

# *Central Florida Water Initiative*

*Water for Tomorrow*

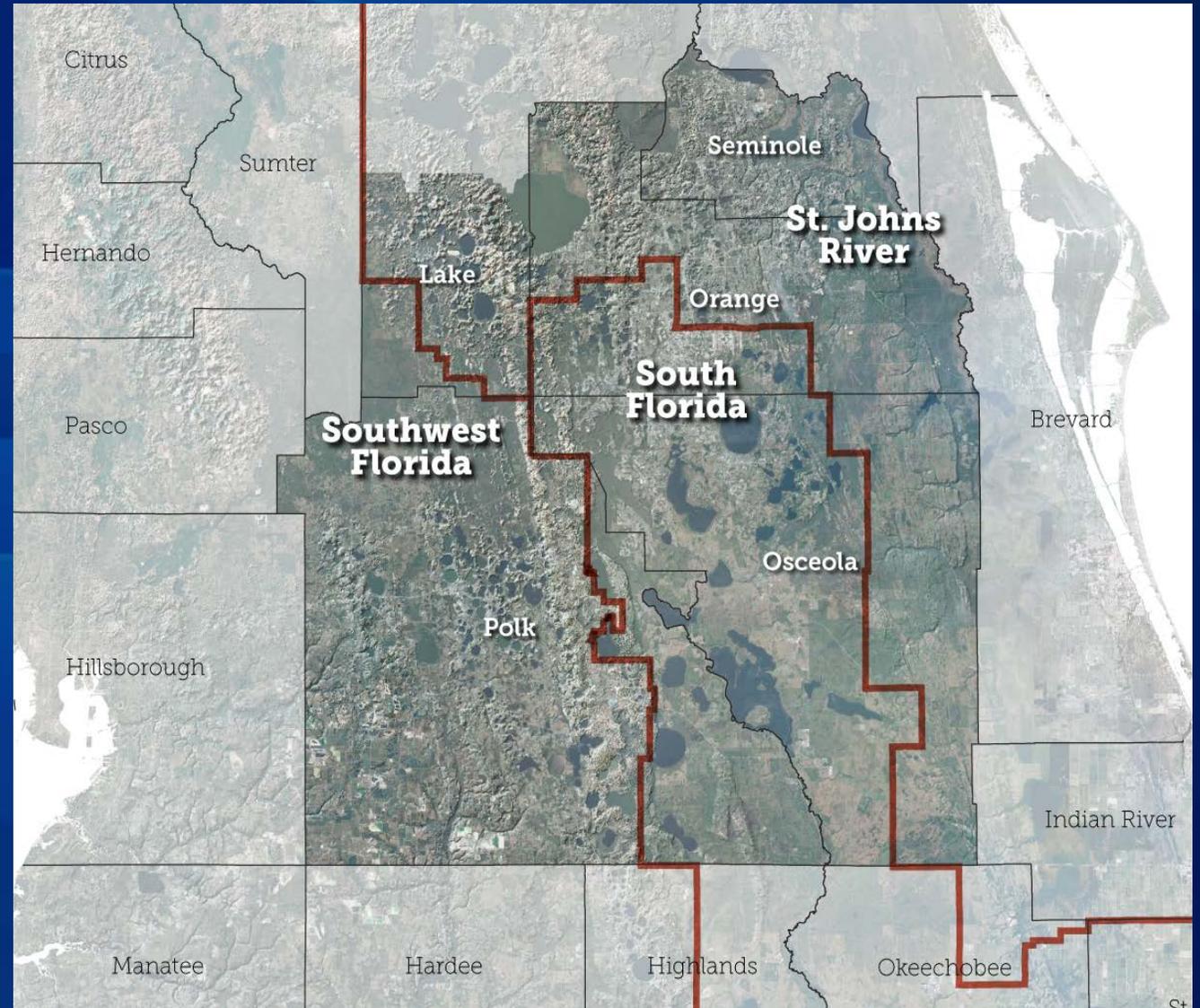


**Steering Committee**  
**February 21, 2020**

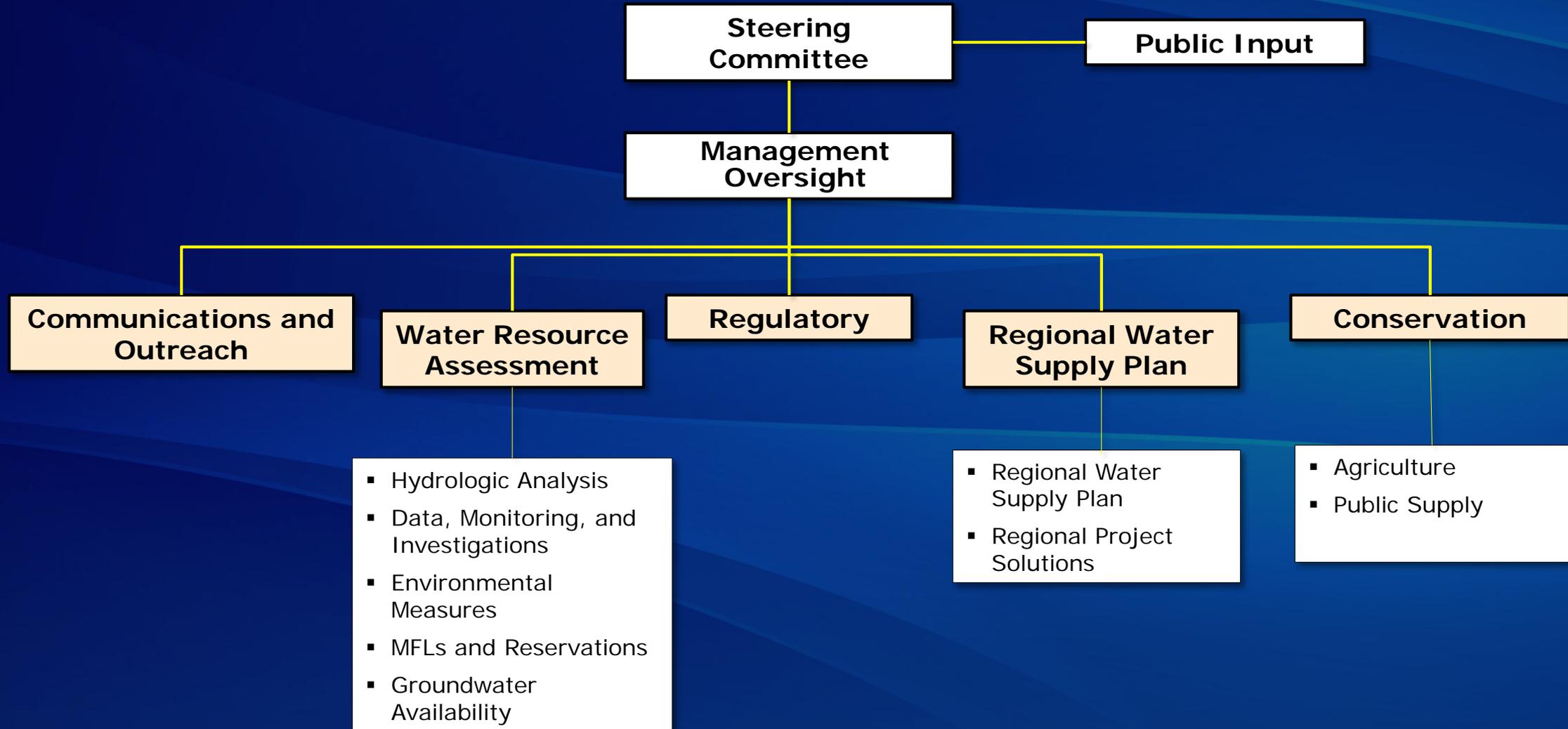
**Tammy Bader-Gibbs**  
Regional Water Supply Plan Lead

# Central Florida Water Initiative

- Collaborative process with FDEP, SJRWMD, SFWMD, SWFWMD, FDACS, regional public water supply utilities, and other stakeholders
- CFWI Planning Area includes Orange, Osceola, Polk, Seminole and southern Lake counties

