



Solutions for Springs: Suwannee Style

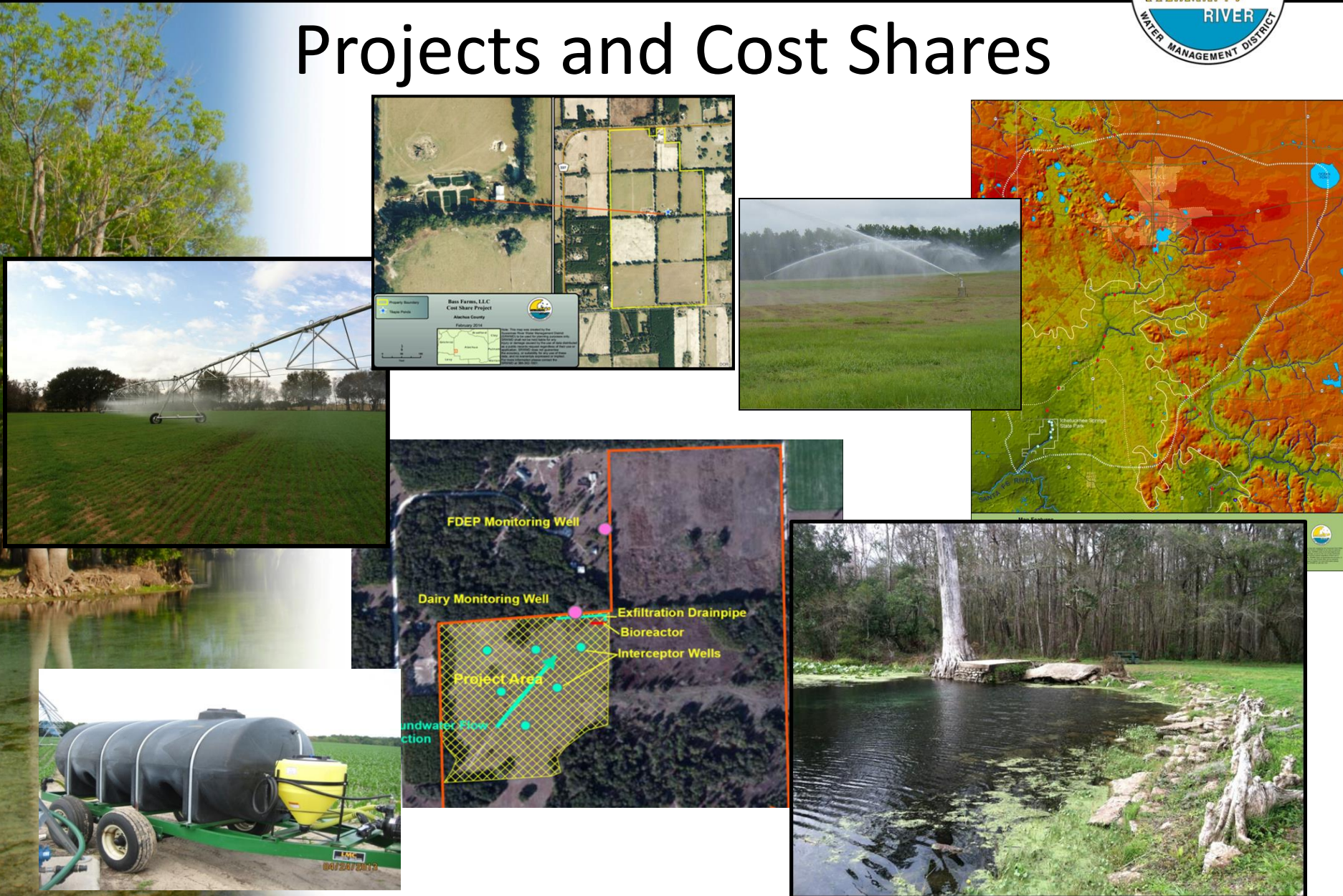
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Executive Director

Suwannee River Water Management District

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Projects and Cost Shares





Alternative Water Supply Projects: Excess Surface Water or Stormwater

- Capture and store surface water or stormwater from watersheds with flooding concerns for beneficial reuse
- Can assist in both Flood Control and Water Supply

Potential Uses:

