

# *Climate Change*

*May 9 – 11, 2007*

## *Partnerships for Success*

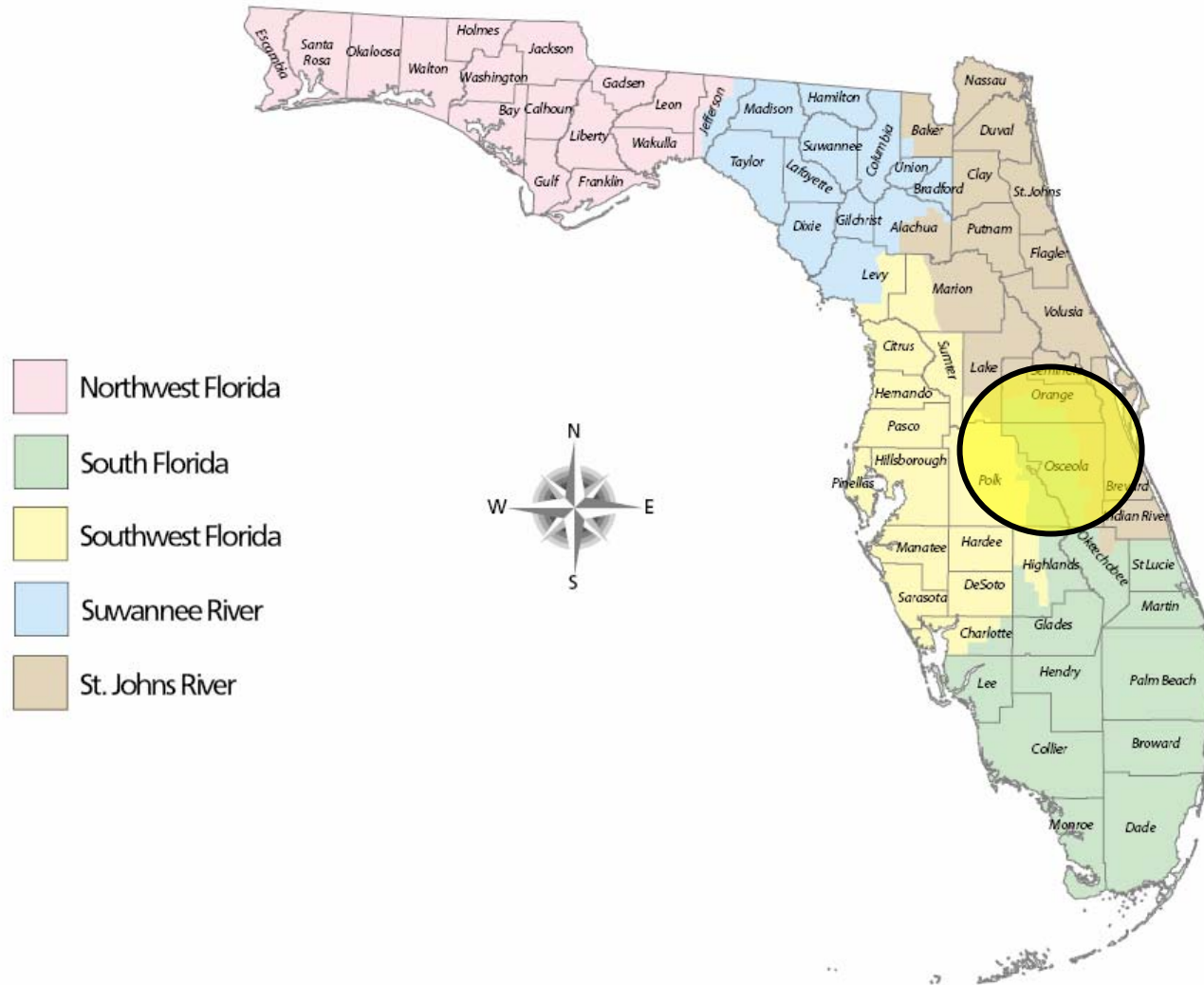
Richard S. Owen, AICP

Deputy Executive Director, Resource Regulation  
Southwest Florida Water Management District

# *Presentation Overview*

- Regional Approaches to Resource Management
- Partnerships
- Adaptive Management

