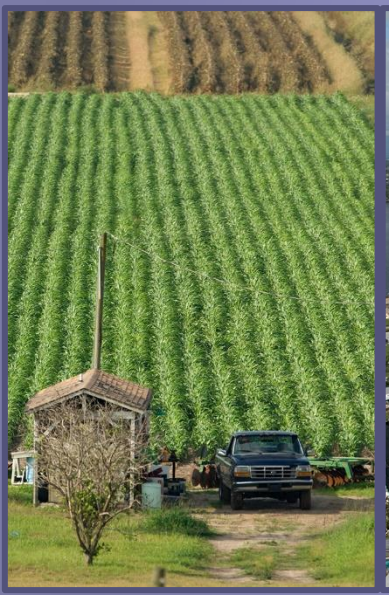
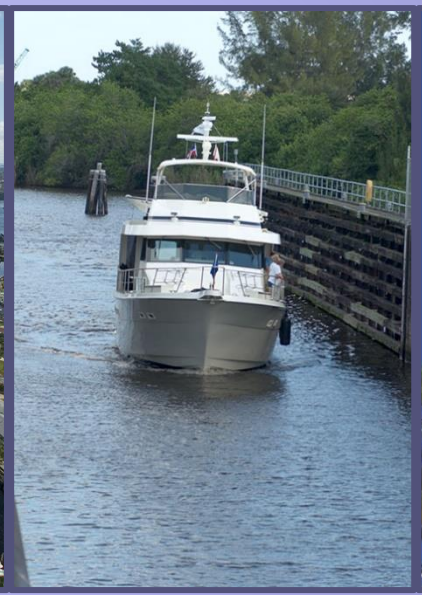
SOUTH FLORIDA WATER MANAGEMENT DISTRICT

2026 Upper East Coast Water Supply Plan Update



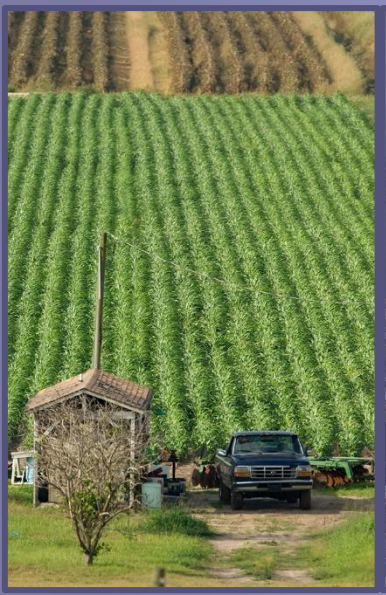


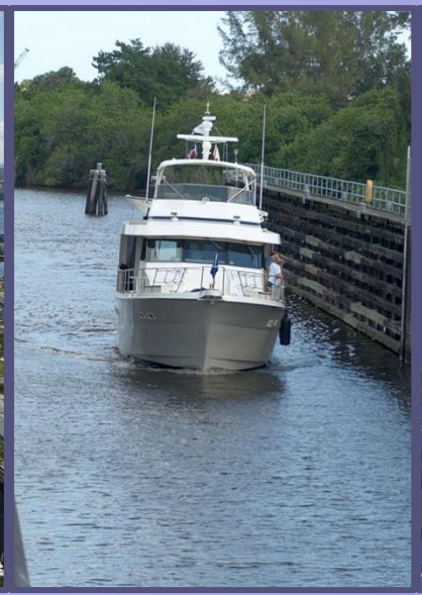

2026 UEC Stakeholder Kickoff Meeting

April 28, 2026

Questions and public comment will occur after each presentation.

Welcome and Opening Remarks






Carolina Maran, P.E., Ph.D.
Division Director, Flood Control and Water Supply Planning
Chief of District Resiliency

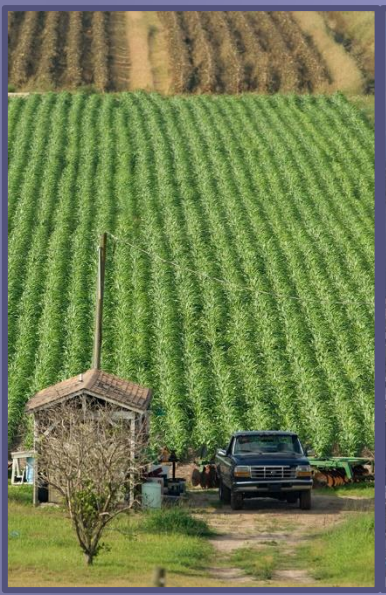
2026 UEC Stakeholder Kickoff Meeting
April 28, 2026

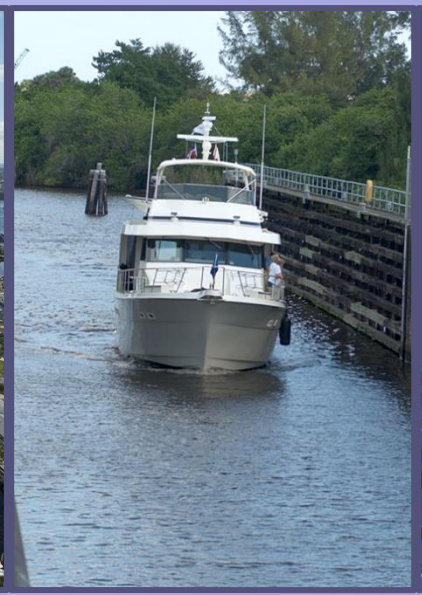
Agenda

- **2026 UEC Plan Update Process and Summary of 2021 UEC Plan**
  - *Tom Colios, SFWMD*
- **Progress Since 2021 and 2026 UEC Plan Update Goal and Objectives**
  - *Chad Brcka, SFWMD*
- **Draft Demand Estimates and Projections**
  - *Coleen Jordan, SFWMD*
- **Next Steps**
  - *Chad Brcka, SFWMD*
- **Adjourn**

Questions and public comment will occur after each presentation.

Planning Process



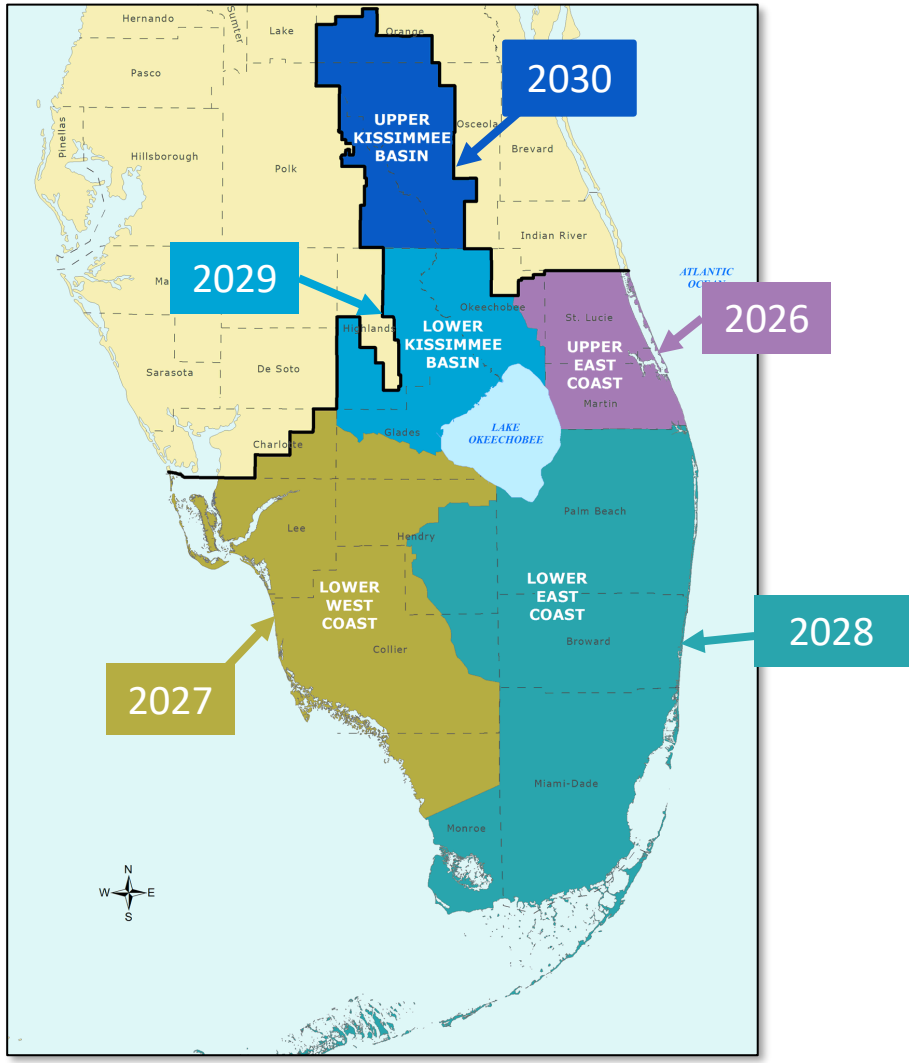



Tom Colios
Section Administrator, Water Supply Planning and Implementation

2026 UEC Stakeholder Kickoff Meeting
April 28, 2026

Water Supply Plan Requirements

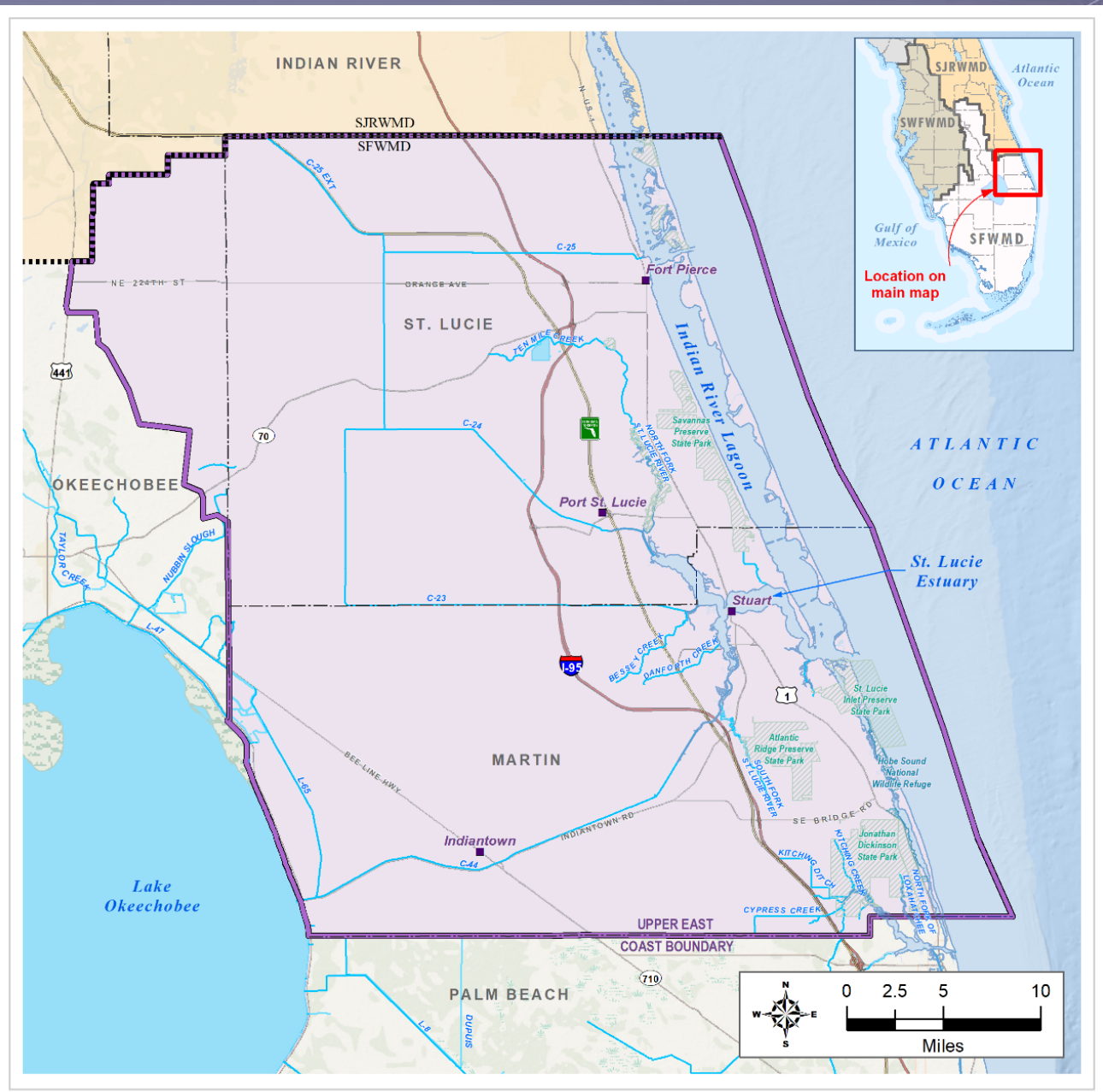
- 20-year planning period
- Demand estimates and projections
- Resource analyses
- Issue identification
- Evaluation of water source options
- Water resource development
  - Responsibility of water management district
- Water supply development
  - Responsibility of water users
- Environmental protective and restoration strategies
  - Review/update prevention and recovery strategies for minimum flows and minimum water levels (MFLs)



Presenter: Tom Colios

UEC Planning Area

- All of Martin and St. Lucie counties and the northeastern portion of Okeechobee County
- 1,230 square miles
- 17 public supply utilities
- Major agricultural industry
- Important natural and water resources
  - C-44, C-23,C-24, and C-25 canals
  - St. Lucie River and Estuary
  - Indian River Lagoon
  - North Fork of the Loxahatchee River



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
- Triggers local governments to update their 10-year Water Supply Facilities Work Plan within 18 months of Plan approval