- Irrigation
- Aquifer Recharge
- Streamflow Augmentation



Suwannee River Water Management District



Middle Suwannee River and Springs Restoration and Agricultural Water Supply via Aquifer Recharge

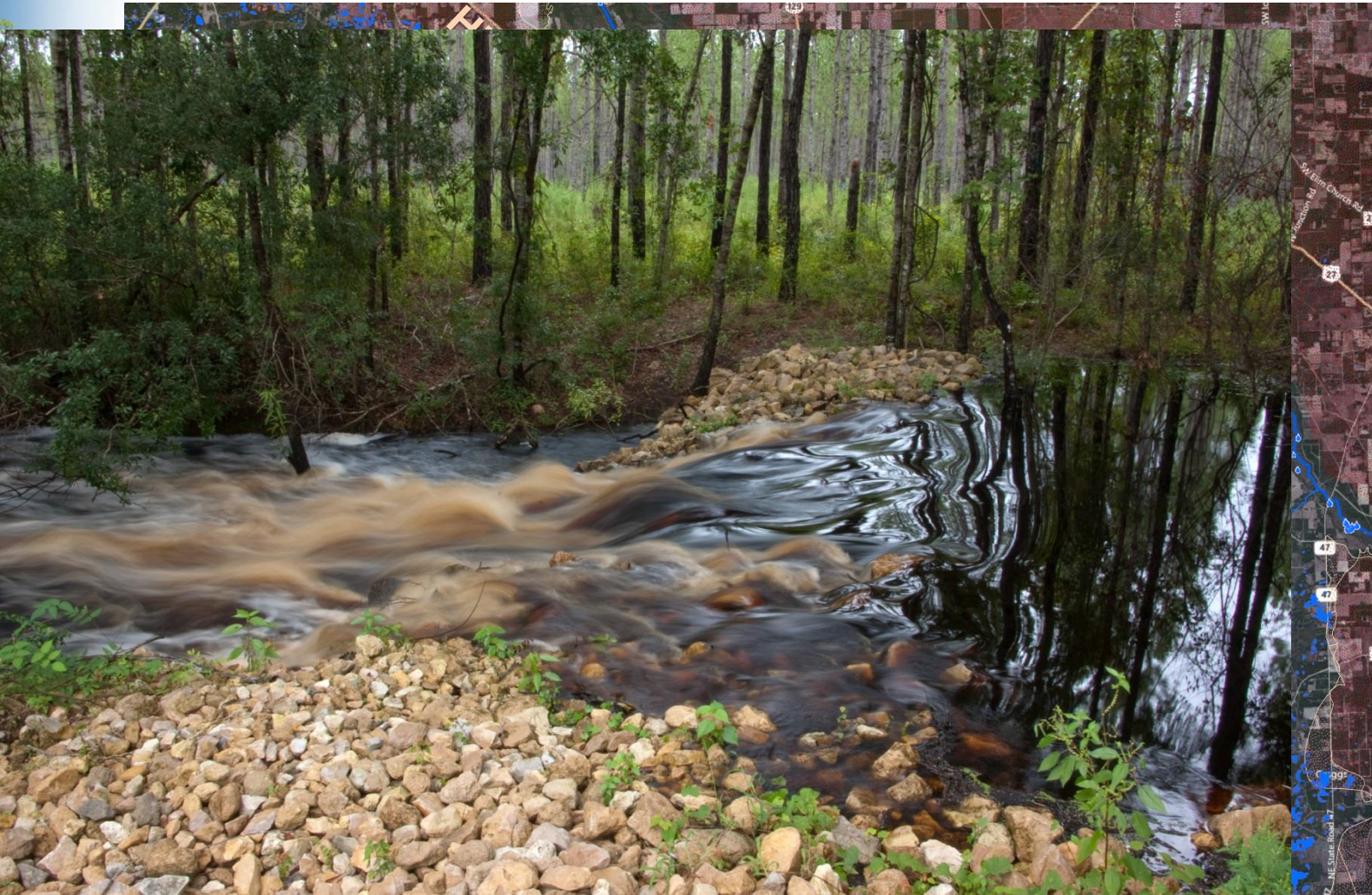
Total Project Cost	\$1,900,000
DEP Contribution	\$1,548,000
SRWMD	\$277,000
Dixie County	\$75,000