# Water Management Districts



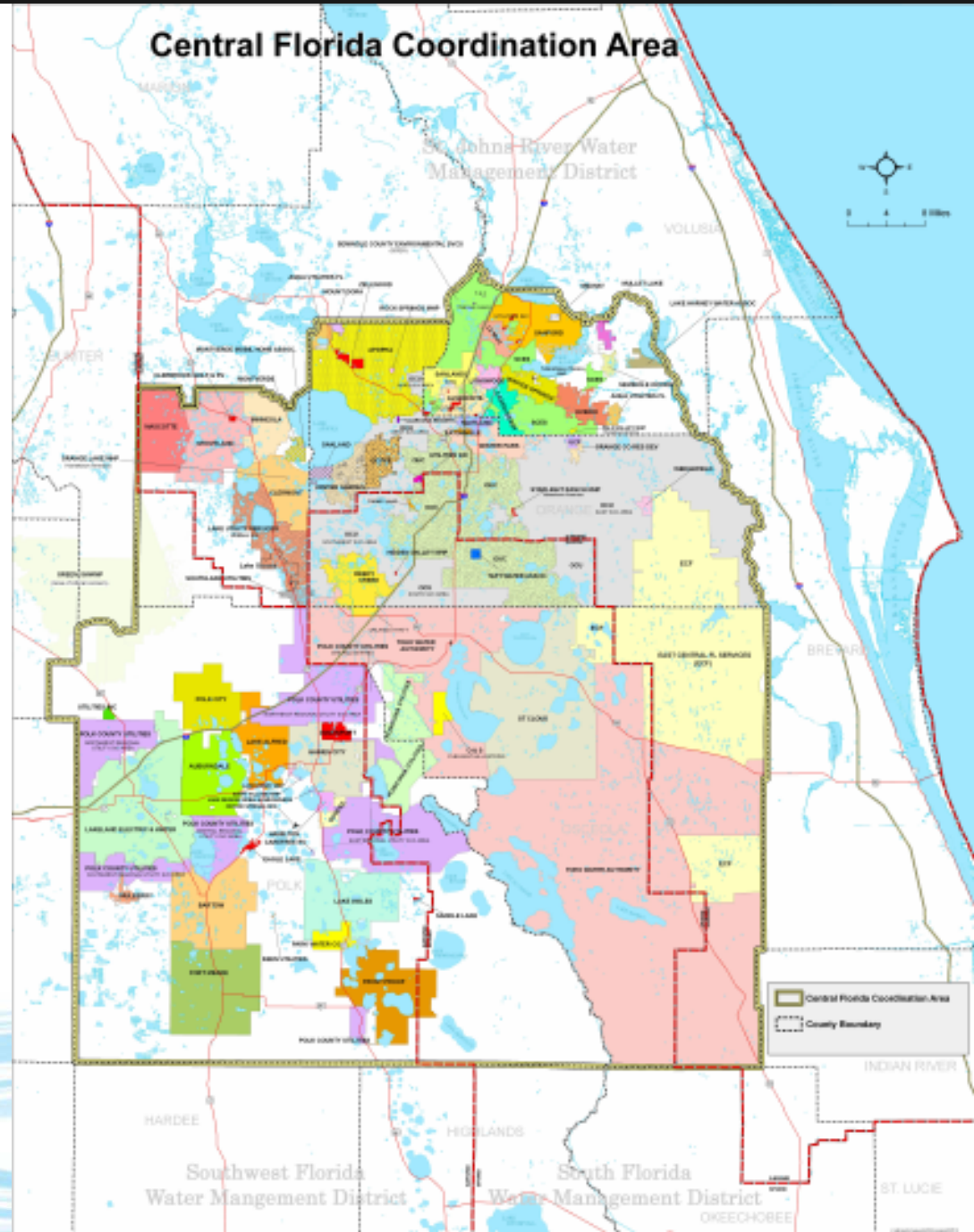
# *Regional Approaches to Resource Management*

## Central Florida Coordination Area





# Central Florida Coordination Area (CFCA)



# Background

- Traditional groundwater sources limited and not adequate to meet growing needs on a regional basis
- Alternative sources must be developed

# Central Florida Coordination Area Action Plan

## 3 Components:

- Regulatory
- Planning
- Modeling and Predictive Tools

# Goals of Action Plan

- ✓ Protection of water resources
- ✓ Equitable distribution of available groundwater
- ✓ Expedited development of AWS projects
- ✓ Consistent results across WMD boundaries

