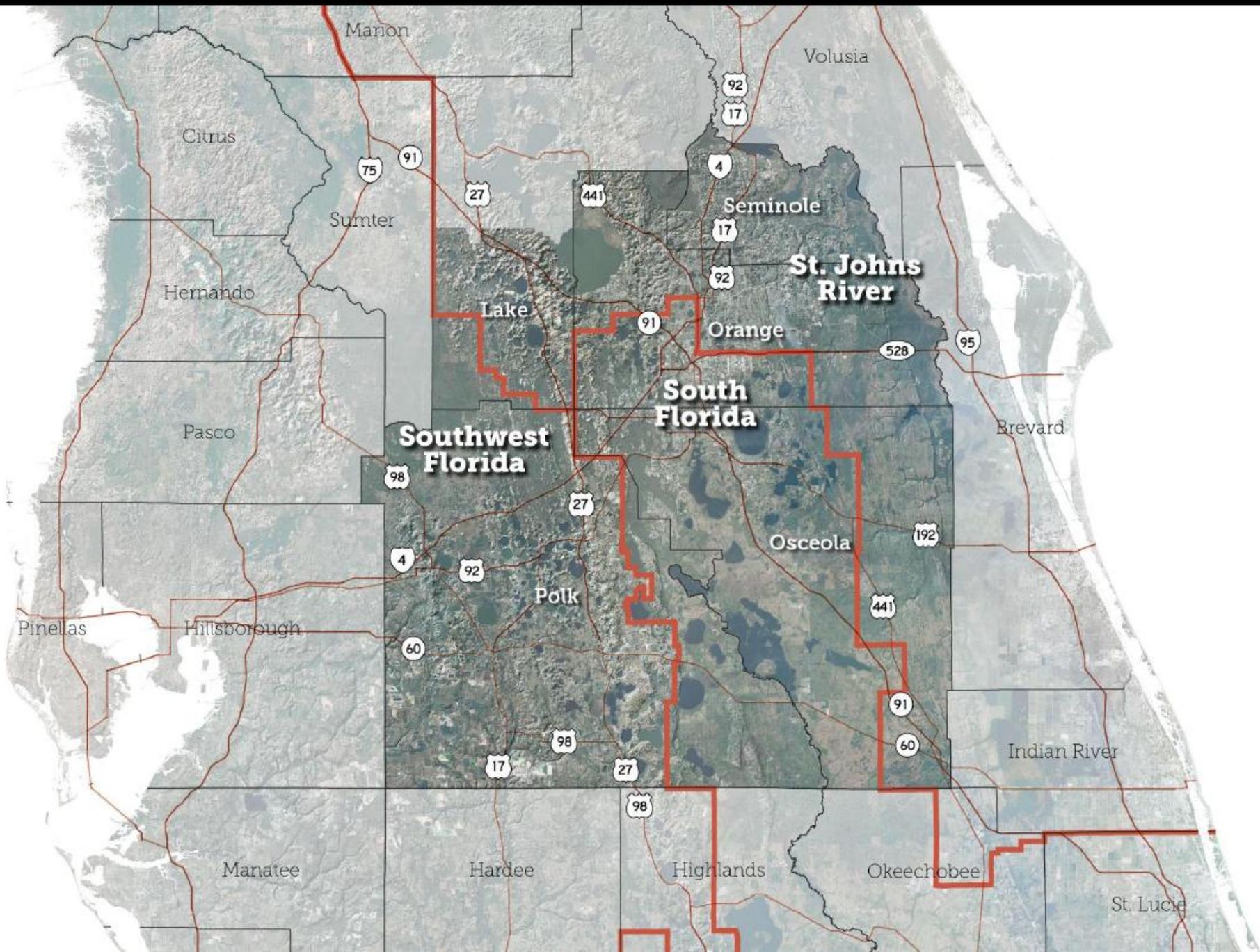


North Florida Regional Water Supply Partnership Functional Organization



Note:
1. MFLs Consistency and Coordination Includes Prevention/Recovery Strategy activities.