Estimated 10 MGD average recharge and restored surface water storage (~1,500 ac of sand ponds and 4,000 ac of wetlands)





Mallory Swamp Recharge





Dispersed Water Storage

Restoring hydrology



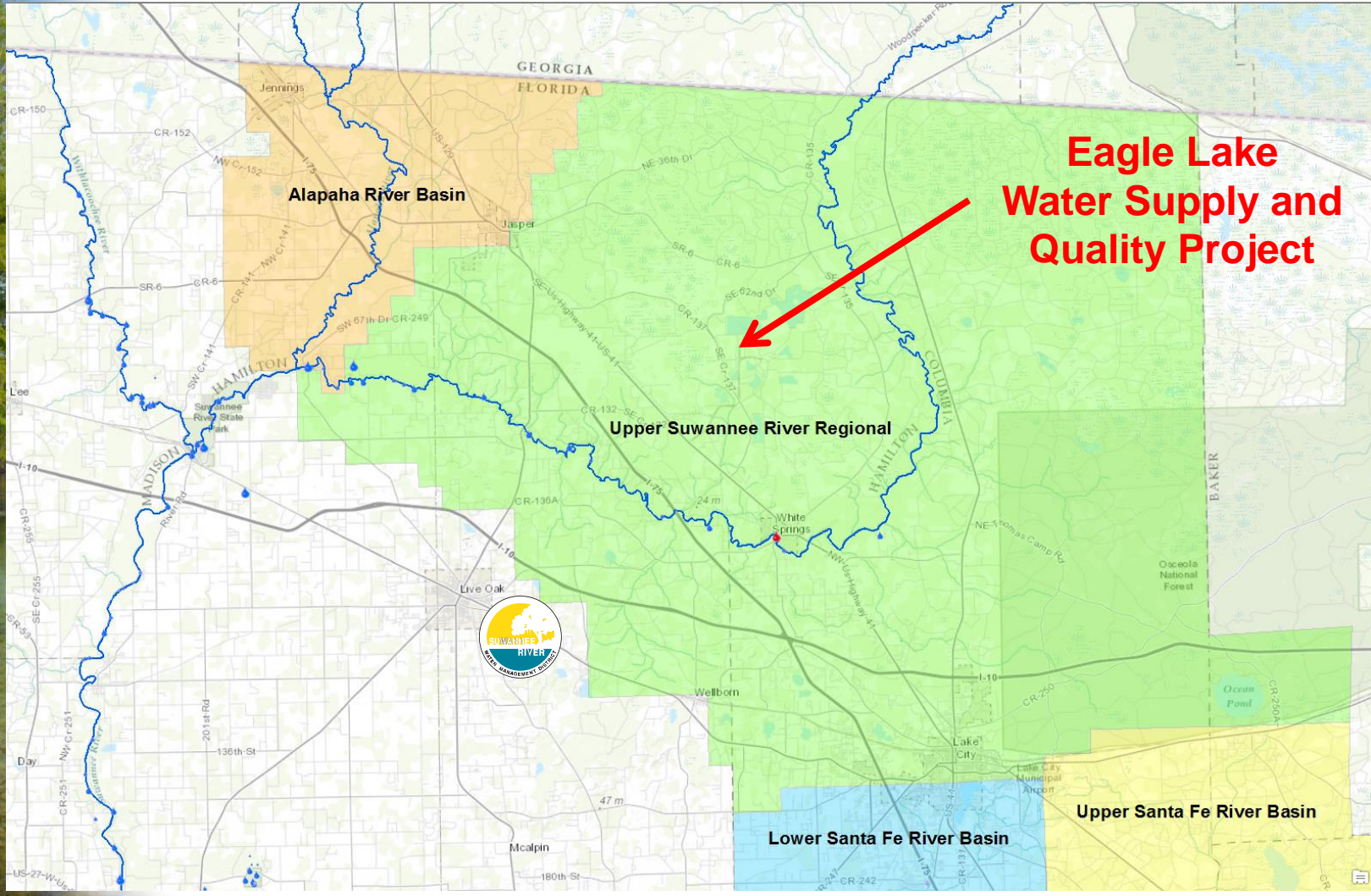
Key locations on District and private lands



