

***Water Quality:  
People, Perceptions,  
Politics, and Programming  
Urban Task Force Pre-Conference Workshop***

**WELCOME!**



Chris Sweazy  
South Florida Water  
Management District

**UF** UNIVERSITY of  
**FLORIDA**  
IFAS Extension

# Central Florida Water Initiative (CFWI)

## Southern Region Program Leadership Workshop

*Presented by Chris Sweazy, P.G.; Lead Hydrogeologist/Planner*

*South Florida Water Management District*

August, 20<sup>th</sup> 2012

# Water Management Districts of Florida



# Functions of the Water Management Districts

- Operation and maintenance of the flood control system
- Public land management and protection
- Regulatory activities
- Emergency operations
- Water restoration projects
- Research and monitoring
- Water supply planning



# Central Florida Water Initiative



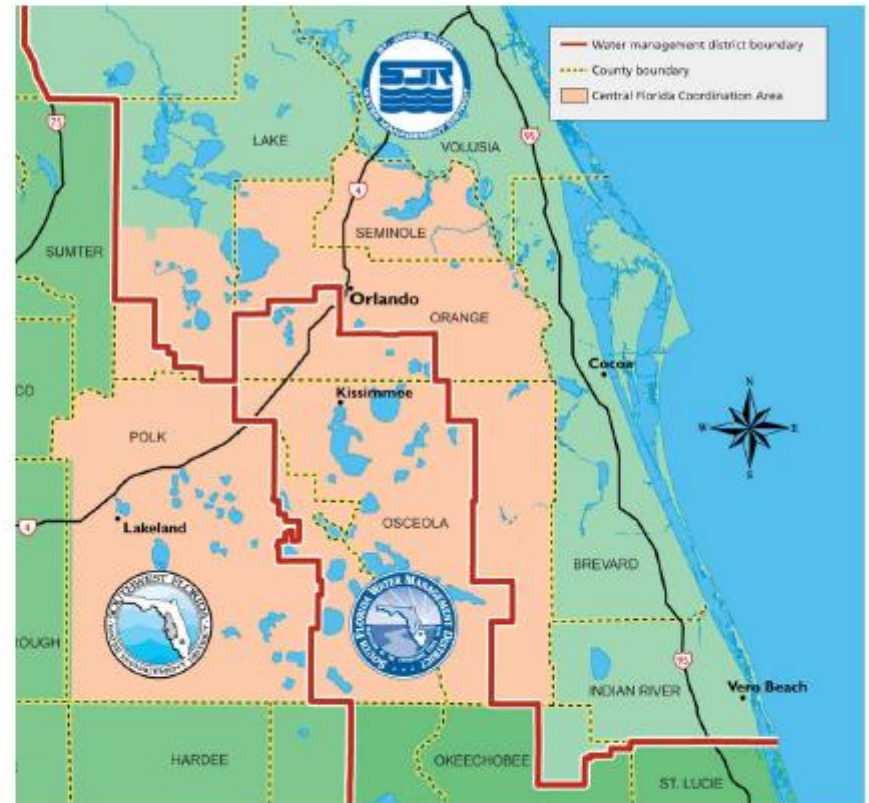
## ■ Water Supply Plans

- Legislation required all five WMD's to complete water supply plans
- Update these plans every five years
- 20 year plans with 1-10 level of certainty
- Plans focus on water availability



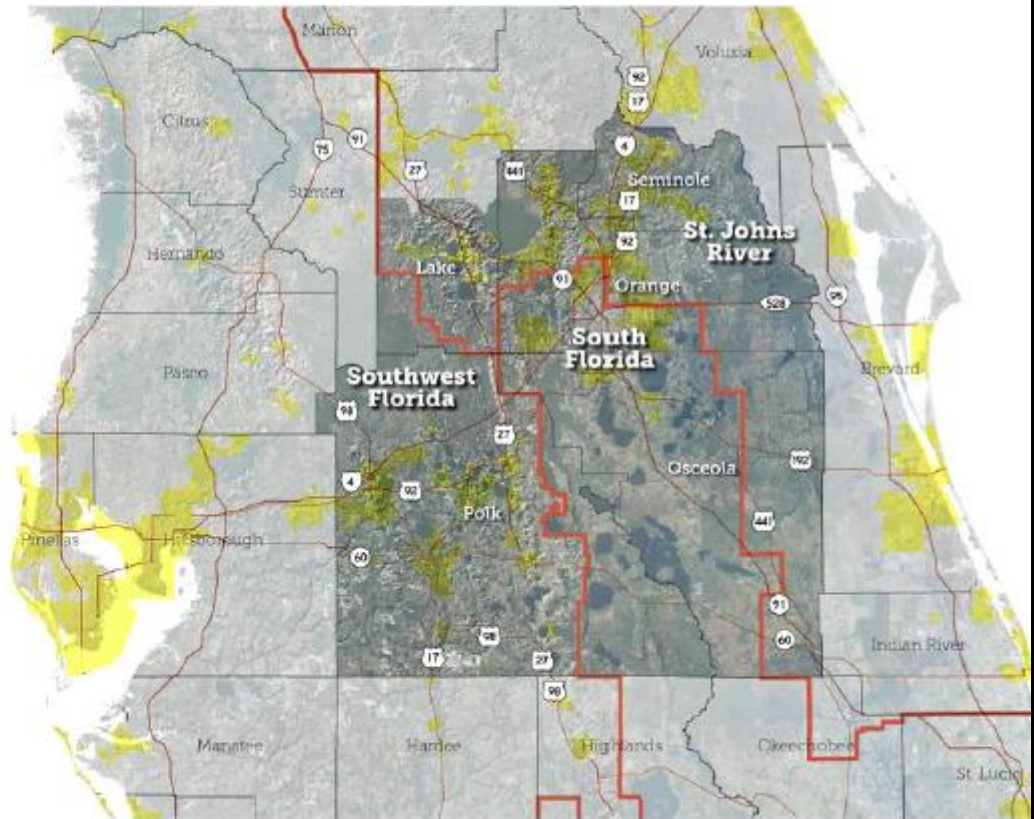
# What is the CFWI?

