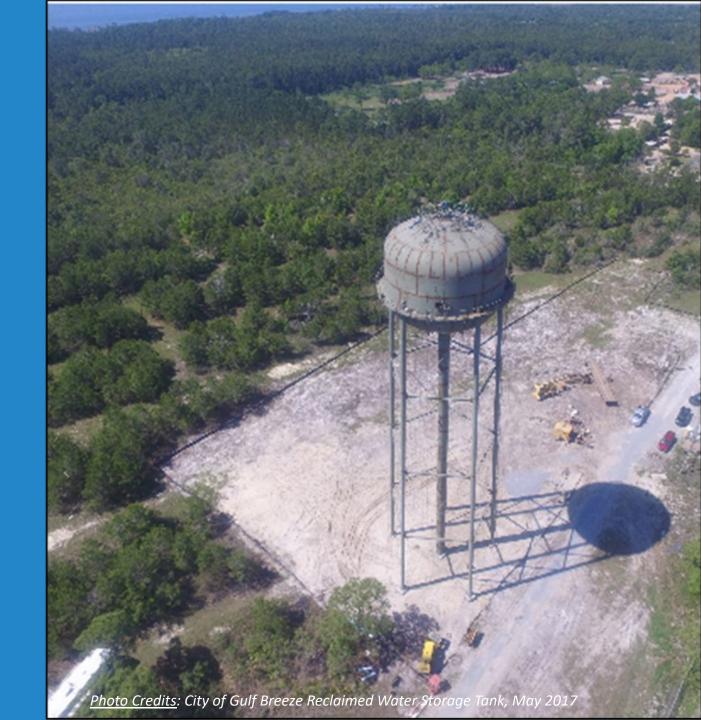


Region II Regional Water Supply Plan Update Informational Meeting

Kathleen Coates, P.E., Ph.D. February 7, 2024





### Agenda

- I. Welcome and Introduction
- II. History and Accomplishments
- III. Regional Water Supply Plan Requirements
- IV. Planned Tasks
- V. Schedule and Next Steps



2023 Water Supply Assessment

#### **NWFWMD**

Section 373.036, F.S. and Chapter 62-40, F.A.C. Need for Regional Plans

2024 Regional Water Supply Plan Update

**NWFWMD** and Stakeholders

Section 373.709, F.S.

Water Resource and Water Supply Development Projects

Water Supply Facilities
Work Plans

**Local Governments** Section 163.3177, F.S.

#### **History**

#### 2000: The District completed first RWSP

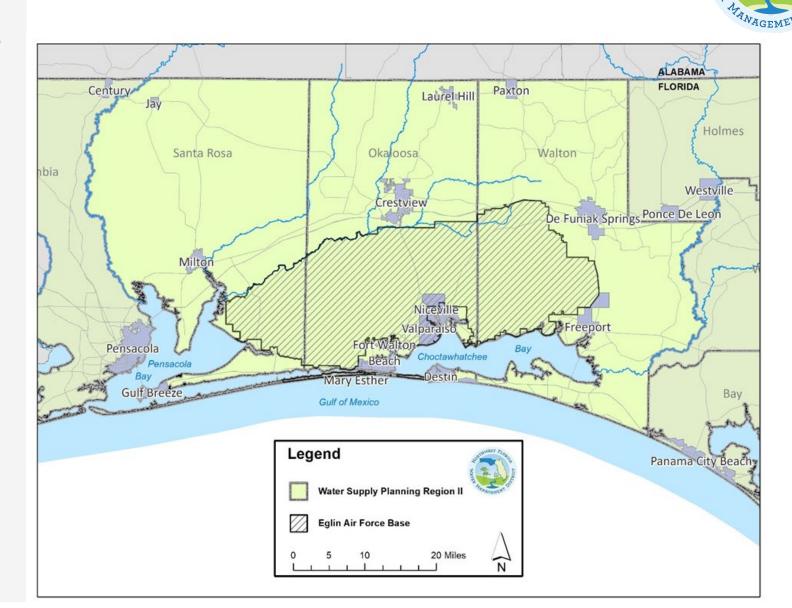
Concerns: Floridan aquifer cone of depression and risk of saltwater intrusion along the coast Solutions: Inland wellfields, reuse, conservation, ASR, and more detailed data collection and analysis