Suwannee River Water Management District

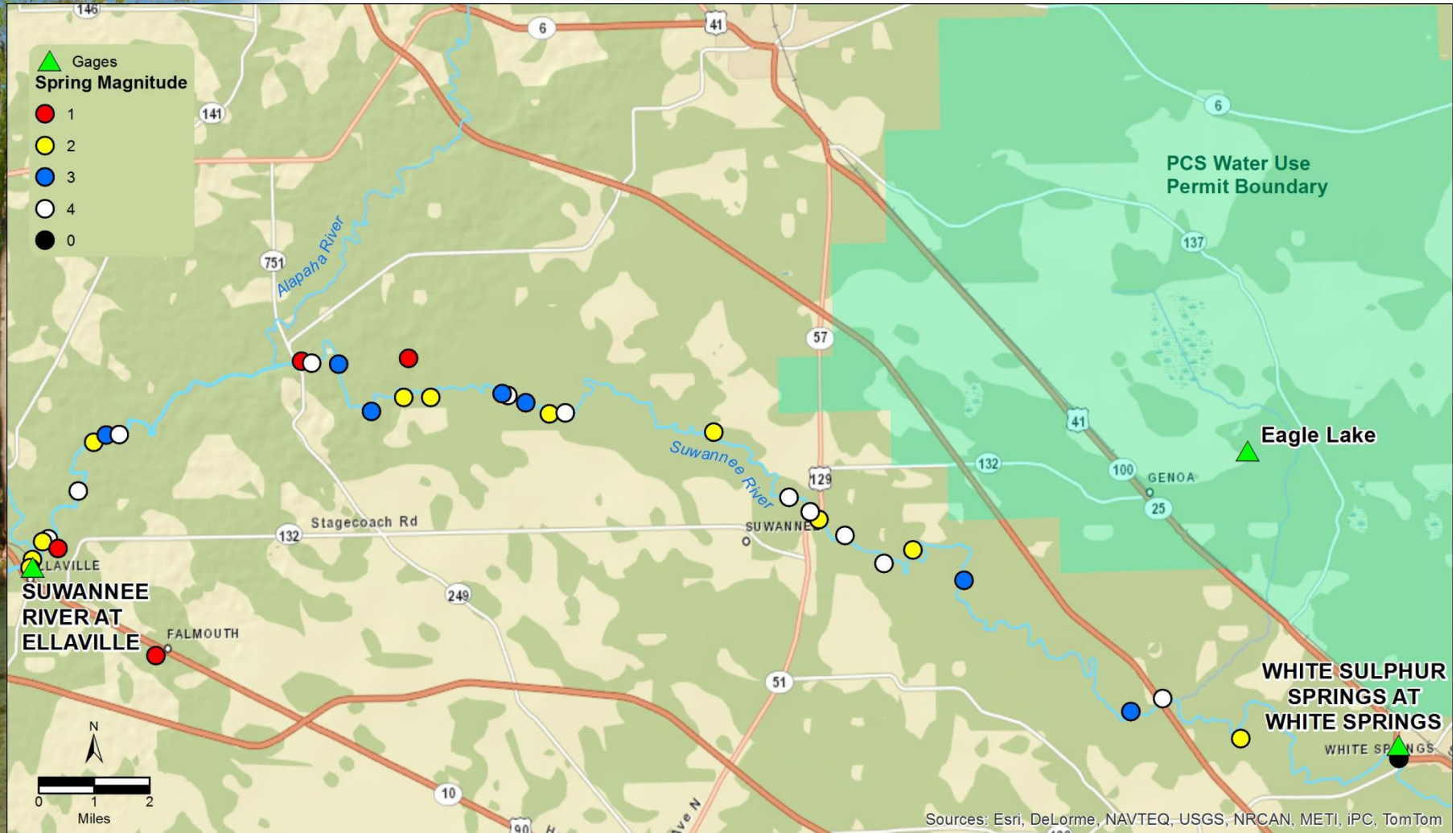


Upper Suwannee River and Water Use Caution Areas





Eagle Lake and Area Springs





Eagle Lake Project

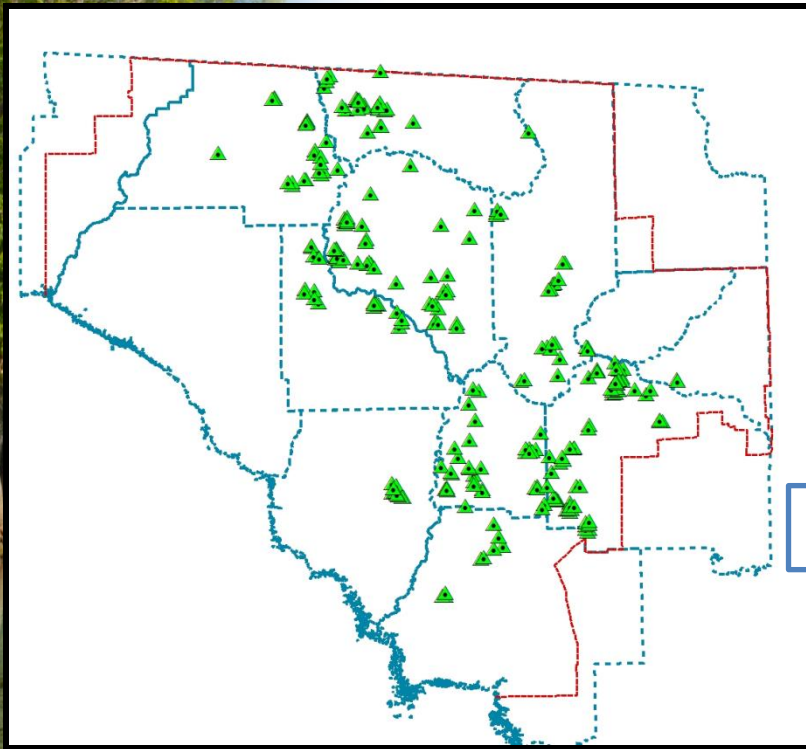


Offset Groundwater Withdrawals (Ginnie/Gilchrist Blue Springshed)



- Integrate Aquaculture Reuse Water into Existing Irrigation System
- Offset Groundwater Withdrawals by ~47 million gallons annually