- The hydrologic basin encompassed by three water management districts.
- Unacceptable cumulative impacts resulting from aquifer use from water withdrawals in all three districts.
- Additional level coordination on a water supply strategy and regulatory development
- Designated Circa 2007



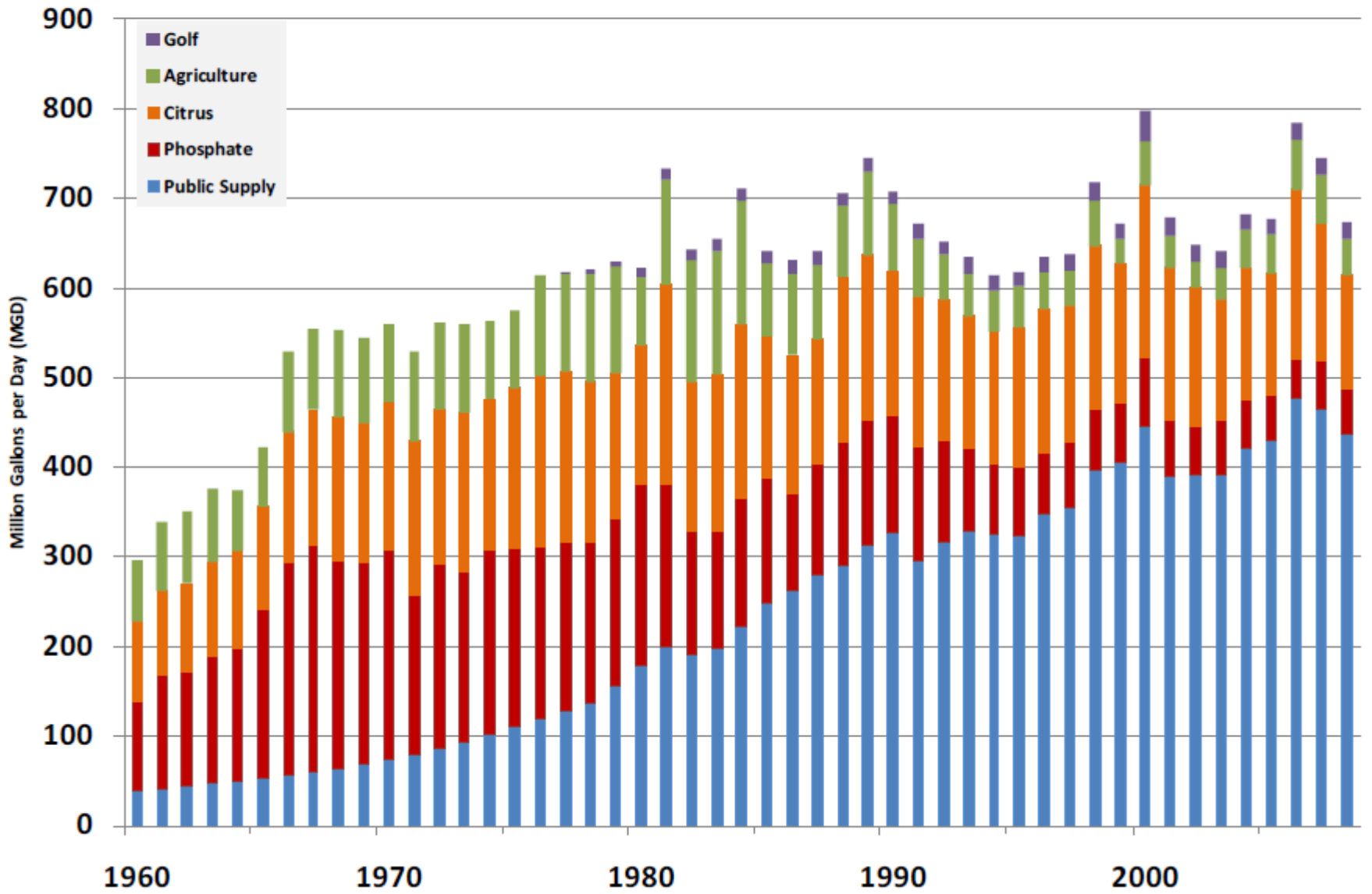
# Water Management in the CFWI Region

- Groundwater Assessment:
  - Joint research and monitoring
  - Existing and future demands (20 yrs)
  - Modeling of resources
  - Determine availability of resources
- Water Supply Planning:
  - Single Plan
  - Single set of actions
  - Regulatory consistency

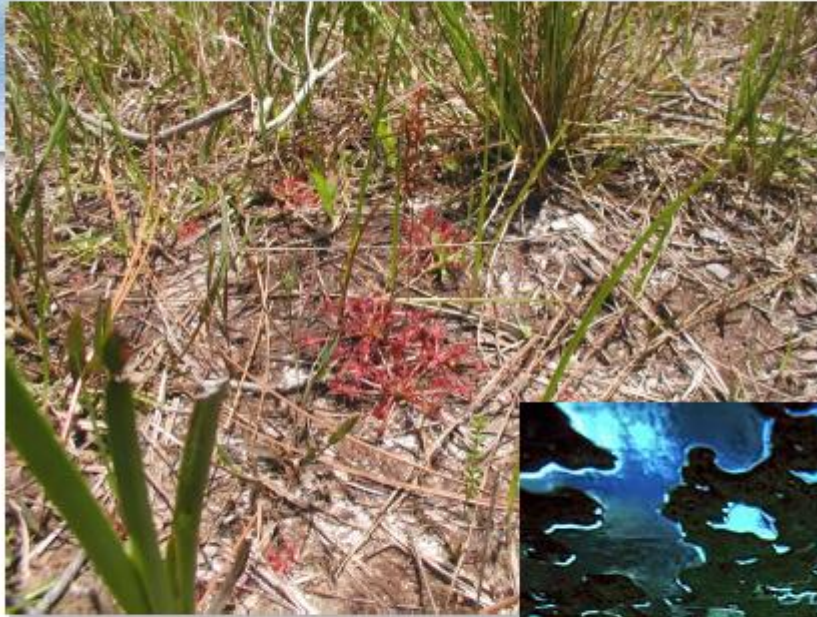




# Estimated Groundwater Use in Central Florida Area



# Resource Protection



- Wetlands
- Spring Flows
- Sinkholes
- Water Quality(saltwater)
- Lake Levels
- Adjacent Users
- MFL's



