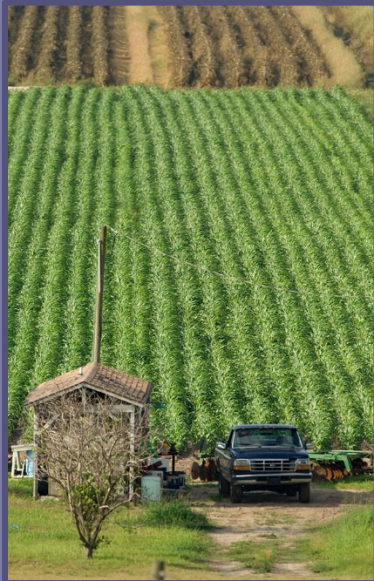


2021 Upper East Coast Water Supply Plan Update



Nancy Demonstranti, P.G.
Water Supply Bureau

Governing Board Meeting
September 9, 2021



CHAPTER 97-160

Committee Substitute for
House Bill Nos. 715, 1249, 1321, and 1339

An act relating to environmental protection; amending s. 373.016, F.S.; revising legislative policy; providing construction and application; amending s. 373.019, F.S.; revising definitions; defining "district water management plan," "Florida water plan," "regional water supply plan," "water resource development," "water resource implementation rule," and "water supply development;" amending s. 373.036, F.S.; eliminating the state water use plan; providing for development of the Florida water plan, to include the water resource implementation rule; providing procedure for rule amendment; requiring water management district governing boards to develop district water management plans; creating s. 373.0361, F.S.; providing requirements for regional water supply plans for regions identified in district water management plans; requiring an annual report; amending s. 373.042, F.S.; revising minimum flows and levels timing requirements; providing for independent scientific peer review; creating s. 373.0421, F.S.; requiring certain considerations in establishment and implementation of minimum flows and levels; providing for implementation of recovery or prevention strategies; amending s. 373.046, F.S.; providing for interdistrict agreements for implementation of certain regulatory responsibilities; amending s. 373.0693, F.S.; correcting a cross reference; amending s. 373.073, F.S.; revising procedure for appointment of members to the water management district governing boards; providing a timetable; providing criteria for selection; amending s. 373.079, F.S.; requiring the Governor to select a governing board member as chair of the governing board; revising procedure for appointment of district executive directors; providing respective authority of the Governor and governing boards; authorizing employment of governing board ombudsmen; providing for confirmation of executive directors by the Senate; revising duties of governing board legal staff; creating s. 373.0831, F.S.; specifying governing board responsibilities for water resource development and responsibilities of other entities for water supply development; providing for priorities for funding; requiring a report; amending s. 373.139, F.S.; authorizing the use of land for multiple purposes; amending s. 373.236, F.S.; revising provisions relating to duration of consumptive use permits; requiring compliance reports and permit modification, under certain circumstances; requiring a proposal for reevaluation of certain areas with contaminated water supplies; amending s. 373.507, F.S.; revising provisions relating to district and basin audits, budgets, and expense reports; requiring districts to furnish copies of documents to specified entities and to respond to comments; amending s. 373.536, F.S.; providing requirements for notice and advertisement of district budget hearings and workshops; providing requirements for budget identification of administrative and operating expenses; providing for certain analysis of budgets; revising requirements for submittal of tentative budgets;

Water Supply Planning in Florida

- SFWMD initiated water supply planning in early 1990s
- 1997 Water Bill – comprehensive legislation regarding water resources
 - State and regional planning
 - Water supply planning and annual reporting
 - Water resource and water supply development
 - Five-Year Water Resource Development Work Program by districts
 - Permit durations
 - Minimum flows and minimum water levels priority waterbody list
 - Others
- Florida is one of the few states that conducts comprehensive water supply planning

Regional Water Supply Plan

What it Does

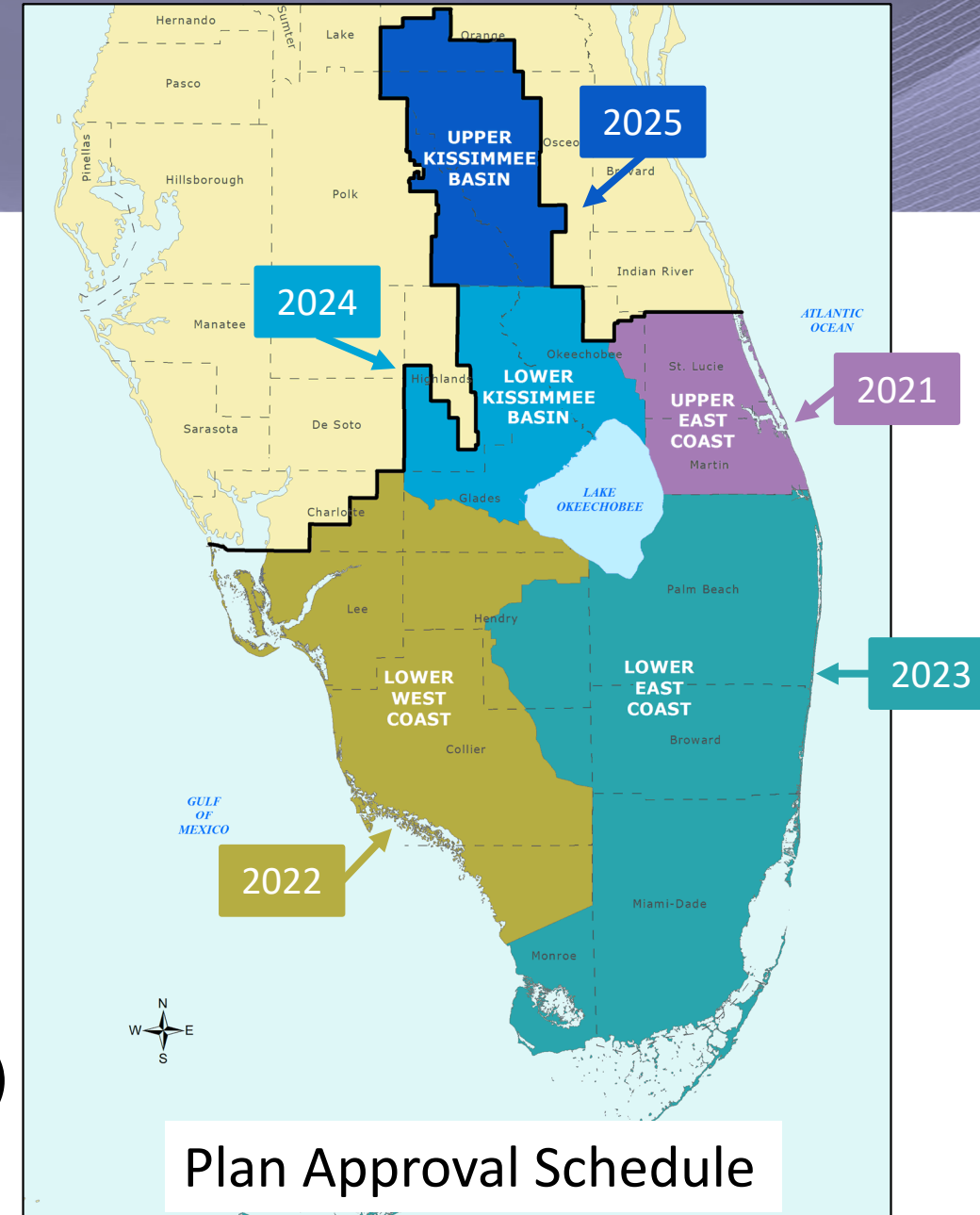
- Provides a road map to meet future water needs while protecting water resources and natural systems
- Conducts a planning-level approach
- Projects future water demands
- Identifies and evaluates water source options

