

Legislative File #170676

JOINT ALACHUA COUNTY/CITY OF GAINESVILLE WATER SUPPLY FACILITIES WORK PLAN (2018-2028)

**Petition PB-17-145 CPA,
Legistar No. 170749**

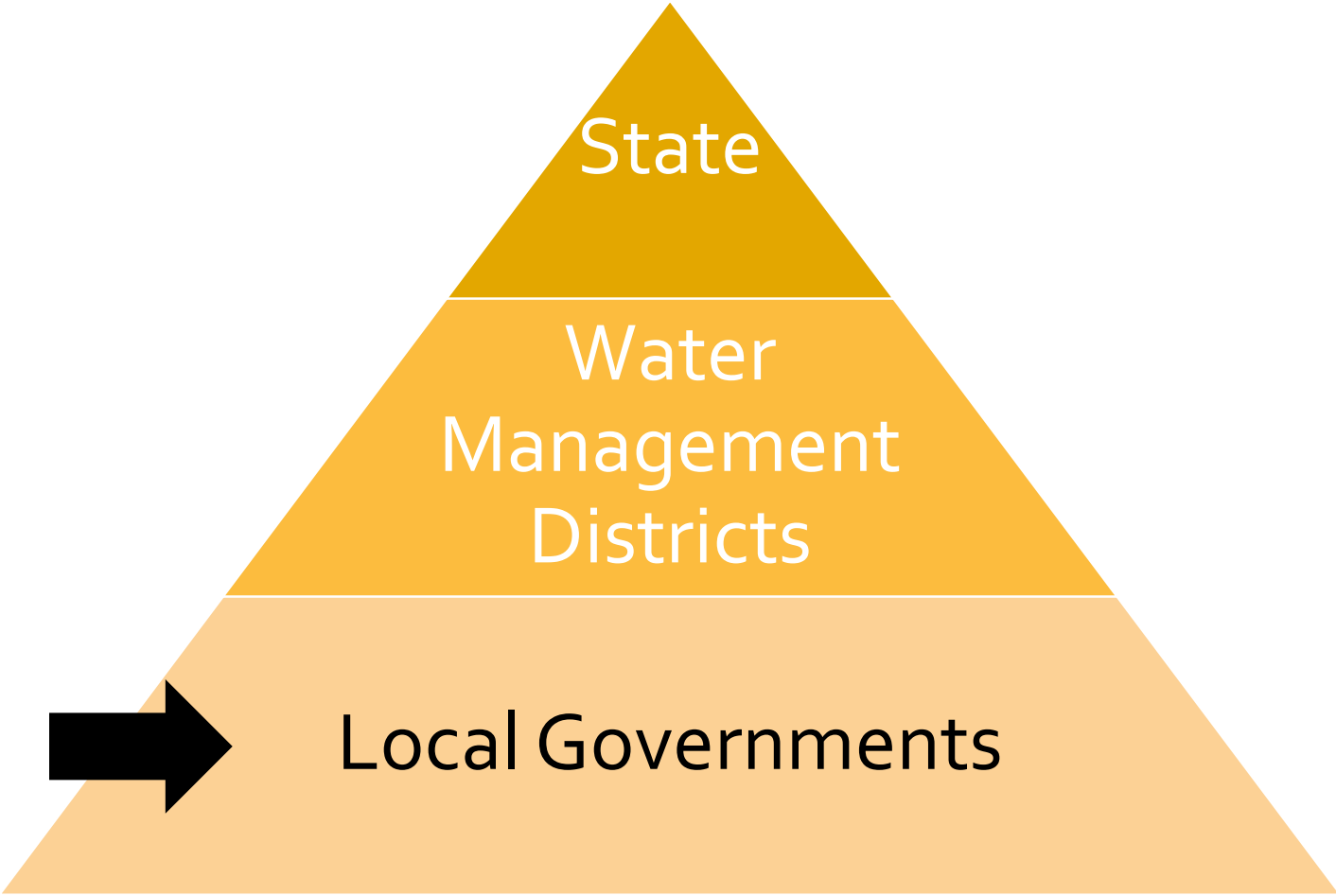
City Plan Board, February 22, 2018

Presentation By: Florence Buaku