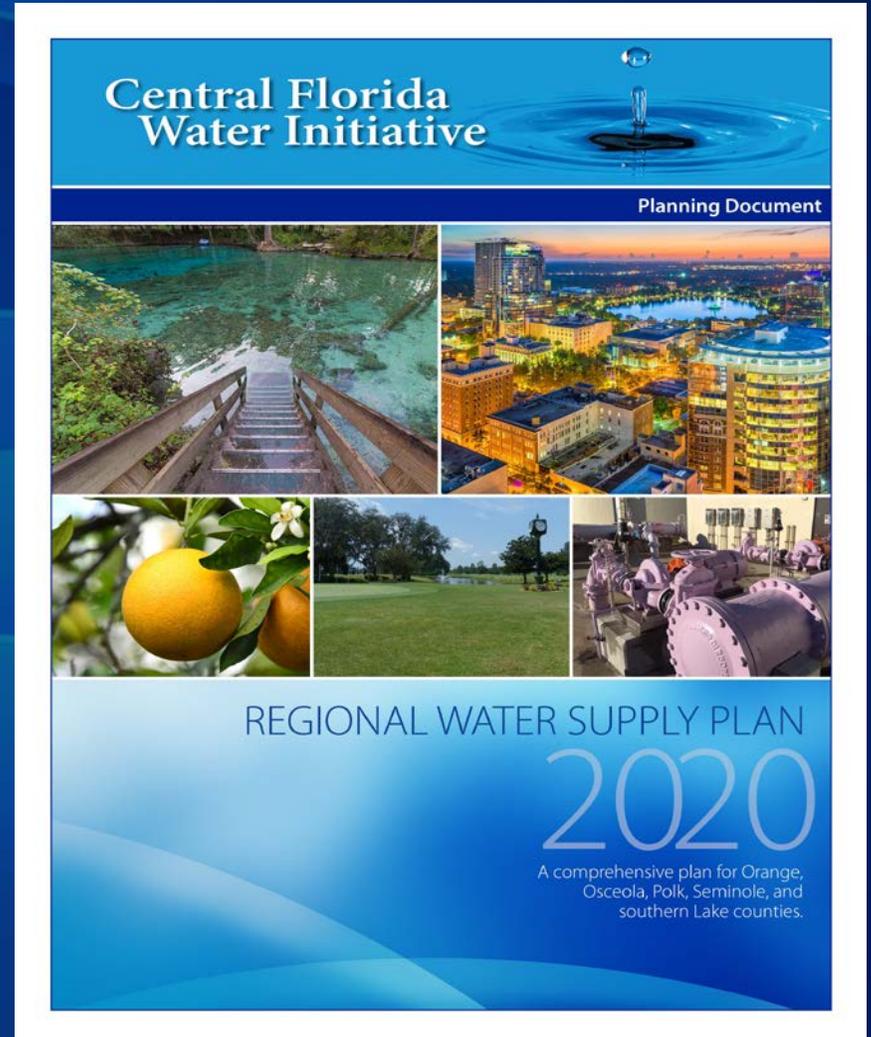


# CFWI Organizational Structure



# 2020 CFWI Regional Water Supply Plan

- RWSP updated every 5 years, covers a 20-year planning period
- Provides a framework for water supply management decisions
- RWSP Chapters
  - Introduction
  - Progress Since 2015 CFWI RWSP
  - Population and Water Demands
  - Water Resource Assessment
  - Water Conservation
  - Water Source Options
  - Water Supply & Water Resource Development Options
  - Funding Options
  - Conclusions and Recommendations



# Water Demands in the CFWI Planning Area

	Public Water Supply	Domestic and Small Public Supply	Agricultural Irrigation	Industrial/ Commercial/ Institutional	Landscape/ Recreational Irrigation	Power Generation	Total
<b>2015</b>	385.97	21.56	159.38	53.50	38.24	8.47	<b>667.12</b>
<b>2040</b>	592.28	24.59	163.49	69.00	46.96	11.27	<b>907.59</b>
<b>Change</b>	206.31	3.03	4.11	15.50	8.72	2.80	<b>240.47</b>
<b>% Change</b>	53%	14%	3%	29%	23%	33%	<b>36%</b>

Demands under average rainfall conditions, in million gallons per day.