What it Does NOT Do

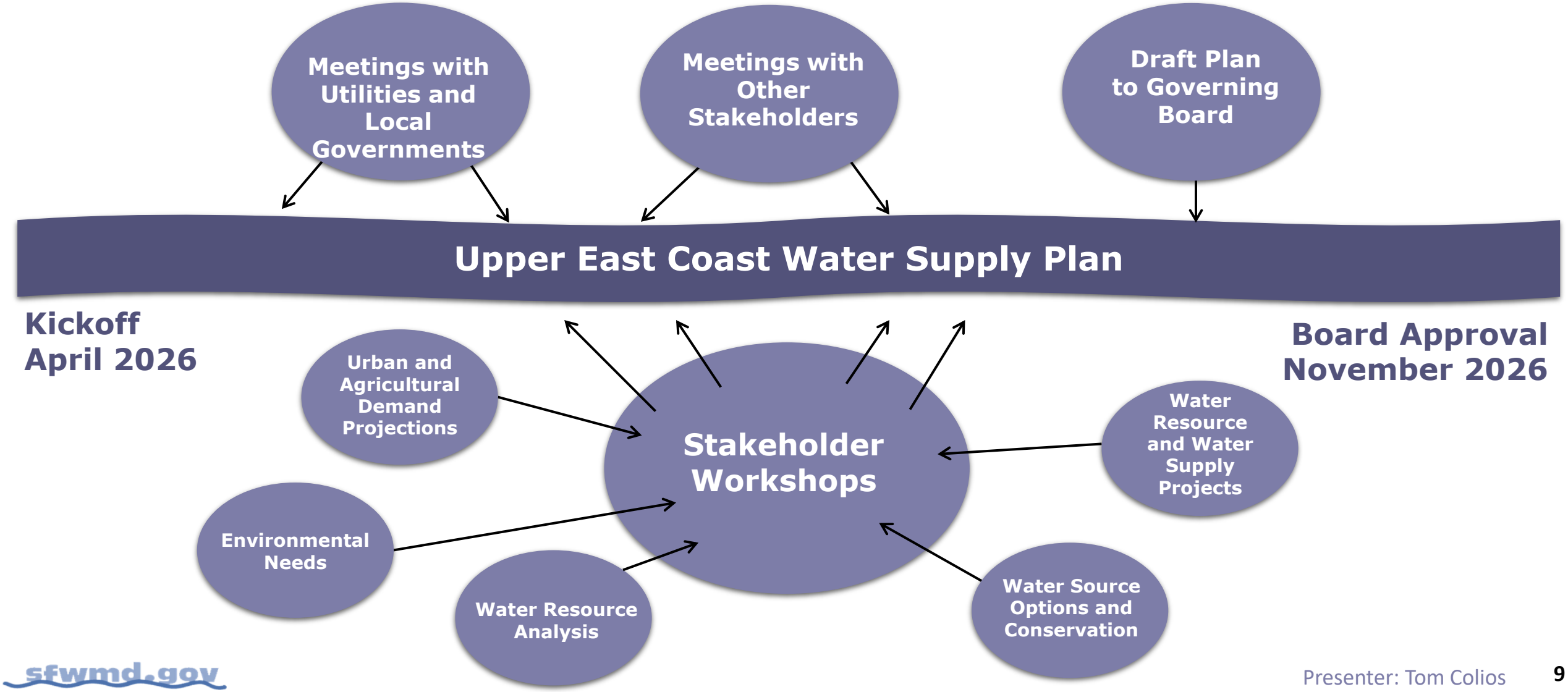
- Does not authorize consumptive use permits
- Does not establish MFLs
- Does not adopt rules
- Does not require water users to implement specific projects
- Does not address surface water quality issues (e.g., algal blooms)

Public Participation

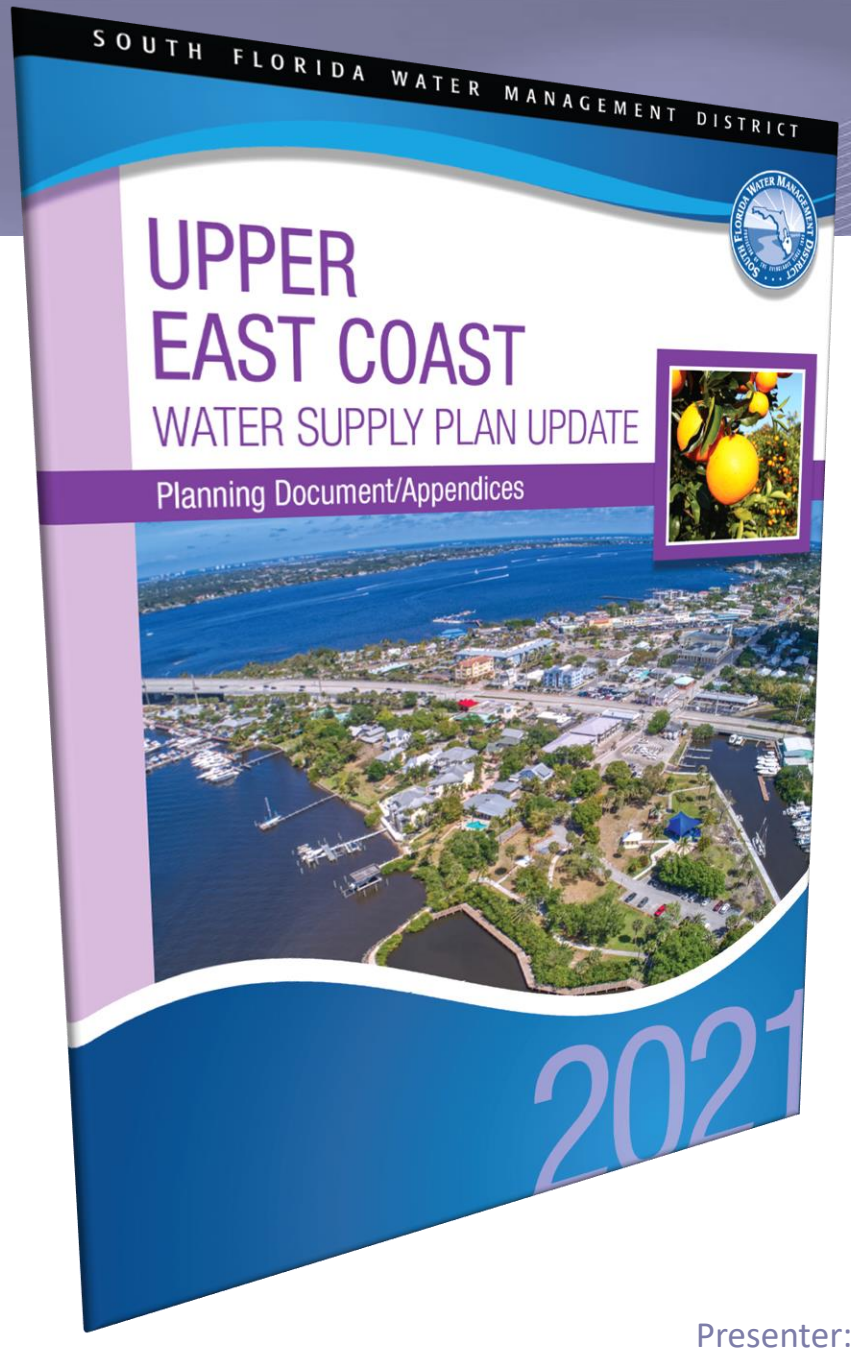
- **Active participation to ensure plan reflects the needs of the planning area**
  - Agricultural interests
  - Public water suppliers
  - Environmental community
  - County commissions/city councils
  - County/city planning staff
  - Regional planning council
  - Governing Board member involvement
  - State agencies and special districts

- **Opportunities for public participation**
  - Stakeholder meetings
  - Governing Board meetings
  - One-on-one meetings
  - Draft document review and comment

UEC Water Supply Plan Update Process



Summary of the 2021 Plan



2021 Raw Water Demand Projections

Population

2019 468,499 residents

2045 686,409 residents

47% increase

Irrigated agricultural acres

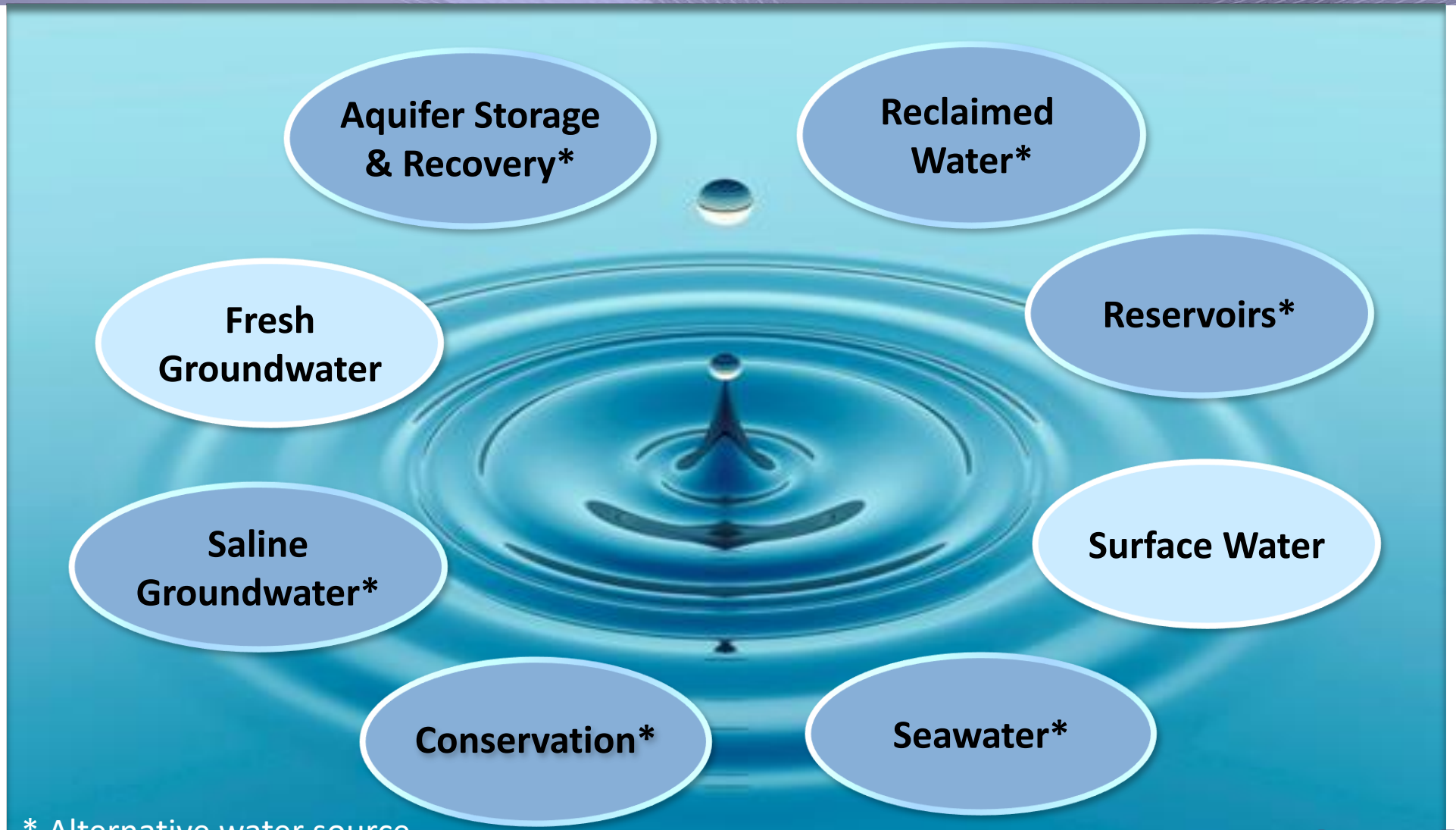
2019 107,383 acres

2045 79,004 acres

26% decrease

	Public Water Supply	Domestic and Small Public Supply	Agricultural Irrigation	Industrial/ Commercial/ Institutional	Recreational / Landscape Irrigation	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**

Water Source Options & Alternatives

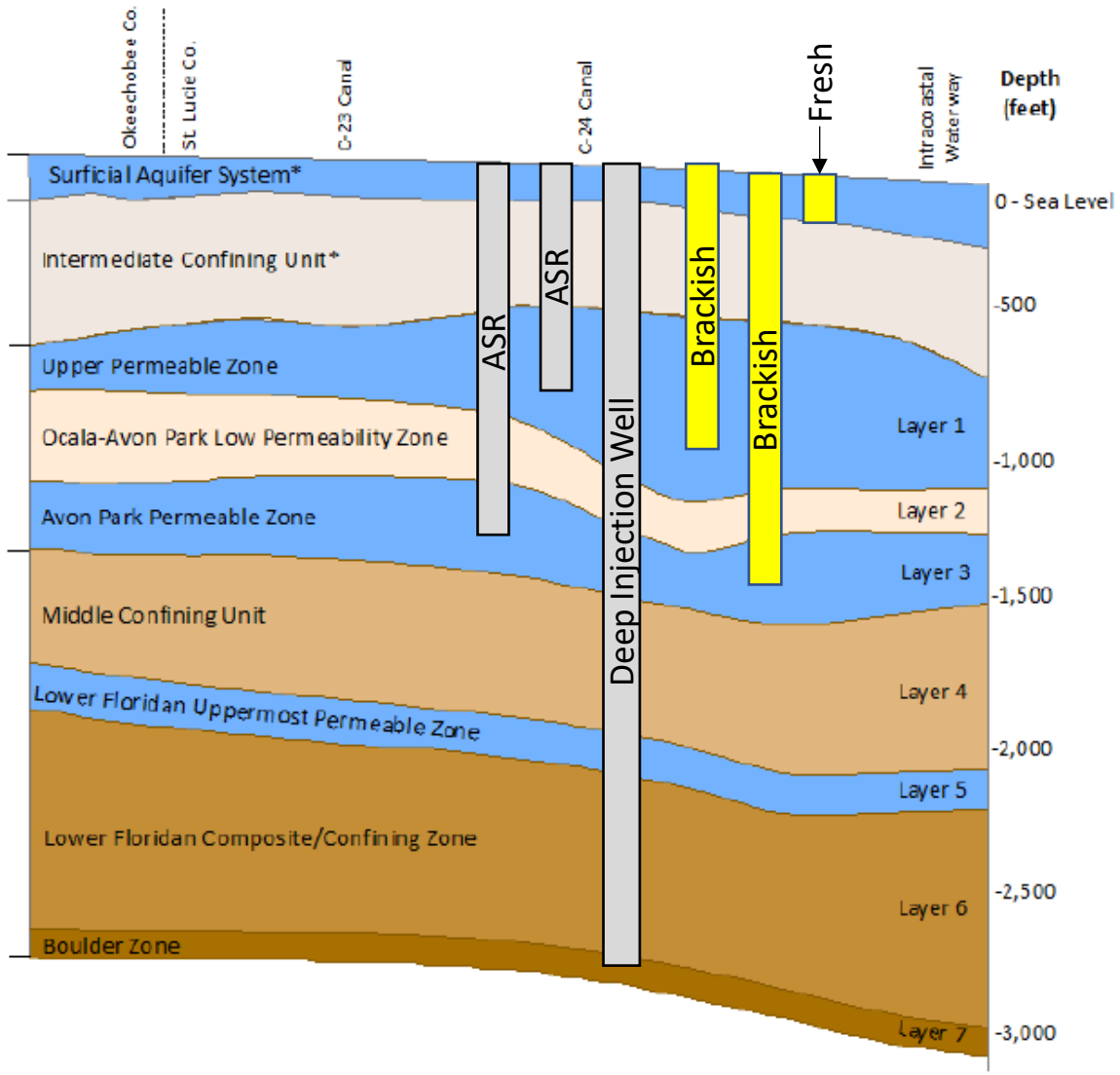


* Alternative water source

Groundwater Sources

Surficial Aquifer System

Floridan Aquifer System



Presenter: Tom Colios

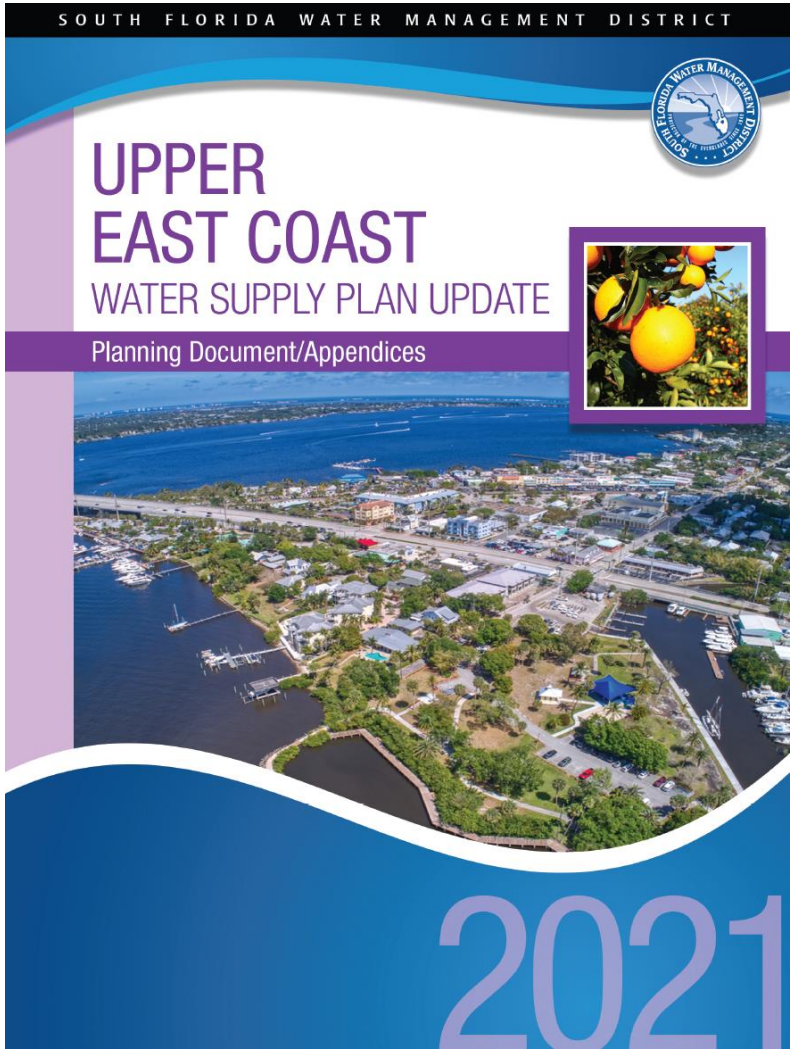
Summary of 2021 Water Resource Considerations