# What Have We Seen?

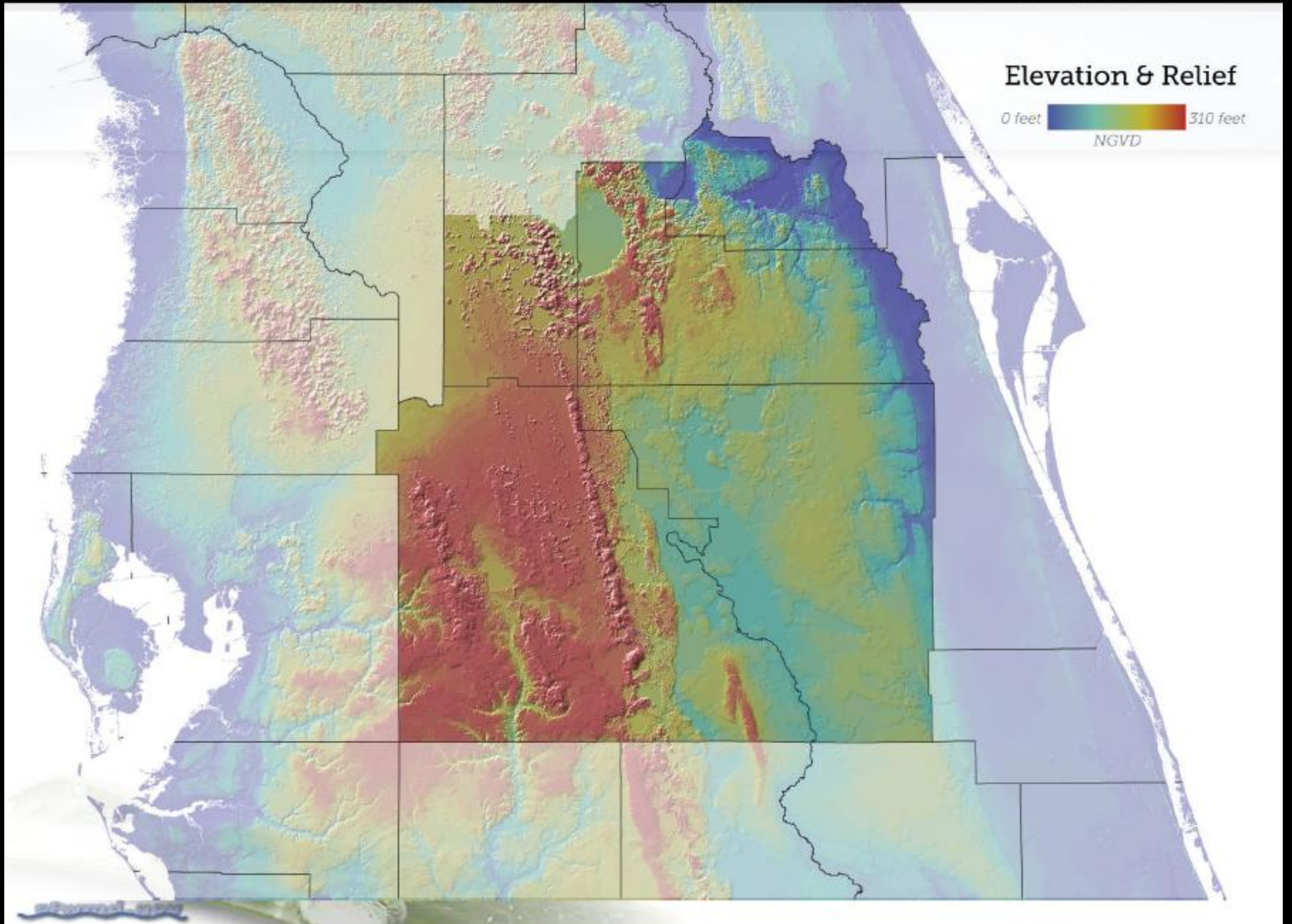
Some "Good"



Some "Bad"