What it Does NOT Do

- Does not authorize consumptive use permits
- Does not establish MFLs
- Does not adopt rules
- Does not require water users to implement specific projects
- Does not address surface water quality issues (e.g., algal blooms)

Water Supply Plan Requirements

- 20-year planning period
- Demand estimates and projections
- Evaluation of water source options
- Resource analyses
- Issue identification
- Water resource development
 - Responsibility of water management district
- Water supply development
 - Responsibility of water users
- Minimum flows and minimum water levels (MFLs)
 - Recovery and prevention strategies



SOUTH FLORIDA WATER MANAGEMENT DISTRICT



UPPER EAST COAST

WATER SUPPLY PLAN UPDATE

Planning Document/Appendices



DRAFT

2021

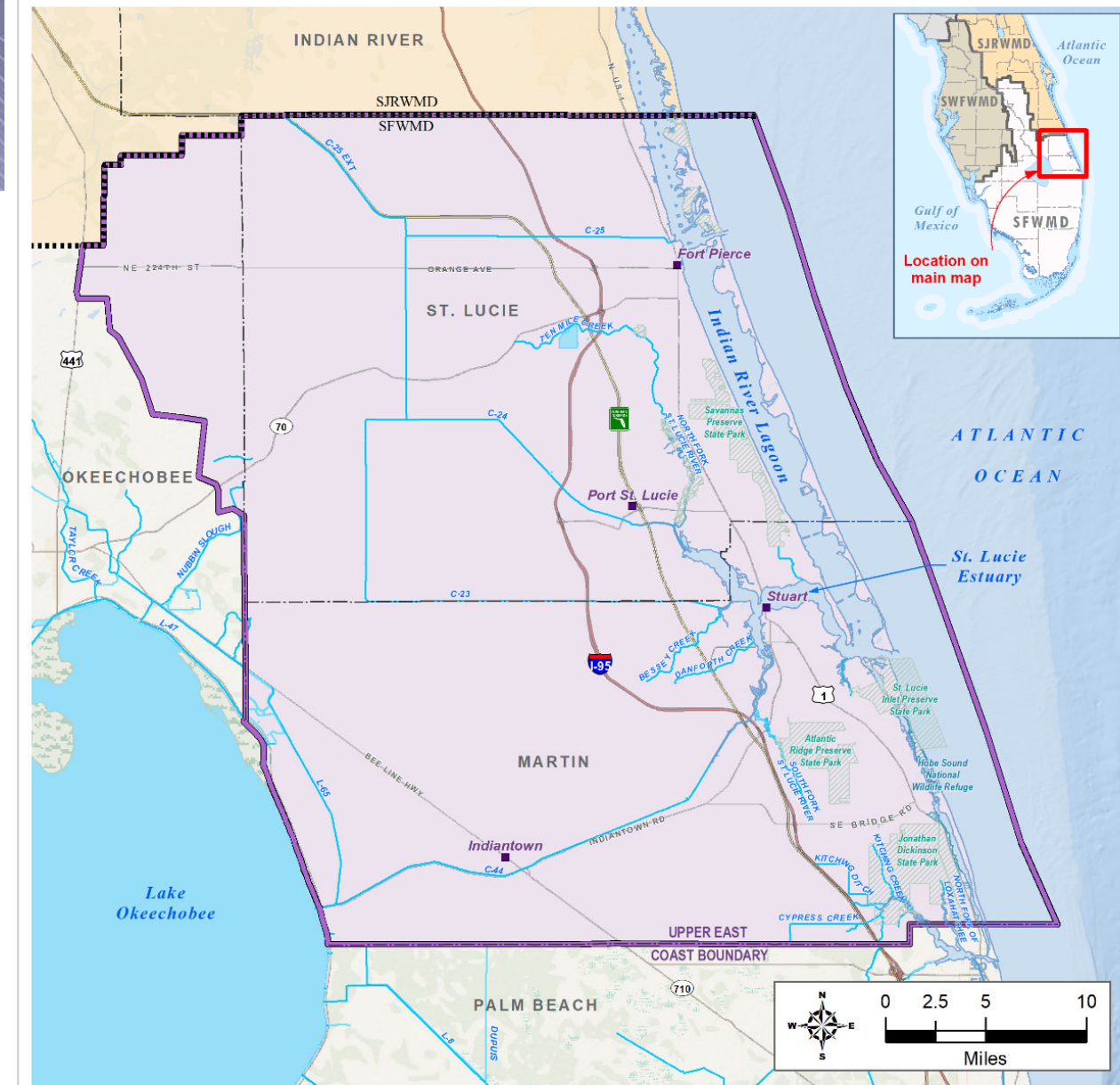
sfwmd.gov

Public Participation

- Governing Board updates
- Two stakeholder workshops and one technical methods workshop
- Discussions with local government, agricultural, and utility representatives
- Draft plan documents posted online August 25 for public comment

UEC Planning Area

- All of Martin and St. Lucie counties and the northeastern portion of Okeechobee County
- Rapidly growing population
- Major agricultural industry
- Important natural and water resources
 - C-23, C-24, C-25, and C-44 canals
 - St. Lucie River and Estuary
 - Indian River Lagoon
 - North Fork of the Loxahatchee River