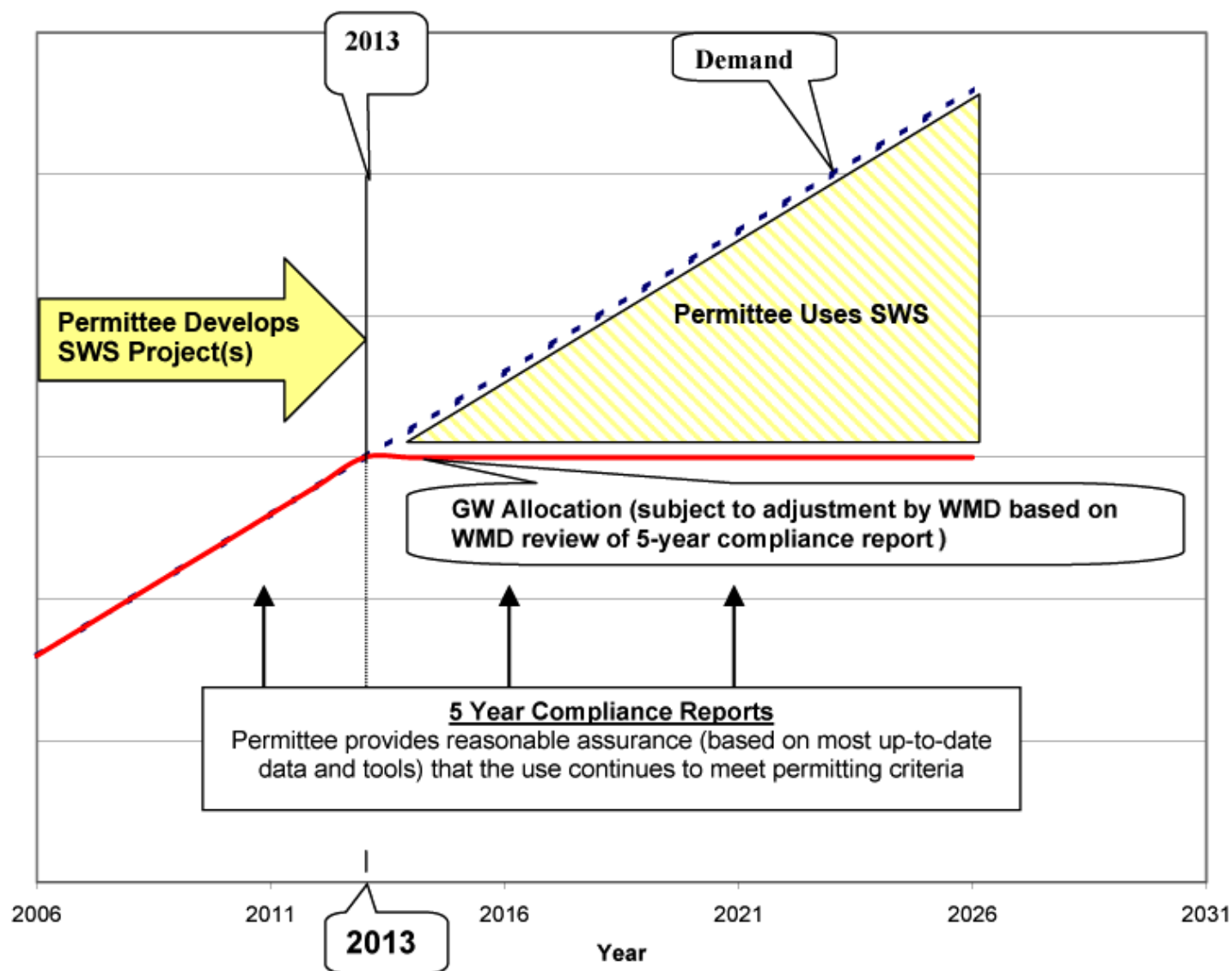


# Regulatory Component

## *Key Concepts*

- Groundwater allocations limited to a maximum of that needed to meet 2013 demand.
- Opportunity for 20-year permit duration for the 2013 groundwater allocation for those permittees that commit to using SWS projects to meet demands beyond 2013.

# CFCA Regulatory Work Plan Permit Framework for 20-year Permit



**Note:** 2013 Allocation Limit Constant Regardless of Permit Issuance date

# Central Florida Coordination Area Action Plan

## **Planning Component:**

- Demand projections
- Potential sources
- Funding

## **Modeling and Predictive Tools:**

- Assessment of long-term availability of groundwater
- Data collection, enhancement of models and analytical tools
- Improved future decision making