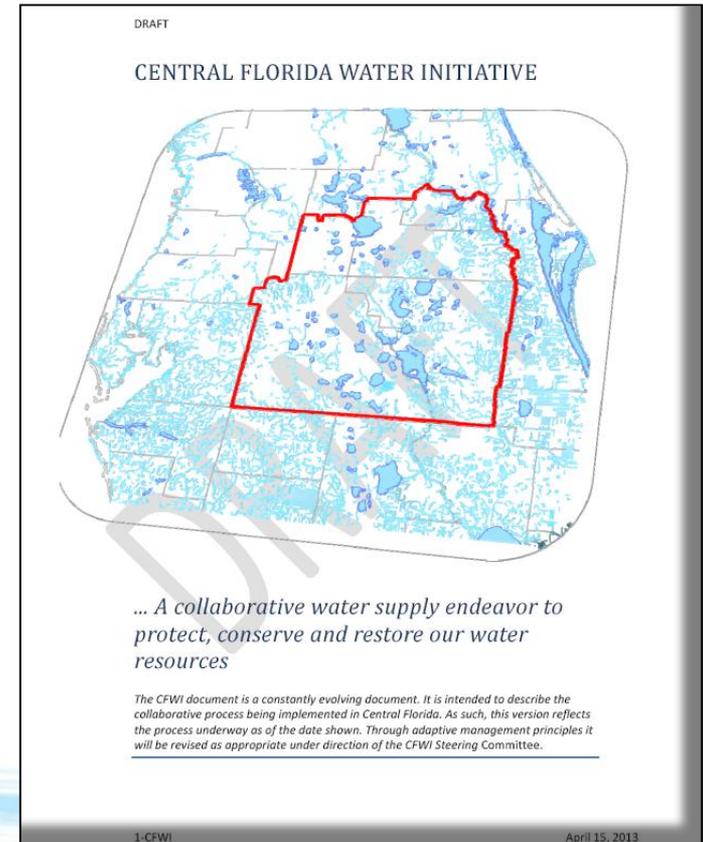
Central Florida Water Initiative



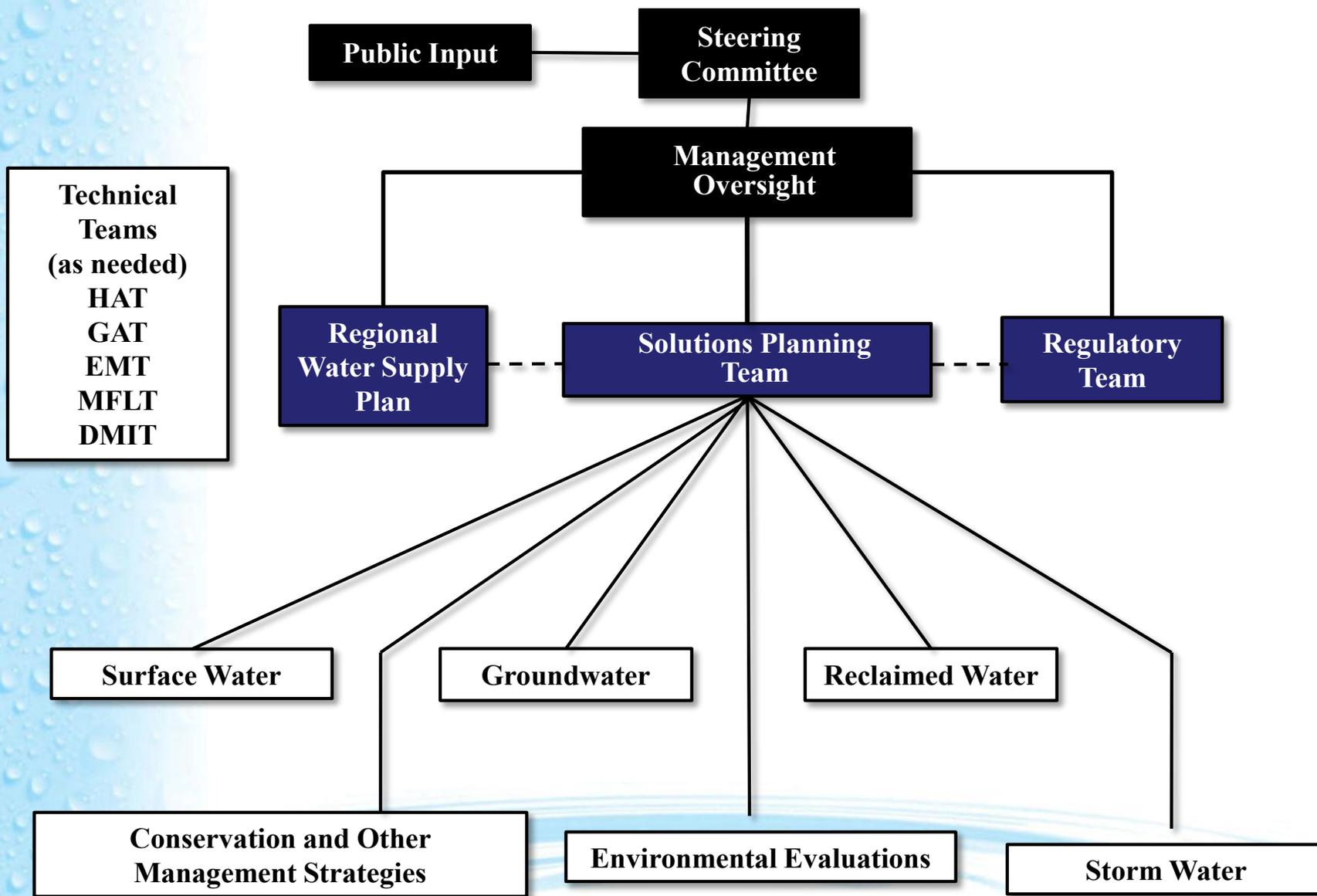
CFWI Principles

A collaborative regional water supply endeavor to protect, conserve and restore our water resources

- Identify sustainable quantities of groundwater sources
- Develop strategies to meet water demands
- Establish consistent rules and regulations