- 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, C-25, and C-44 canals and the Lake Okeechobee Service Area Restricted Allocation Area rules
  - MFL for St. Lucie Estuary
  - Water reservation for the North Fork of the St. Lucie River
  - Topic for next Stakeholder Meeting
- Freshwater discharges affecting coastal resources
  - Timing and volume
- Long-term availability of the Floridan aquifer system

2021 Water Resource Evaluation

- Surface water
  - Surface water demands will likely decrease over time
  - Restricted Allocations Areas – restrict availability of new surface water
- Groundwater
  - Minimal projected demand for new increased use of the surficial aquifer system
  - Most PS utilities use the Floridan aquifer system and plan to increase use over time
- East Coast Floridan Model (ECFM) simulated 2019 and 2045 demands
  - Provides insights into potential water level and water quality changes
  - Historical data and ECFM results concluded that properly designed and managed wellfields appear able to meet 2045 demands
- St. Lucie Estuary MFL
  - No historic exceedances
  - Decreasing surface water demands and minimal increased use of SAS
  - Reevaluating for the 2026 Plan update

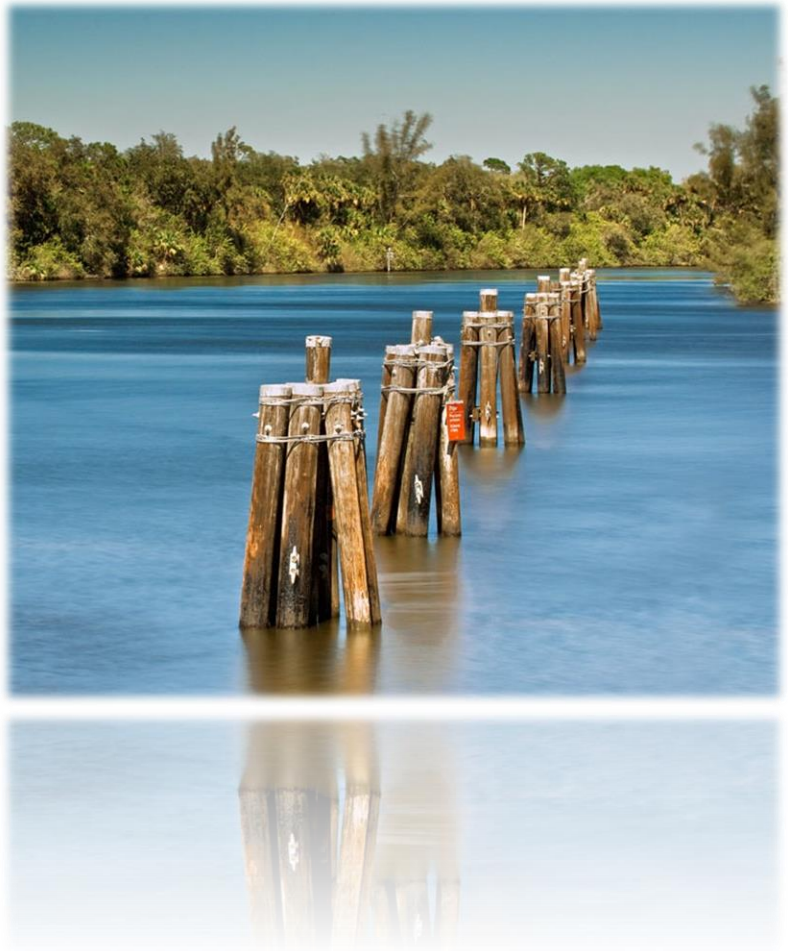
2021 Upper East Coast Water Supply Plan Update Conclusions



- Future 2045 projected water needs of the region can be met with appropriate management, conservation, and implementation of projects.
- Implementation of CERP and other projects will be necessary to meet future water needs.
- Construction of one potable water supply development project.
- Completion of the Herbert Hoover Dike and subsequent implementation of a new LORS

2021 Future Direction

- Continue SAS and FAS aquifer monitoring programs
- Construct CERP and related projects
- Promote local storage projects
- Promote water reuse and conservation measures
- Coordinate with other agencies, local governments, and utilities on water supply elements
- Identify the potential impact of sea level rise on utilities and other users



Questions and Public Comment

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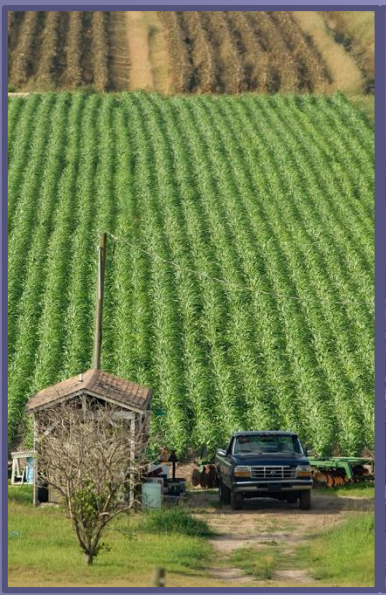
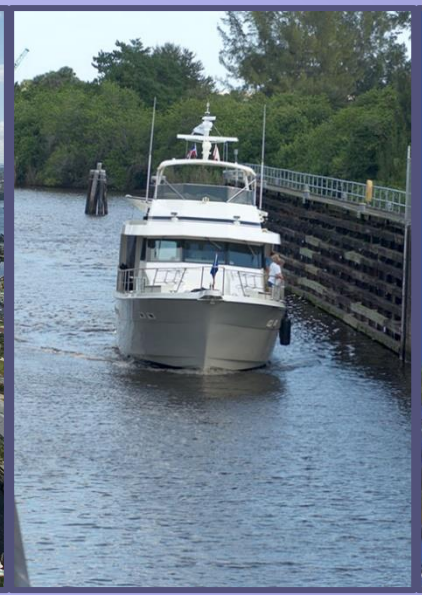
Progress Since 2021 UEC Plan Update





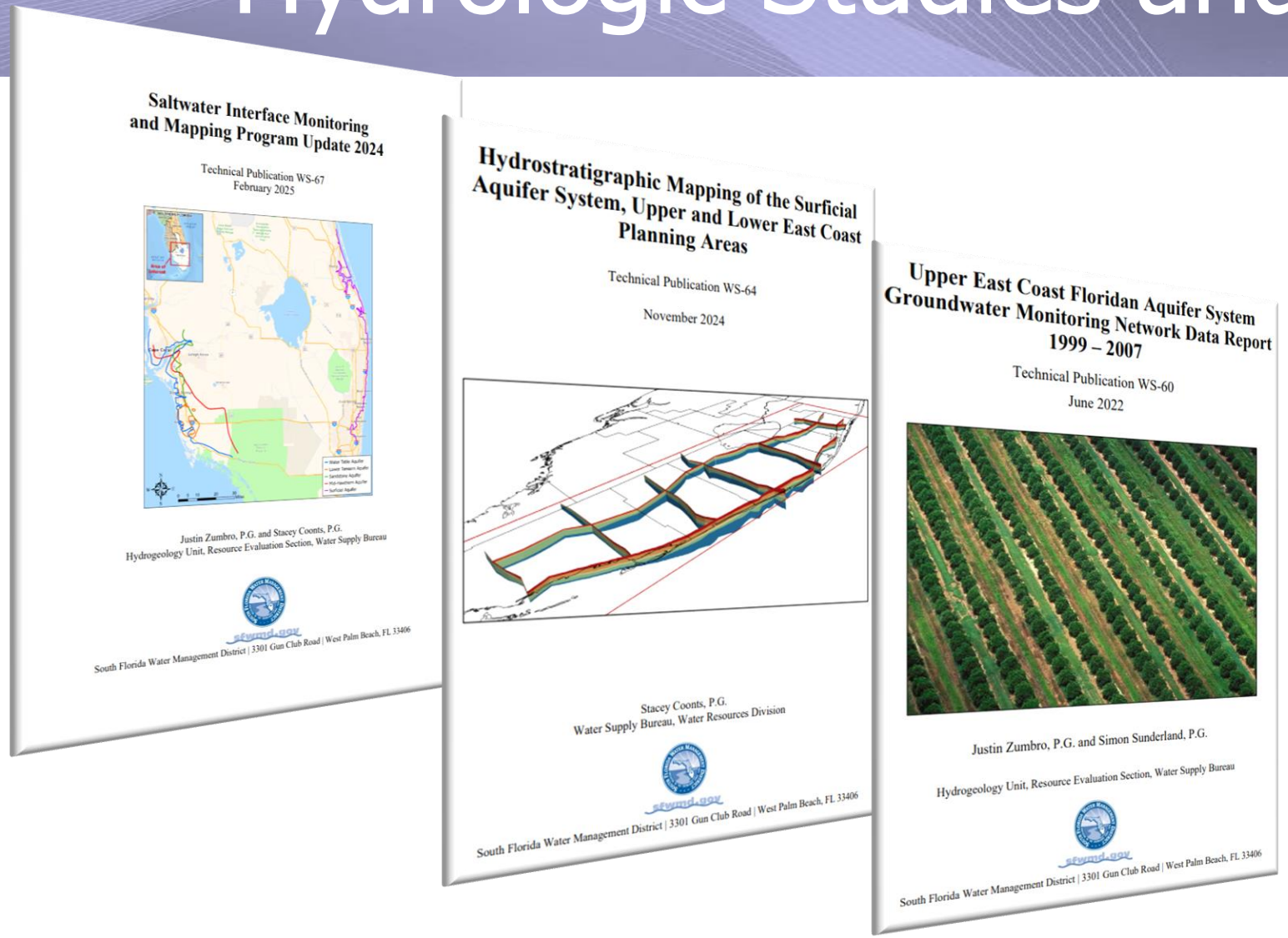

Chad Brcka
Upper East Coast Plan Manger

2026 UEC Stakeholder Kickoff Meeting
April 28, 2026

Progress Since the 2021 UEC Plan Update

- Hydrologic studies and publications
- Ongoing groundwater monitoring
- Regional hydrologic model updates
- Water supply studies and reports
- Water storage, construction, and restoration projects
- Alternative water supply and conservation project support

Hydrologic Studies and Publications

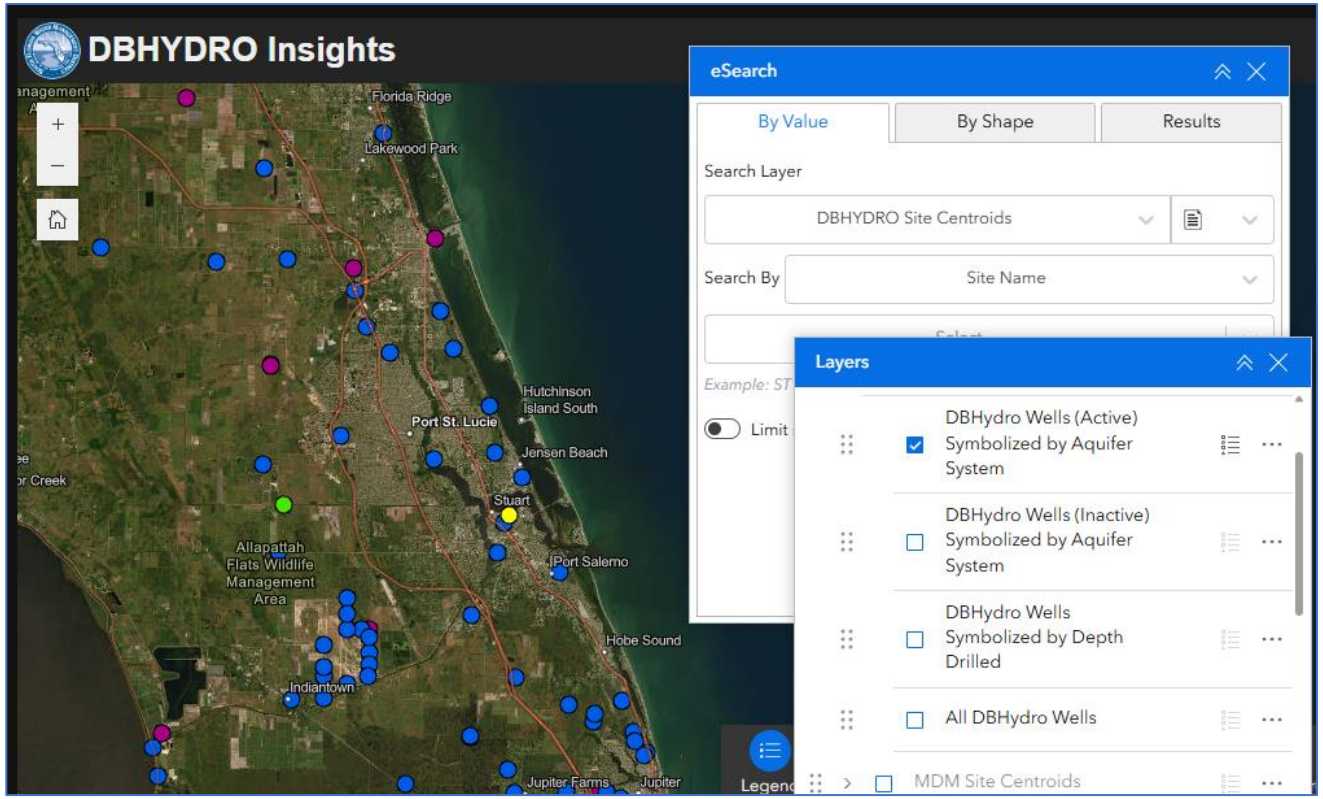


- 2024 - Saltwater Interface Update
- 2024 - Hydrostratigraphic Mapping of the Surficial Aquifer System, Upper and Lower East Coast Planning Areas
- 2022 - Upper East Coast Floridan Aquifer System Groundwater Monitoring Network Data Report 1999–2007

Available at [Water Supply – Hydrogeological Reports]