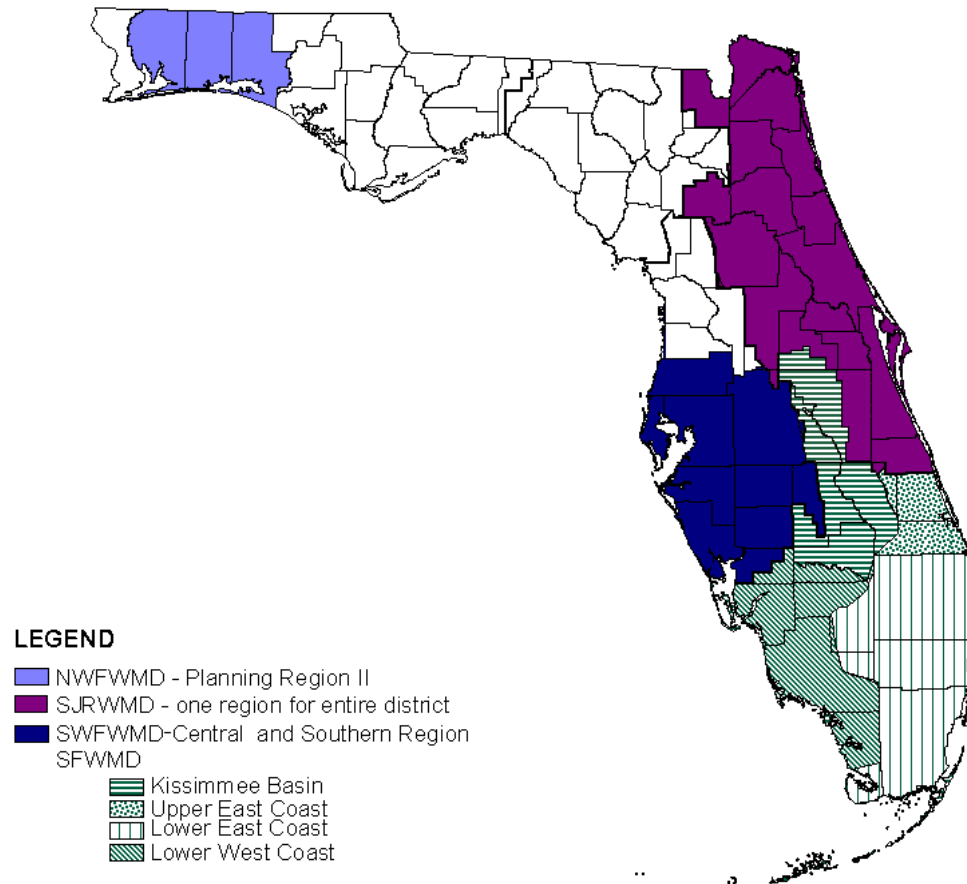
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# Regional Water Supply Planning

Water Supply Planning Regions



## LEGEND

- NWFWMD - Planning Region II
- SJRWMD - one region for entire district
- SWFWMD-Central and Southern Region
- SFWMD
- Kissimmee Basin
- Upper East Coast
- Lower East Coast
- Lower West Coast