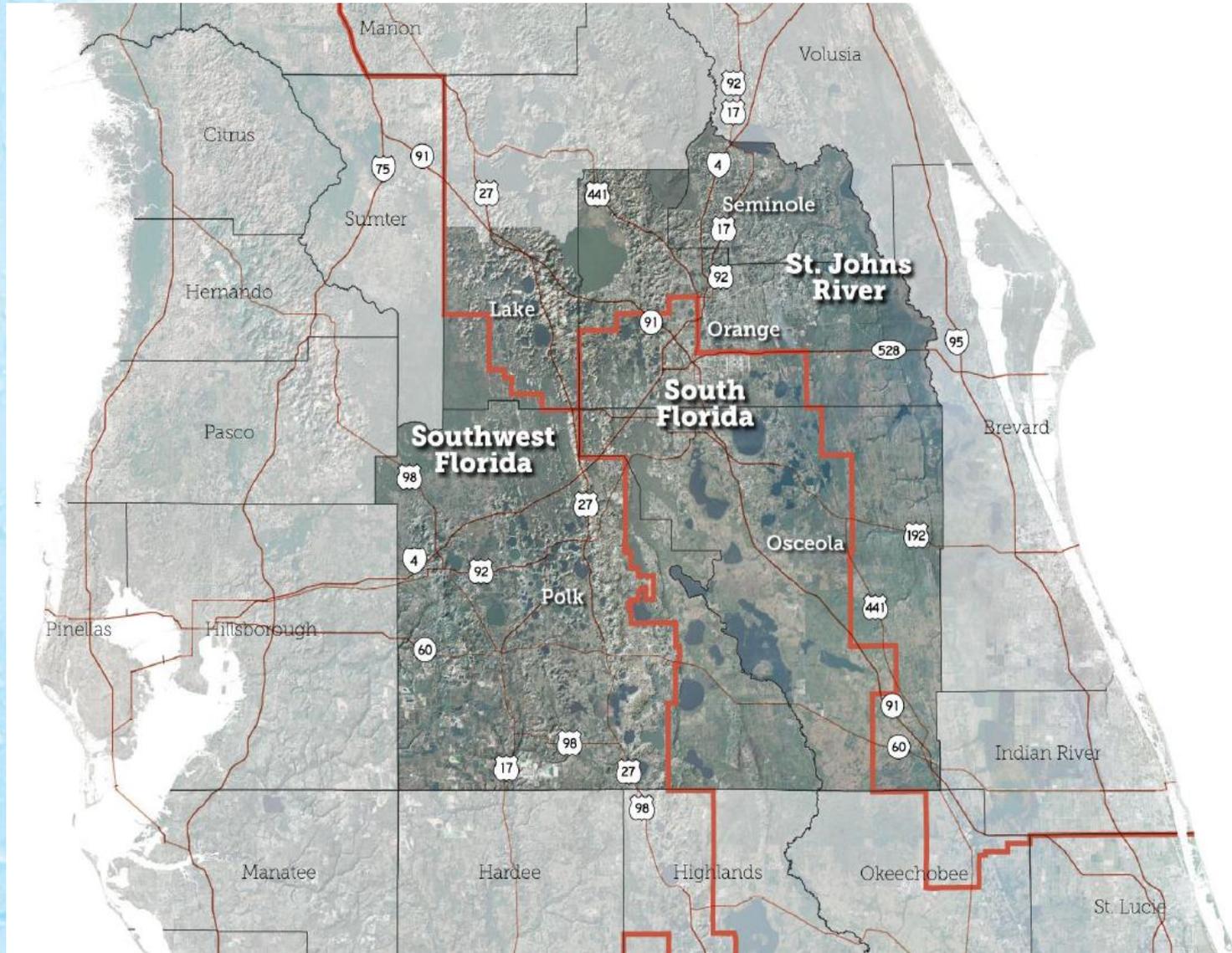
Central Florida Water Initiative



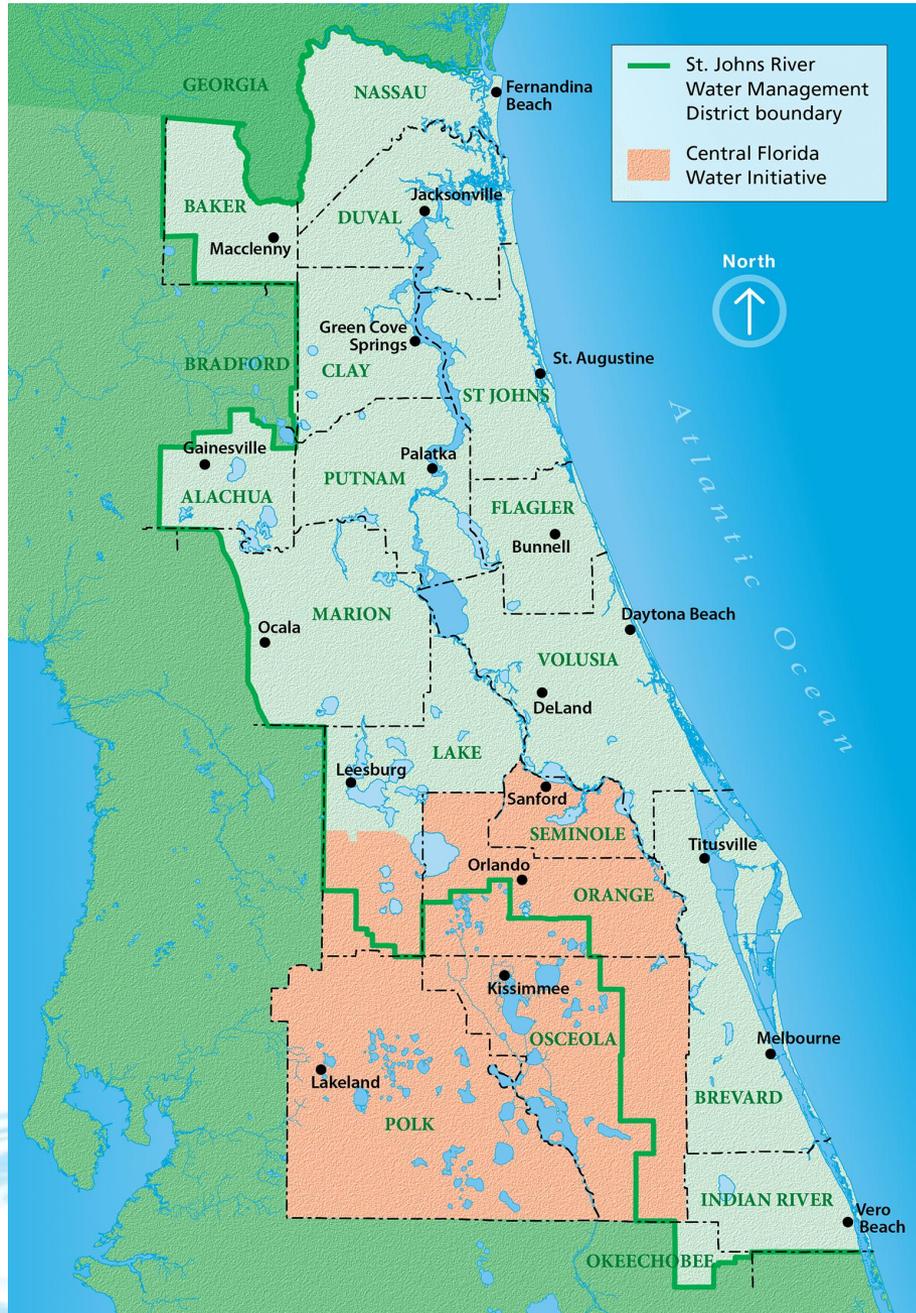
Background and Approach to the CFWI

Mark Hammond
Director, Resource Management
Southwest Florida WMD

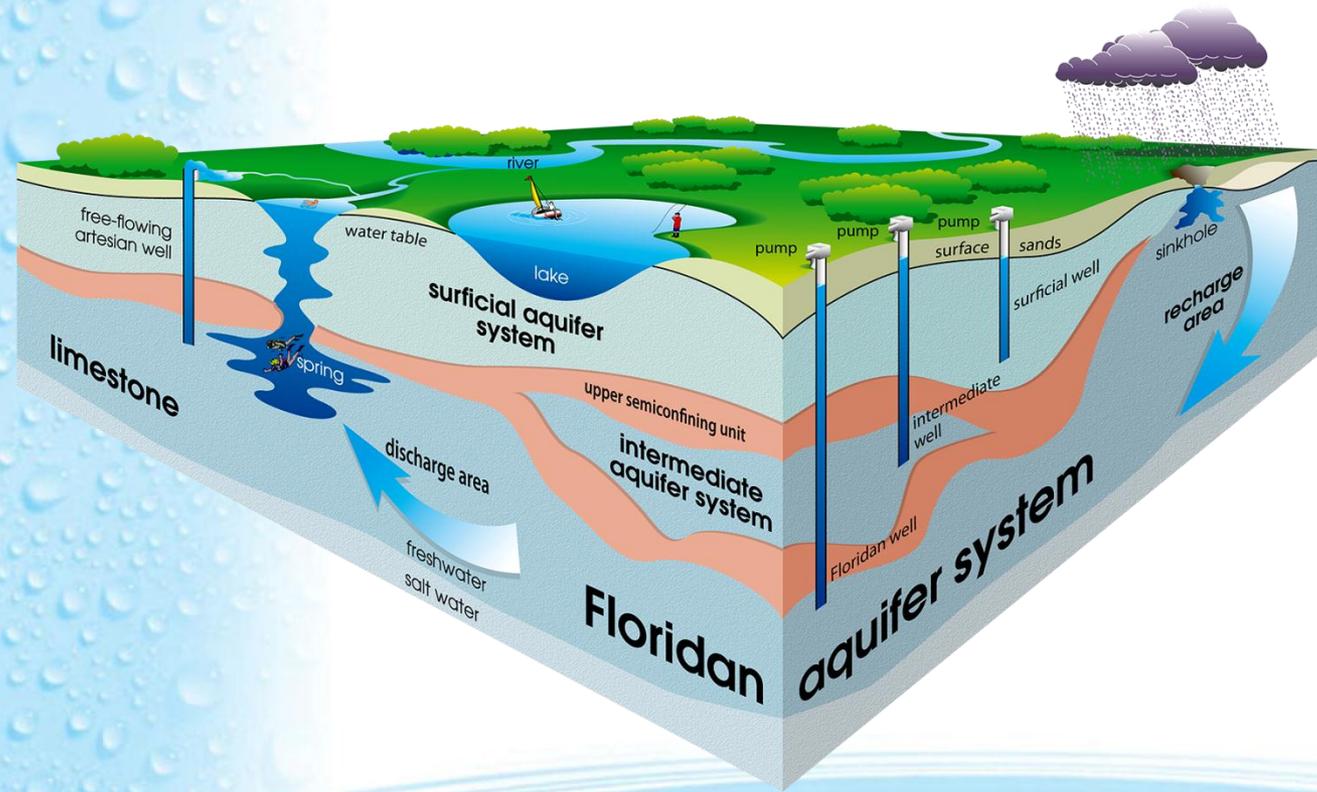
Central Florida Water Initiative



Central Florida Water Initiative



Where Does Our Water Come From?