# SOUTH FLORIDA WATER MANAGEMENT DISTRICT

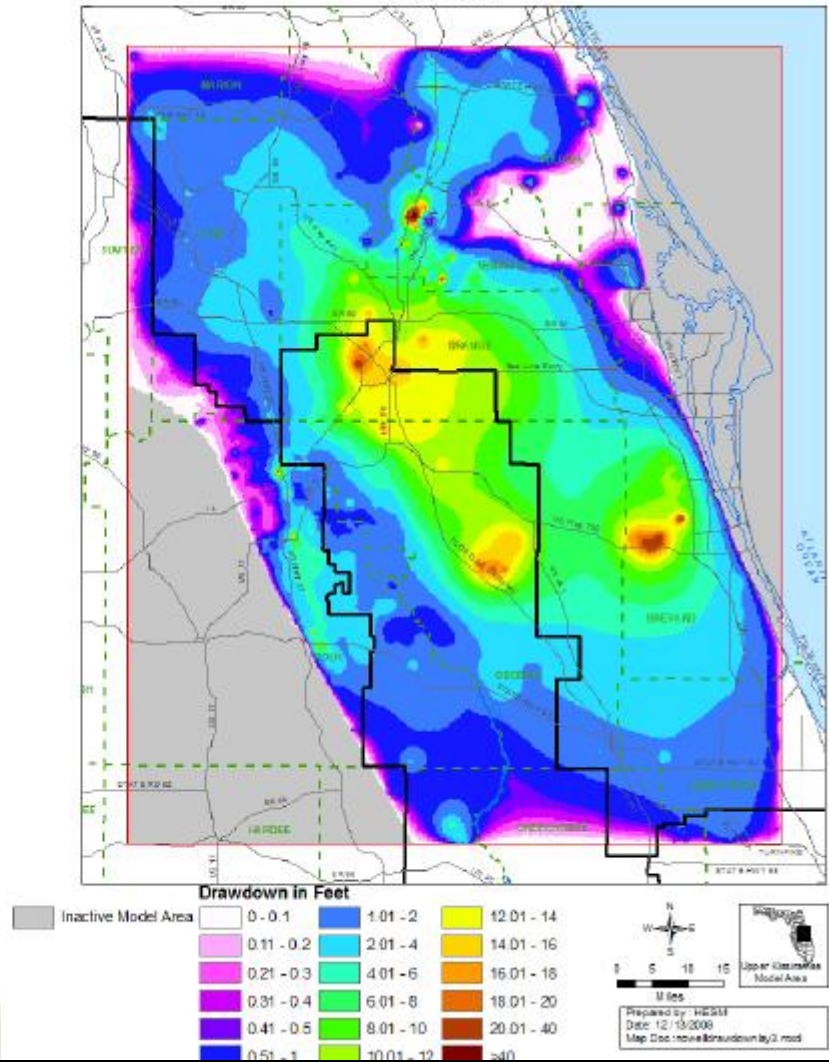


# Modeling of Water Use

## ECFT Predicted Upper Floridan Water Level Changes

*No-pump to current*

Drawdown in Feet  
Upper Floridan Aquifer (Layer 3)  
MAY 2003  
Nowells - Base

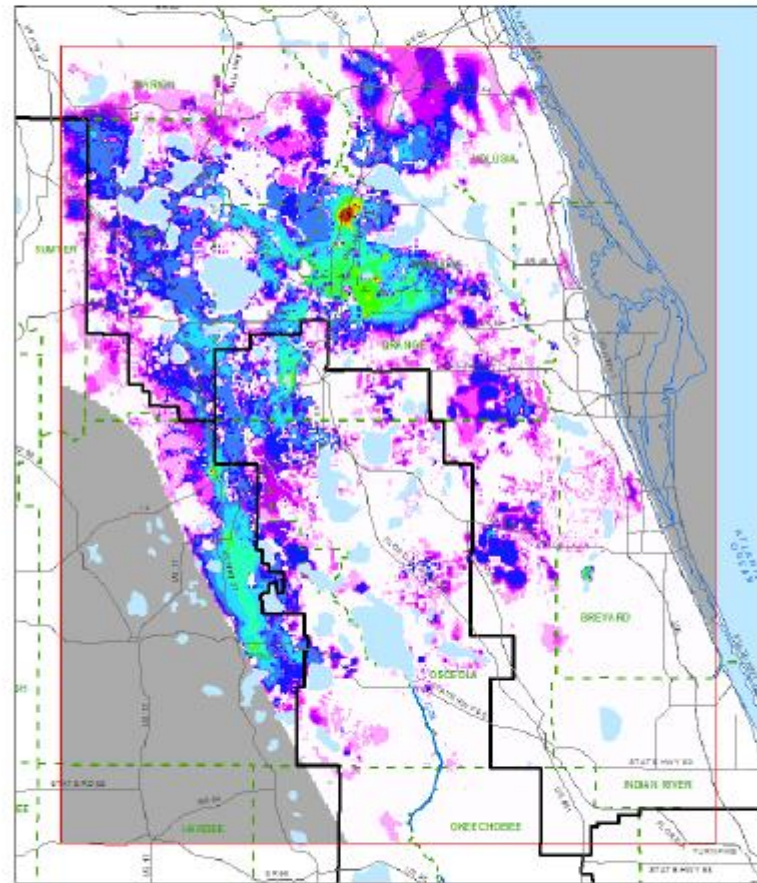


# Modeling Water Use

## ECFT Predicted Shallow Aquifer Water Level Changes

*No-pump to current*

Drawdown in Feet  
 Surficial Aquifer System Layer 1  
 MAY 2003  
 Nowells - Base



# CFWI Master Schedule- Phase II

	2009	2010	2011	2012	2013
ECFT & DWRM Model Development	→				
Environmental Assessment	→				
Stakeholder Participation/Input Process		→			
Long Term CFCA Rulemaking					→
AWS Source Development	→				
Water Supply Plans			→		

www.CFCAWater.com

Central Florida Water Initiative - Microsoft Internet Explorer provided by SFWMD

http://cfcawater.com

Convert Select  
File Edit View Favorites Tools Help

Central Florida Water Initiative

# Central Florida Water Initiative

Home

Meetings

Regional Water Supply Plan

Minimum Flows and Levels and Water Reservations

Hydrologic Analysis

Environmental Measures

Data, Monitoring and Investigations

Groundwater Availability


CFWI Resources

CFCWA Resources

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## Overview of the Central Florida Water Initiative

Florida's water management districts are committed to finding new ways of meeting the demand for freshwater. Historically, the Florida aquifer system has supplied the vast majority of the water used in the central Florida area. The boundaries of three water management districts — the St. Johns River Water Management District, South Florida Water Management District and Southwest Florida Water Management District — meet in the area. The three districts are studying whether the Florida aquifer system is reaching its sustainable limits of use and exploring the need to develop supplemental sources of water.



Coordination Area map

In the past, the three districts worked independently to resolve water resource issues, but the decisions of one district can impact the water resources of another. Today, the districts are working collaboratively with other agencies and stakeholders to implement effective and consistent water resource planning, development and management through the Central Florida Water Initiative (CFWI).