Southwest Florida Water Management District



# Regional Water Supply Plan

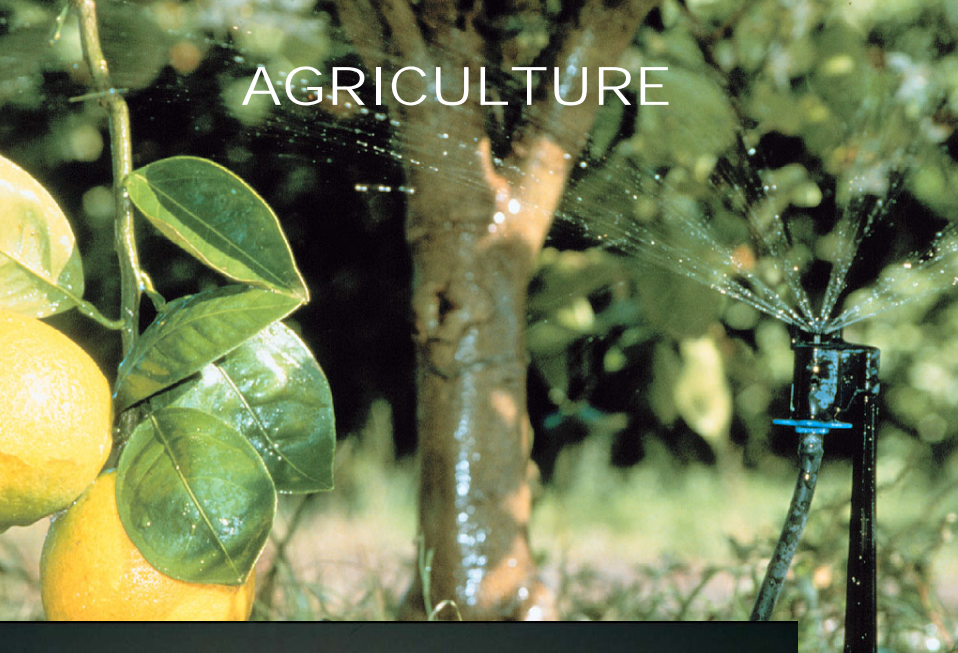
**December 1, 2006**

**Board Approved**

Southwest Florida  
Water Management District  
  
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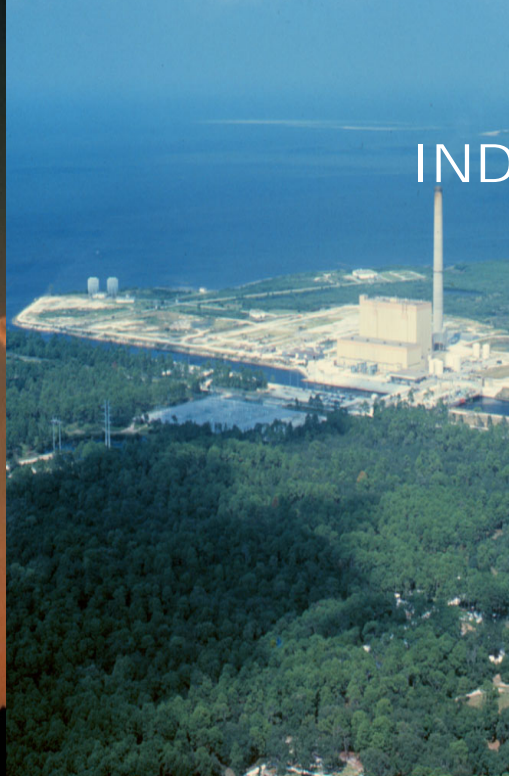
AGRICULTURE



PUBLIC SUPPLY



INDUSTRIAL



RECREATION



# **Demand Projections**

## **Regional Summary 2005-2025 (mgd)**

<b>Category</b>	<b>2005</b>	<b>2025</b>	<b>Additional</b>
<b>Agriculture</b>	<b>459</b>	<b>421</b>	<b>-38</b>
<b>Public Supply</b>	<b>533</b>	<b>684</b>	<b>151</b>
<b>Ind./Commercial, Mining, Power</b>	<b>117</b>	<b>126</b>	<b>9</b>
<b>Recreation</b>	<b>62</b>	<b>86</b>	<b>24</b>
<b>District Total</b>	<b>1,171</b>	<b>1,317</b>	<b>146</b>



# Alternative Source Development Options (MGD)

Urban Conservation	95
Agricultural Conservation	41
Reclaimed Water	168
Surface Water / Storm Water	244
Brackish Desalination	30
Seawater Desalination	100
Total	678