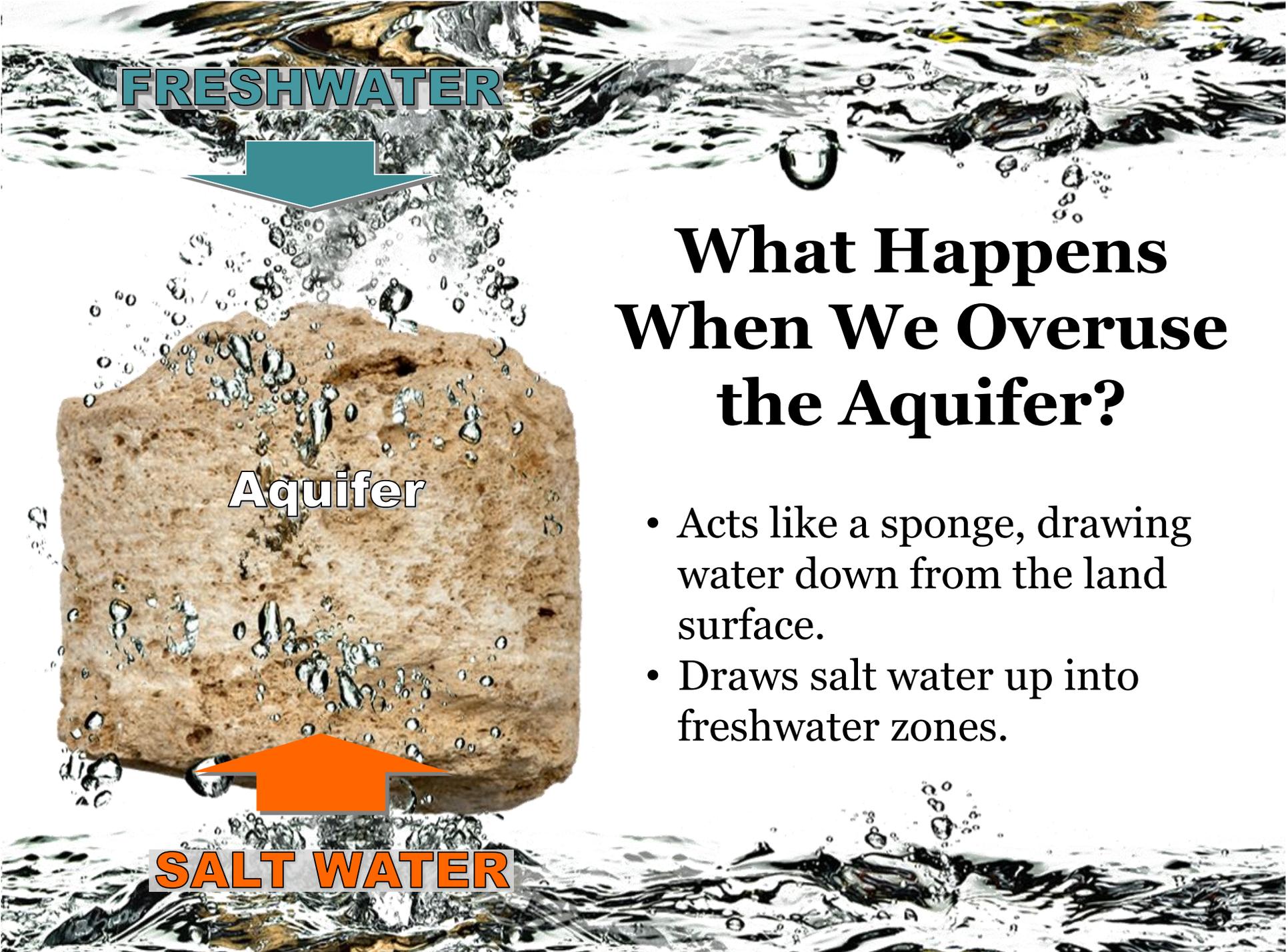
More than 90%
of our water
comes from the
aquifer system.



What Happens When We Overuse the Aquifer?