DEPT
OF
DOING

PB-17-145 CPA Water Supply Planning

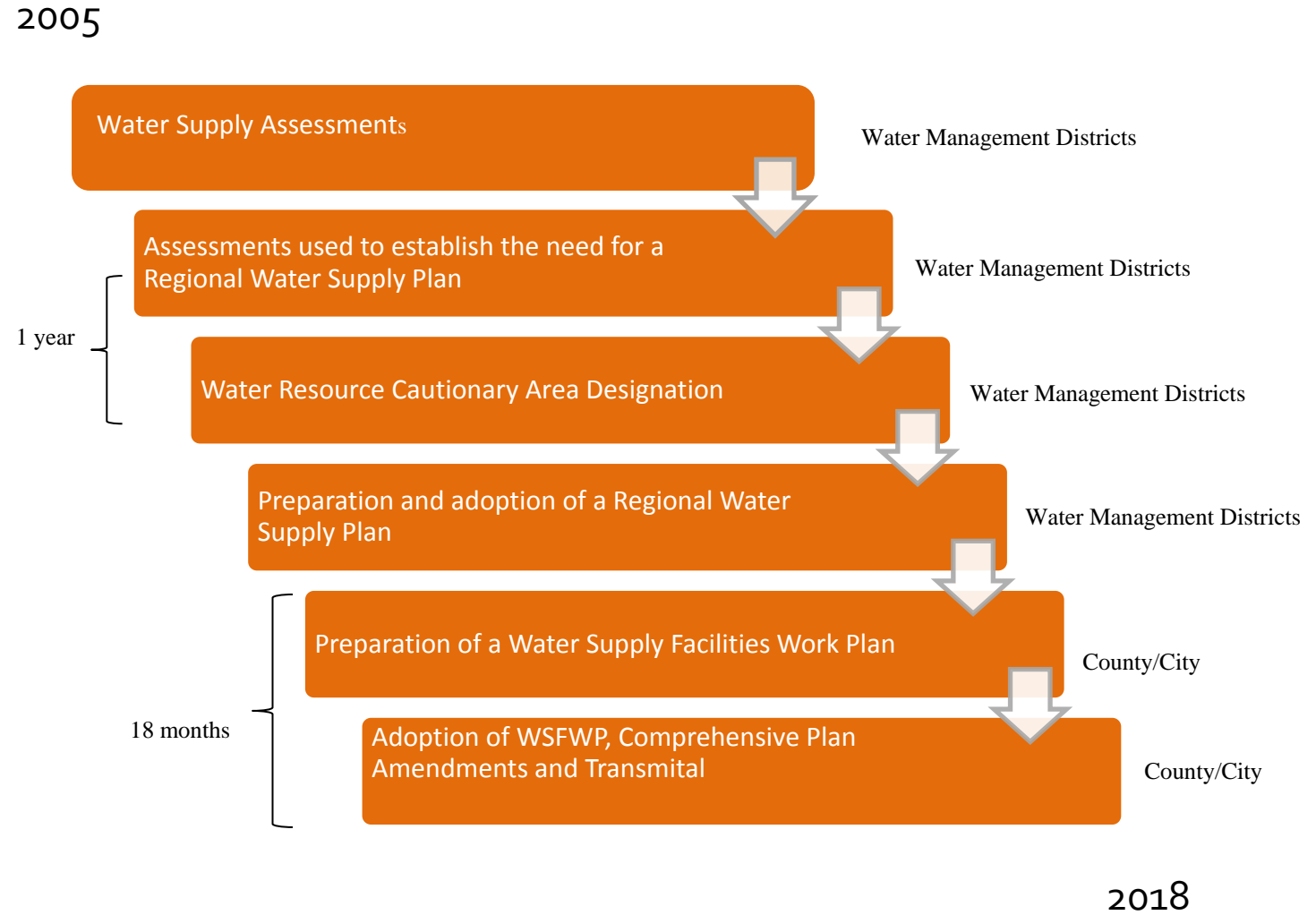


PB-17-145 CPA

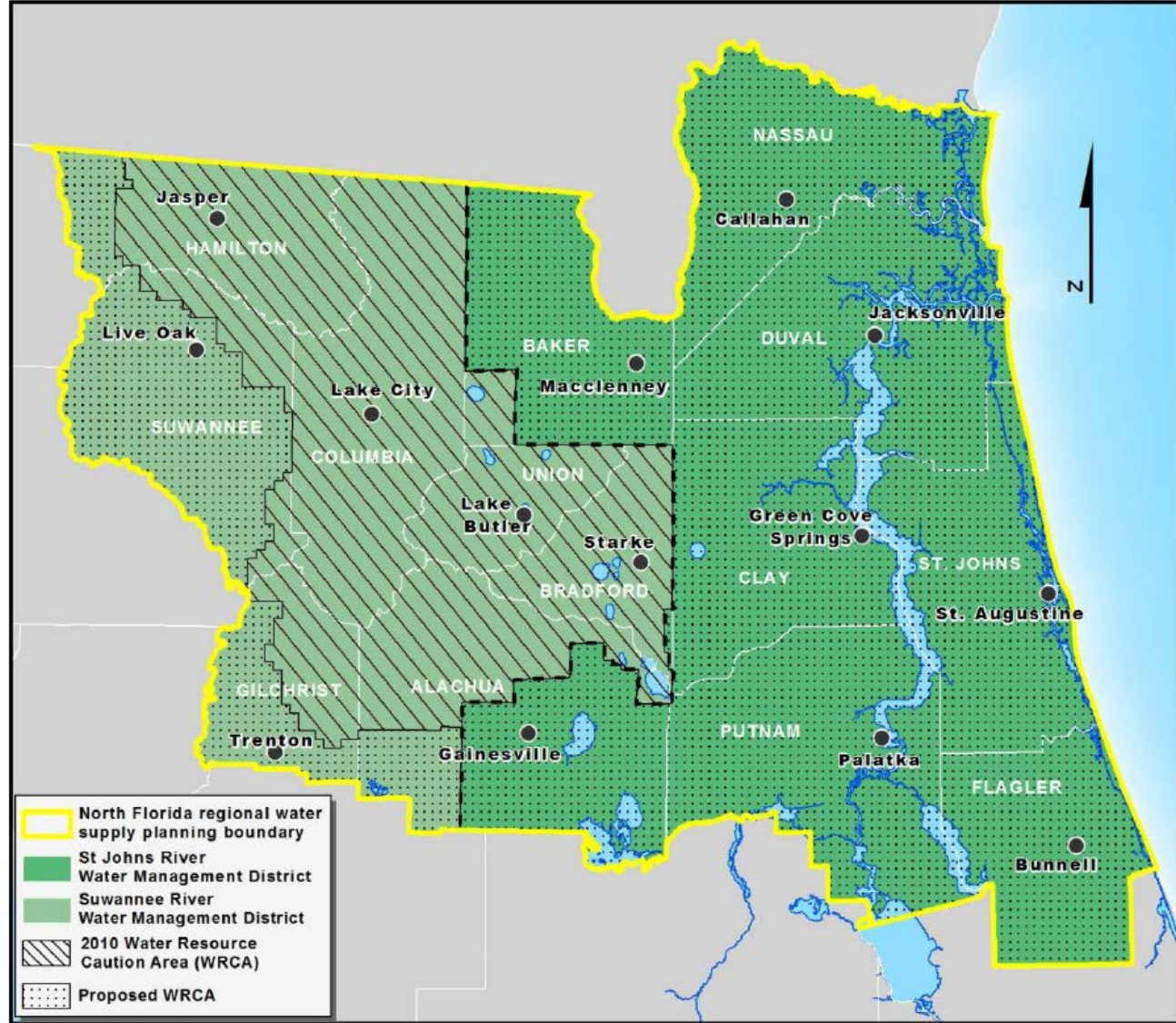
In 2005 Florida Statutes established requirements for local governments to plan for water supply 163.3177(6)(c)3 F.S