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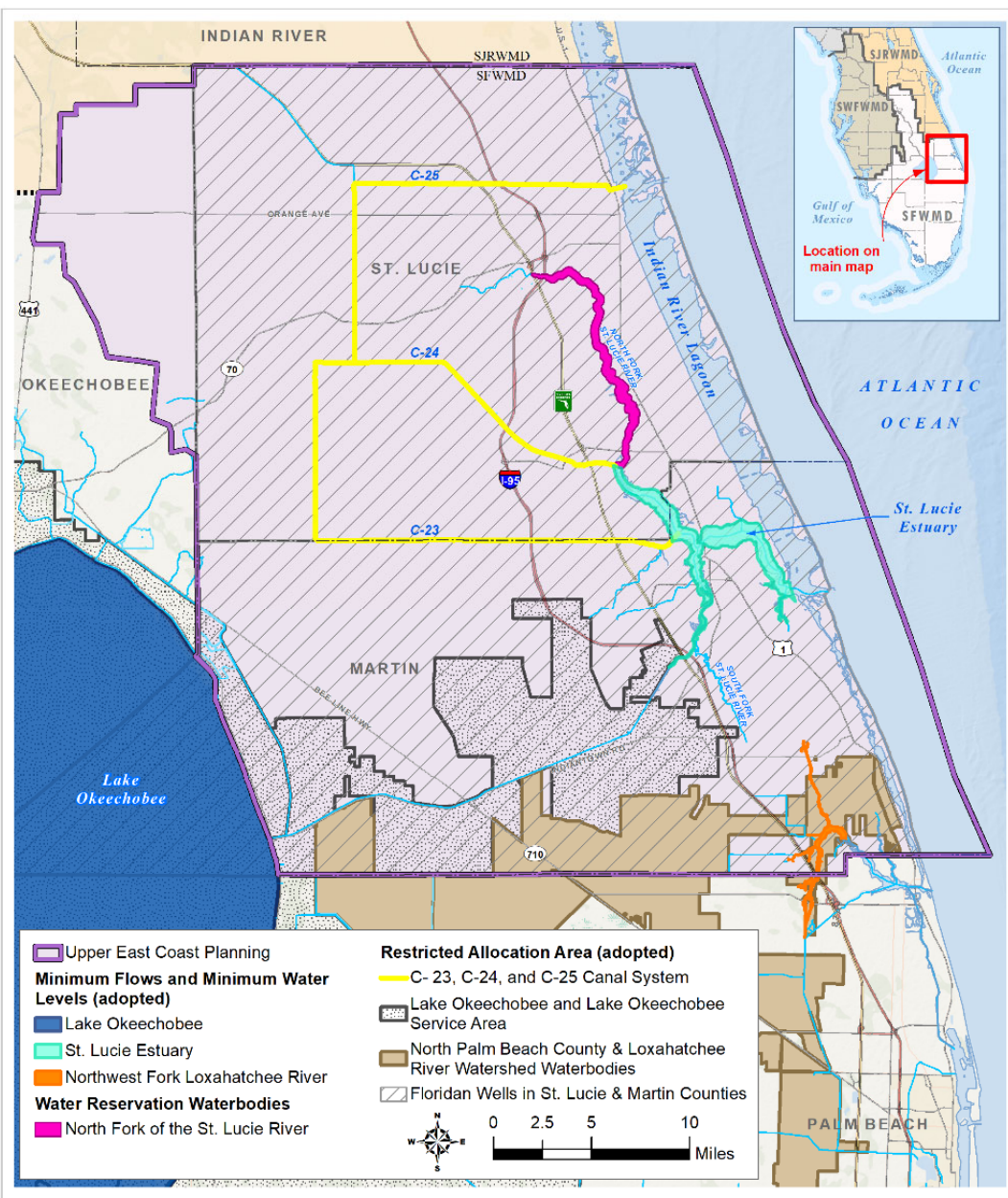
Water Resource Considerations

- In many areas, especially coastal areas, large increases in withdrawals from the surficial aquifer system are limited due to low aquifer productivity
- Regulatory limitations on surface water availability
 - C-23, C-24, and C-25 canals
 - Lake Okeechobee Service Area (including C-44 Canal)
 - Freshwater discharges affecting coastal resources
 - Timing and volume
- Long-term availability of the Floridan aquifer system
- Climate change and sea level rise



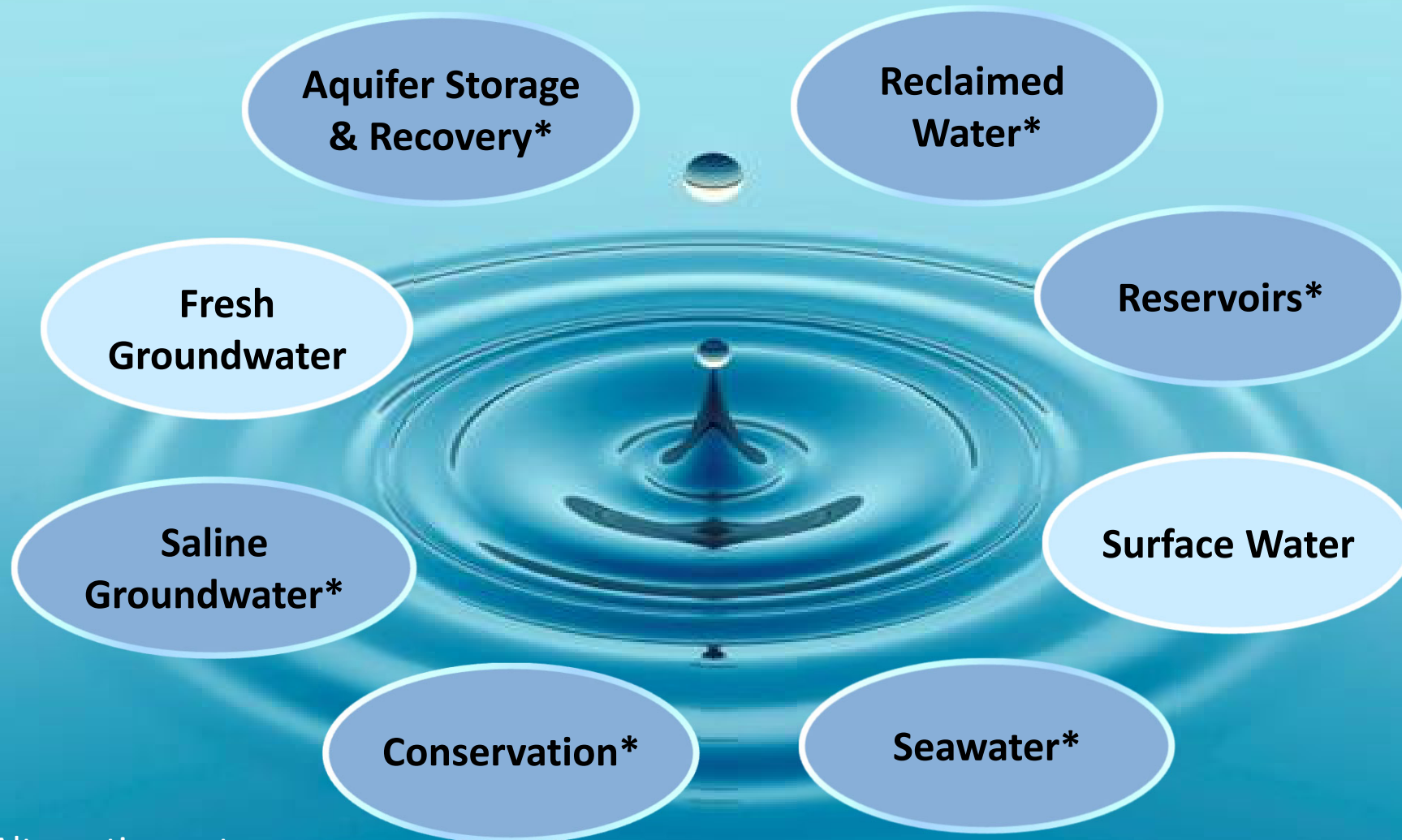
Resource Protection

- Minimum Flows and Minimum Water Levels
 - St. Lucie Estuary
 - North Fork of Loxahatchee River (Lower East Coast)
 - Lake Okeechobee (Lower East Coast)
- Water Reservations
 - North Fork of the St. Lucie River
- Restricted Allocation Areas
 - C-23, C-24, and C-25 canal system
 - Lake Okeechobee Service Area
 - North Palm Beach County and Loxahatchee River Watershed waterbodies
 - Floridan wells in Martin and St. Lucie counties