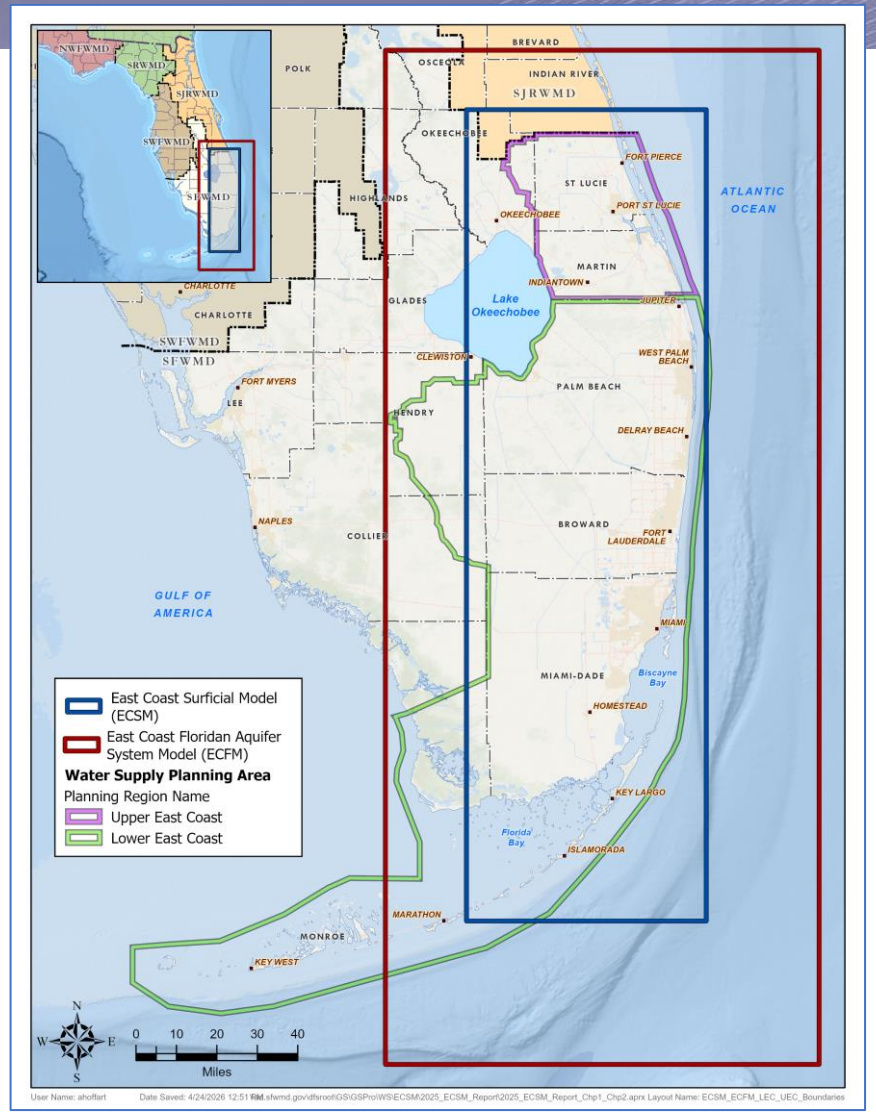
Groundwater Monitoring

- USGS/SFWMD Cooperative Monitoring Network
- SAS and FAS Monitoring Network
- Long-term data stored in DBHYDRO Insights database
  https://www.sfwmd.gov/science-data/dbhydro

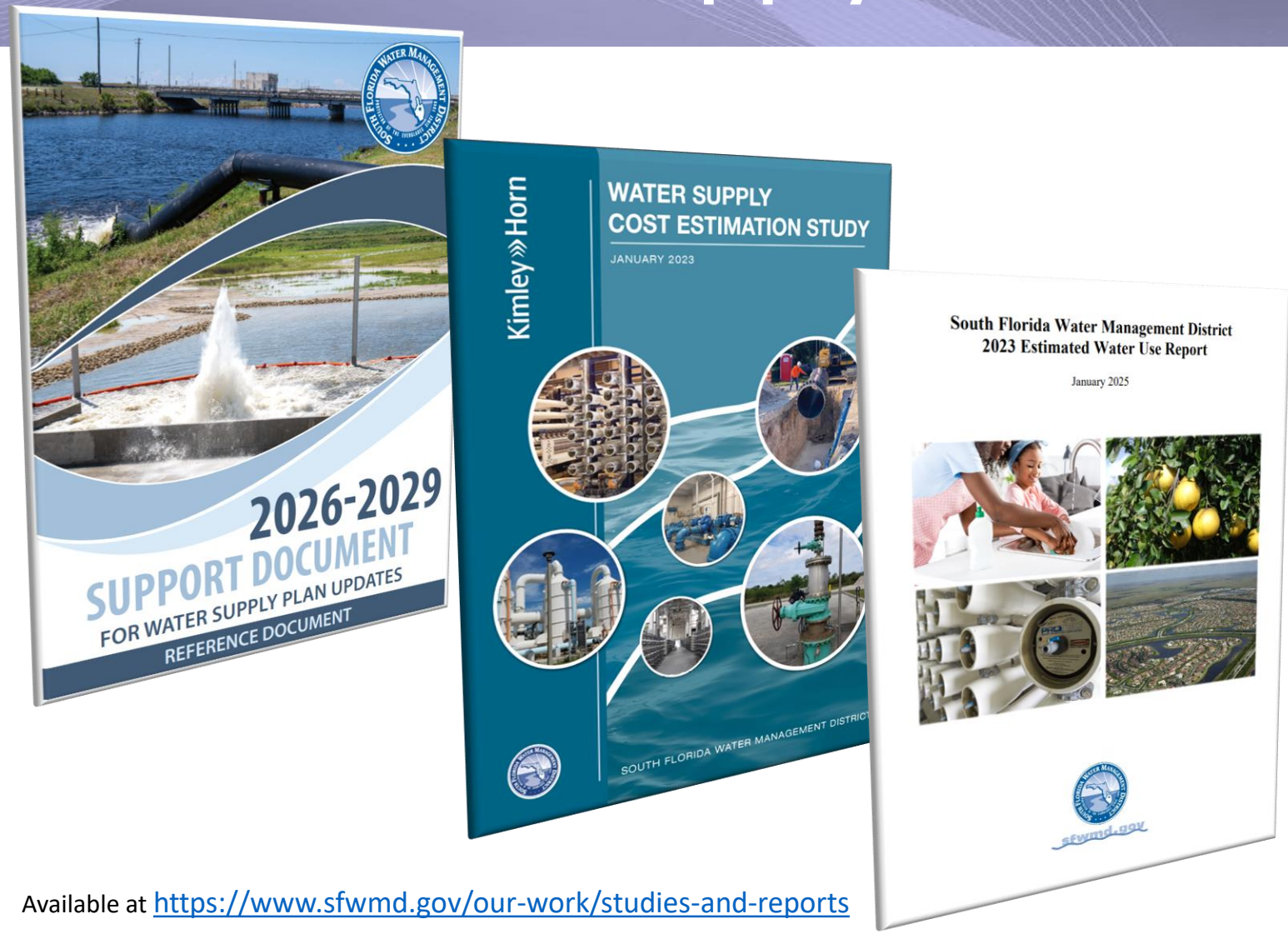


Regional Hydrologic Model Updates

- East Coast Floridan Model
  - Identifies potential changes in water quality, flows, and water levels in the FAS
  - Updating to include and evaluate the 2024 and 2050 UEC demands
- East Coast Surficial Model
  - Density dependent, numeric model
  - Calibrated to evaluate changes in water levels and water quality in the SAS
  - Updating to include and evaluate the 2024 and 2050 UEC demands
  - ECSM application will include a scenario to evaluate potential sea level rise
- Results Summer of 2026
- Topic of future stakeholder meeting



Water Supply Studies and Reports



- 2026-2029 Support Document
  - Supplements the regional water supply plans
- Cost Estimation Study
  - Provides cost data (in December 2021 dollars) for development of alternative water supplies
- Estimated Water Use Reports
  - Based primarily on water pumpage records
  - Estimates existing demands for six water use categories

Available at https://www.sfwmd.gov/our-work/studies-and-reports

Water Storage, Construction, and Restoration Projects

C-44 Reservoir and S-401 Pump Station

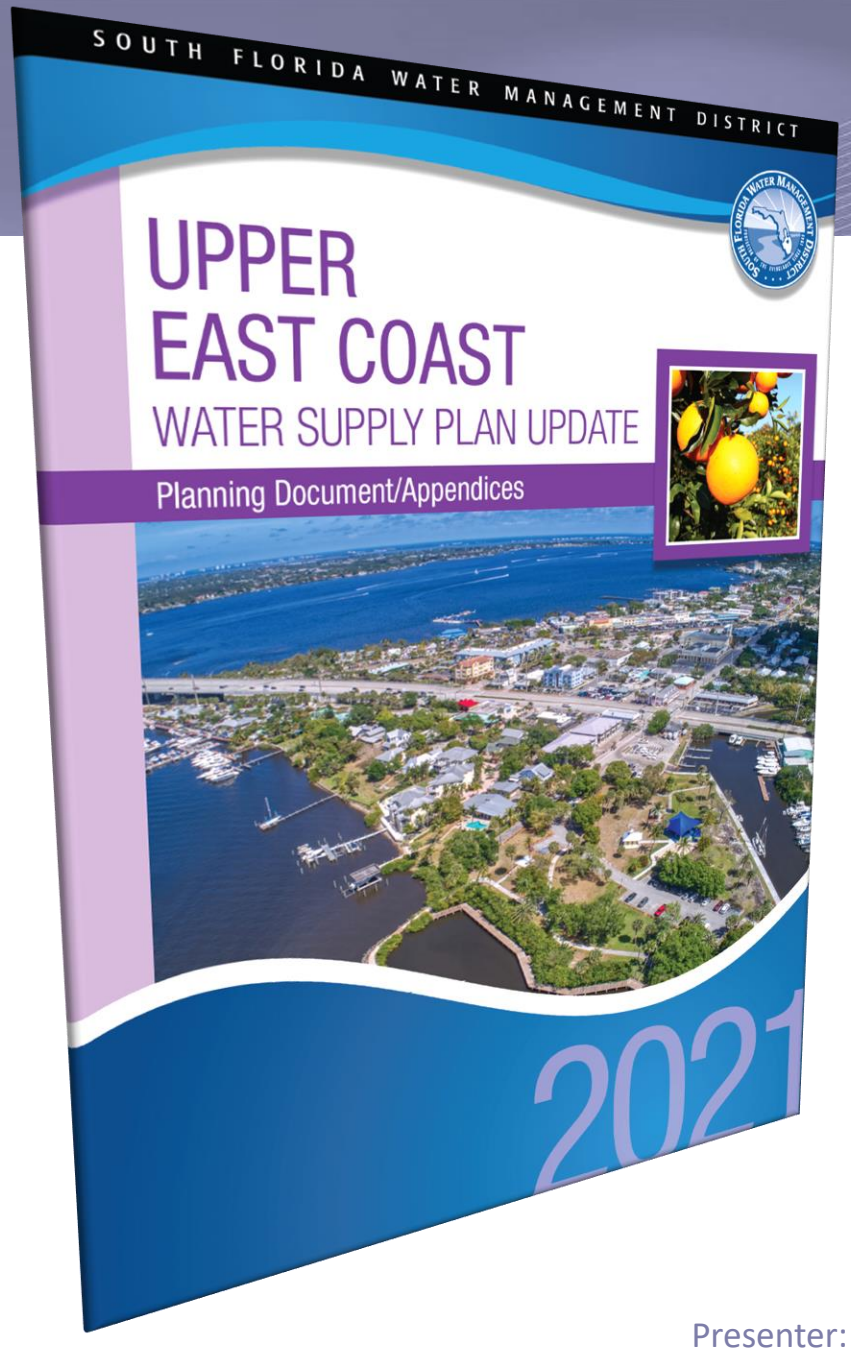
- Lakeside Ranch STA
  - Completed in 2021
- Indian River Lagoon – South Project
  - C-44 reservoir and STA construction completed in 2021
  - C-23 to C-44 Estuary Discharge Diversion recently completed
- Herbert Hoover Dike/Lake Okeechobee
  - Rehabilitation and repair of the Herbert Hoover Dike was completed in 2023.
- Topic for Stakeholder Meeting #2

Alternative Water Supply and Conservation Project Support

- Cooperative Funding Program
  - Cost share funding provided in partnership with the FDEP for AWS and conservation construction and implementation
  - Since 2021, the SFWMD provided approximately $2.6 million for AWS and conservation projects in the UEC
- Public supply utility AWS projects completed since 2021
  - Fort Pierce Utility Authority
    - Mainland Water Reclamation Facility
  - Port St. Lucie
    - McCarty Ranch Areas 1-7*
    - Glades WWTF to Tradition reclaimed distribution main*
  - Martin County Utilities
    - Tropical Farms and North Jensen Beach FAS wellfield expansions*
  - St. Lucie County
    - North and Central County reverse osmosis WTPs and wellfields*
  - Stuart
    - Reverse osmosis water treatment plant and wellfield

*Denotes projects that qualified for AWS cooperative funding

2026 Plan Update Goal and Objectives



Statutory Goal of Water Supply Plans (Section 373.709, F.S.)

*To identify sufficient water supply sources and future projects to meet existing and future reasonable-beneficial uses during 1-in-10 year drought conditions through **2050** while sustaining water resources and related natural systems.*

Objectives of 2026 UEC Plan Update

1. Water supply during 1-in-10 year drought conditions through 2050
2. Sustain water resources and natural systems
3. Encourage water conservation measures and the use of alternative water supplies
4. Promote compatibility with local government planning
5. Coordinate and integrate with other water resource initiatives

Questions and Public Comment

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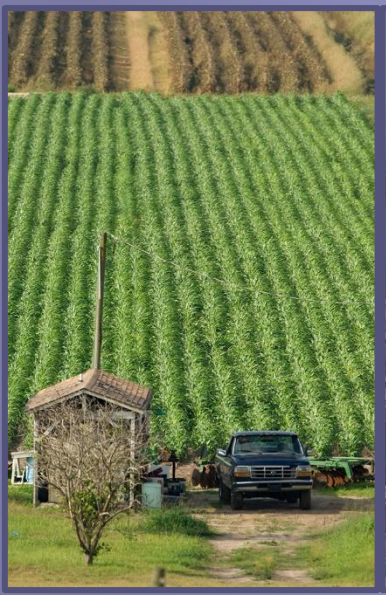
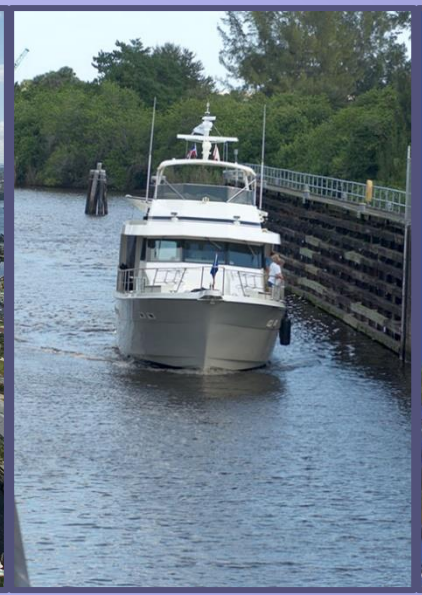
Upper East Coast
Demand Estimates & Projections