#### 2006 Plan Update:

- Shift from coastal to inland wellfields continued
- WPSP Trust Fund 2006-2009

#### **2012** and **2019** Updates:

 Continued implementation *NWFWMD WSD Grant Program 2018* to present





### **Historical Accomplishments**

#### **Achieved Reductions in Coastal Floridan Aquifer Withdrawals**

- Fairpoint Regional Utility System
  - Inland sand-and-gravel aquifer wellfield
- South Walton Utility Company, Regional Utilities, and Destin Water Users
  - Inland Floridan aquifer wellfield
- Okaloosa County
  - System interconnections and shift away from coastal withdrawals
- Other utility projects and interconnections





### **Recent Accomplishments**

#### Reuse and potable water projects:

- New/additional storage capacity
- Infrastructure/facility expansion and improvements
- Feasibility analyses, modeling and evaluations
- SCADA or monitoring upgrades
- Looped and interconnected water transmission mains
- Leak detection

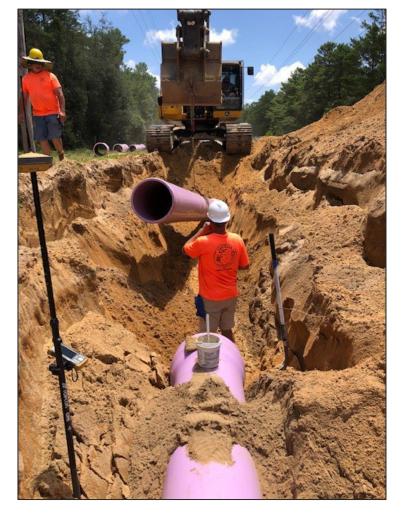


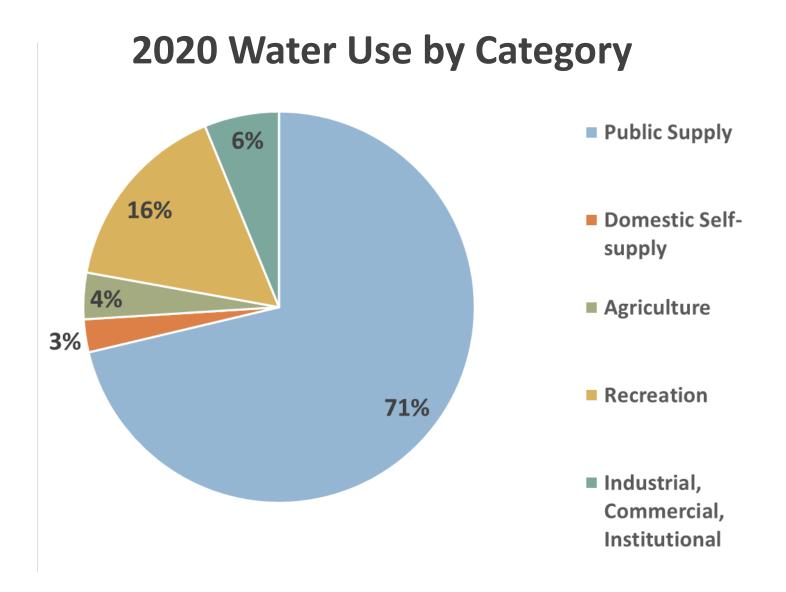
Photo credit: Okaloosa County Reuse Project



#### **Region II Water Demand Projections**

County	2020 Water Use (mgd)	Future	e Demand Pr	2020-2045 Change				
		2025	2030	2035	2040	2045	mgd	%
Okaloosa	32.52	34.05	35.76	36.90	37.77	38.52	5.99	18.4%
Santa Rosa	26.17	28.71	30.94	32.93	34.84	36.47	10.30	39.4%
Walton	17.29	20.38	22.83	25.06	27.18	29.32	12.03	69.6%
Region II Total	75.98	83.15	89.52	94.89	99.78	104.31	28.32	37.3%







#### **RWSP Goal:**

Identify and compile a set of traditional and alternative water supply and water resource development projects that collectively can meet future needs for the region through year 2045, while sustaining water resources and associated natural systems.