***Southwest Florida Water  
Management District  
Water Supply  
Planning Regions***

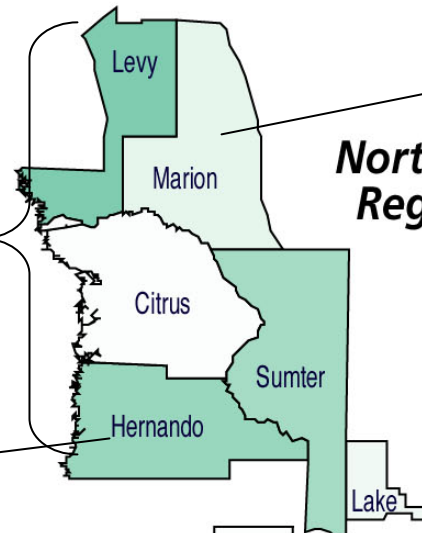
**WRWSA  
WRAP**

**Hernando County  
WRAP**

**TBW Partnerships**

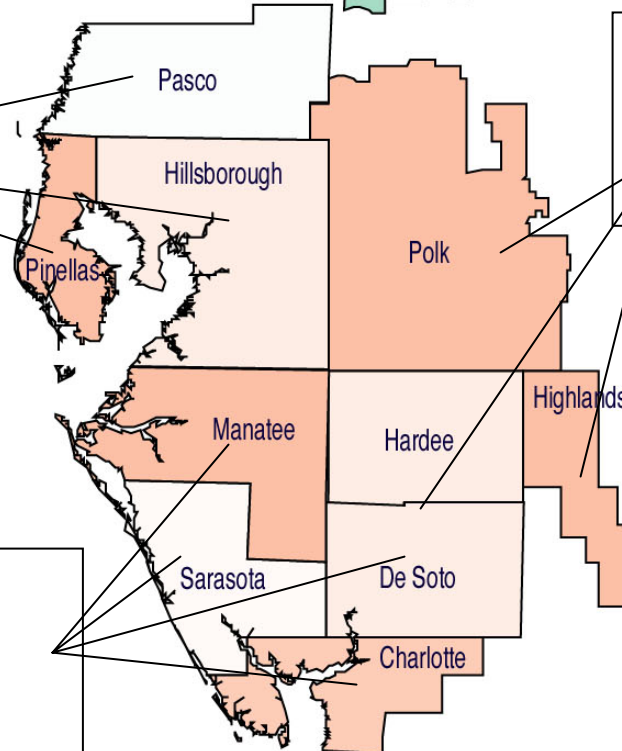
***Central and  
Southern  
Region***

**PR/MRWSA  
Southern Water  
Alliance**



***Northern  
Region***

**Marion County  
WRAMP**

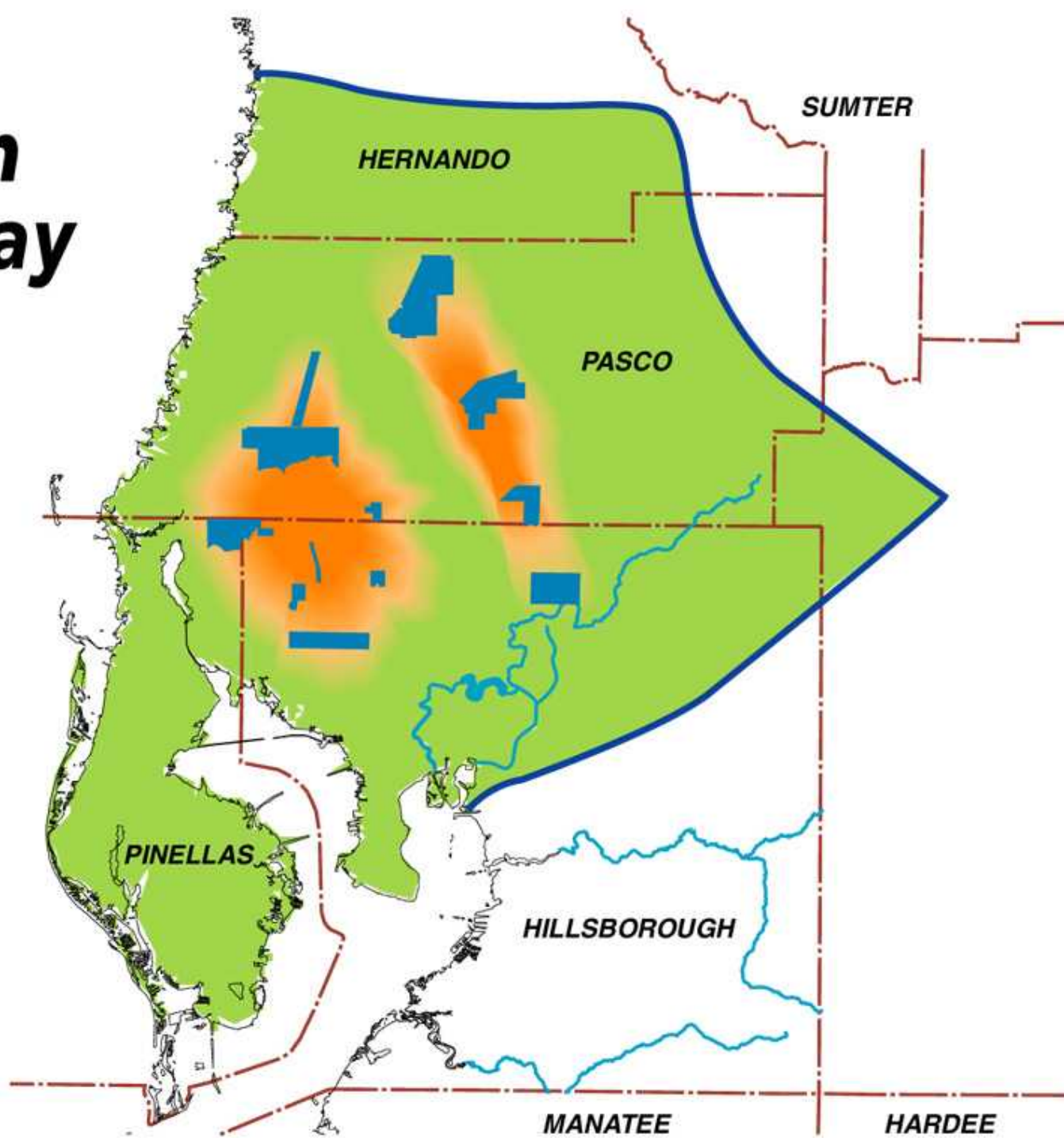
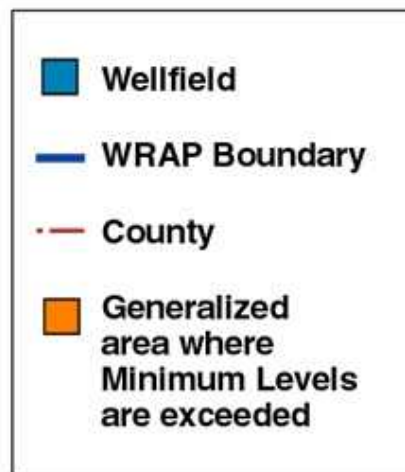