The CFWI builds on the prior work of the Central Florida Coordination Area

start

Internet 300%

11:25 AM



Don Rainey  
University of Florida IFAS

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IFAS Extension

# Development of Fertilizer Ordinances in Florida



PLN Urban Task Force

Orlando Florida

July 25, 2012

Don Rainey

University of Florida/IFAS Extension

Florida-Friendly Landscaping™

Green Industries Best Management Practices

Statewide Coordinator

# Talking Points:





Decline in Property Value And Economic Base

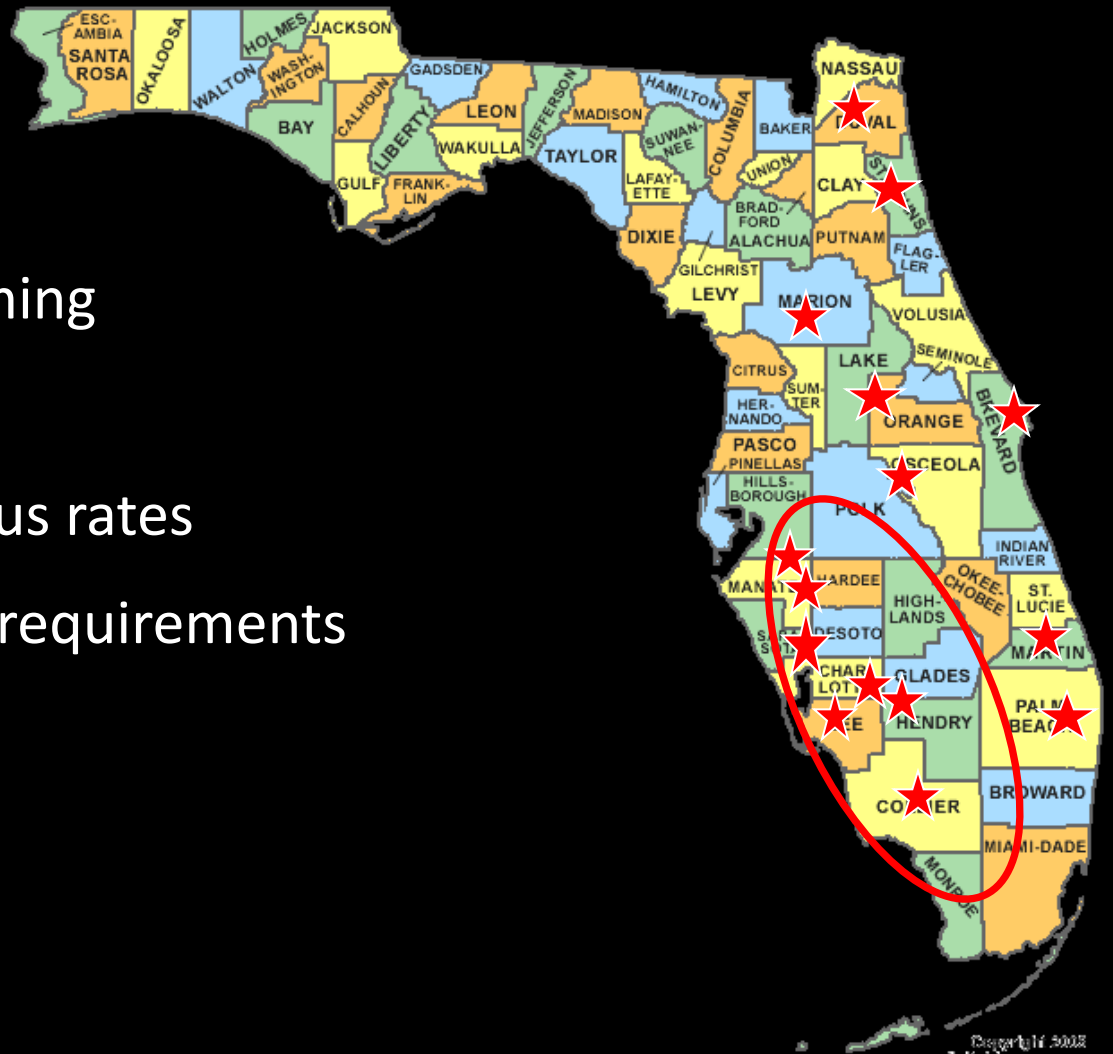
Caloosahatchee River  
October 15, 2005

# Addressing Nonpoint Source Pollution



# Local Fertilizer Ordinances

- Untreated buffer zone
- Fertilizer application timing
- Nitrogen sources
- Nitrogen and phosphorus rates
- Education/certification requirements
- Other



# Challenges

- Levels of Jurisdiction
- Policy/Rule (more than one)
- Education and Training
- Compliance Measures
- Measurable Impacts