- Wetlands
- Spring flow
- Lake and river levels





FRESHWATER

Aquifer

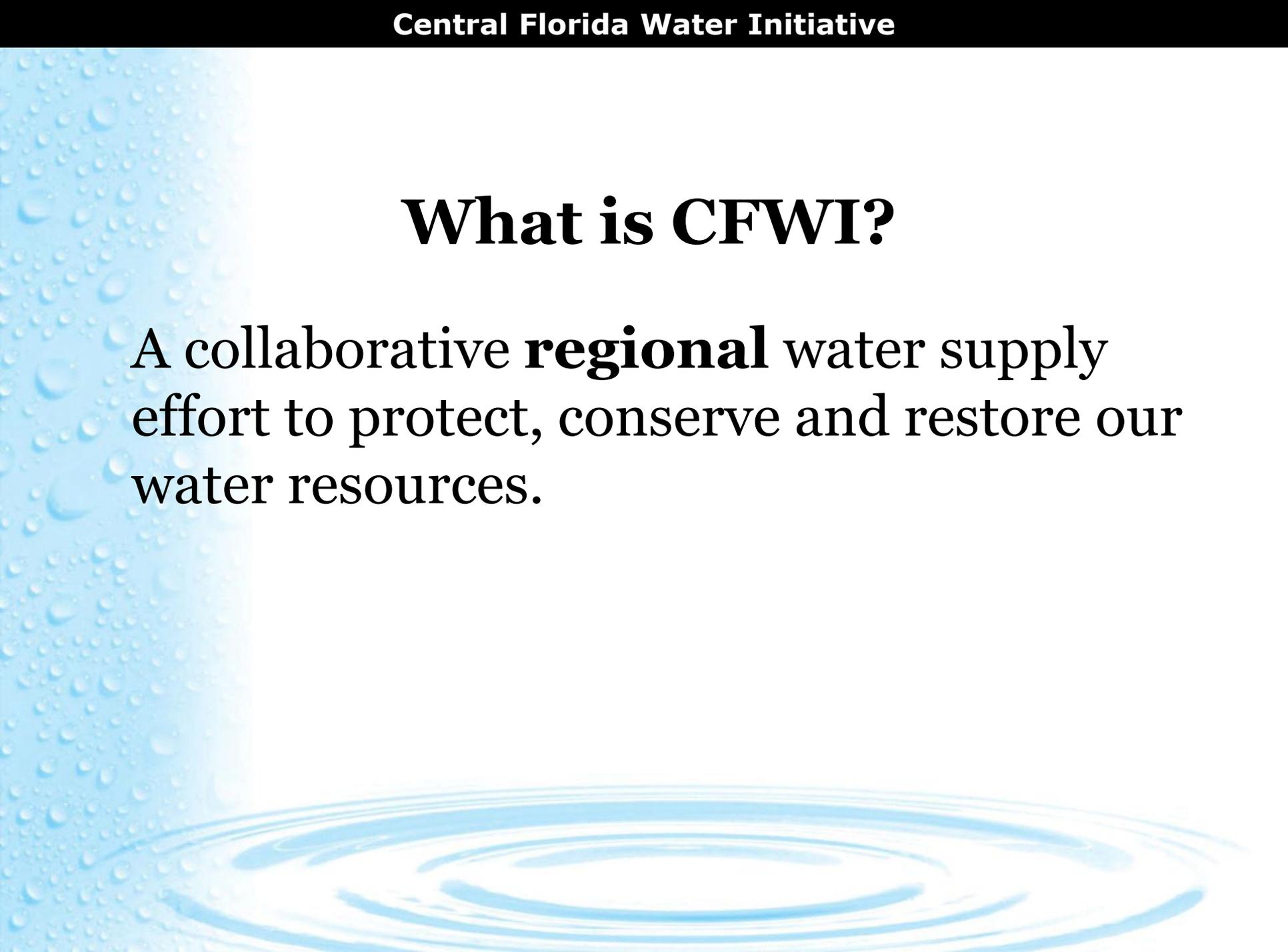
SALT WATER

What Happens When We Overuse the Aquifer?

- Acts like a sponge, drawing water down from the land surface.
- Draws salt water up into freshwater zones.

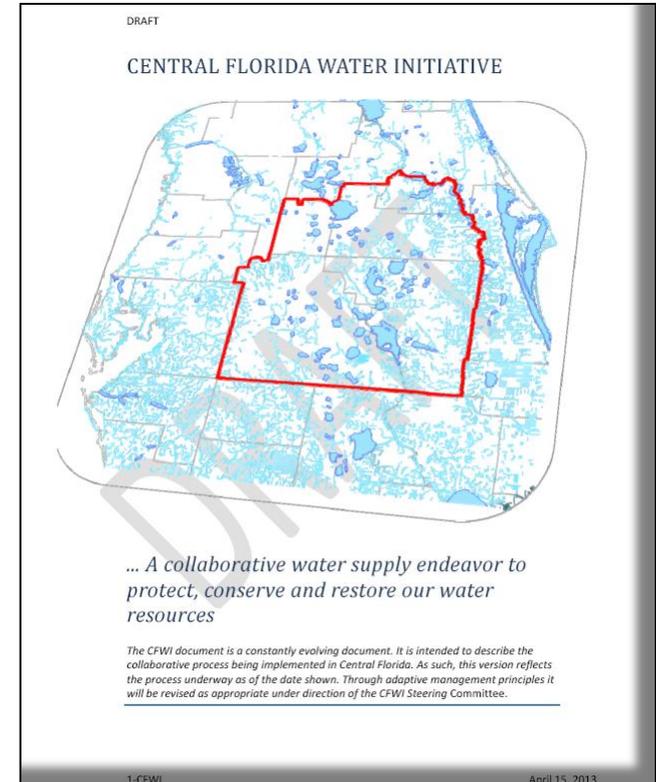
What is CFWI?

A collaborative **regional** water supply effort to protect, conserve and restore our water resources.