**Heartland  
Water  
Alliance**

# ***Presentation Overview***

- Regional Approaches to Resource Management
- **Partnerships**
- Adaptive Management

# Northern Tampa Bay





# SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT



Wetland Impacts



Lake Impacts





# Partnership Agreement

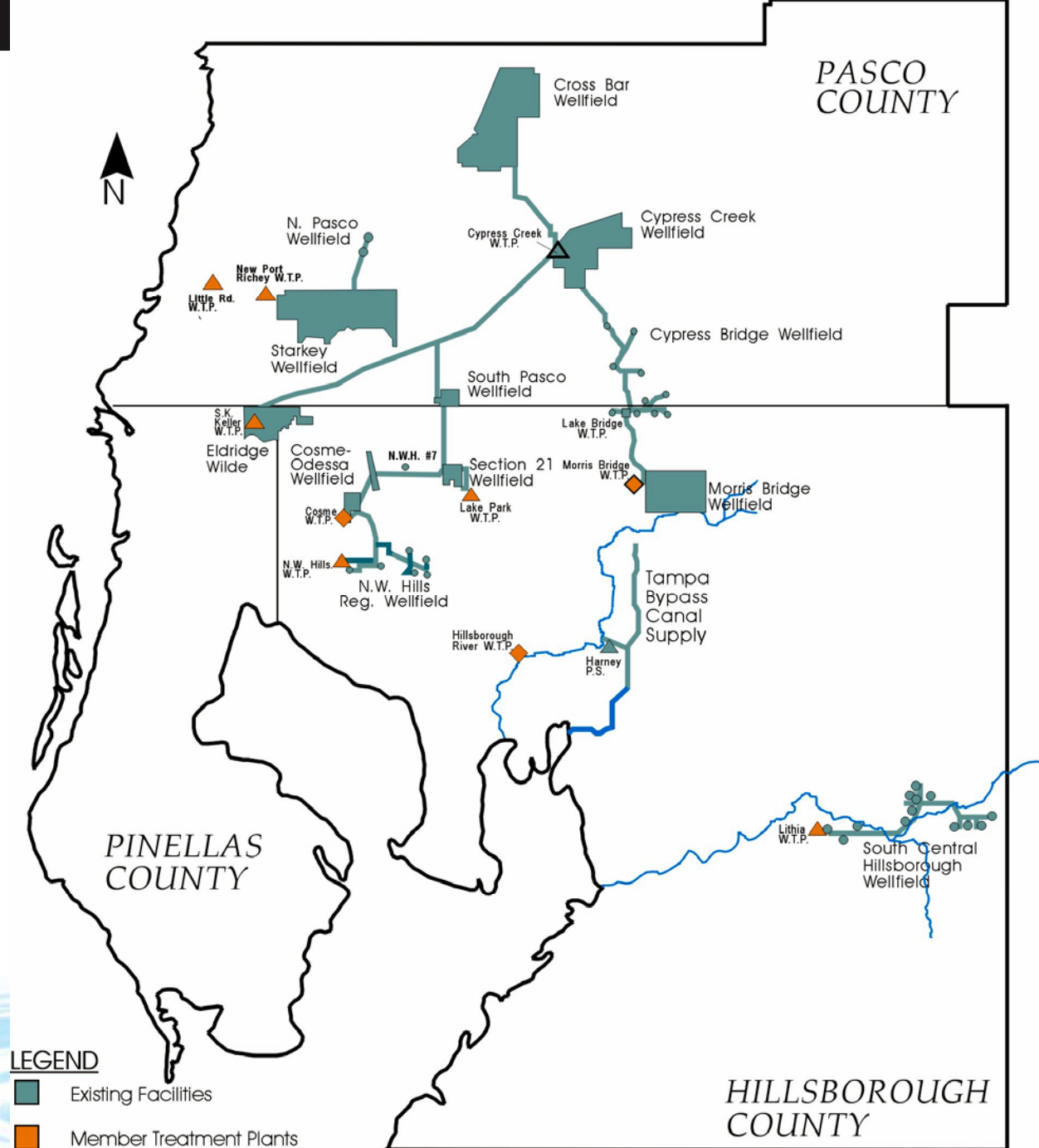
- ***Reduce Ground Water Pumping***
  - 192 MGD to 90 MGD in 2008
  - Provide for environmental recovery
- ***Develop alternative water supplies***
  - Regional surface water reservoir
  - Seawater desalination
  - Regional transmission pipelines
  - Wastewater reuse
- ***Provides District Funding***
  - \$183 million - Construction
  - \$90 million - Conservation/reuse
  - \$26 million for land acquisition