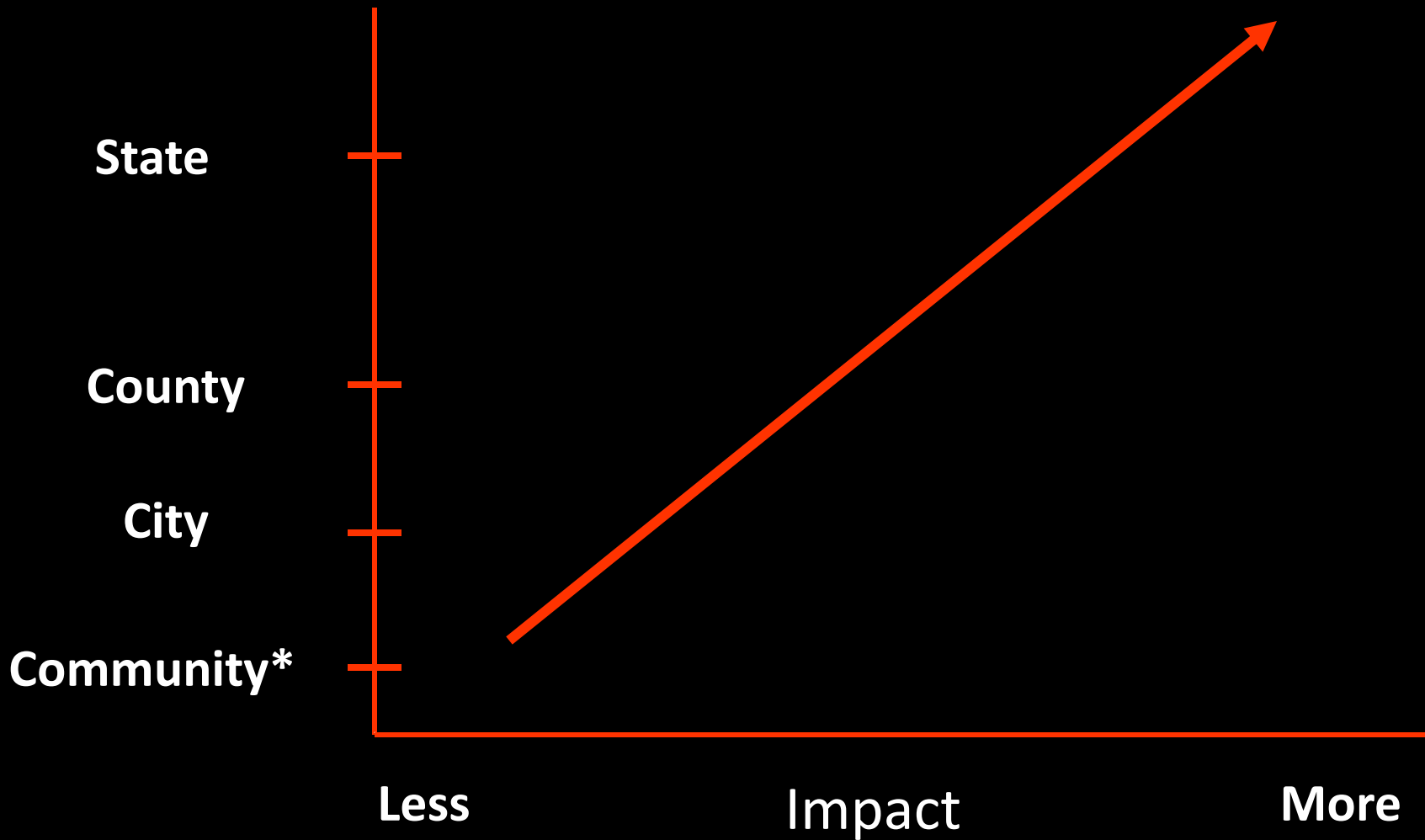
# Levels of Jurisdiction

- State
- County
- City
- Community

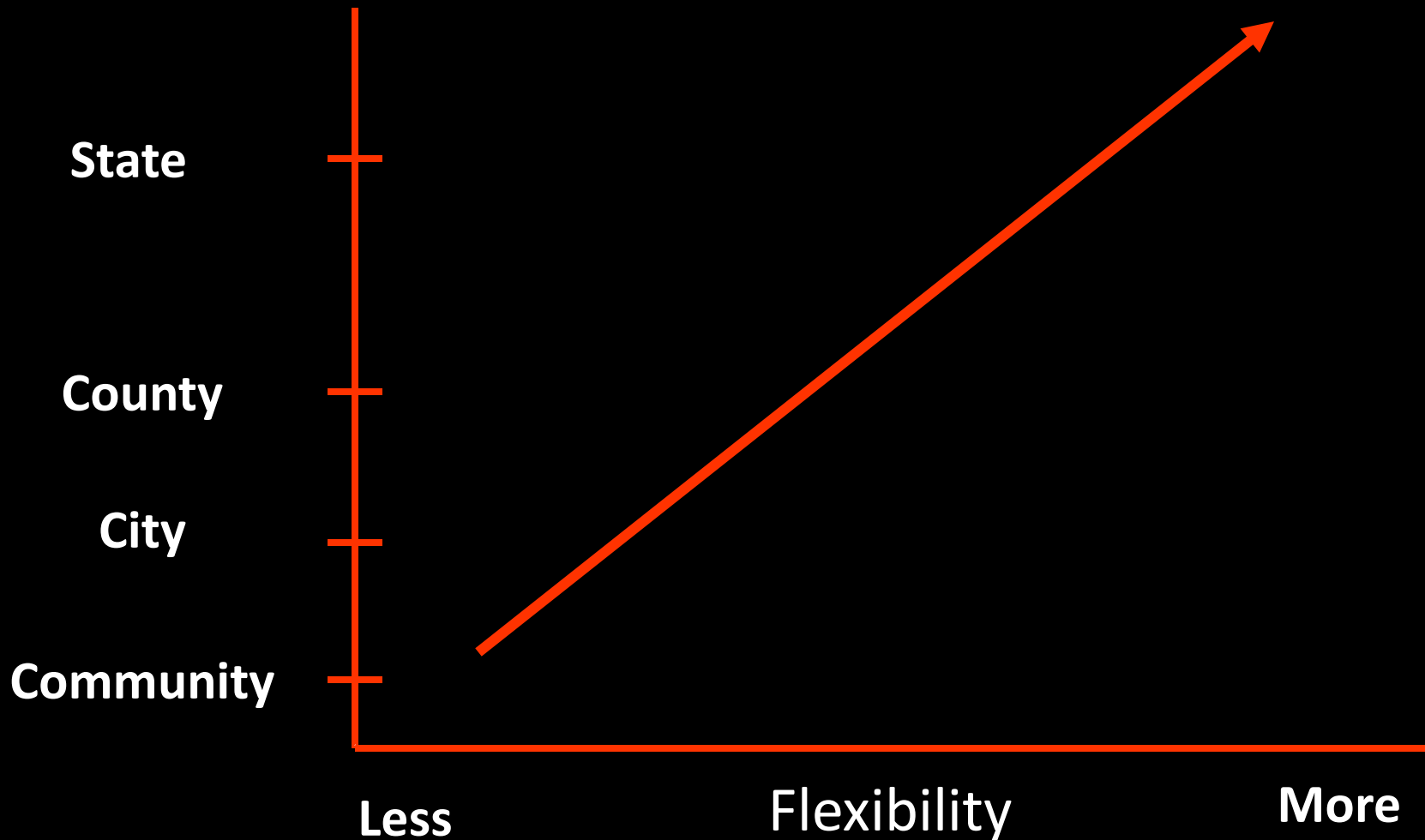




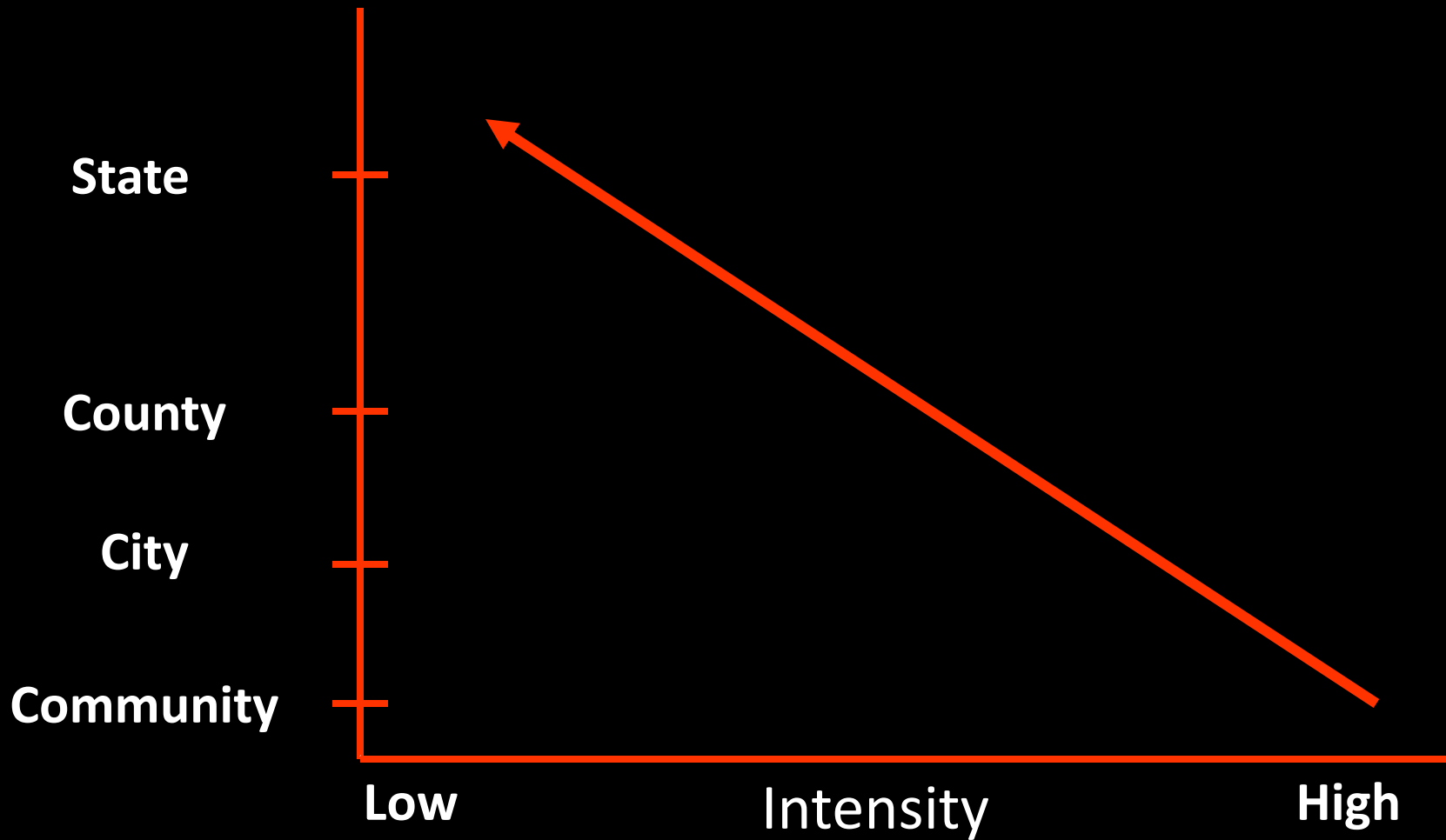
# Jurisdiction -Overview



# Policy/Rule -Overview



# Compliance Measures



# Education/Training - County

- FDEP's Best Management Practices for the Green Industry
- Special County Prescribed BMPs
- Lack of Funding for Clerical, Process and Maintenance

# Florida Consumer Fertilizer Task Force

- Attempt to effectively describe the link between fertilization and water quality.
  - How does this happen?
  - How can it be prevented?
  - How does one interpret a fertilizer label?
  - What is appropriate?:
    - rates
    - application
    - timing and target (plant)



Thank You  
Don Rainey  
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<http://gibmp.ifas.ufl.edu>

David Griffis  
Volusia County Extension

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# Does Volusia County Need a Fertilizer Ordinance?

2012 Southern Region Program Leadership  
Network, Urban Task Force Workshop

August 20, 2012

David Griffis



# Steps to develop fertilizer ordinance

- Gather Research Based Information
- Conduct listening sessions
- Be concerned with political situation

# Why some believe Volusia County needs a fertilizer ordinance

- 167 lakes, numerous streams
- Western border is St. Johns River
- Eastern border is the Atlantic Ocean
- Sandy soils
- Karst topography (sinkholes)
- Four major springs







Anita Neal  
Ed Skvarch  
St. Lucie County Extension

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# Ordinance for Florida-Friendly Fertilizer use on Urban Landscapes

Anita Neal, County Extension Director  
Ed Skvarch, Commercial Horticulture Agent II

UF/IFAS St. Lucie County Extension

2/4/2010

•Co. committee created

3/11/2010

•Harbor Advisory Board votes to recommend adoption of 10-001B  
•UF/IFAS Extension workshop

3/18/2010

4/14/2010

•Environmental Advisory Committee Discussion 10-001B

8/4/2010

•Environmental Advisory Committee votes to recommend adoption of 10-001C

8/31/2010

•BOCC Informal mtg.