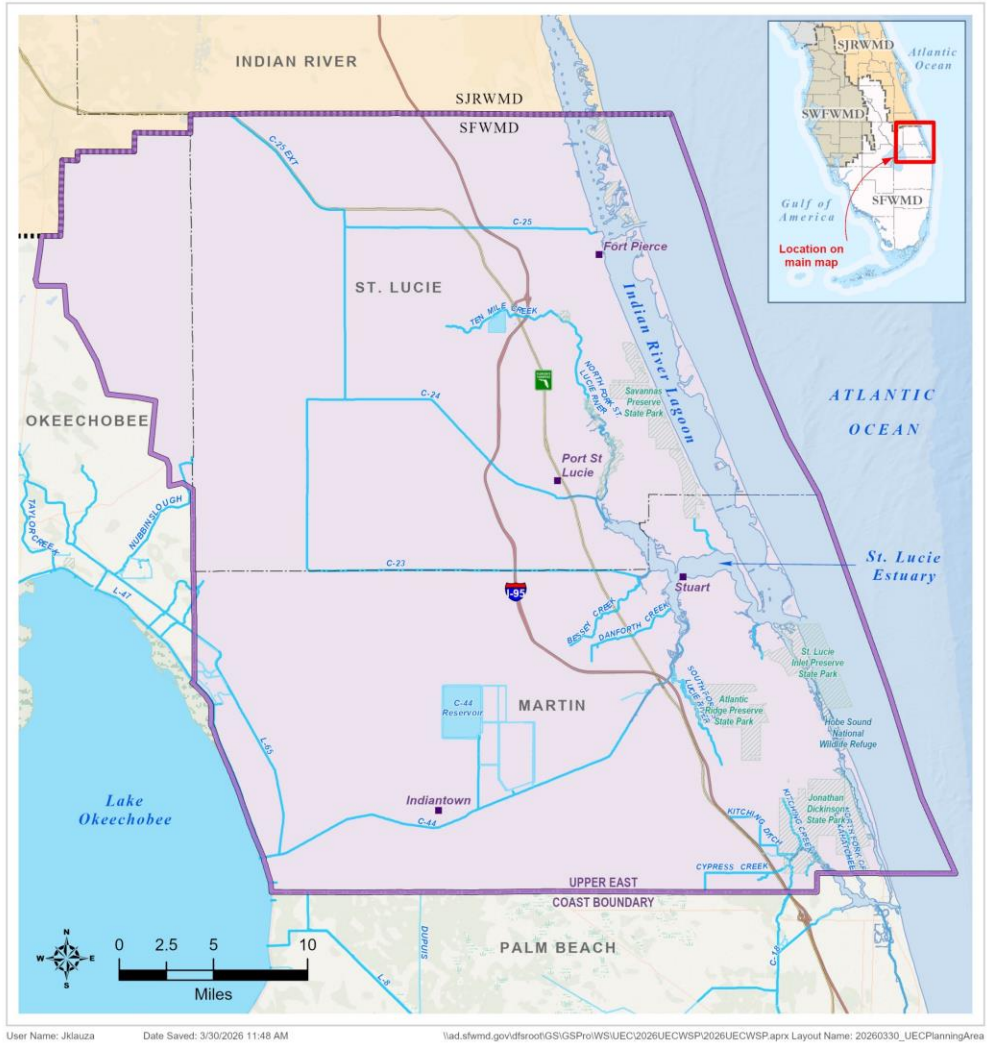



Coleen Jordan
Senior Demographer

2026 UEC Stakeholder Meeting #1
April 28, 2026

Observations Since the 2021 UEC Update

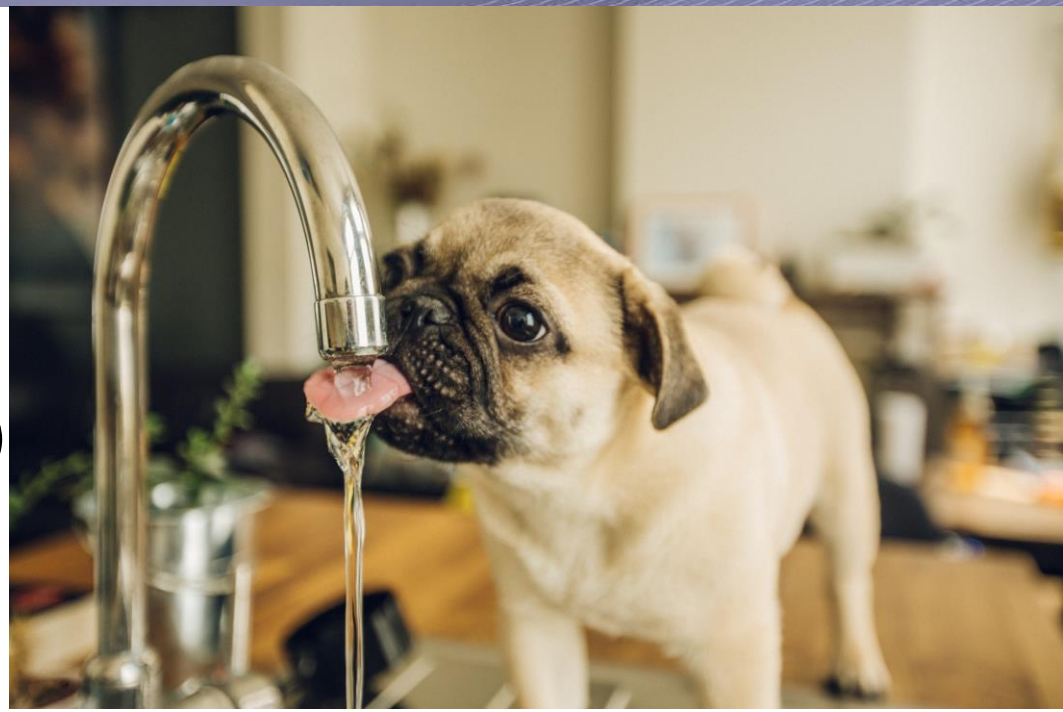
- Irrigated agricultural acreage projected to decrease slightly through 2050
- Sugarcane and Citrus are the dominant crops, while Field Crops got introduced
- Minimal change to current utility service areas
- Population projections* expected to have steady growth through 2050



Land Use Changes: Port St. Lucie

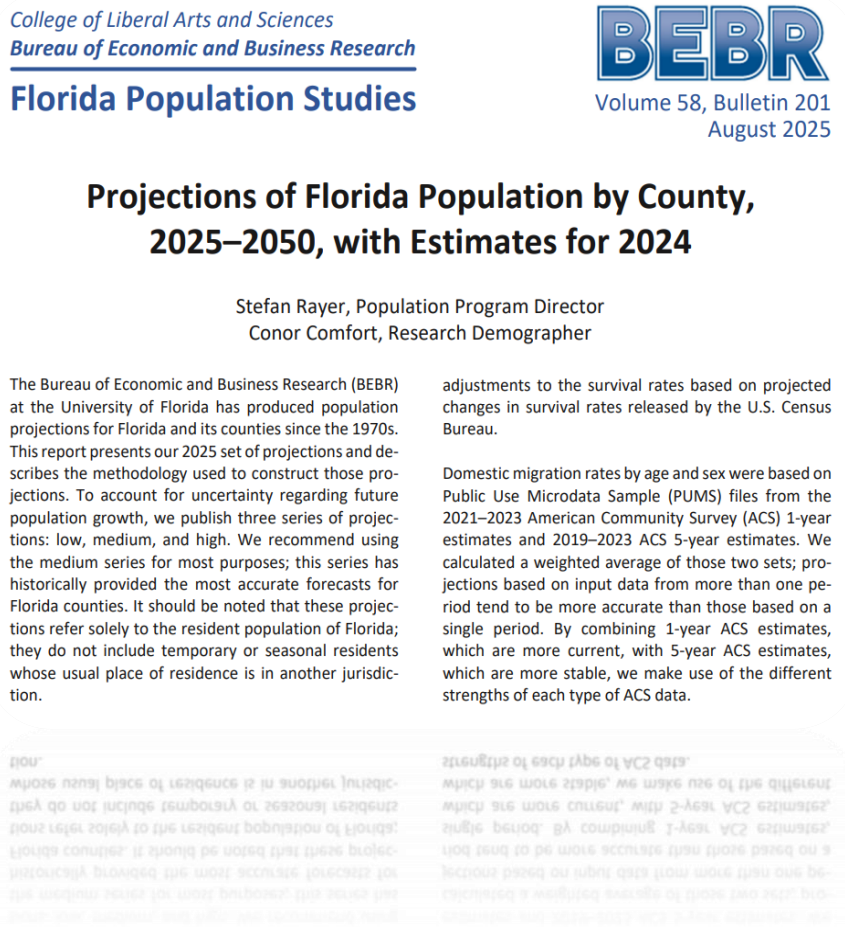
Water Use Categories

1. **Public Supply (PS)**
2. **Domestic Self-Supply (DSS)**
3. Agriculture (AG)
4. Commercial/Industrial/Institutional (CII)
5. Landscape/Recreational (L/R)
6. Power Generation (PG)



Principles for Urban Demand Estimates and Projections

- Section 373.709, Florida Statutes
- Maintain *BEBR-medium county totals
- Accurately describe relative growth across the UEC
- Identify and use best available data
- Simple, reproducible, and transparent methodology
- Consistent with local government population planning estimates



College of Liberal Arts and Sciences
Bureau of Economic and Business Research
Florida Population Studies

BEBR
Volume 58, Bulletin 201
August 2025

Projections of Florida Population by County, 2025–2050, with Estimates for 2024

Stefan Rayer, Population Program Director
Conor Comfort, Research Demographer

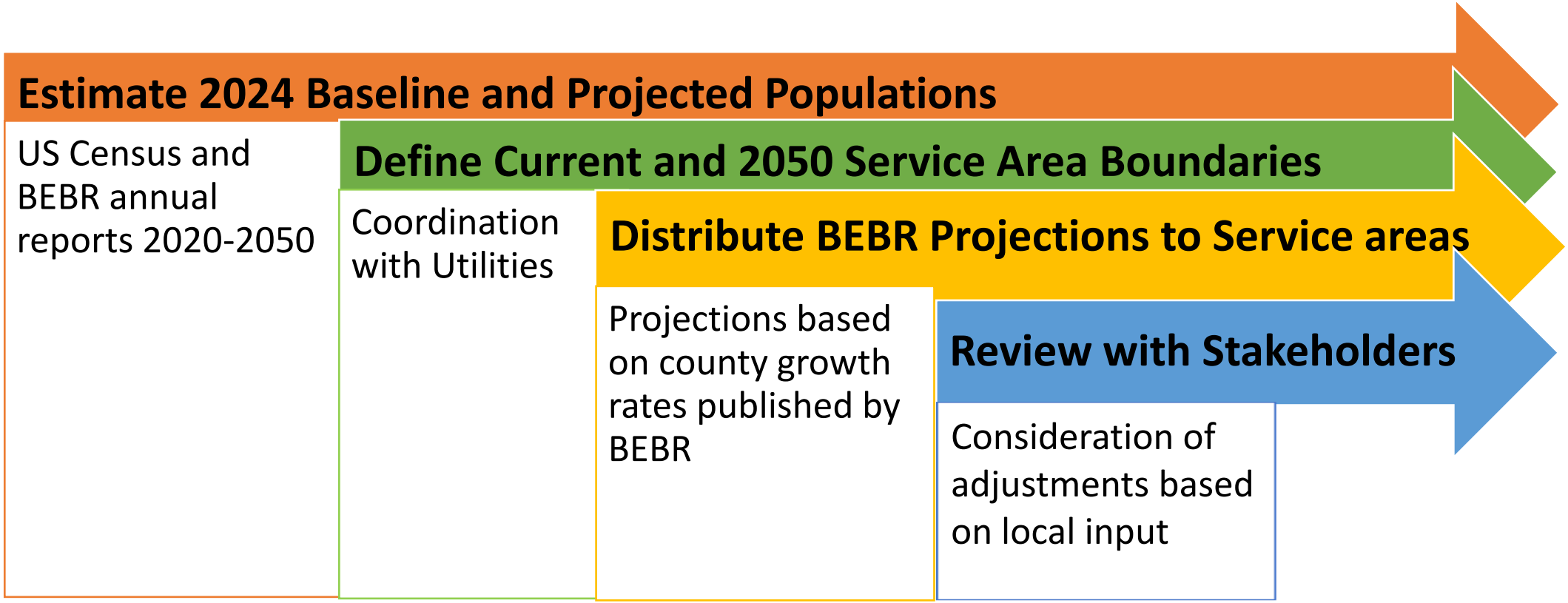
The Bureau of Economic and Business Research (BEBR) at the University of Florida has produced population projections for Florida and its counties since the 1970s. This report presents our 2025 set of projections and describes the methodology used to construct those projections. To account for uncertainty regarding future population growth, we publish three series of projections: low, medium, and high. We recommend using the medium series for most purposes; this series has historically provided the most accurate forecasts for Florida counties. It should be noted that these projections refer solely to the resident population of Florida; they do not include temporary or seasonal residents whose usual place of residence is in another jurisdiction.

adjustments to the survival rates based on projected changes in survival rates released by the U.S. Census Bureau.

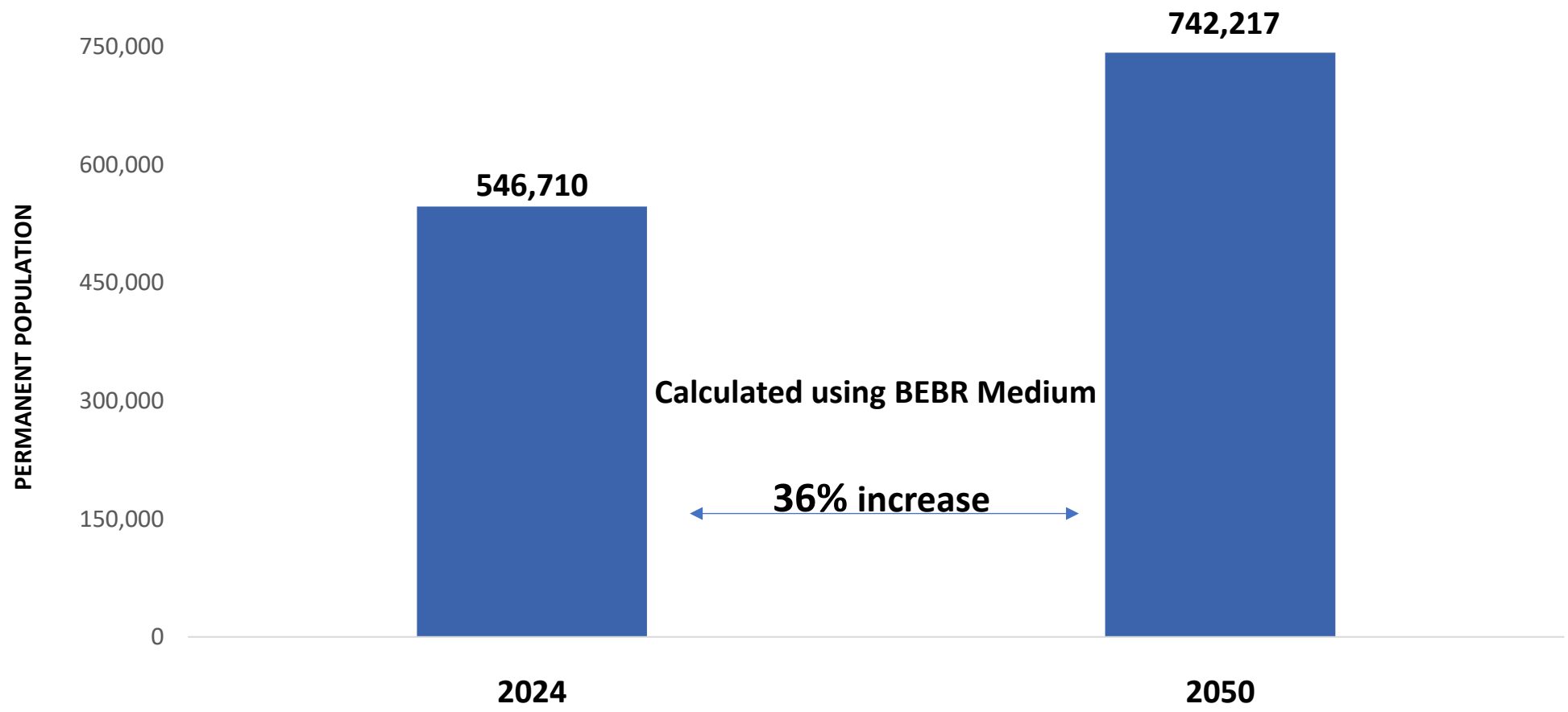
Domestic migration rates by age and sex were based on Public Use Microdata Sample (PUMS) files from the 2021–2023 American Community Survey (ACS) 1-year estimates and 2019–2023 ACS 5-year estimates. We calculated a weighted average of those two sets; projections based on input data from more than one period tend to be more accurate than those based on a single period. By combining 1-year ACS estimates, which are more current, with 5-year ACS estimates, which are more stable, we make use of the different strengths of each type of ACS data.