# NTB Regional Water Supply System Prior To 2000





# Tampa Bay Water Master Water Plan

Regional surface water treatment plant

Regional pipelines

Seawater desalination plant

Existing Facilities

New Water Supplies

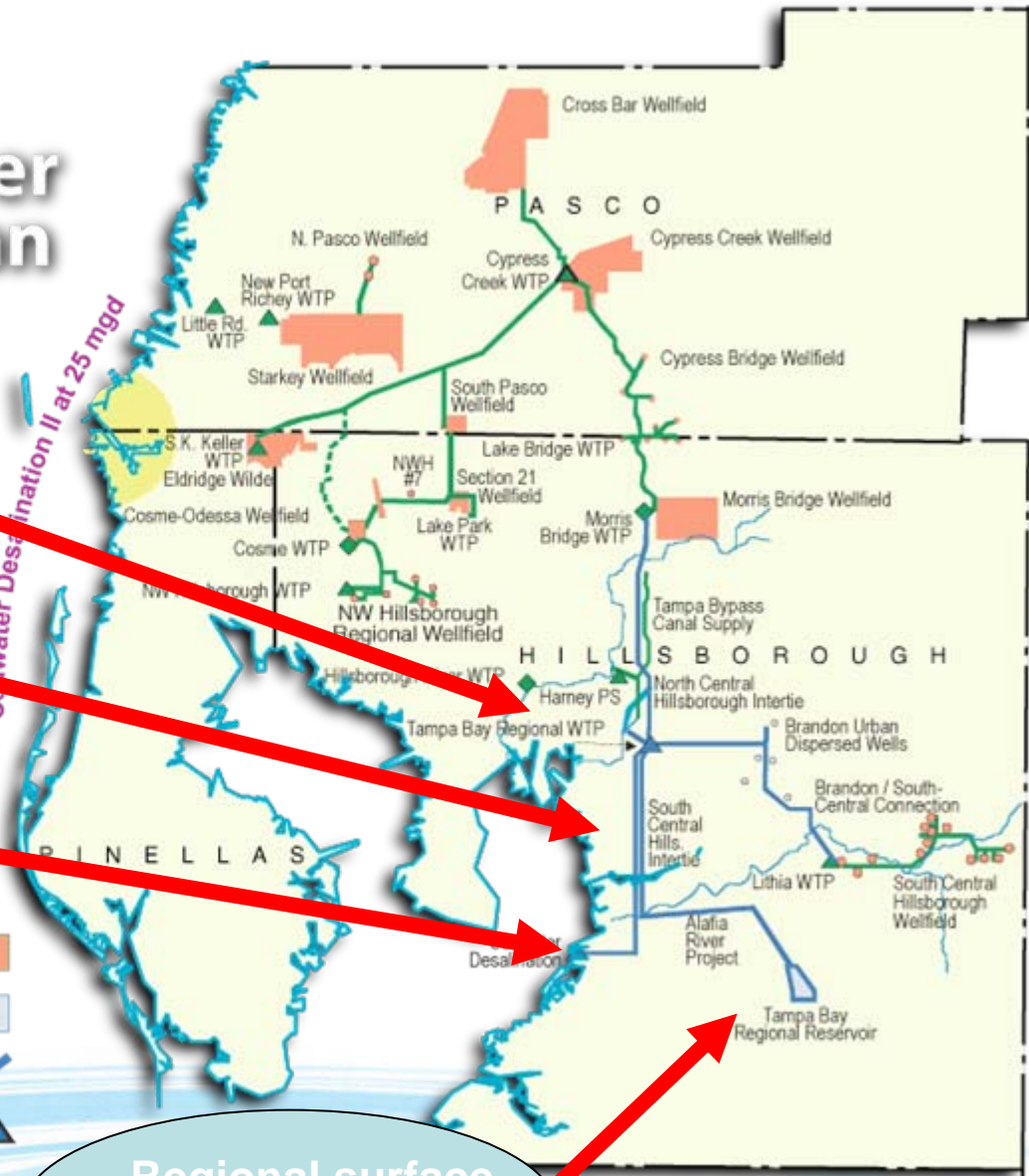
New Pipelines/Interties

New Water Treatment Plant



Regional surface water reservoir

Seawater Desalination II at 25 mgd



# **Adaptive Management**

- Northern Tampa Bay Recovery Strategy
- Surface Water Improvement and Management



August 2006













# *Climate Change - Impacts and Responses*

## *Partnerships for Success*

- Regional Approaches to Resource Management
  - Central Florida Coordination Area
- Partnerships
  - Regional Water Supply Planning and Development
- Adaptive Management
  - Northern Tampa Bay Recovery Strategy
  - SWIM Projects