## Population

2015 2,933,915 residents  
 2040 4,373,309 residents

*49% increase*



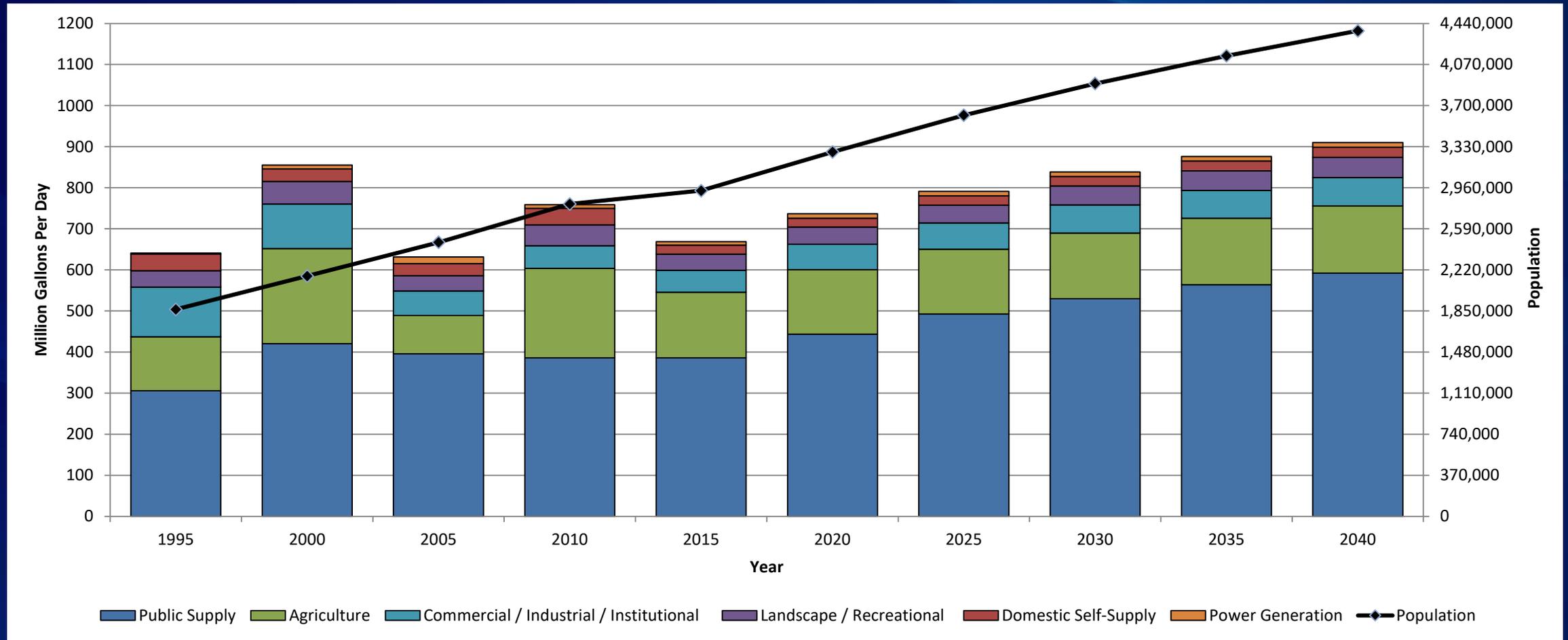
## Irrigated agricultural acres

2015 135,700 acres  
 2040 134,300 acres