### RWSP must include (per s. 373.709, F.S.):

- Population projections for 20-year planning horizon
- Water demand projections for 20-year planning horizon
  - average and 1-in-10-year drought
- List of water supply and water resource development projects that collectively meet future needs, including:
  - amount of water provided, timeframe, planning level cost estimates, funding needs, and possible sources
- Adopted minimum flows and levels and associated recovery or prevention strategies
- Consideration of how projects serve the public interest by preventing the loss of natural resources or avoiding greater future expenditures for water resource development or water supply development.



#### **Planned Tasks**

- A. Compile Water Supply Development Projects
- B. Perform Groundwater Flow and Solute Transport Modeling
- C. Evaluate Alternative Water Sources, Conservation Opportunities, and Water Resource Development Projects
- D. Prepare Draft and Final Plans



### **Compile Water Supply Development Projects**

- Email requests to be sent later this month
- Spreadsheet template will be provided
- Project details (type, capacity, timeframe, estimated costs)

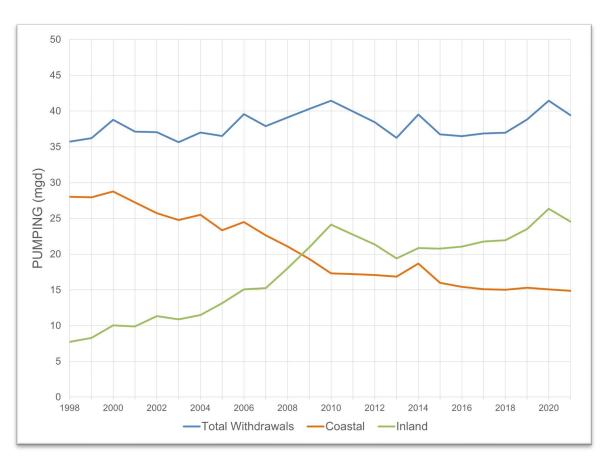
Α	В	С	D	E	F Estimated	G	Н	I	J	К	L
#	Project Title	Project Location	Project Type <sup>(1)</sup>	Project Purpose and General Description	Quantity of Water to be Supplied (mgd)	Expected Start Date (yyyy)	Expected	Planning Level Capital Costs	Planning Level Annual O&M Costs	Implementing Entity(s)	Proposed Source(s) of Funding
	Project A		Reuse	City of A Reuse Project	2.5	1/1/2025	12/31/2027	\$8,000,000	\$ 100,000	City A	Alternative Water Suppl Grant, Impact Fees
2 3											
4											
5 6											
7											
8									1		
			(1) Project Types Include	the Following Traditional and Alternative Su	pply Categories:			Exa	mple		
			S&G - Inland Sa Surface - Surfac ASR - Aquifer St AR - Aquifer Re Reuse - Water F Augmentation Interconnection Conservation - V	torage and Recovery	ater			Sprea	dsheet		



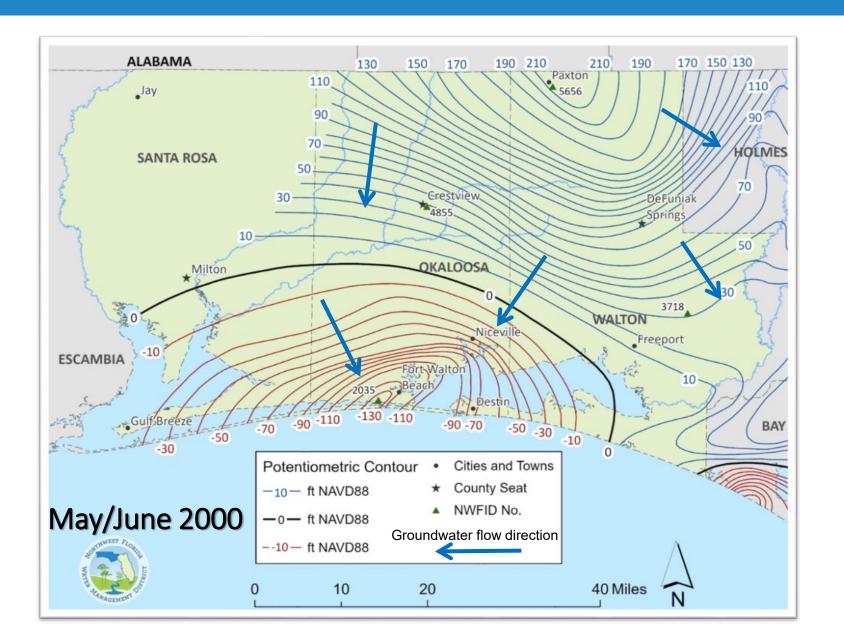
#### **Perform Groundwater Flow and Solute**