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Water Source Options & Alternatives



* Alternative water source

Water Conservation

- Agriculture
 - FDACS best management practices
 - More efficient irrigation systems
- Public supply
 - Indoor and outdoor programs
 - Conservation rate structures
- Public supply per capita use rate
(gallons per capita per day)

2000	167
2014-19	130
	<i>22% decrease</i>
- Additional 12 mgd potential savings through conservation
 - Urban 6 mgd
 - Agriculture 6 mgd

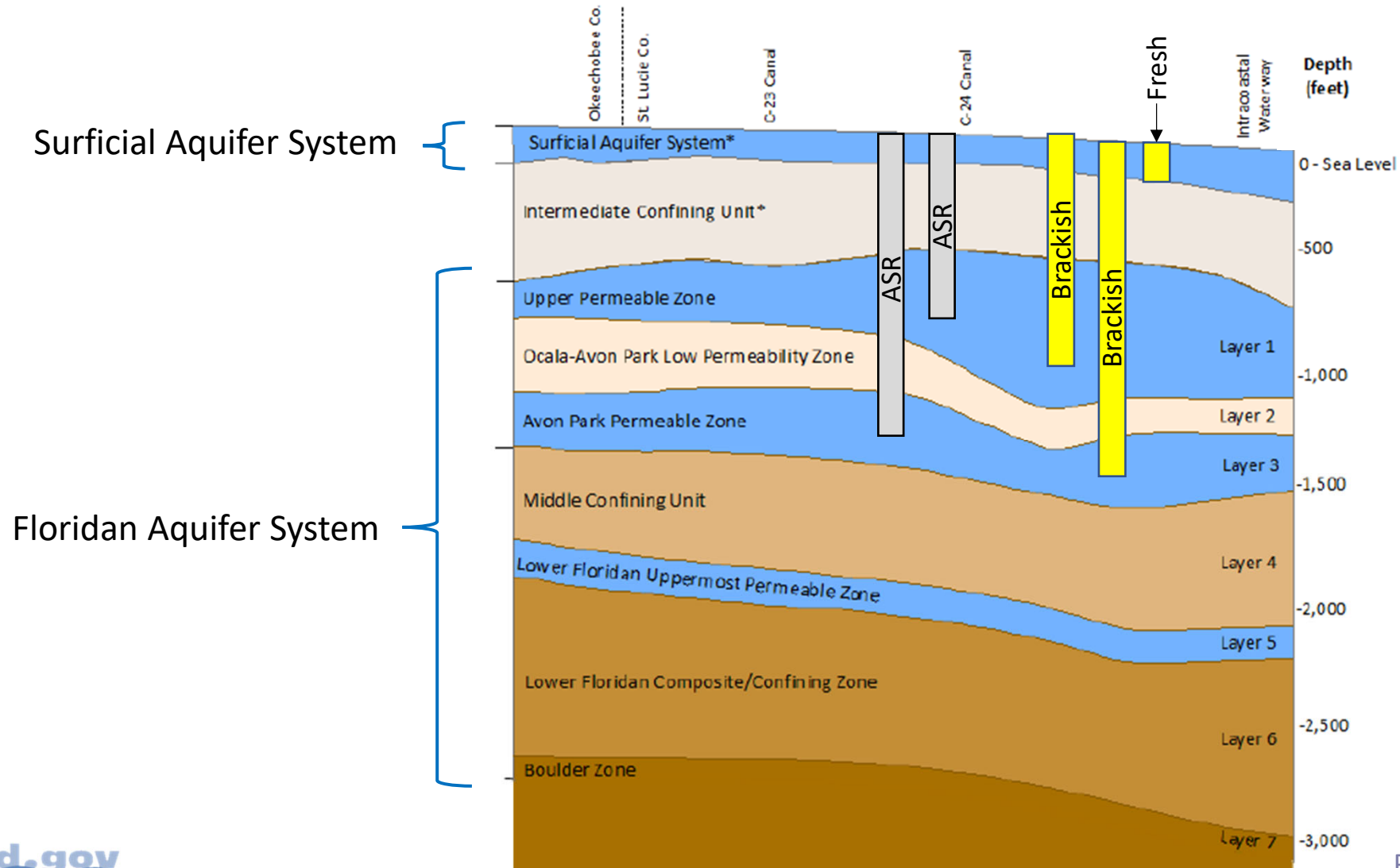
Year-Round Irrigation Ordinance

Local Government	Status
Martin County	In Progress
Sewall's Point	Adopted
Stuart	Adopted
Indiantown	Evaluating
Ocean Breeze*	Evaluating
Jupiter Island	Evaluating
St. Lucie County	Adopted
Port St. Lucie	Adopted
Fort Pierce	Evaluating
St. Lucie Village*	Evaluating

* Fewer than 650 residents

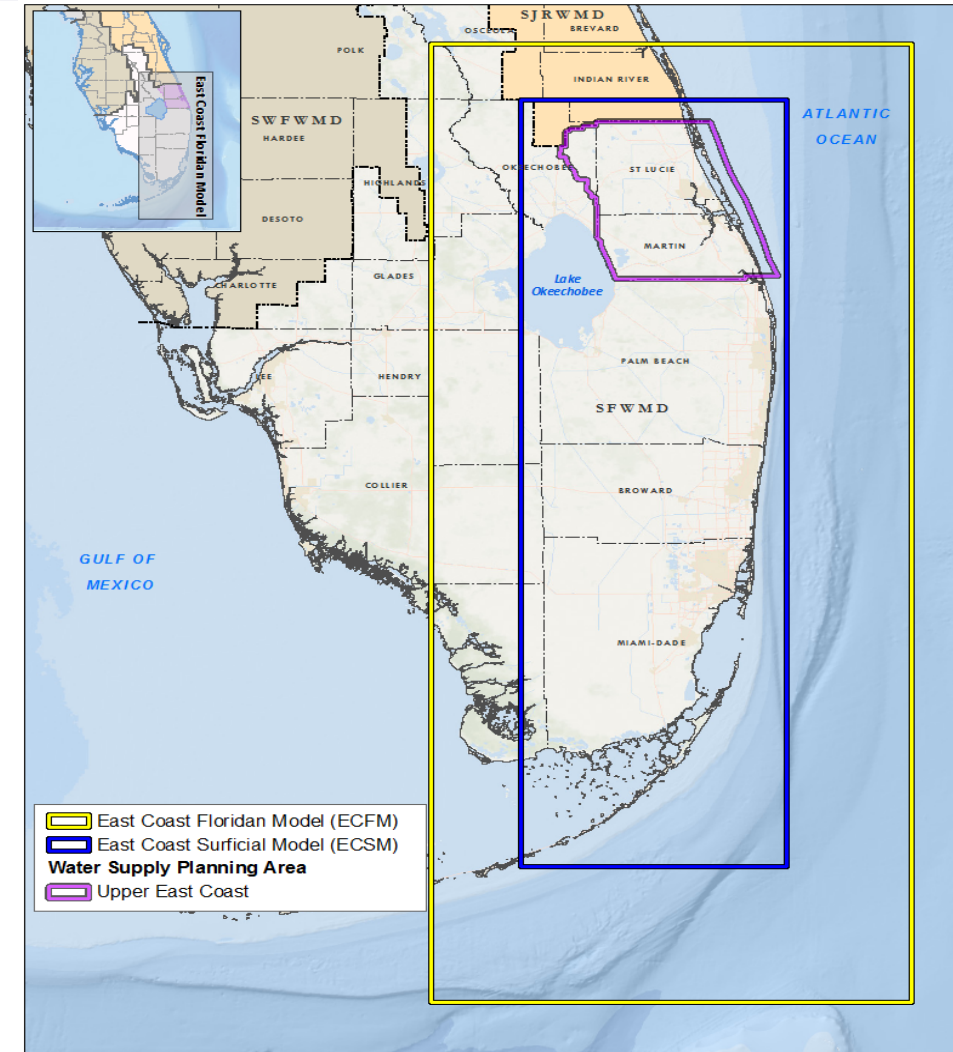
The cheapest gallon of water is the gallon we don't use