10/21/2010

•County staff requests comments from state agencies

11/5/2010

•County staff receives comments from FDACS

11/19/2010

•County staff receives comments from FDEP

12/6/2010

•County staff receives comments from UF/IFAS

1/18/2011

•County staff receives permission to advertise ordinances

2/21/2011

•County staff agenda review

3/1/2011

•SLC staff recommends ordinance 11-001A  
•SLC BOCC passed ordinance 11-001A



# GI-BMP Training

Year	Location	#of participants	% that passed exam	% knowledge gain
2012	St. Lucie County	33	(29/33) 88%	14.3%
2012	Martin County	10	100% (10/10)	8.0%
2012	Martin County	14	93 (13/14)	12.5%
2012	Port St. Lucie	32	97% (32/33)	9.8%
2011	St. Lucie County	79	89% (69/77)	12.0%
2011	Martin County	24	92% (24/26)	12.1%
2010	Martin County	68	68% (46/68)	14.9%
2010	Port St. Lucie	29	86% (25/29)	13.6%
2009	St. Lucie County	58	85% (49/58)	10.1%
2009	Martin County	60	83% (50/60)	12.8%
2009	Alachua County	24	88% (21/24)	10.8%
2008	Martin County	76	no exam	13.8%





## Predicting the future

- Ordinances for City of Fort Pierce and St. Lucie Village
- Protecting the Indian River Lagoon and other water bodies
- Increase awareness for homeowners – accountability?



Mary Campbell  
Jane Morse  
Pinellas County Extension

# Fertilizer Ordinance Outcomes

Jane Morse

Commercial Horticulture Agent

Pinellas County



# Water Quality Classes

- Developed the model Landscape BMP class

A black sign with white and red text. The word 'MODEL' is in large, white, sans-serif capital letters. Below it, the word 'Home' is written in a red, cursive script font with a white outline. To the right of 'Home' is a white circle containing a red arrow pointing to the left. The sign is mounted on two black stakes in a grassy area.

MODEL  
*Home*

# Water Quality Classes

- All participants initially came through the Extension portal to register for classes



# Water Quality Classes

- Helped watershed with technology to deliver grades immediately



TurningPoint®

Turning Point  
Unit A

# Water Quality Classes

- Provided teaching and venue



# Problems

- Extension is not regulatory  
– guilty by association?





# Problems

- Confusion over the names and who does what



# Problems

- Overwhelmed our system



# Problems

- Pushed to disassociate and move them to their own website and registration



# Problems

- University recommendations “not in compliance” with regulations



# Problems

- No clear message from UF



# Positive Outcomes

- Reaching a new audience



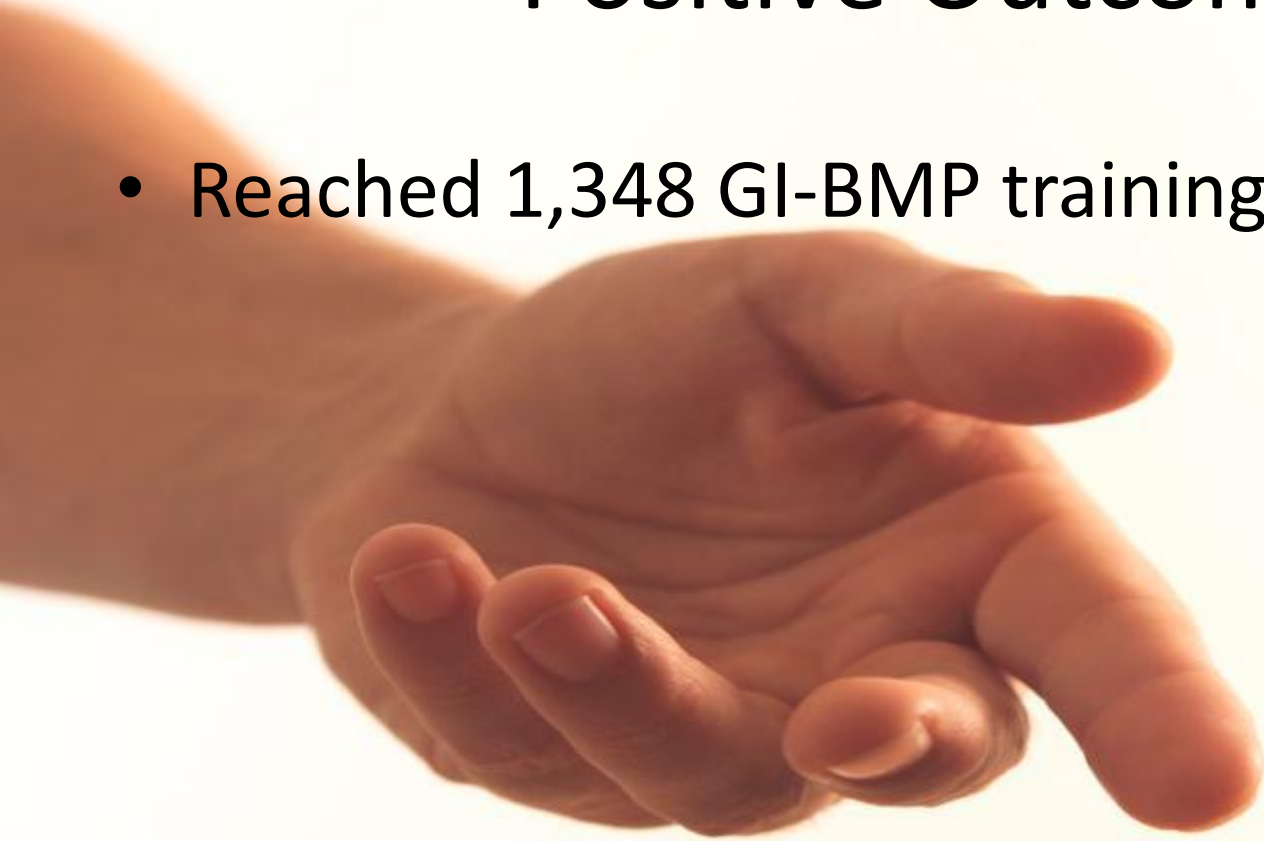
# Positive Outcomes

- Reached 2,277 L-BMP training since 2011.



# Positive Outcomes

- Reached 1,348 GI-BMP training since 2007.





# Positive Outcomes

- Reached 402 LCLM training since 2009.



# Positive Outcomes

- Illegal pesticide applicators getting licensed



# Positive Outcomes

- New partnerships with Watershed (on overall advisory committee)





# Positive Outcomes

Worked together to solve problems and learn from each other

# Positive Outcomes



Eventbrite