* The University of Florida's Bureau of Economic and Business Research (BEBR) produces Florida's official state and local population estimates and projections. (https://bebr.ufl.edu/wp-content/uploads/2025/08/projections_2025.pdf)

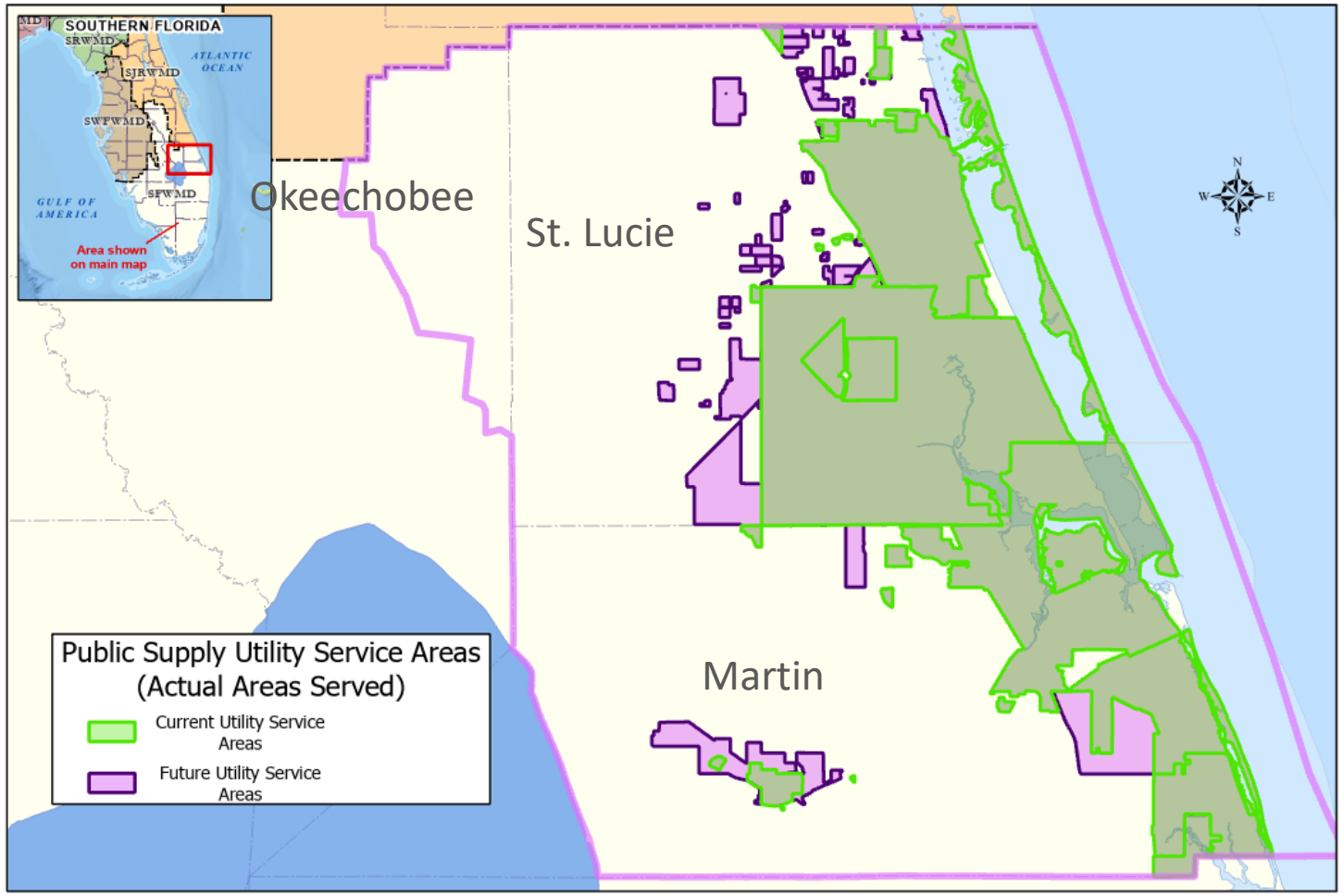
Population Projections



UEC Population Projections

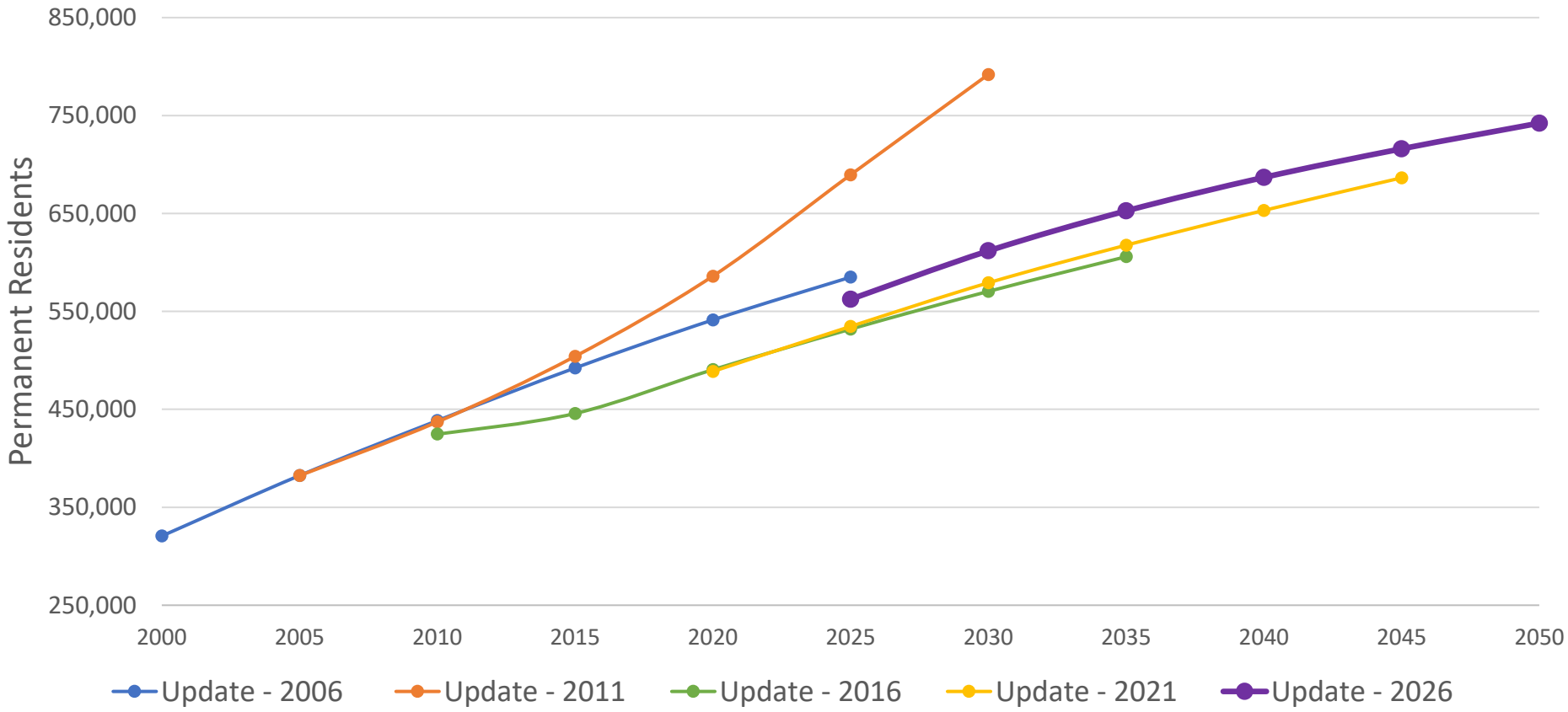


Draft UEC Population Projections

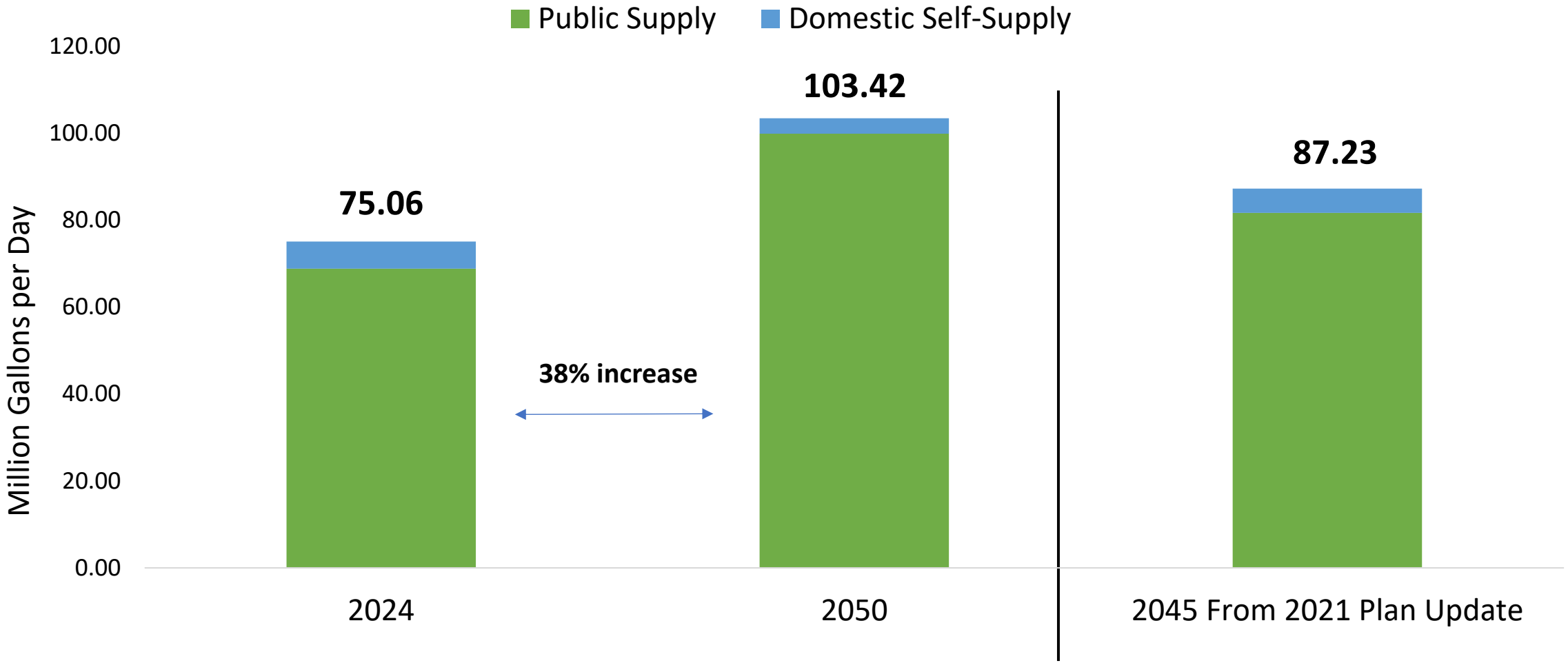


County		2024	2050
Martin	PS	153,359	185,386
	DSS	12,021	2,414
	Total	**165,380**	**187,800**
St. Lucie	PS	336,848	522,772
	DSS	43,925	31,028
	Total	**380,773**	**553,800**
Okeechobee	PS	0	0
	DSS	557	617
	Total	**557**	**617**
UEC Total	PS	490,207	708,158
	DSS	56,503	34,059
	Total	**546,710**	**742,217**

Population Projections by Plan Updates

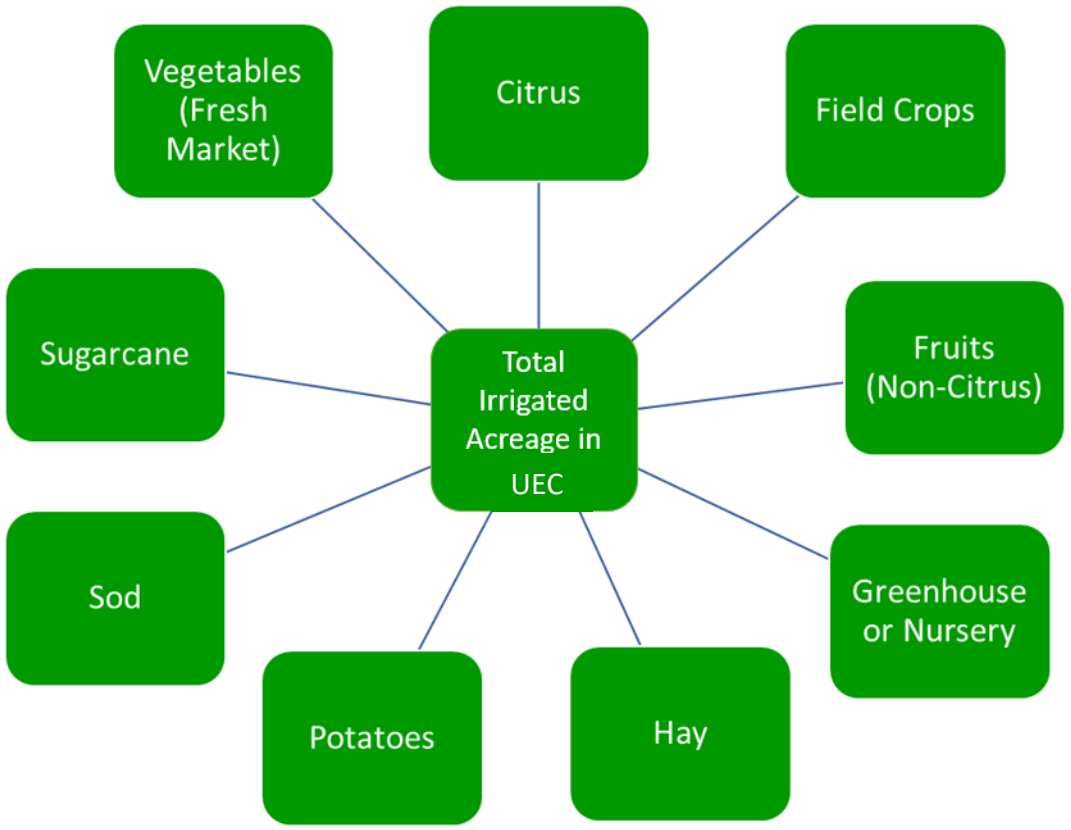


Draft Public Supply and Domestic Self-Supply Raw Water Demands



Water Use Categories

1. Public Supply
2. Domestic Self-Supply
3. **Agriculture –** Largest water use category
4. Commercial/Industrial/Institutional
5. Landscape/Recreational
6. Power Generation