Groundwater Sources

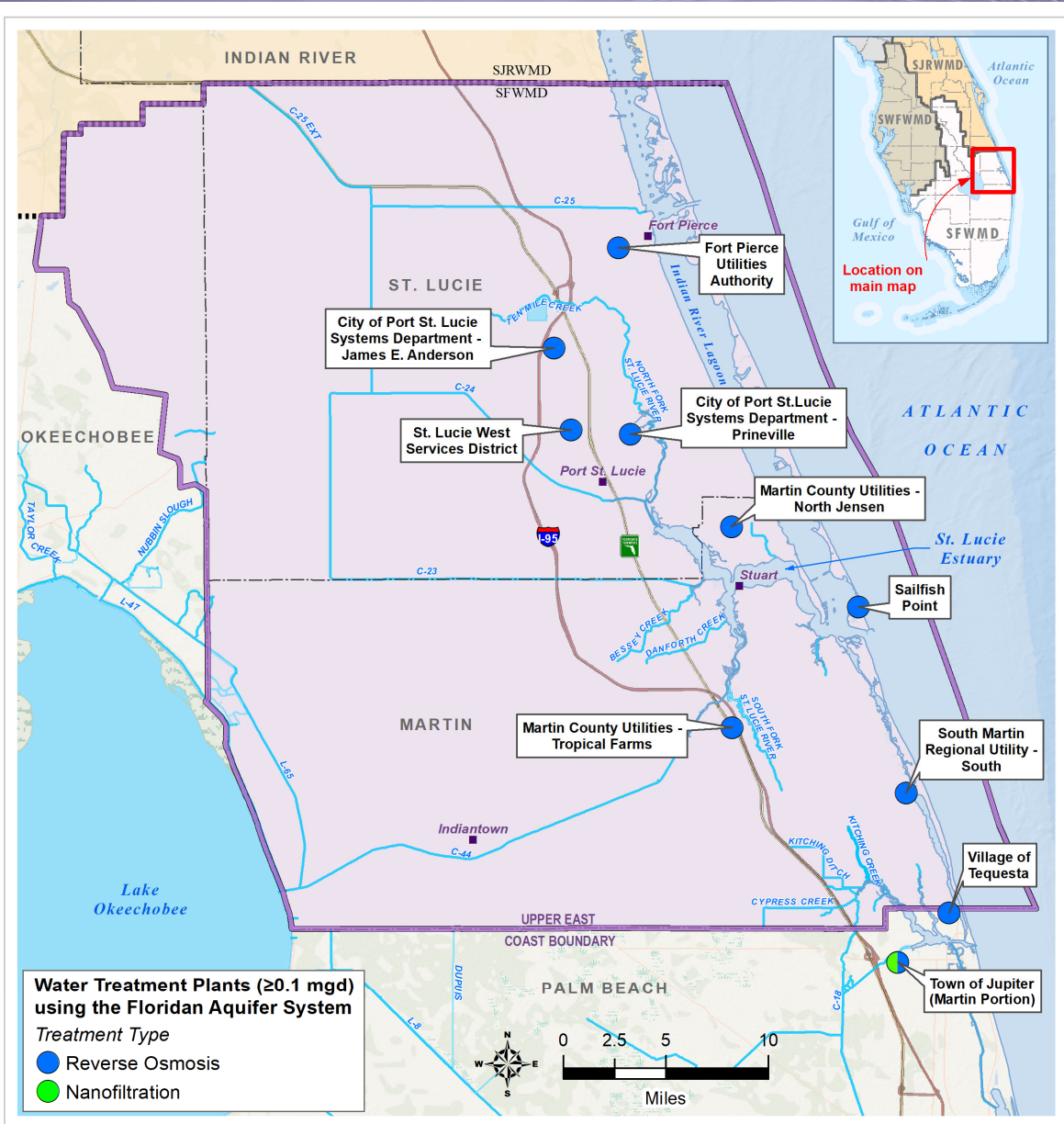


Groundwater Resource Evaluation & Analysis

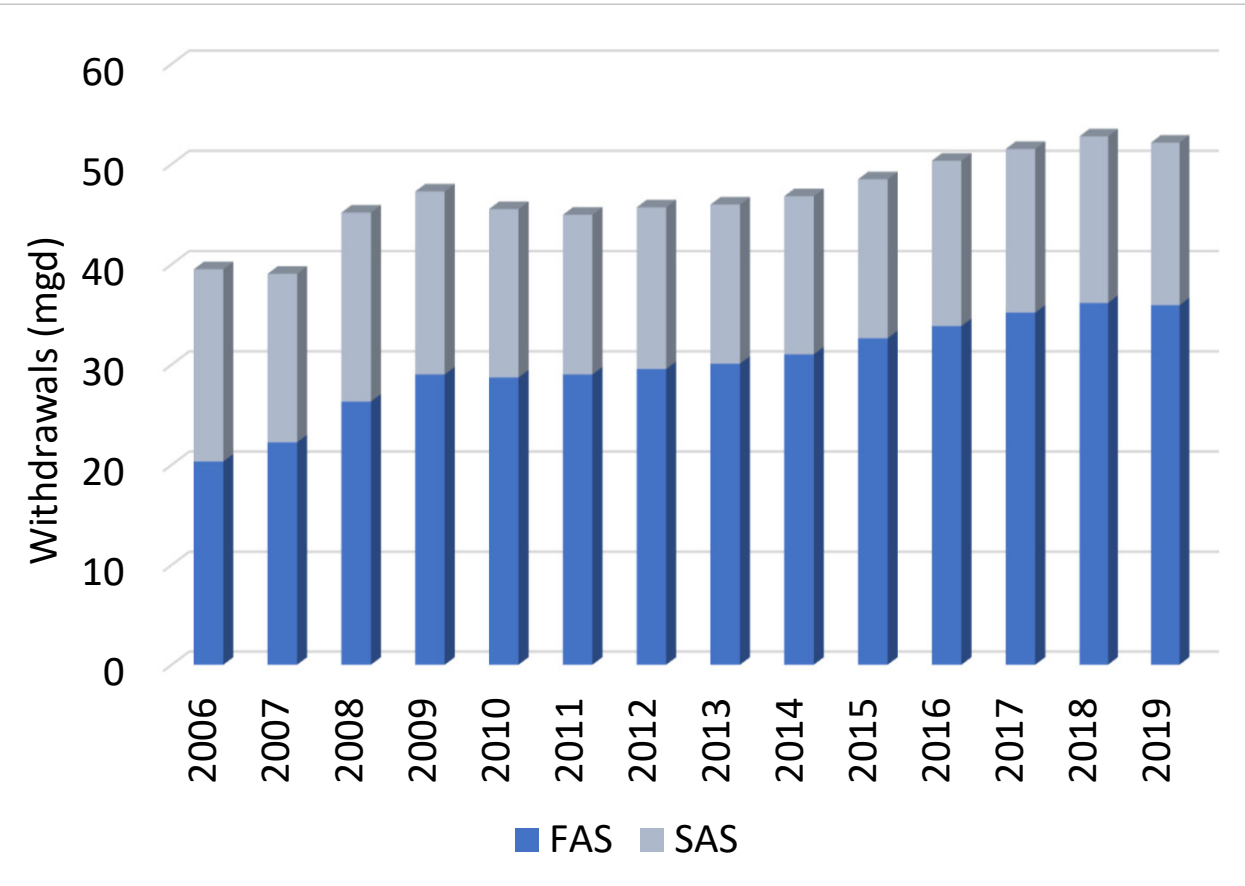
- Data sources:
 - Water use permit information
 - Regulatory limits on surface water withdrawals
 - Groundwater model scenarios
 - Groundwater level and salinity monitoring data
 - Demand estimates and projections
- Minimal increases in projected demands from the surficial aquifer system through 2045
 - East Coast Surficial Model under development
- East Coast Floridan Model
 - 20 mgd increase in FAS demands (2019-2045)