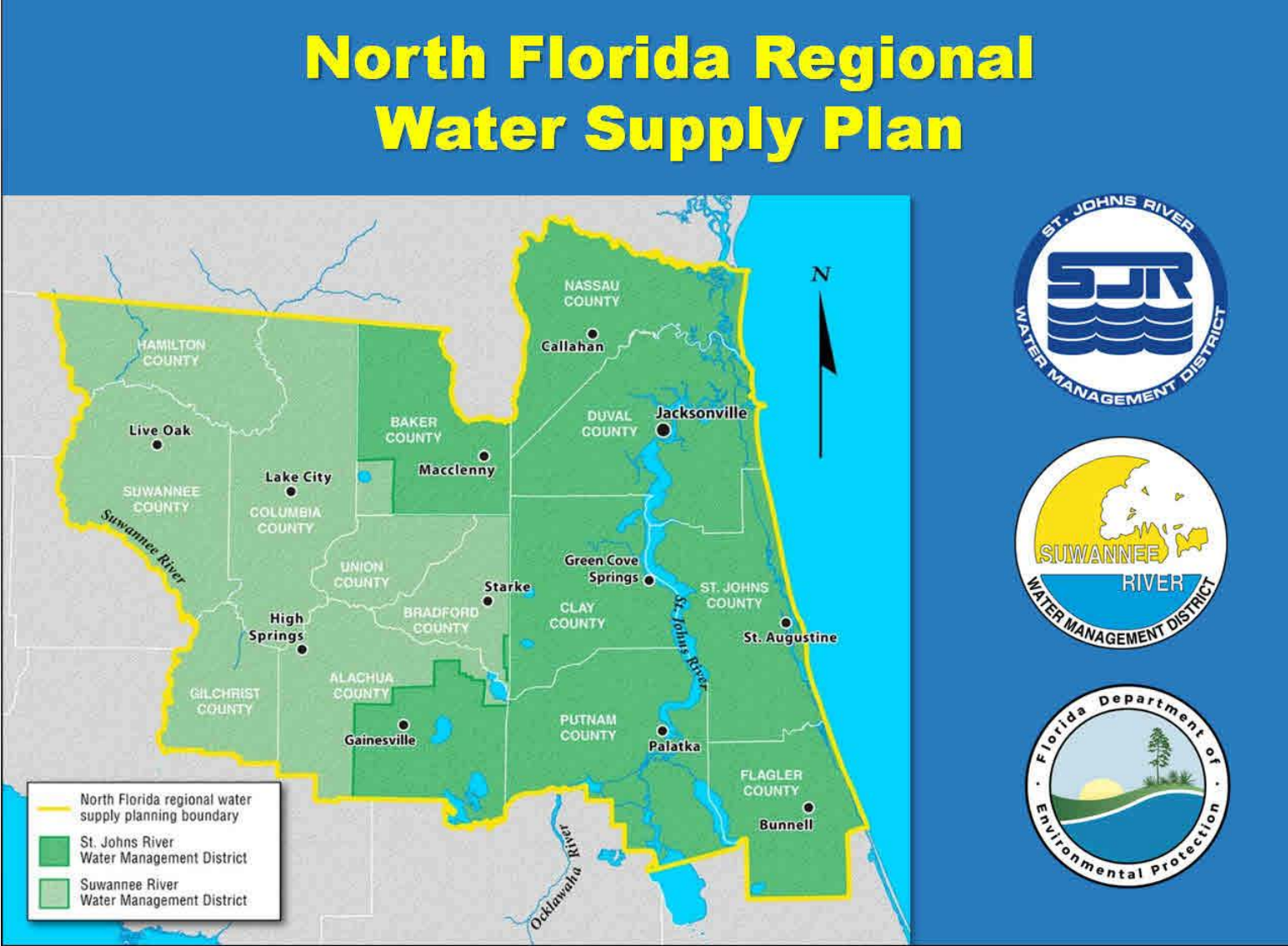
PB-17-145 CPA Water Supply Planning Process