District-Wide Agricultural Cost-Share Programs



DEP BMAP Agricultural Cost-Share Program





Pilot Projects and Demos



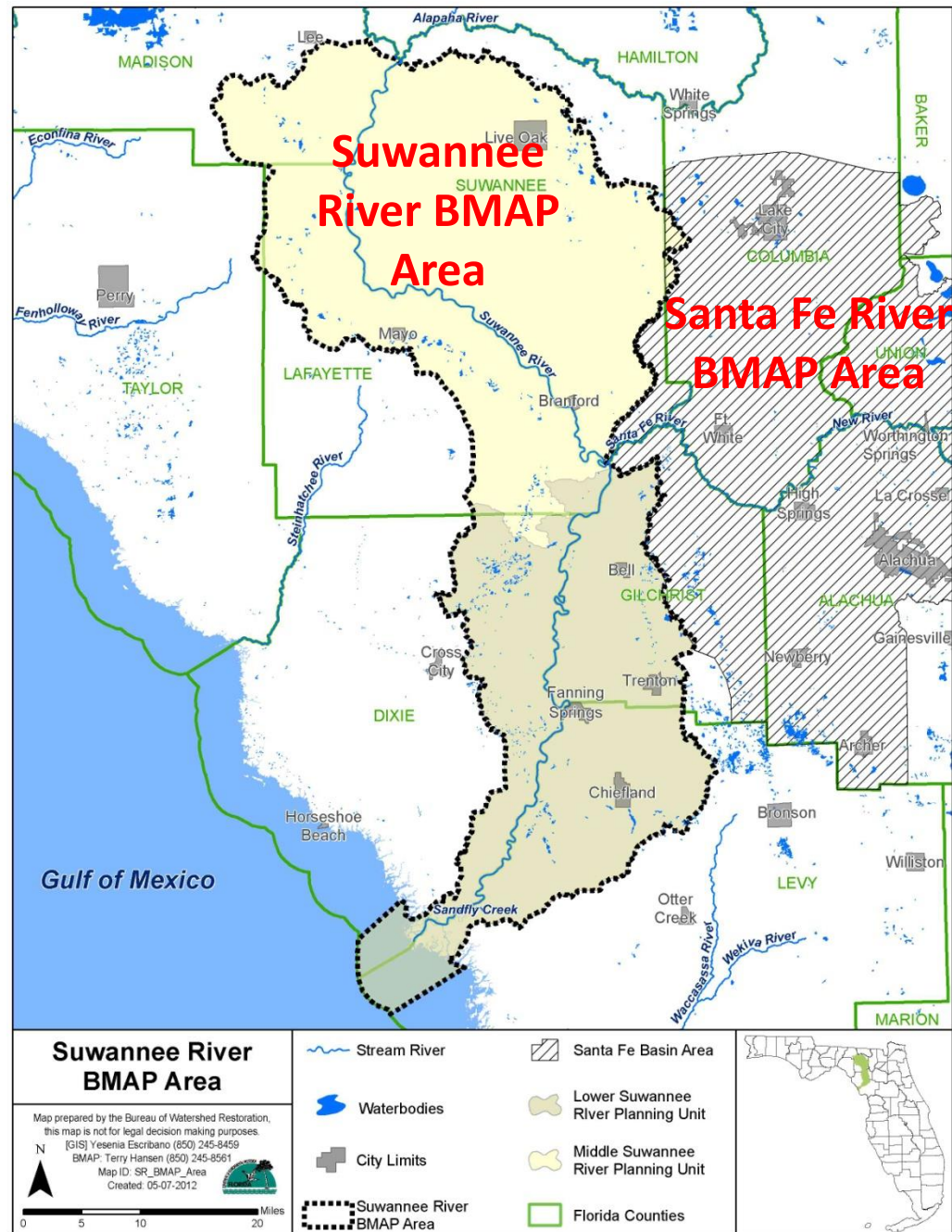
Basin Management Action Plan Areas

Over 1 million acres
Land Use

- 26% Agricultural
- 48% Forest
- 7% Urban / developed

Cost Shares:

- District-Wide
 - 1,475 million gallons water conserved annually
- Santa Fe BMAP with DEP
 - 1,376 million gallons water conserved annually
 - Reduced nitrogen application annually – 1.8 million pounds