Public Supply Groundwater Demands

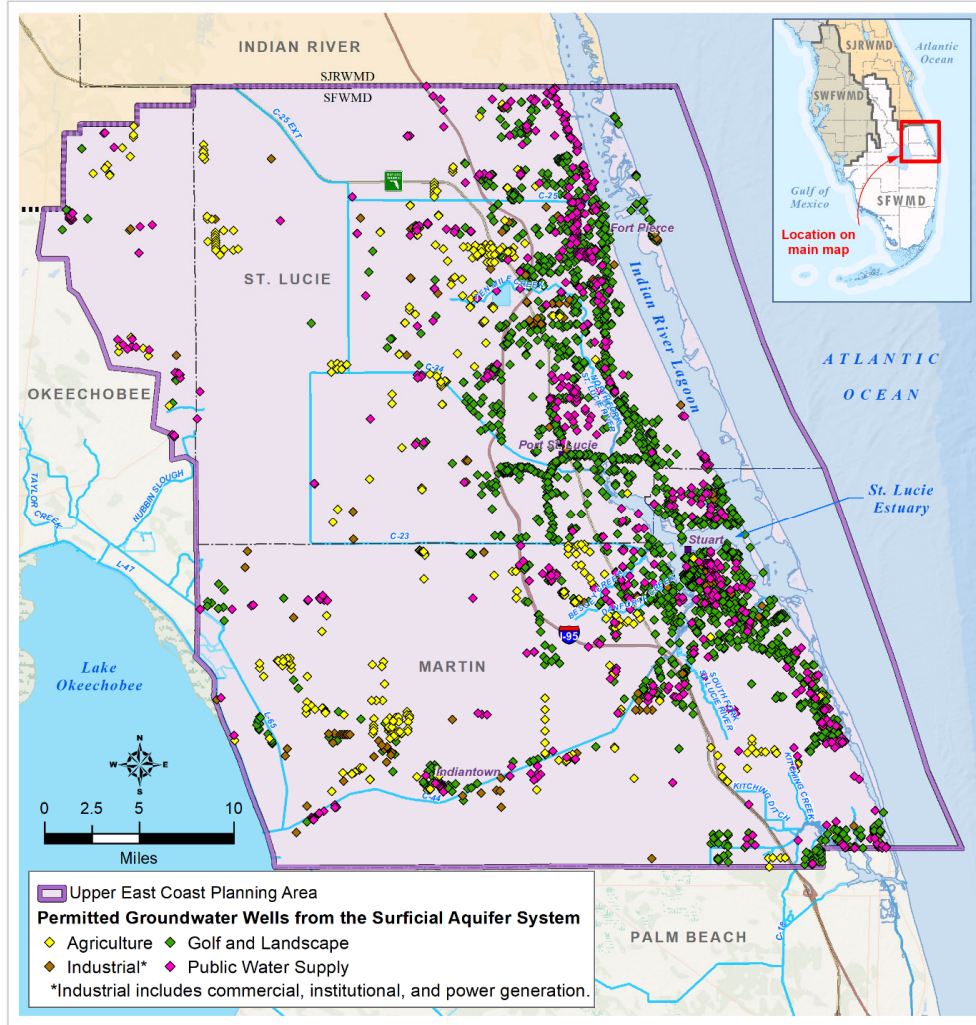


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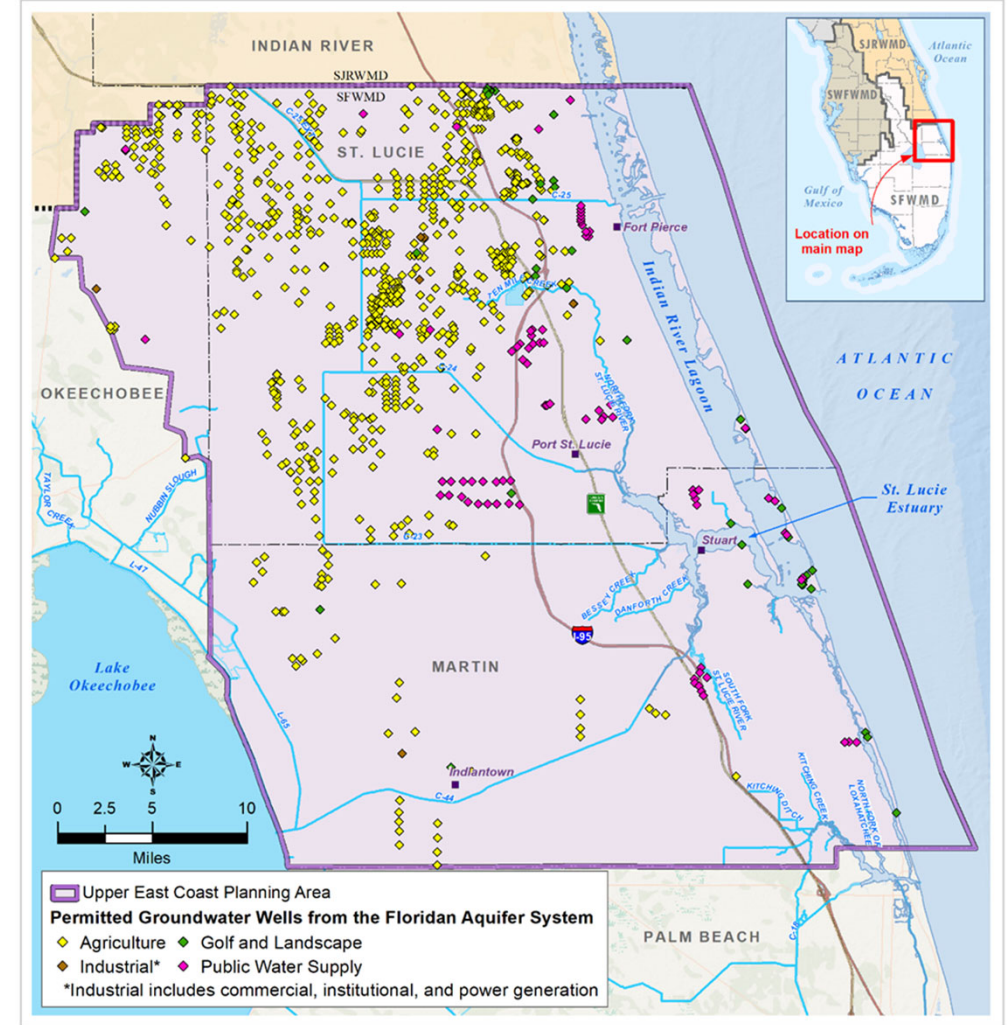