PB-17-145 CPA

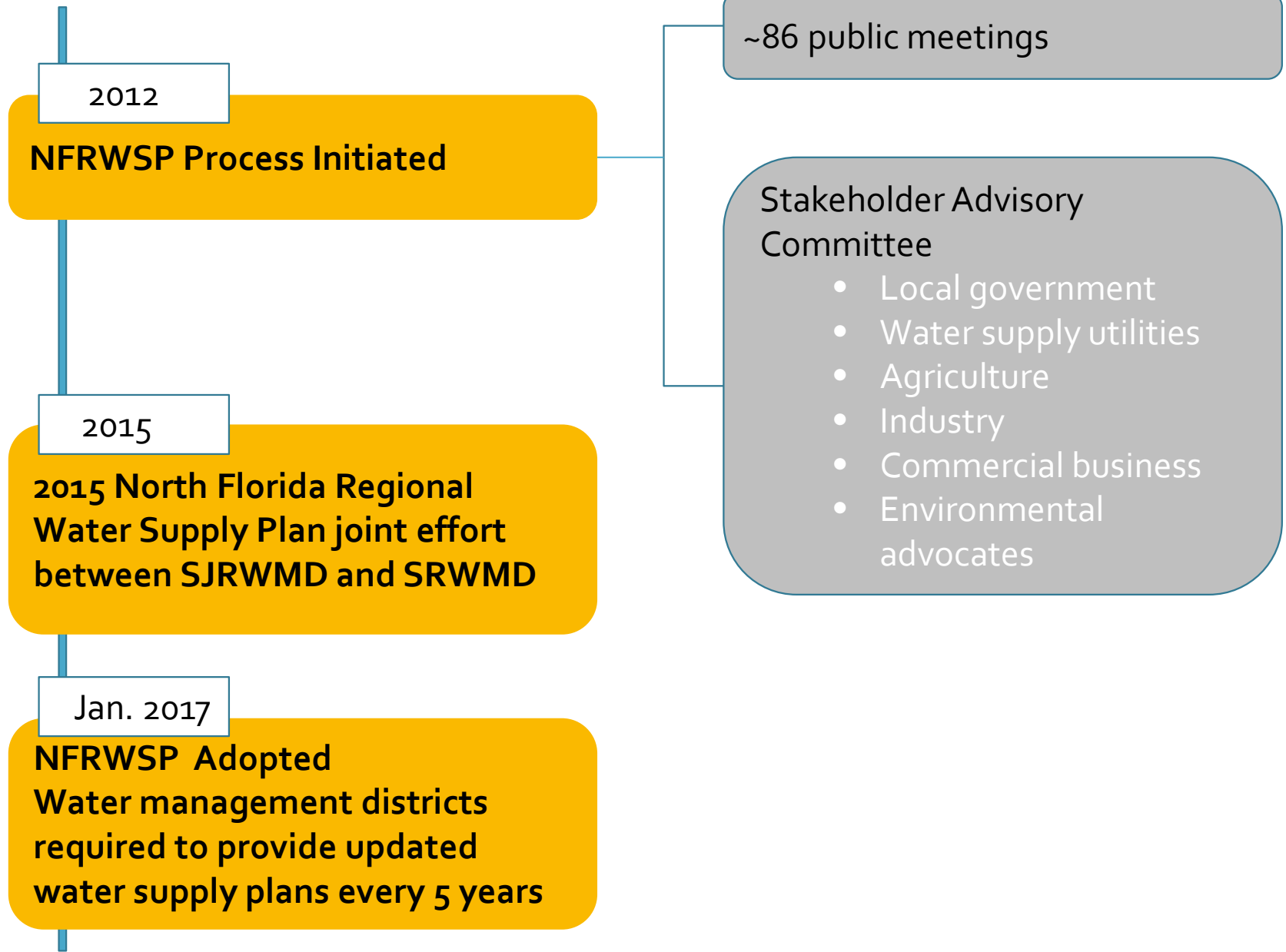


PB-17-145 CPA
NFRWSP
(2015-2035)



PB-17-145 CPA

NFRWSP Process



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Objectives

1

Future Demand

- Project water demands for all uses through 2035

2

Potential Impacts

- Identify potential water resource impacts

3

Action

- Identify technically & economically feasible water resource projects that can be implemented to meet future demands & avoid unacceptable impacts to water resources