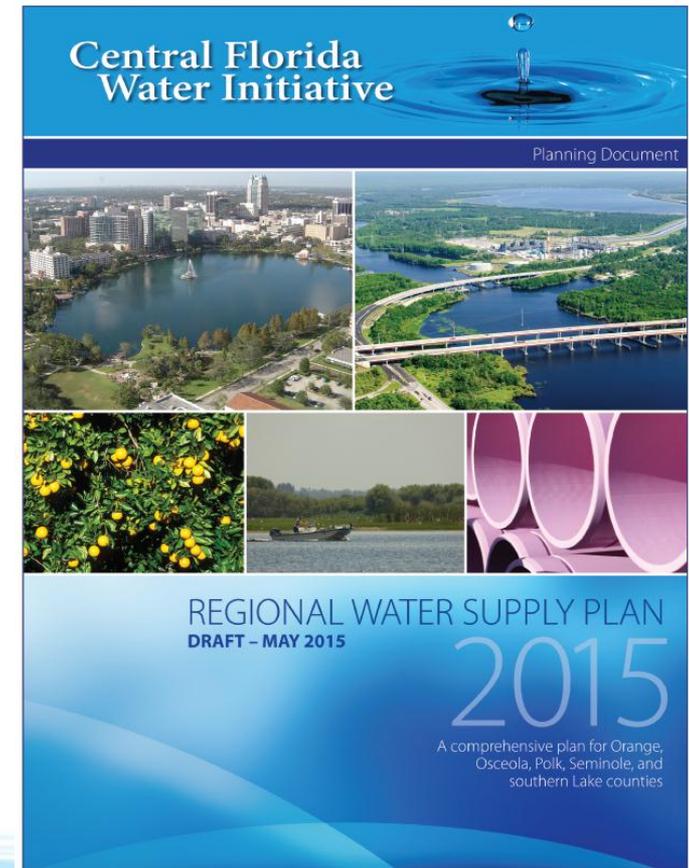
Guidance Document Principles

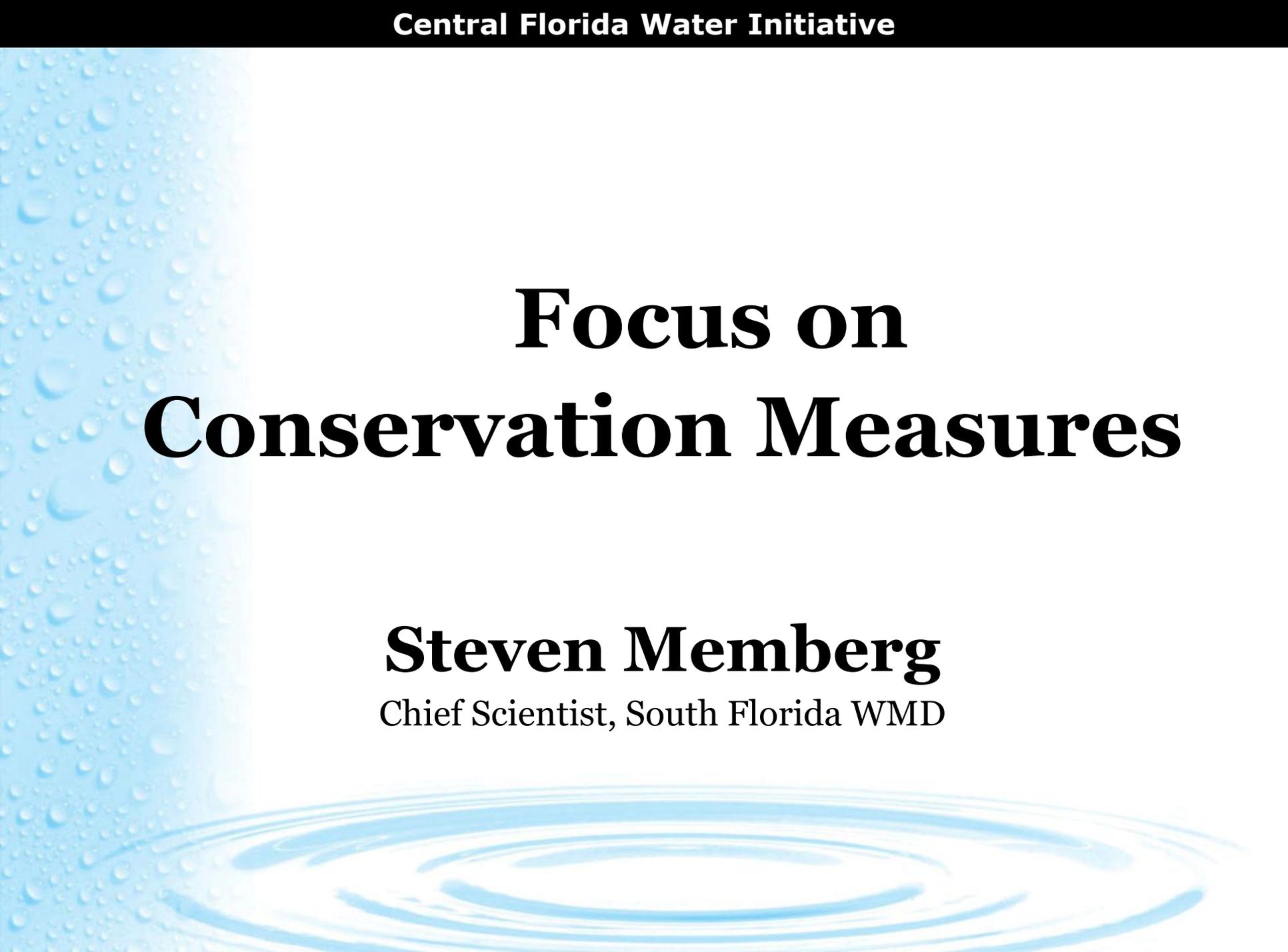
1. Identify sustainable quantities of groundwater sources
2. Develop strategies to meet water demands
3. Establish consistent rules



One RWSP for the CFWI Region

- Collaborative effort
- Scientific foundation
- Stakeholder driven
- Demands from all categories
- Potential sources and projects
- Water resource evaluation
- Funding mechanisms
- Update every 5 years
 - 20-year planning horizon



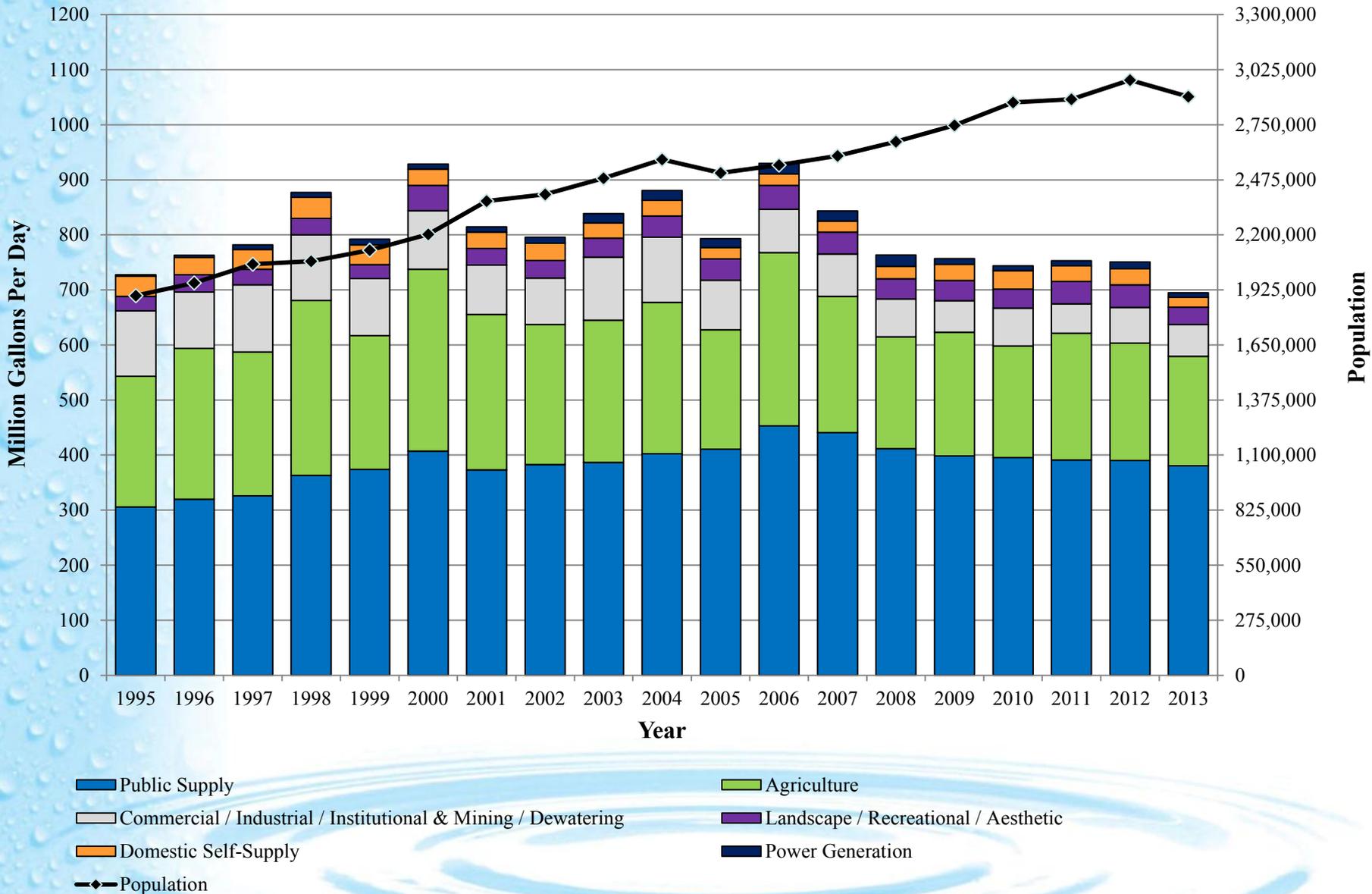
The slide features a decorative background with a vertical column of water droplets on the left side and a series of concentric blue ripples at the bottom. The main title is centered in a large, bold, black serif font.