Surficial Aquifer Wells

Floridan Aquifer Wells

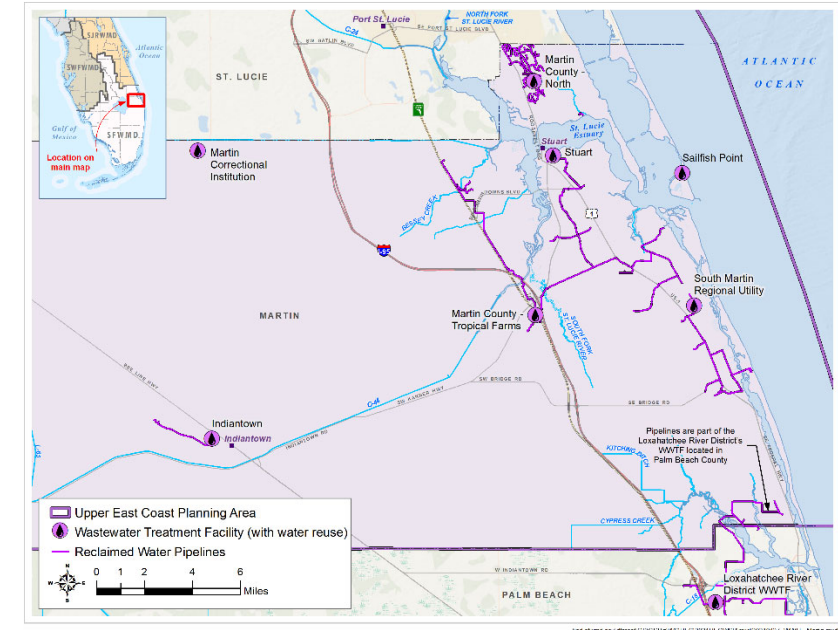
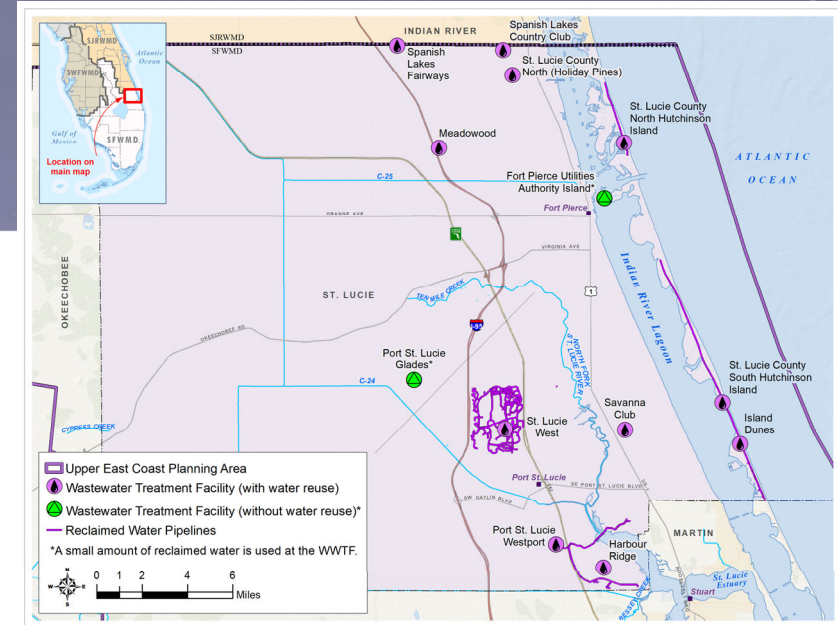
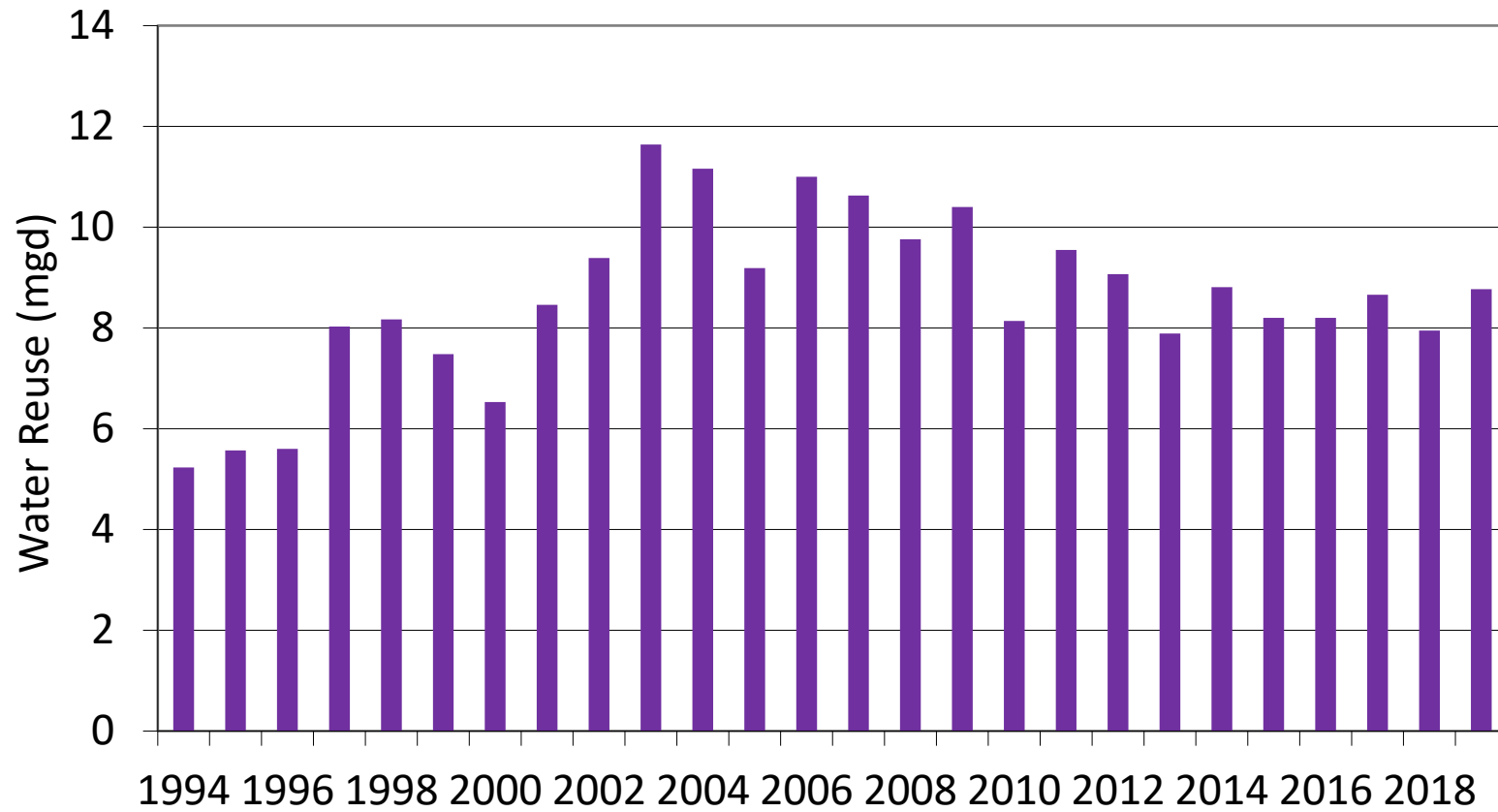