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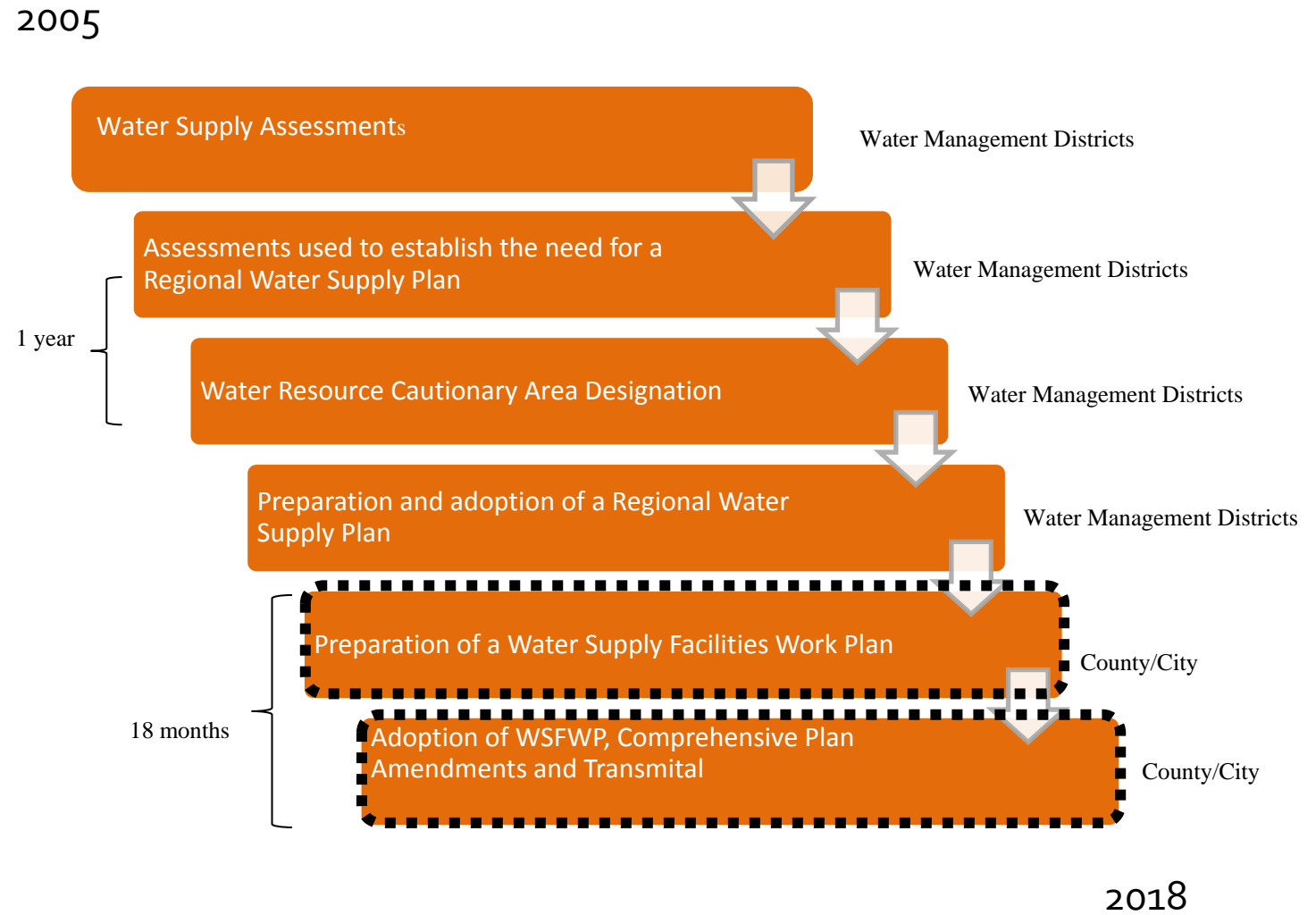
Conclusions

Plan Conclusions

1. Fresh groundwater alone cannot meet region's projected needs
2. Conservation & reuse is key
3. Alternative water supply projects identified that are sufficient to meet supply needs & protect natural resources
 - 99 projects
 - 169 million gallons per day of benefit