*1% decrease*



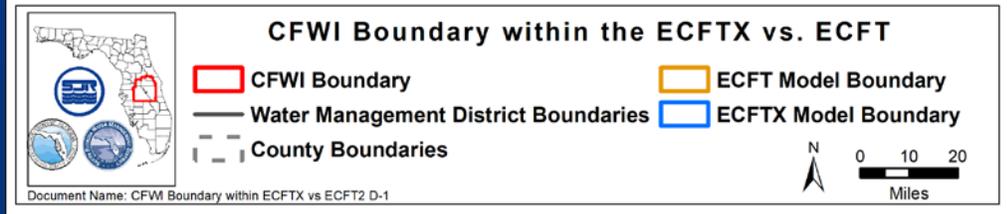
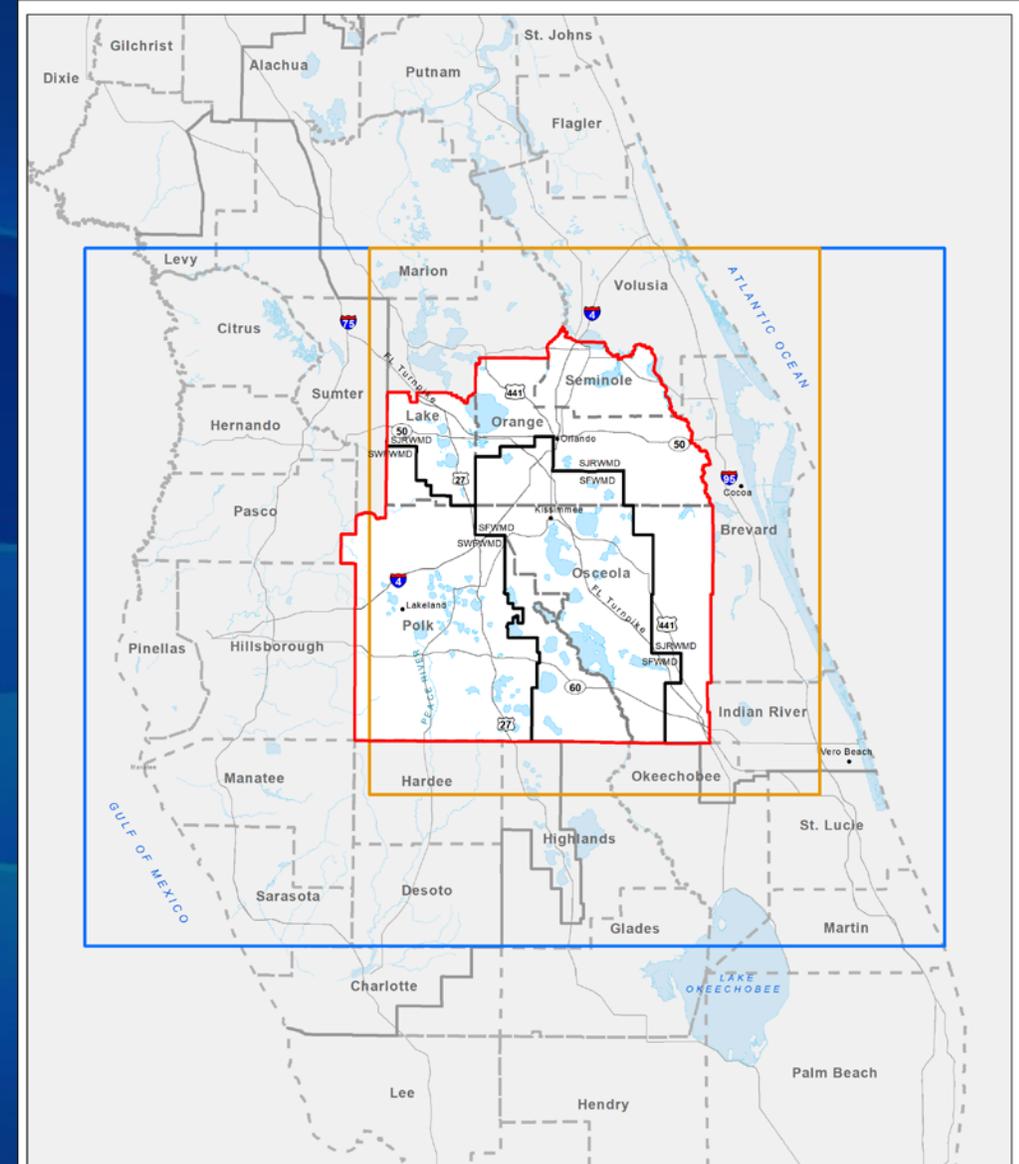
# CFWI Historic Water Use and Projected Water Demand – vs – Historic Population and Projected Population