Focus on Conservation Measures

Steven Memberg
Chief Scientist, South Florida WMD

Central Florida Water Initiative

Historic Water Use -vs- Population

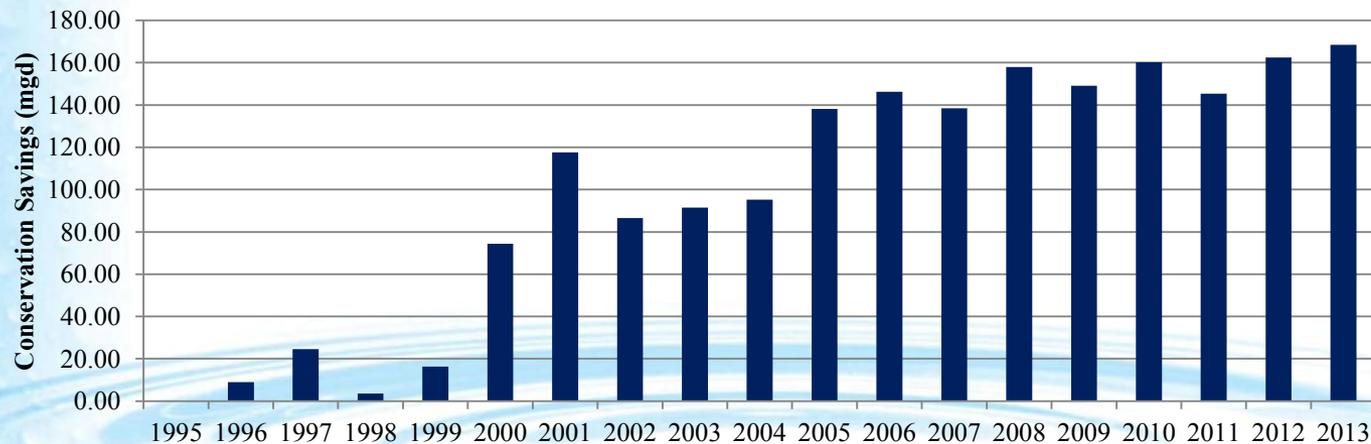


Historic Water Use

- 1995 Gross GPCD = 183
- 2013 Gross GPCD = 144
 - Decrease of 39 GPCD
- 1995 Residential GPCD = 165
- 2013 Residential GPCD = 97
 - Decrease of 68 GPCD

Conservation

- Calculated for residential public supply
- Took into account offset for residential irrigation reuse



Reuse

- 1995 Public Access Area Reuse = 32.05 mgd
- 2013 Public Access Area Reuse = 78.03mgd
 - Increase of 45.98 mgd
 - Residential Irrigation increased by 30.29 mgd
- 1995 Other Reuse = 72.72 mgd
- 2013 Other Reuse = 129.78 mgd
 - Increase of 57.06 mgd

CFWI WWTP/Reuse Flows (mgd)

	WWTP	Reuse
• Orange	87.3	87.3
• Seminole	43.9	37.3
• Lake	8.0	8.0
• Osceola	24.1	24.1
• Polk	<u>29.8</u>	<u>17.7</u>
	193.2	177.4 (92%)

Survey of Water Conservation Programs

STOPR+2 Utilities treat and deliver about 57% of the public water supply in the CFWI area

- St. Cloud
- Toho Water Authority
- Orange County Utilities
- Polk County Utilities
- Reedy Creek Improvement District (serving Disney)*
- Orlando Utilities Commission
- Seminole County Environmental Services

**Reedy Creek was omitted in this survey as not representative of a typical public utility*

Programs Surveyed

- Rates
- Public Education/Awareness
- Irrigation
- Water Loss Reduction
- Automated Metering Infrastructure
- Standards Adoption
- Promotions
- Rebates

Survey Results

- **Rates**
 - Inclining block rates
 - Water budget rates
- **Water Loss Reduction**
 - Advanced leak detection technology
 - Annual water loss reduction reporting
 - Adjusting system pressure
- **Standards Adoption**
 - Florida Water Star
 - Leadership in Energy and Environmental Design (LEED) Certification
- **Rebates**
 - Low Flow Toilets
 - Water Efficient Urinals
 - Energy Star Clothes Washing Machines
 - Pre-rinse nozzles
 - Air-cooled ice machines
 - Florida Friendly Landscaping and Irrigation
 - Water Cisterns
 - Third party water fixture installations

Irrigation System Application Efficiency (Ea) Ranges

Irrigation System Type	Range of Application Efficiencies
Overhead	60-80%
Seepage ¹	20-70%
Drip ²	80-95%
Micro Spray and Center Pivots [±]	70-85%