PB-17-145 CPA Water Supply Planning Process

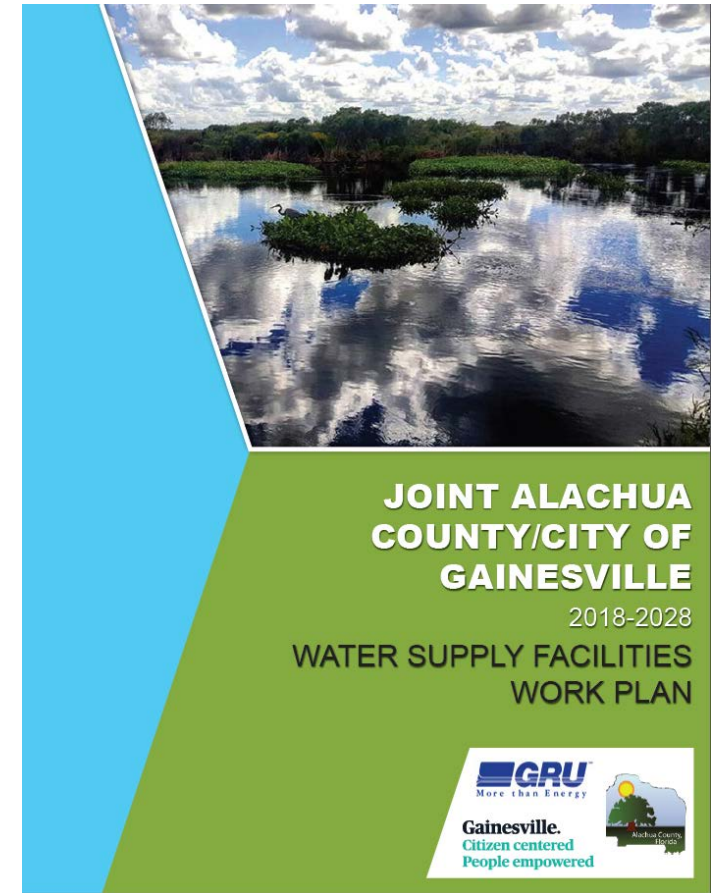


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Water Supply Facilities Work Plan

Florida Statute 163.3177(6)(c)3 requires local governments to adopt Water Supply Facilities Work Plan (WSFWP) into Comprehensive plan w/in 18 months of water supply plan adoption

- North Florida Water Supply Plan adopted Jan 17, 2017
- WSFWP must be adopted by July 2018