1995-2015 is historic data / 2020-2040 is Projected data

# Groundwater Model Boundaries

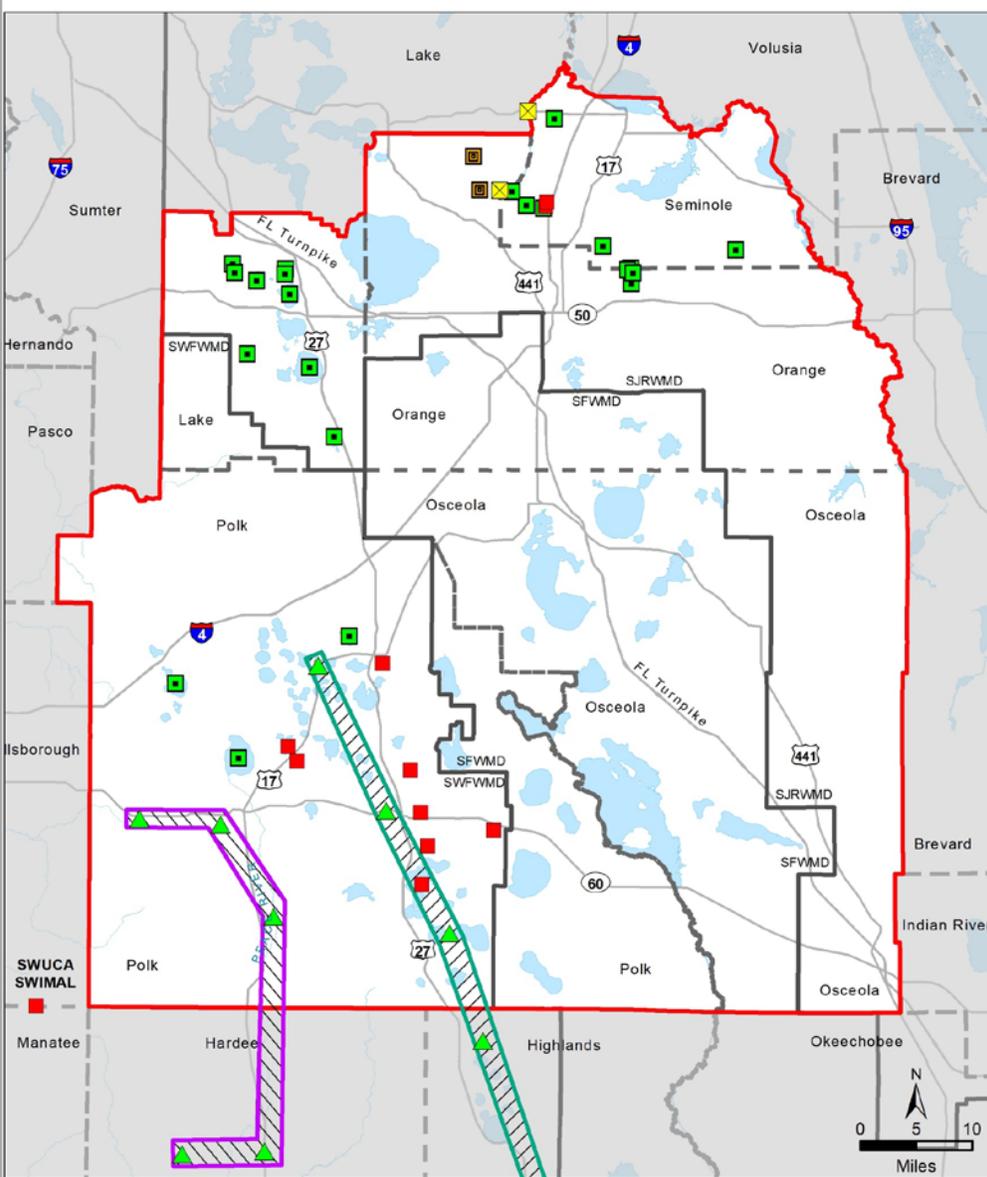
- Planning Level Tool
- 2015 RWSP
  - East Central Florida Transient Model (ECFT)
    - 10,000 sq. mi
- 2020 RWSP
  - East Central Florida Transient Model Expanded (ECFTX)
    - 25,000 sq. mi



# Environmental Measures

## 39 MFL and MFL-related Environmental Criteria

- Adopted MFLs in CFWI:
  - 29 lakes/wetlands
  - 6 springs
  - 1 river segment
- Adopted SWUCA SWIMAL
- Upper Peace River Target Wells for SWUCA recovery
- Ridge Lakes Target Wells for SWUCA recovery



2040 Withdrawals Condition Status of MFL and MFL-Related Environmental Criteria in the Central Florida Water Initiative (CFWI) Area