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Water Reuse



Gross Demand Projections

Population

2019 468,499 residents
2045 686,409 residents

47% increase



Irrigated agricultural acres

2019 107,383 acres
2045 79,004 acres

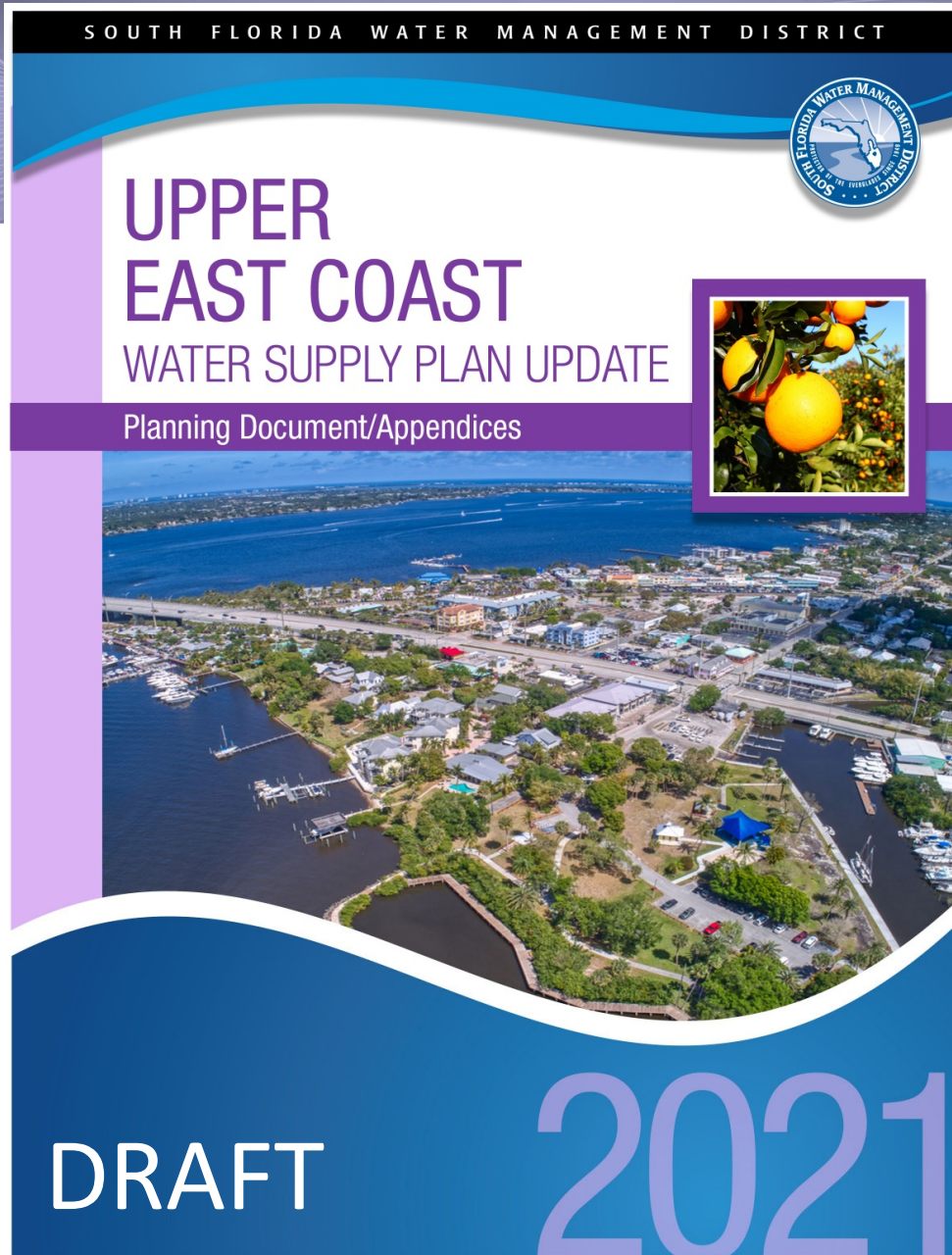
26% decrease



	Public Supply	Domestic Self-Supply	Agriculture	Commercial/ Industrial/ Institutional	Landscape/ Recreational	Power Generation	Total
2019	56.26	5.76	174.72	4.43	32.03	17.91	291.11
2045	81.62	5.61	130.10	5.74	40.64	17.47	281.18

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

Draft Plan Conclusion



The future water needs of the region can continue to be met through the 2045 planning horizon with appropriate management, conservation, and implementation of projects in this plan

- Construction of water supply projects by one utility
- Implementation of the CERP Indian River Lagoon – South Project and other ecosystem restoration projects

Future Direction

- Continue implementation of:
 - Aquifer monitoring programs
 - Water conservation programs
 - Alternative water supply development projects
 - CERP and other ecosystem restoration projects
- Evaluate, monitor, and design solutions in response to sea level rise and climate trends
 - Complete East Coast Surficial Model
- Implement long-term management measures for the Floridan aquifer system in coordination with utilities
- Coordinate with other agencies, local governments, and utilities on water supply elements



Questions

Next Steps

- *August 25* *Posted draft documents*
- *September 3* *Stakeholder meeting #2*
- **September 9** **Presentation to Governing Board**
- **October 1** **Deadline for external comments**
- **November 10** **Final plan to Governing Board for consideration**

Public Comment on Item 26

If you're participating in person –
please fill out a comment card and
give to a meeting attendant

If you're participating via Zoom –
use the Raise Hand feature

If you're participating via Phone –

*9 Raises Hand

*6 Mutes/Unmutes



3:00