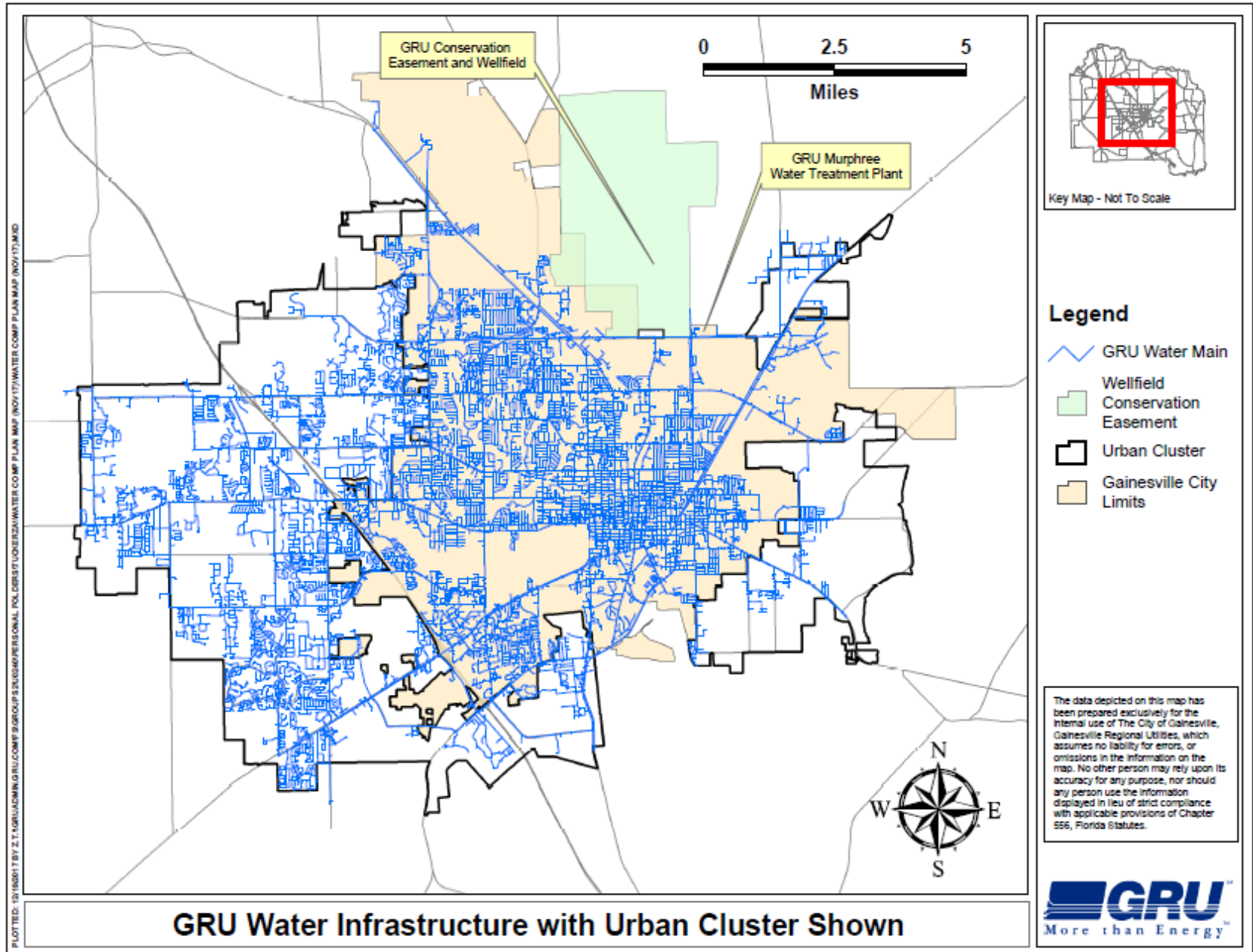


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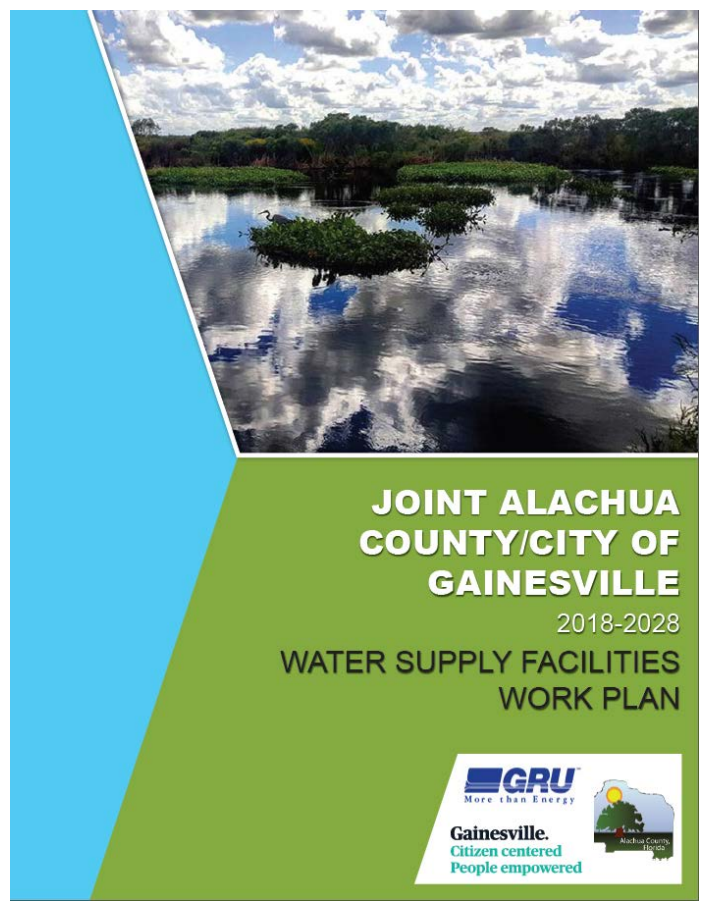
City/County Collaboration



PB-17-145 CPA Plan Coverage



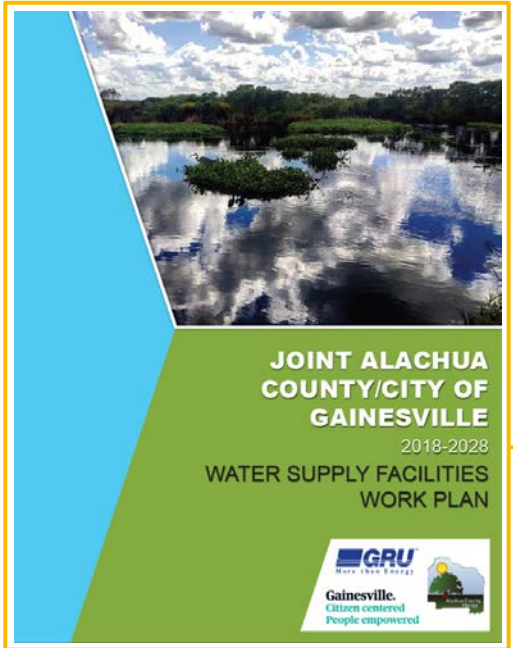
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10-YEAR PLAN (2018-2028)

- Projections and Future Water Supply Assessment
- Review of Comprehensive Plan
 - Conservation
 - Protection of Water Quality, Supplies, and Resources
 - Water Reuse
 - Water Supply and Water Supply Facilities Concurrency
 - Intergovernmental Coordination
- Water Supply Projects
- Comprehensive Plan Amendments

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Plan Summary

- **GRU Consumptive Use Permit (CUP) for 30 mgd through 2034**
 - We can supply enough potable water to meet future demand
- **We have Water supply programs and policies in Comprehensive Plan to implement:**
 - Conservation
 - Protection of Water Quality, Supplies, and Resources
 - Water Reuse
 - Water Supply and Water Supply Facilities Concurrency
 - Intergovernmental Coordination
- **Water Supply Projects**
 - We have selected water supply project in support of NFRWSP
- **Comprehensive Plan Amendments to adopt and reference Joint Plan**

PB-17-145 CPA

Demand & Supply

	2016	2018	2023	2028	2034
Total Population Served ¹	193,600	198,500	210,200	221,000	232,800
Estimated pop inside City of Gainesville ²	117,792	120,774	127,892	134,463	141,643
Estimated pop in unincorporated Urban Cluster ²	75,808	77,726	82,308	86,537	91,157
Avg Gross per capita demand (gpcd) ³	115.2	124.5	124.5	124.5	124.5
Total Avg Daily Flow (ADF) (mgd)⁴	22.3	24.7	26.2	27.5	29.0
UF Demand (mgd) ⁵	2.8	2.8	2.8	2.8	2.8
City of Alachua Demand (mgd) ⁵	0.0010	0.0010	0.0010	0.0010	0.0010
Estimated Demand offset due to reuse ⁶	1.2	1.3	1.6	1.8	1.9
Estimated Demand offset due to additional conservation ⁶	0.1	0.2	0.3	0.4	0.6
Water Treatment Plant ADF Capacity (mgd)⁷	30	30	30	30	30
Surplus Treatment ADF Capacity (mgd)	7.7	5.3	3.8	2.5	1.0
Permitted Amount (mgd)⁸	30	30	30	30	30
Permitted Surplus (mgd)	7.7	5.3	3.8	2.5	1.0