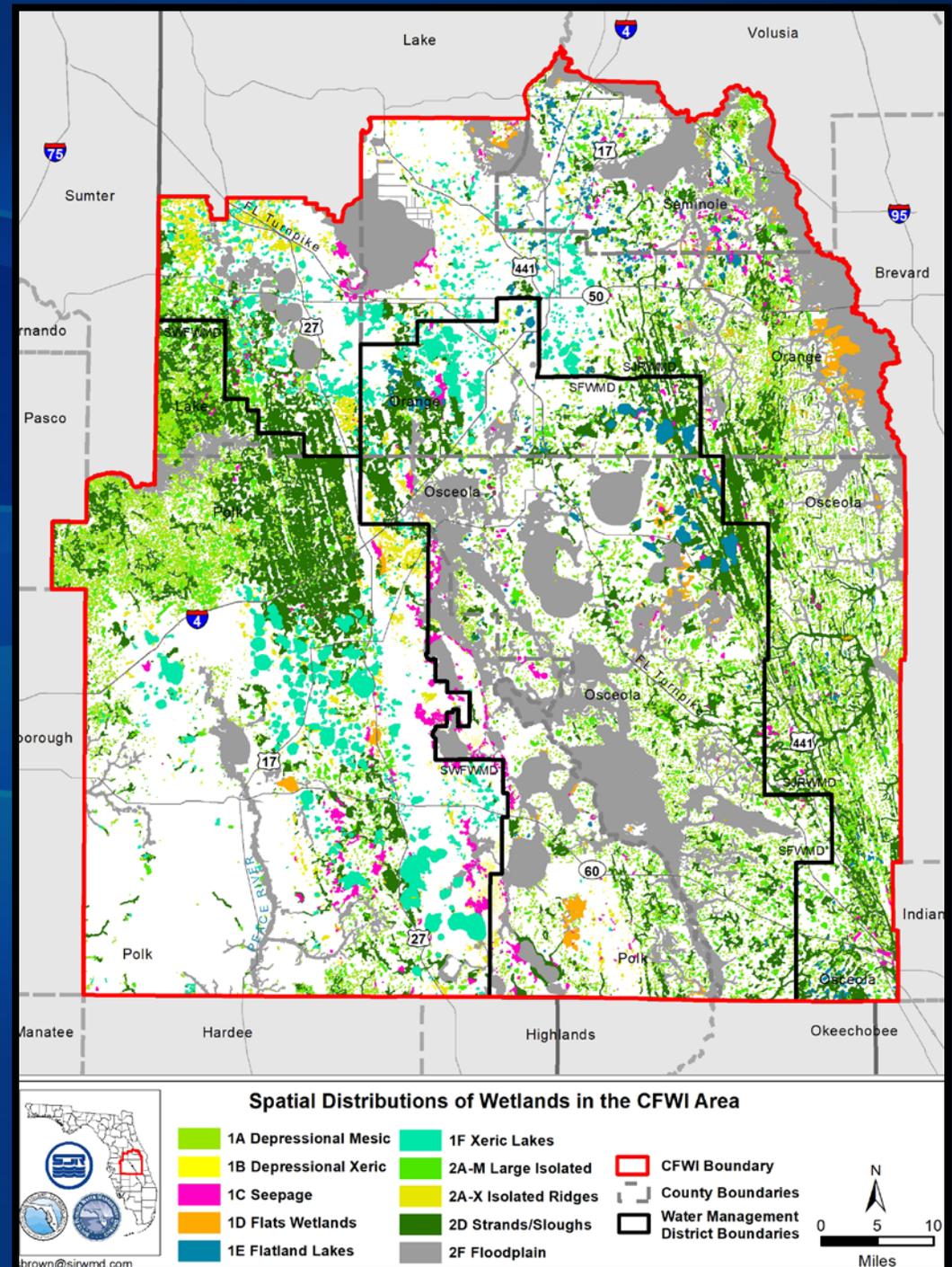
- MFLs Met
- MFLs Not Met-2014RC, 2030 & 2040 Conditions
- MFLs Not Met-2030 & 2040 Conditions
- MFLs Not Met-2040 Condition
- ▲ Target Level Met
- ▭ Peace River Regulatory Wells
- ▭ Ridge Lake Regulatory Wells
- ▭ CFWI Boundary
- ▭ County Boundaries
- ▭ Water Management District Boundaries



# Environmental Measures

## Wetlands

- >1 million acres in CFWI
- Focus on groundwater-dominated wetlands
- 189,000 acres of wetlands assessed (~19% of total)