### **Transport Modeling**

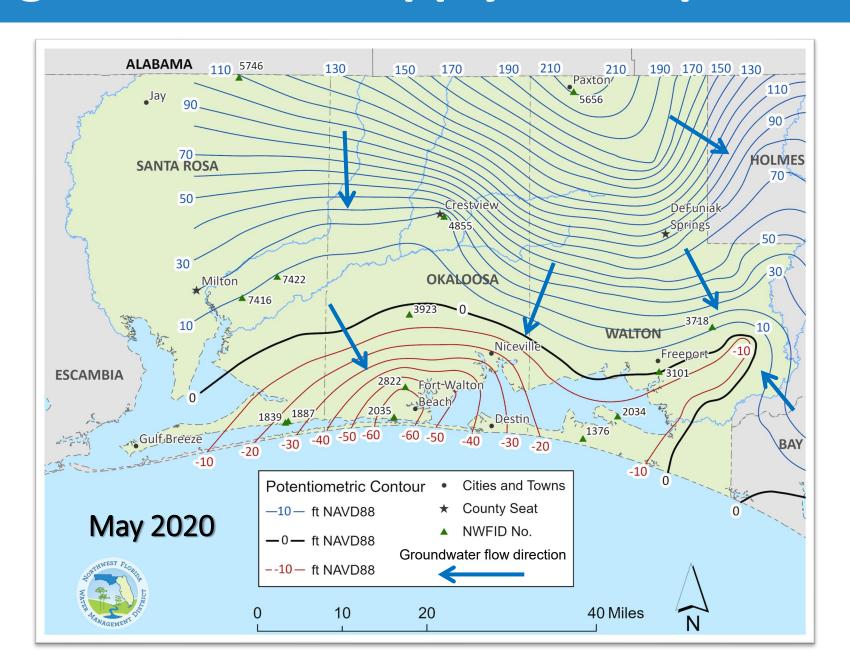
- 2020 major UFA groundwater withdrawals
- Currently permitted water use allocations
- Projected future demands through 2045
- Sea level rise projections
- Assess long-term saltwater intrusion risks/impacts (2045 and 2070)













# **Evaluate Alternative Water Sources and Conservation**

- Projects submitted by local governments and utilities
- Evaluate potential new alternative water supplies (consultant)
  - Surface water sources
  - Aquifer storage and recovery
  - Managed aquifer recharge
- Evaluate water conservation opportunities (consultant)
- Identify potential water resource development projects



Peace River Reservoirs and Treatment Plant









### **Develop Strategies**

- 1. Continue to reduce reliance on the Floridan aquifer system
  - Reclaimed water
  - Conservation
  - Future development of surface water sources
  - Other alternative water sources (e.g. ASR or managed recharge)
  - Alternative spatial distributions of pumpage
  - Interconnection / transmission / storage
- 2. Continue data collection, planning, modeling, and MFL evaluations
- 3. Other: coastal abandoned well plugging, new concepts/innovative solutions, consideration of future regulatory mechanisms



#### **Schedule and Next Steps**

1. Consultations / Projects Development February - July 2024

2. Groundwater Modeling and Evaluation February – June 2024

3. Prepare Draft RWSP Report\*

July - August 2024

4. Finalize RWSP Report November 2024

5. NWFWMD Governing Board for Approval December 2024

\*Additional public meetings will be held to discuss findings and the draft RWSP



#### **Contacts**

**Water Supply Project Data:** 

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**Groundwater Modeling and Resource Evaluations:** 

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**Project Coordination:** 

Kathleen Coates, (850) 539-2661, Kathleen.Coates@nwfwater.com

Additional information can be found on the District website at:

https://nwfwater.com/Water-Resources/Water-Supply-Planning/Regional-Water-Supply-Planning/



**Questions?**