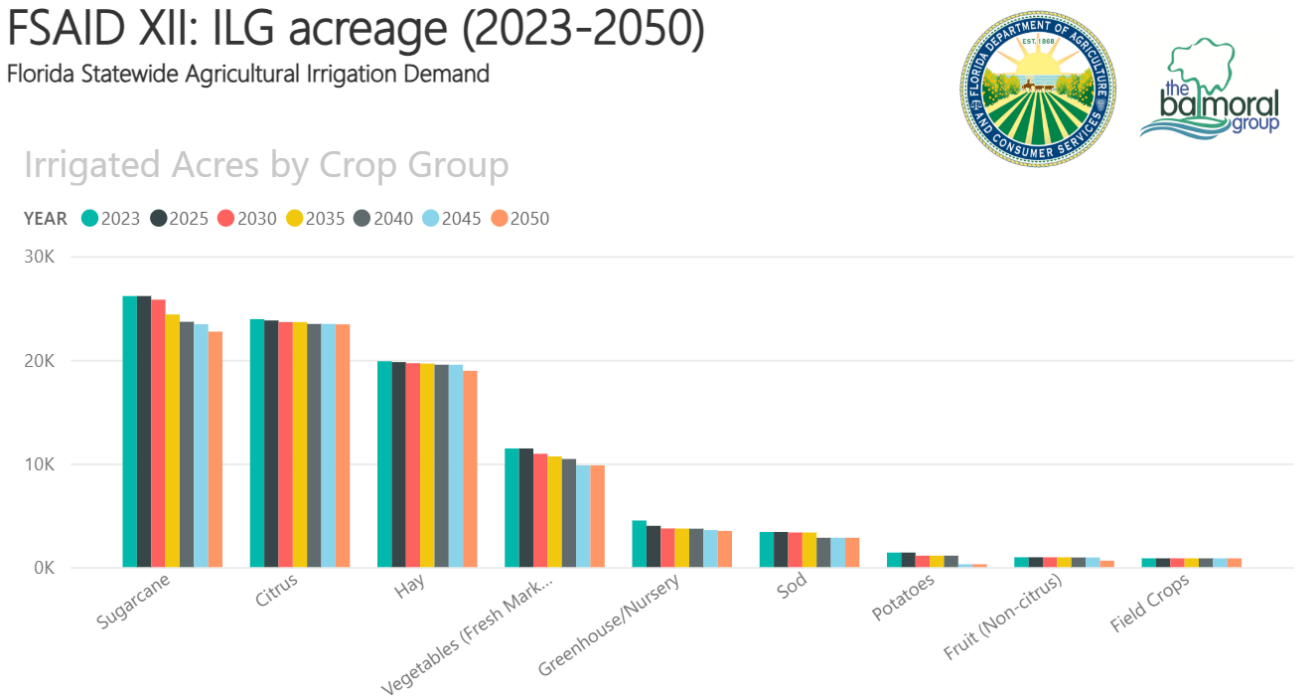


Nine Standard Crop Categories

Data Sources for Agricultural Projections

Statutory Basis for Projections

- Section 373.709, Florida Statutes: Agricultural demand projections in water management districts' regional water supply plans should be based on best available data
  - Must consider data of future demands provided by FDACS
  - Any deviation from that data must be described
  - FDACS* data are presented with adjusted data



*Florida Department of Agriculture and Consumer Services (FDACS) produces the Florida Statewide Agricultural Irrigation Demand (FSAID) report.

Link to the interactive FSAID website: Microsoft Power BI

Basic Components of Agricultural Demand Projections

Irrigated Acreages

- FSAID Irrigated Lands Geodatabase

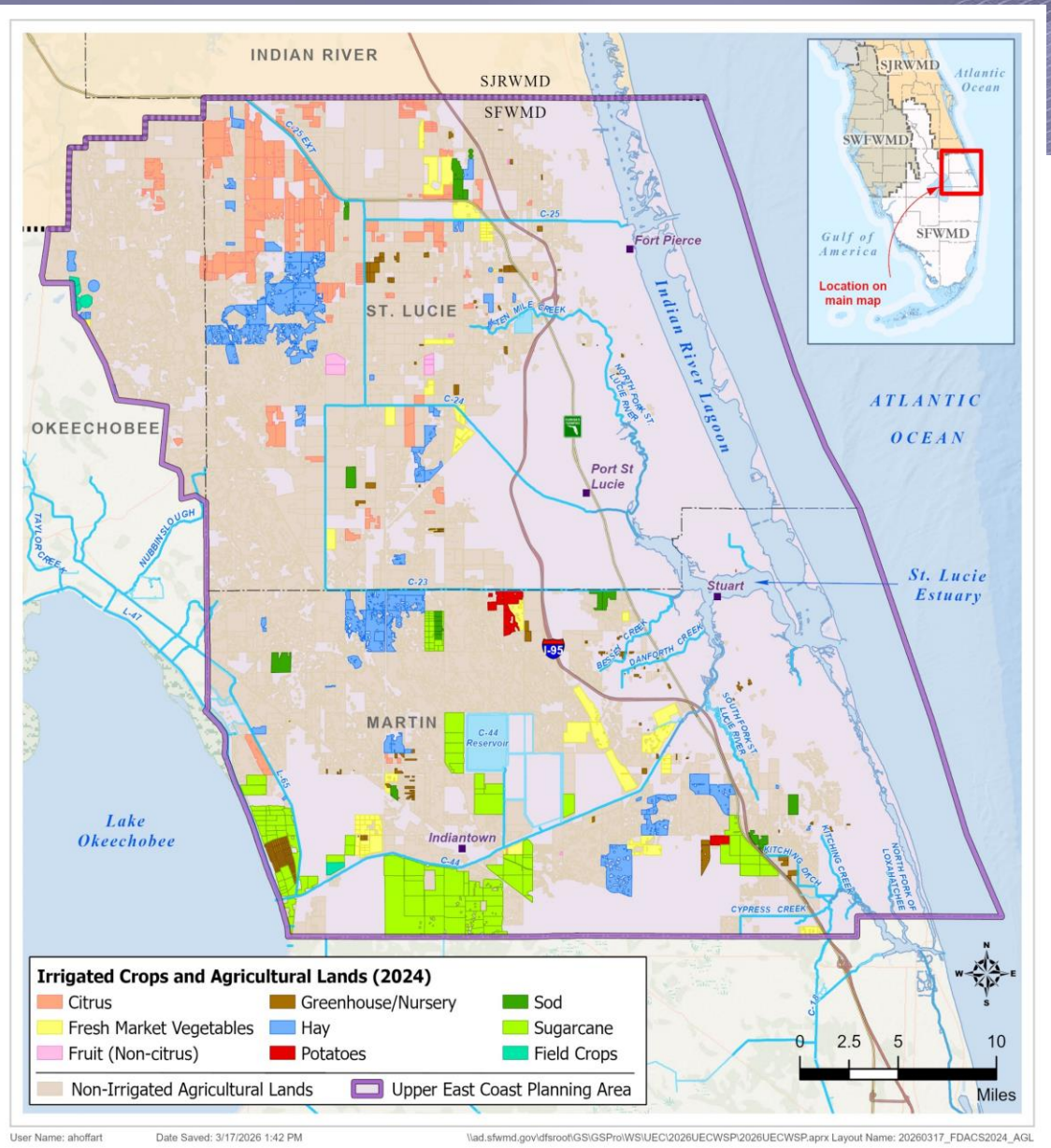
Water Demand Models

- FSAID water use model
- **Agricultural Field-Scale Irrigation Requirements Simulation (AFSIRS) model**

AFSIRS
• Built with data from University of Florida field experiments
• Uses a wide range of location-specific environmental variables
• Does not consider changing irrigation intensities in response to crop profitability

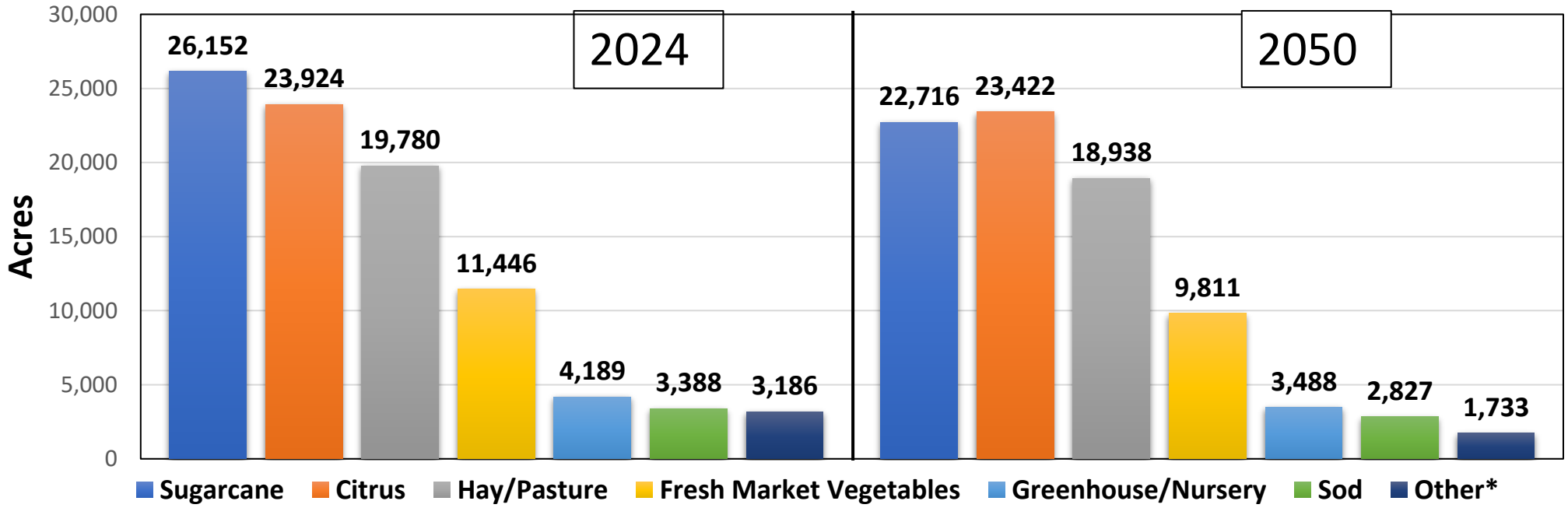
UEC Agriculture

FDACS/FSAID12
2023 Distribution of Irrigated Crop Areas



Presenter: Coleen Jordan

UEC Agricultural FSAID12 Crop Acreage

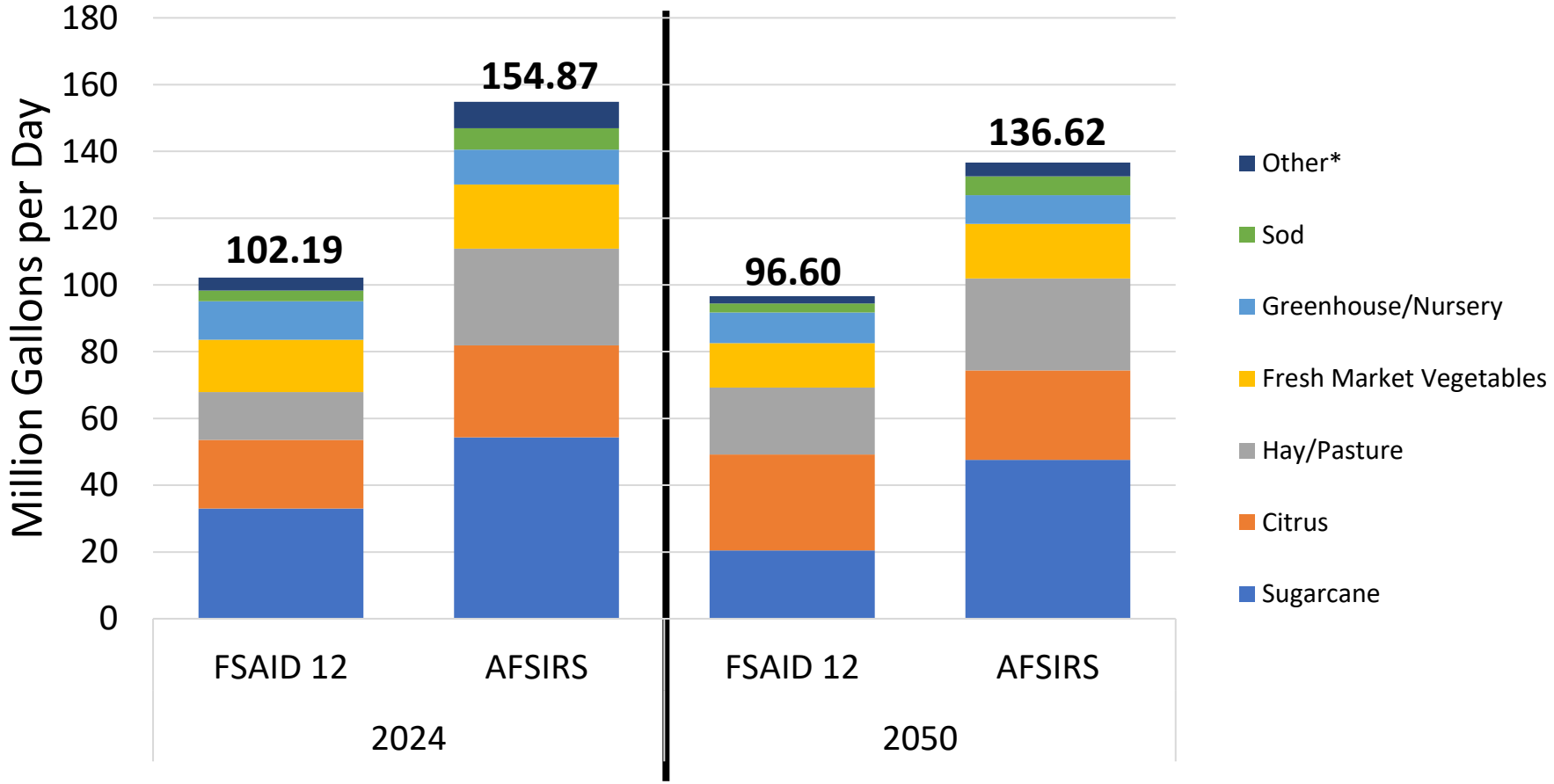


*Other category includes Fruit (Non-Citrus), Potatoes, and Field Crops

Acres	2020/2024	2025	2030	2035	2040	2045	2050
FSAID 12 Projections (2026 UEC Plan)	92,065	91,728	89,996	88,267	86,483	84,668	82,935
FSAID 7 Projections (2021 UEC Plan)	104,820	99,729	94,737	89,774	84,470	79,004	-

Comparison of FSAID12 and AFSIRS Crop Demands

- The District uses AFSIRS demand projections to remain consistent with its regional modeling efforts.
- AFSIRS model produces similar results to water use permit allocations in the region.