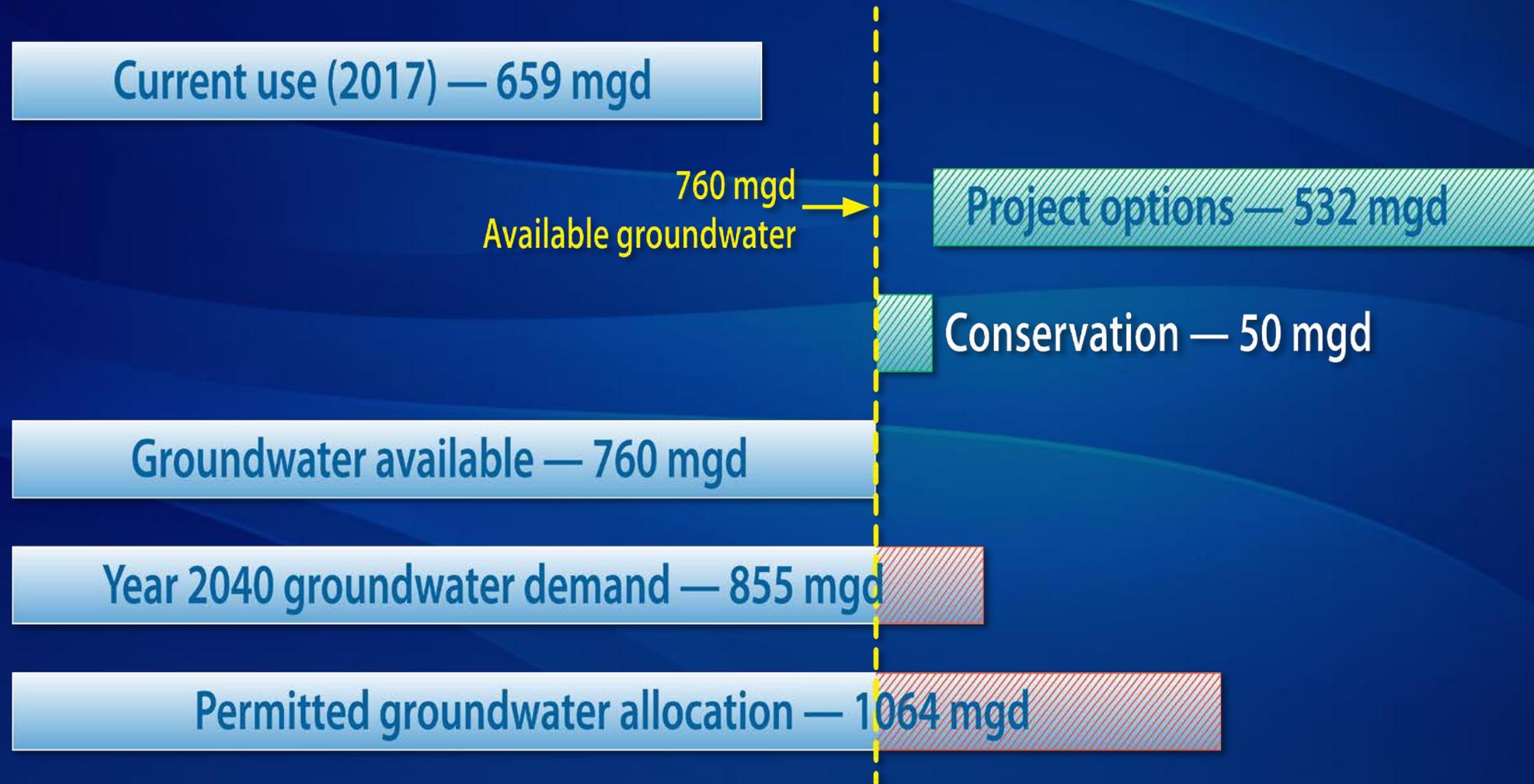


# CFWI Planning-Level Groundwater Availability Assessment

Environmental Criteria	2014 RC (≈620 mgd)	2025 WC (≈760 mgd)	2030 WC (≈800 mgd)	2040 WC (≈860 mgd)
<b>MFLs and MFL-related (39 criteria evaluated)</b>	11 Not Met	11 Not Met	13 Not Met	15 Not Met
<b>Stressed Plains Wetlands (139,000 acres assessed)</b>	16,700 ac.	17,400 ac.	17,700 ac.	18,100 ac.
<b>Stressed Ridge Wetlands (50,000 acres assessed)</b>	18,700 ac.	19,200 - 21,400 ac.	19,400 - 22,200 ac.	19,700 to 23,400 ac.