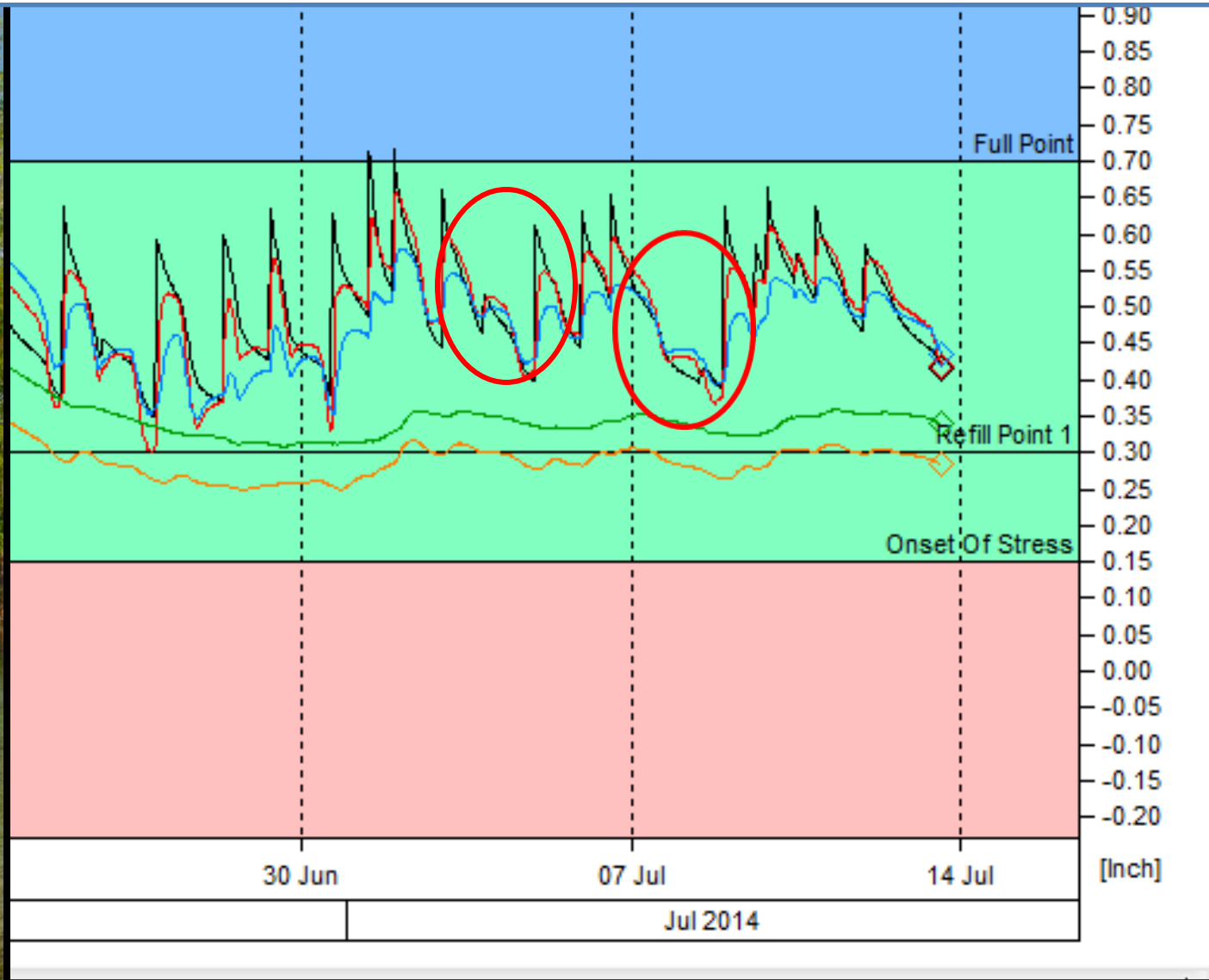
Nutrient Management – Farm by Farm

Keep Nutrients in the Root Zone

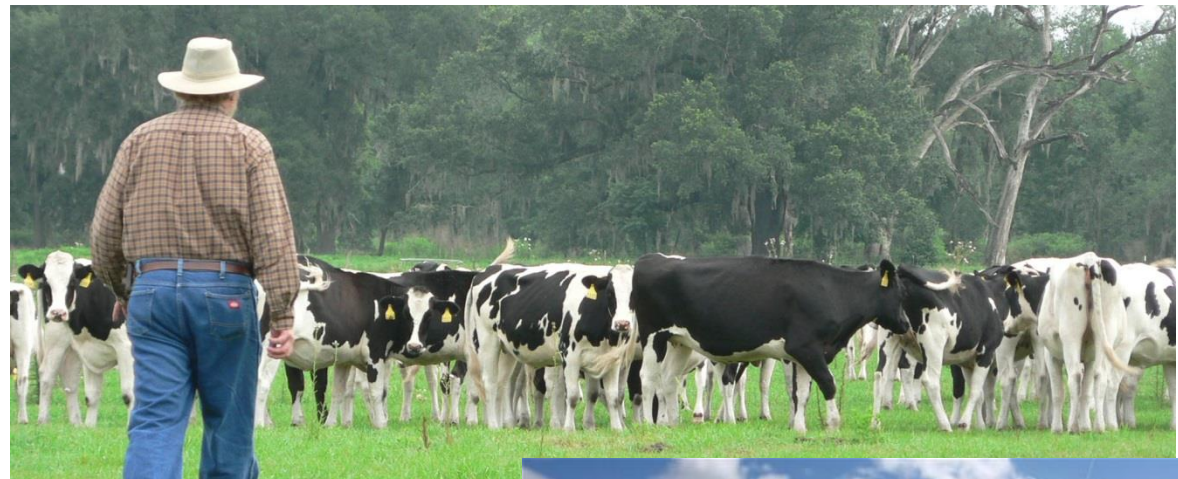
- Water Management – Don't Overwater
- Minimize Fertilizer Losses
 - Slow-release formulations
 - Fertigation to deliver nutrients as needed
- Account for nutrients in irrigation water
 - Reclaimed water
 - Enriched groundwater
- Next Generation Better Management Practices (BMPs)