Summary 2018-2028

22,500 – City of Gainesville

8,811 – Unincorporated Alachua County

2.8 – Increase in Water Demand

PB-17-145 CPA

Selected Projects

GRU Reclaimed Water projects

- Recharge Wetlands**
- Kanapaha Middle School Wetland
 - Future wetlands at location(s) to be determined

- Reclaimed water main extensions**
- Oakmont subdivision phases 2,3 &4
 - Future extensions in Brytan & Oakmont subdivisions, I-District & other locations as appropriate and feasible

GRU Conservation projects

- Indoor plumbing retrofit
 - Large meter replacement
 - Water conservation tracking tool (joint w/ Alachua County & UF IFAS)
- Other cost effective conservation projects
- Education
 - Plumbing retrofits
 - Irrigation efficiency
 - Commercial programs
- Others
- Advanced metering

Alachua County Conservation projects

- Water Star Rebate
- Landscape Irrigation Retrofit Rebate
- Water conservation tracking tool (joint w/ GRU & UF IFAS)
- Public Education

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**Selected
Projects**

**Reclaimed
Water/Stormwater Recharge
Wetland Kanapaha Middle
School – Gainesville, FL**



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Comprehensive Plan Amendments

- Update LOS for Water Supply based on more recent data on Average Daily Flow
- Adopt the Joint Water Supply Facilities Work Plan by reference
- Establish Process and timeline for updating Joint Water Supply Facilities Work Plan
- Delete portions of Comprehensive Plan that have been implemented by the development of the Water Supply Facilities Work Plan
- Include references to the Water Supply facilities work plan into the comprehensive plan.

PB-17-145 CPA

Comprehensive Plan Amendments

- Update LOS for Water Supply based on more recent data on Average Daily Flow

POTABLE WATER AND WASTEWATER ELEMENT

Policy 1.1.3 The following LOS shall be adopted for water supply: Average Daily Flow: ~~147~~ 124.5 gallons per capita per day.

- Adopt the Joint Water Supply Facilities Work Plan by reference

POTABLE WATER AND WASTEWATER ELEMENT

Policy 1.1.4 [New Policy] The Joint Alachua County/City of Gainesville Water Supply Facilities Work Plan: 2018-2028 is hereby adopted by reference.



PB-17-145 CPA

Comprehensive Plan Amendments

- Delete portions of Comprehensive Plan that have been implemented by the development of the Water Supply Facilities Work Plan

POTABLE WATER AND WASTEWATER ELEMENT

~~Policy 1.1.4 — Within 18 months of the adoption of water supply plans by the St. Johns River Water and Suwannee River Water Management Districts, the City shall amend the Comprehensive Plan to:~~

- ~~identify alternative and traditional water supply projects, and conservation and reuse measures that will meet the water needs identified in the water supply plans;~~
- ~~incorporate a work plan for at least a 10-year planning period for the development of water supply projects that will meet the water needs identified in the water supply plans.~~

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Comprehensive Plan Amendments

- Establish Process and timeline for updating Joint Water Supply Facilities Work Plan

POTABLE WATER AND WASTEWATER ELEMENT

Policy 1.1.5 [New Policy] Within 18 months of adoption of an updated North

Florida Regional Water Supply Plan, the City shall:

- Coordinate with the County to update the Joint Alachua County/City of Gainesville Water Supply Facilities Work Plan as needed; and**
- Amend the City of Gainesville Comprehensive Plan as needed.**

PB-17-145 CPA

Comprehensive Plan Amendments

- Include references to the Water Supply facilities work plan into the comprehensive plan.

POTABLE WATER AND WASTEWATER ELEMENT

Objective 1.5 Recognizing the importance of potable water supplies, the City shall encourage water conservation through the Joint Alachua County/City of Gainesville Water Supply Facilities Work Plan and the programs and methods listed below:

...

CONSERVATION, OPEN SPACE & GROUNDWATER RECHARGE

Policy 2.3.12 *[New Policy]* The City shall implement water conservation, use and protection programs consistent with the Water Management District Plans and the Joint Alachua County/City of Gainesville Water Supply Facilities Work Plan.

INTERGOVERNMENTAL COORDINATION ELEMENT

Policy 1.6.2 The City shall maintain water conservation and water supply programs that are consistent with the Water Management Districts' plans.

PB-17-145 CPA

- City Plan Board Approval
- City Commission Approval
- Transmit to Regional Water Supply Planning Agency
- Adopt Joint WSFWP into City Comprehensive Plan

Approve Petition PB-17-145 CPA