# 2020 CFWI RWSP

## Planning Level Groundwater Availability

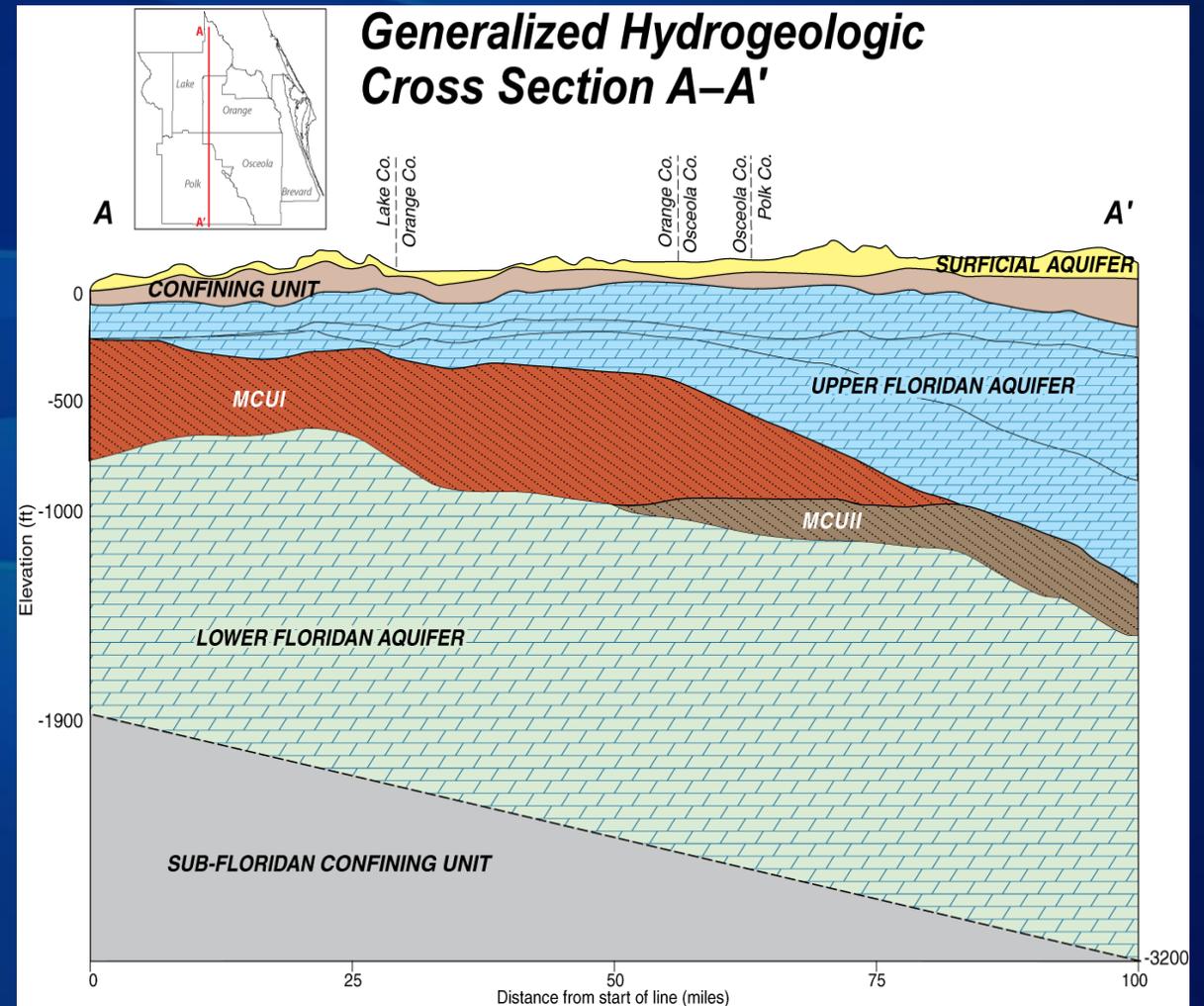


# Projected Water Conservation Savings

Category	Projected 2040 Water Demand (mgd)	Projected 2040 Water Conservation Savings (mgd)
Public Supply	592.28	41.50 – 44.16
Domestic and Small Public Supply	24.59	0.86
Agriculture	163.49	4.19
Landscape/Recreational	46.96	2.22
Commercial/Industrial/Institutional	69.00	1.55 – 4.40
Power Generation	11.27	
<b>Total</b>	<b>907.59</b>	<b>50.32 – 55.83</b>

# Water Source Options

- Groundwater
  - Floridan Aquifer System
    - Brackish groundwater
  - Surficial and Intermediate Aquifer Systems
- Reclaimed Water
- Surface Water
- Stormwater
- Seawater
- Storage Capacity
  - ASR and reservoirs



# Water Supply and Water Resource Development Options

County	Brackish / Non Traditional Groundwater	Management Strategies	Reclaimed Water	Surface Water	Stormwater	Total
Lake	13.70	0.00	4.80	5.00	0.00	22.50
Orange	24.00	5.00	31.97	71.00	0.00	131.97
Osceola	30.00	0.00	19.00	120.00 <sup>1</sup>	9.12	178.12
Polk	45.00	6.00	11.35	46.10	0.00	108.45
Seminole	1.00	0.00	7.03	82.20	0.00	90.23
<b>Total</b>	<b>113.70</b>	<b>11.00</b>	<b>74.15</b>	<b>324.30</b>	<b>9.12</b>	<b>532.27</b>

<sup>1</sup> Includes the Grove Land Reservoir Project located in Okeechobee and Indian River Counties.

# Funding Options

- Water Supplier and User Funding
  - *Water utility revenue*
- Water Management District Funding
  - *Cooperative/cost-share programs*
  - *Water Resource Development Work Program*
  - *District Initiatives and FARMS/WISE programs*
- State Funding
  - *Water Protection and Sustainability Program*
  - *Alternative Water Supply and Development Appropriation*
  - *Drinking Water State Revolving Fund Program*
  - *Florida Forever Program*
  - *Springs Restoration Funding*
  - *Agricultural Best Management Practices*
- Federal Funding
- Public Private Partnerships, Cooperatives, and Other Private Investment

# Conclusions and Recommendations

- Although groundwater sources are limited, the 2020 CFWI RWSP concludes that current and future water demands can be met through 2040, while sustaining water resources and related natural systems
- The RWSP outlines an integrated approach that includes:
  - *Increased water conservation*
  - *Development of alternative water supplies*
  - *Further hydrogeologic investigation*
  - *Optimization of groundwater withdrawals*
  - *Additional project evaluation and modeling*
  - *Pursuit of funding for water resource/water supply projects*
  - *Development of consistent rules/regulations*



# 2020 CFWI RWSP Schedule

- **February** Steering Committee approved release of draft 2020 CFWI RWSP
- **February/March** Presentation to District Governing Boards
- **March to May** Public comment period
- **April** Host four public workshops
- **May to August** Public comments/responses and update of draft
- **August/September** Management Oversight Committee review of updated draft
- **October** Steering Committee approval of final draft 2020 CFWI RWSP
- **November** Governing Board approvals of final draft 2020 CFWI RWSP