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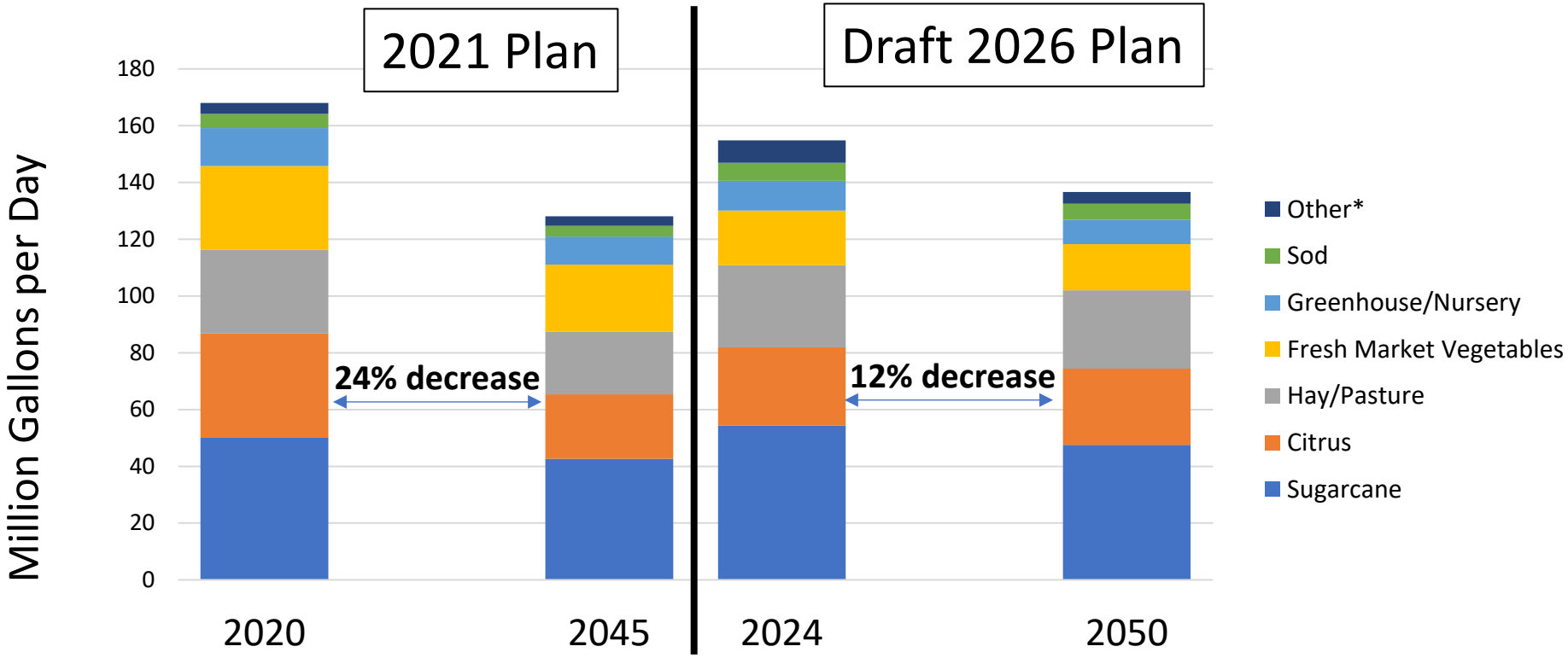
UEC Agricultural Crop Demands



*Other category includes Fruit (Non-Citrus), Potatoes, and Field Crops

Million Gallons per Day	2020/2024	2025	2030	2035	2040	2045	2050
AFSIRS (2026 UEC Plan)	154.87	154.43	150.69	147.28	144.01	139.74	136.62
AFSIRS (2021 UEC Plan)	168.00	160.47	152.18	144.26	136.33	128.12	-

Draft UEC Agricultural Demands Summary

Agriculture Subcategory	2024	2050
Crops	154.87	136.62
Livestock	1.82	1.82
Aquaculture	0.08	0.08
UEC Planning Area Total	156.77	138.52

Demands in million gallons per day.

Total = 12% Decrease

Water Use Categories

1. Public Supply
2. Domestic Self-Supply
3. Agriculture
4. **Commercial/Industrial/Institutional**
5. Landscape/Recreational
6. Power Generation

Draft Commercial/Industrial/Institutional Demands

Methodology

- Baseline estimates based on permitted allocation or pumpage reporting
- Water returned directly to withdrawal source not considered as demand
- Demands projected to grow with region's population

County	Demand (mgd)	
	2024	2050
Martin	0.24	0.28
St. Lucie	0.27	0.38
Okeechobee	0.04	0.05
UEC Planning Area Total	**0.55**	**0.71**

Demands in million gallons per day.

Total = 29% Increase

Water Use Categories

1. Public Supply
2. Domestic Self-Supply
3. Agriculture
4. Commercial/Industrial/Institutional
5. **Landscape/Recreational**
6. Power Generation

Draft Landscape/Recreational Demands

Methodology

- 2024 acres based primarily on District permitted data
  - Landscape – 8,749 acres
  - Golf courses – 5,304 acres
- Landscape projections increased at county population growth rates
- Golf growth projections are based on known proposed golf courses.

County	Demand (mgd)	
	2024	2050
Martin	23.73	25.75
St. Lucie	22.19	30.70
Okeechobee	0.12	0.13
UEC Planning Area Total	**46.04**	**56.58**

Demands in million gallons per day.

Total = 23% Increase

Water Use Categories

1. Public Supply
2. Domestic Self-Supply
3. Agriculture
4. Commercial/Industrial/Institutional
5. Landscape/Recreational
6. **Power Generation**

Power Generation Demands

County	Demand (mgd)	
	2024	2050
Martin County – Martin Power Plant	19.61	16.01
St. Lucie County - Treasure Coast Energy Center	1.5	0.41
UEC Planning Area Total	**21.11**	**16.42**

Demands in million gallons per day.

Total = 22% Decrease

- The 2024 demands were based on reported pumpage and verified through outreach.
- Future demands projected by power generation facility staff considering historic use, planned projects, and anticipated needs.

Martin Power Plant

Upper East Coast Draft Water Demands (mgd) Summary

Water Use Category	2024	2050
Public Supply	68.83	99.83
Domestic Self-Supply	6.23	3.59
Agriculture (i.e., crop, livestock, and aquaculture)	156.77	138.52
Commercial/Industrial/Institutional	0.55	0.71
Landscape/Recreational	46.04	56.58
Power Generation	21.11	16.42
UEC Planning Area Total	**299.53**	**315.65**

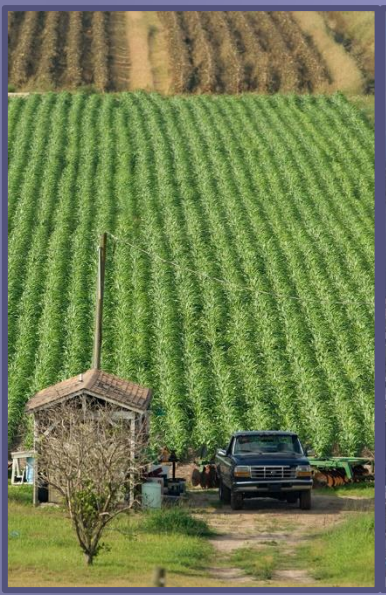
Demands in million gallons per day.

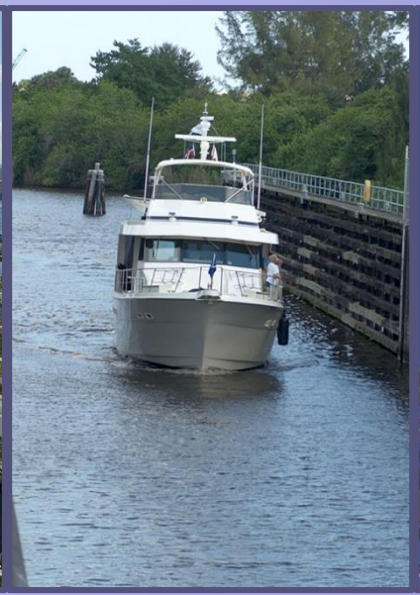
2026 UEC Demand Total = 5% Increase

Questions and Public Comment

- If you are participating via Zoom:
  - Click the Reactions button to access the Raise Hand feature
- If you are participating via phone:
  - *9 raises hand
  - *6 mutes/unmutes your line
- When you are called on, please state your full name and affiliation prior to providing comments and/or questions

Next Steps





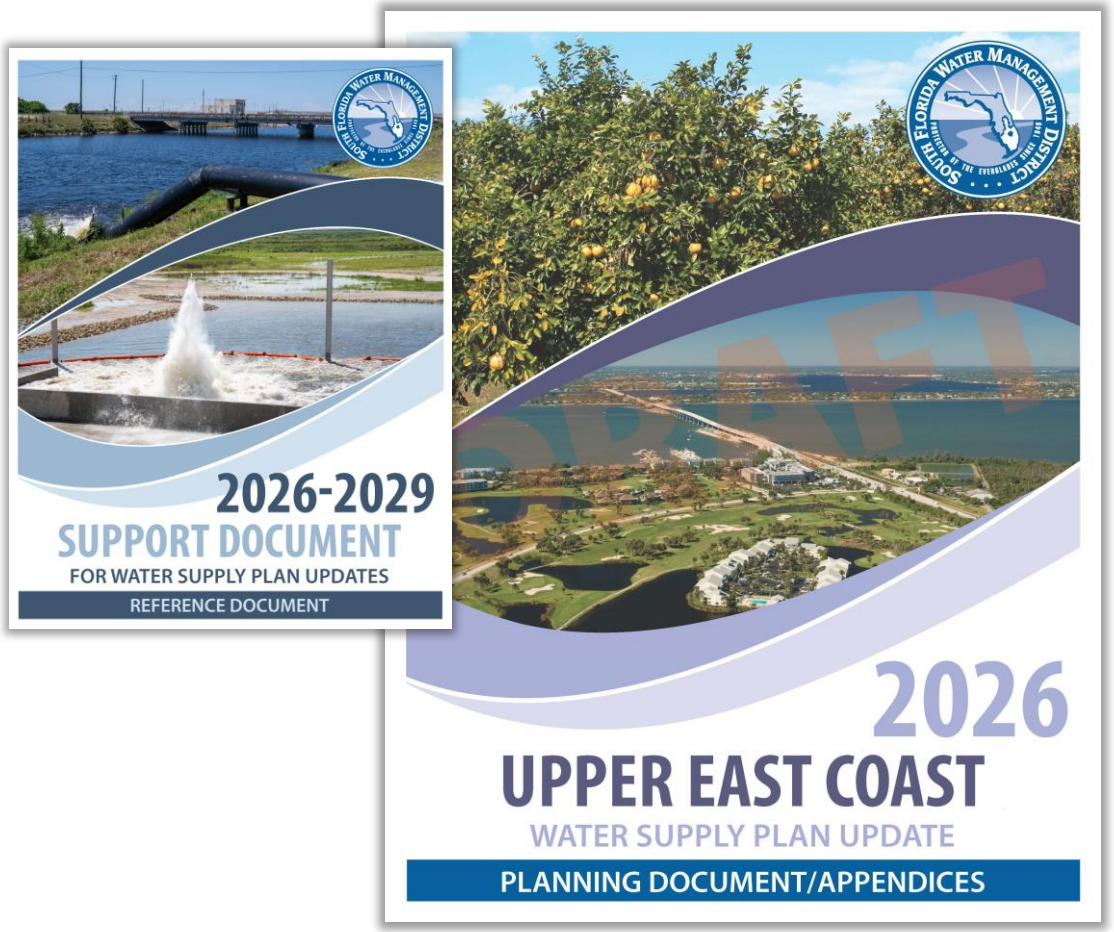

Chad Brcka
Upper East Coast Plan Manager

2026 UEC Stakeholder Meeting
April 28, 2026

2026 UEC Water Supply Plan Organization

- Executive Summary
- **Chapter 1: Introduction**
- **Chapter 2: Demand Estimates & Projections**
- **Chapter 3: Water Conservation**
- Chapter 4: Resource Protection
- Chapter 5: Water Source Options
- Chapter 6: Water Resource Issues & Analyses
- Chapter 7: Water Resource Development Projects
- Chapter 8: Water Supply Development Projects
- Chapter 9: Future Direction
- Appendices **A,** B, C, D, and E

***Bold font indicating posted early draft chapters**



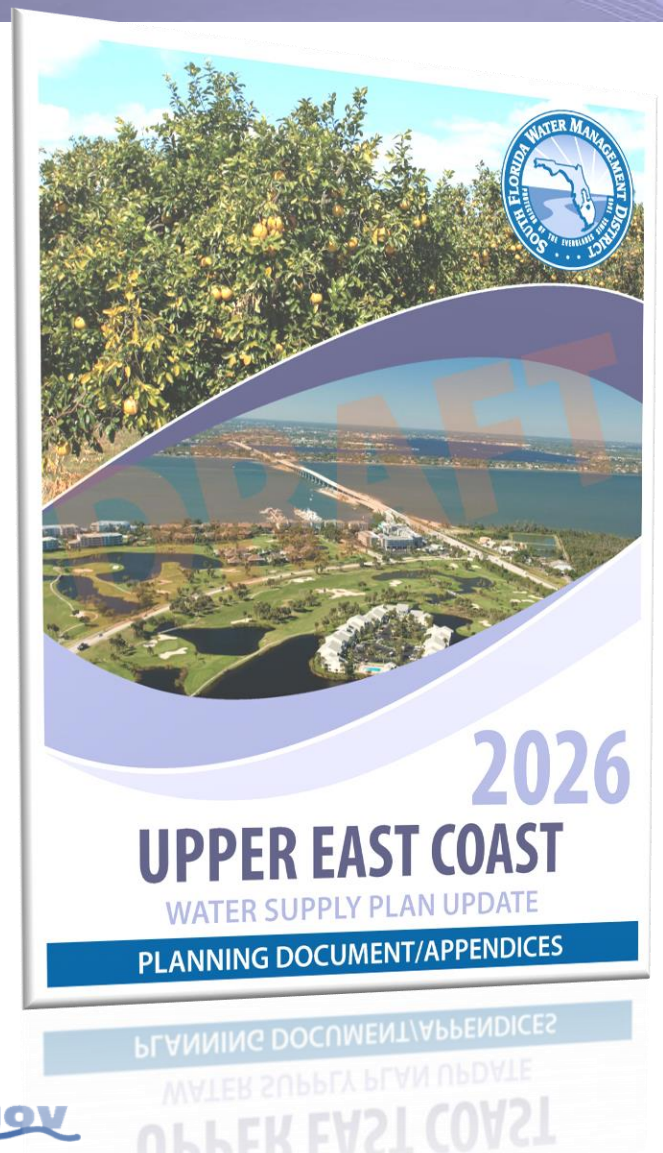
Next Steps

- Continue coordination with utilities, agricultural operations, state agencies, and other stakeholders while drafting remaining chapters and appendices
- Groundwater model simulations
- Stay up to date with progress of regional projects
- Next stakeholder meeting: Summer of 2026

2026 UEC Plan Schedule Summary

Topic	Dates
Stakeholder Meeting 1	*April 28, 2026*
Early chapters public comment period ends	May 26, 2026
Stakeholder Meeting 2	Summer 2026
Post Draft Plan for public review & comment	Late-summer/Early-fall 2026
Stakeholder Meeting 3	Fall 2026
Governing Board Meeting (Draft)	September 10, 2026
Full draft public comment period ends	October 12, 2026
Governing Board Meeting (Final)	November 12, 2026

Need Water Supply Plan Information?



- Plan information can be found at www.sfwmd.gov/uecplan
  - 2021 UEC Plan and previous
  - Draft Chapters 1-3 and Appendix A for the 2026 UEC Plan update
  - Upcoming Workshop information

- Workshop announcements sent via email

Questions and Public Comment

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