¹ Ea greater than 50% are not expected unless tailwater recovery is used

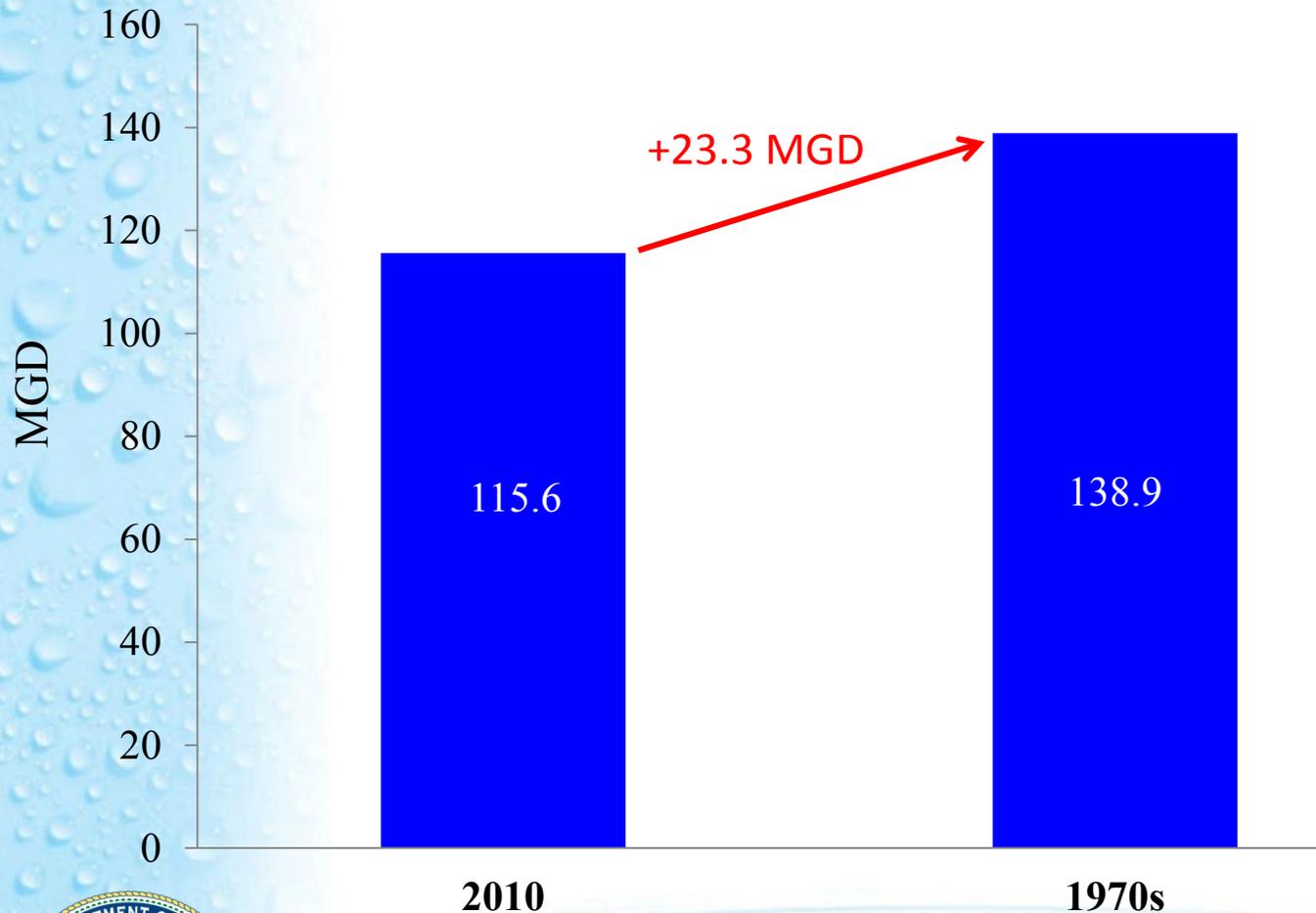
² With or without plastic mulch

Sources: UF/IFAS Publication AE260

± UF/IFAS Publication BUL247



1970s Irrigation Demand Estimate



- 5 types of irrigation systems in use within the CFWI area
 - MicroSpray and Drip acreage was recalculated as Overhead irrigation
- No change in overall acreage being irrigated
- 1970s irrigation systems were assumed to be 5% less efficient as compared to 2010 irrigation systems



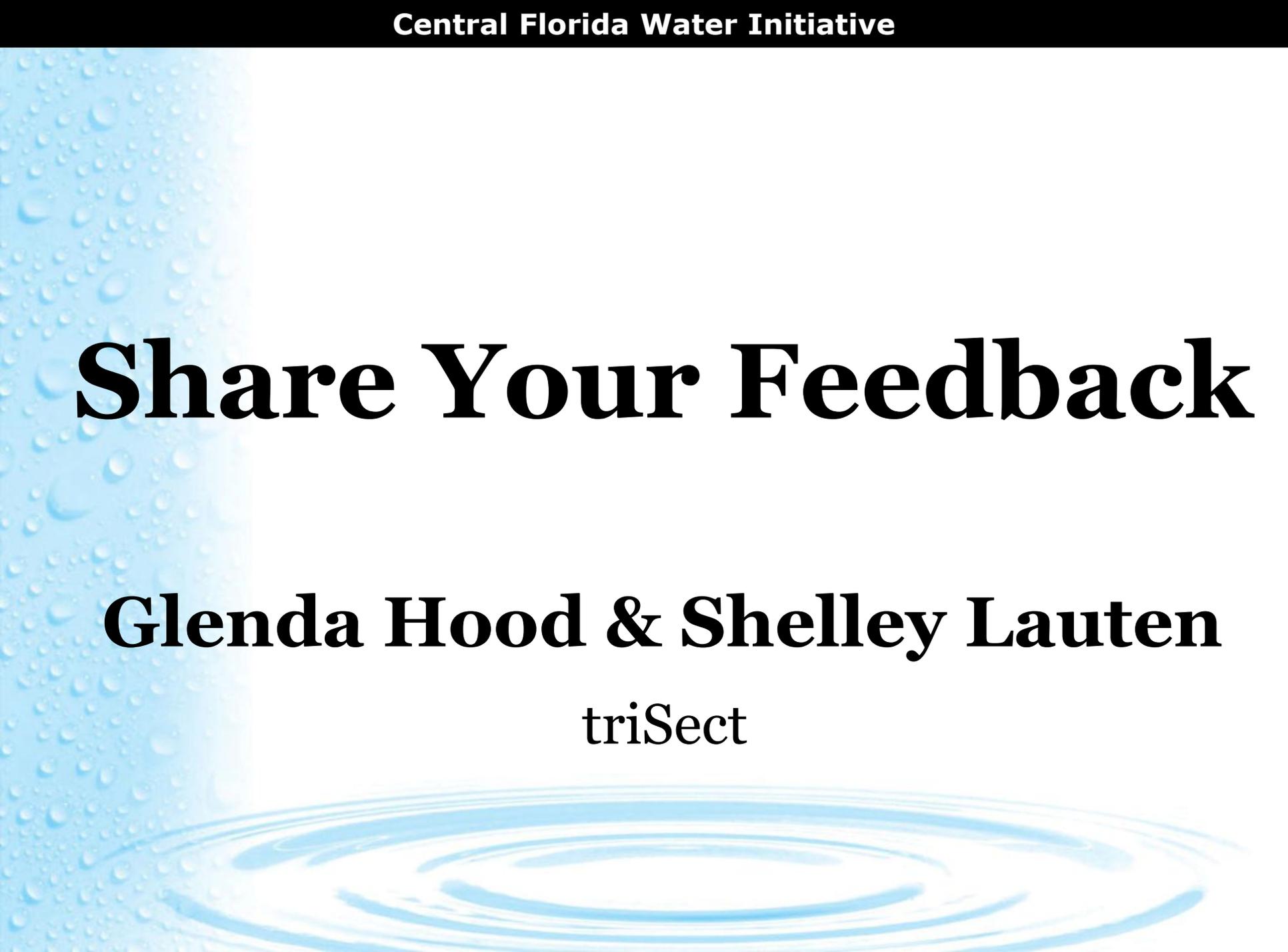
Water Conservation

- 5-year Plan
 - Public Supply & Other Self Supply
 - 10 BMPs
 - Adopt High-Efficiency Standards
 - Landscape and Irrigation Systems
 - Plumbing Fixtures and Appliances
 - Public Education
 - Clearinghouse/Conservation Planning Tools/Research
 - Agriculture (Programmatic Approach)
 - 7 BMP categories
 - Includes training workshops, on-site demonstrations, mobile labs and support for Extension Services

Share Your Feedback

Glenda Hood & Shelley Lauten

triSect



Next Steps

Michael Register

Director, Division of Regulatory,
Engineering and Environmental,
St. Johns River WMD

Next Steps

- **June/July**
 - Public review period
 - Extended Review Period - ~82 days
 - Ends July 31
- **August/September**
 - Consideration of comments and public input
 - Revise and finalize CFWI Document Series
- **October**
 - Steering Committee Meeting
 - Consideration of approval of CFWI Document Series
- **November**
 - District Governing Board Meetings
 - Consideration of approval of CFWI Document Series

Thank you!

For more information visit
cfwiwater.com

Central Florida Water Initiative

WATER FOR TOMORROW



The basics of water and CFWI

Learn about where your water comes from today and planning for tomorrow.



Draft plans for review

View central Florida's water supply planning documents and provide comments.



Meetings and events

Find details about public involvement opportunities.



Technical teams

Find information about technical teams, steering committee and technical meetings.



Water conservation

Discover some of the most popular and preferred ways to save water.



Other helpful information

Explore the world of water through related links, publications and videos.