Next Generation Crop Tools



Improved Water Conservation and Nutrient Optimization of Dairy Wastewater





Nursery Irrigation Retrofits

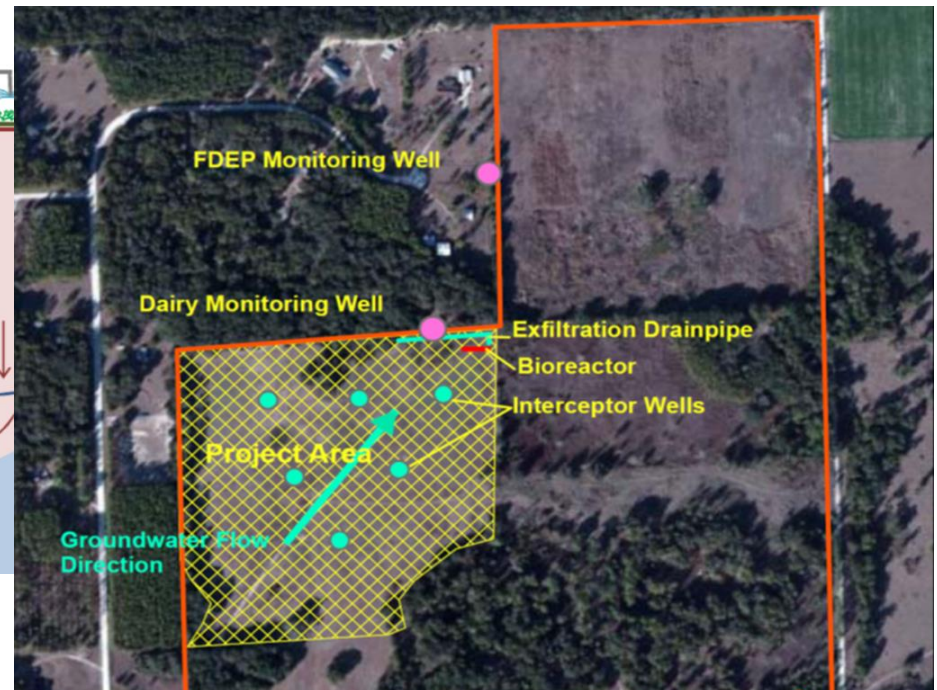
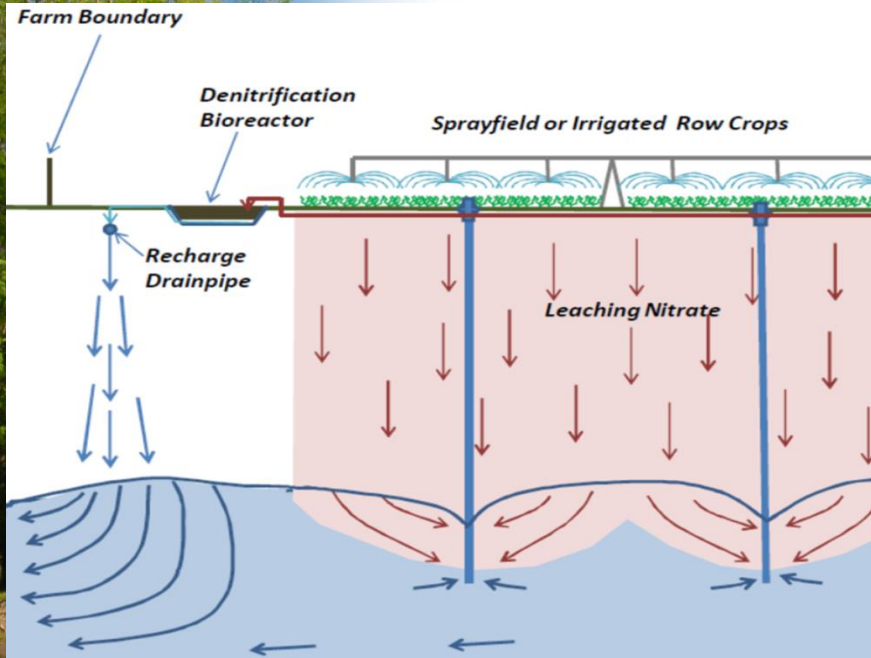


Expansion to a Denitrification Wall Upper Santa Fe River Basin



- Expand Denitrification Wall by ~230 feet to capture water bypassing existing wall
- Existing Wall is shown to remove 6,105 pounds of Nitrogen Annually

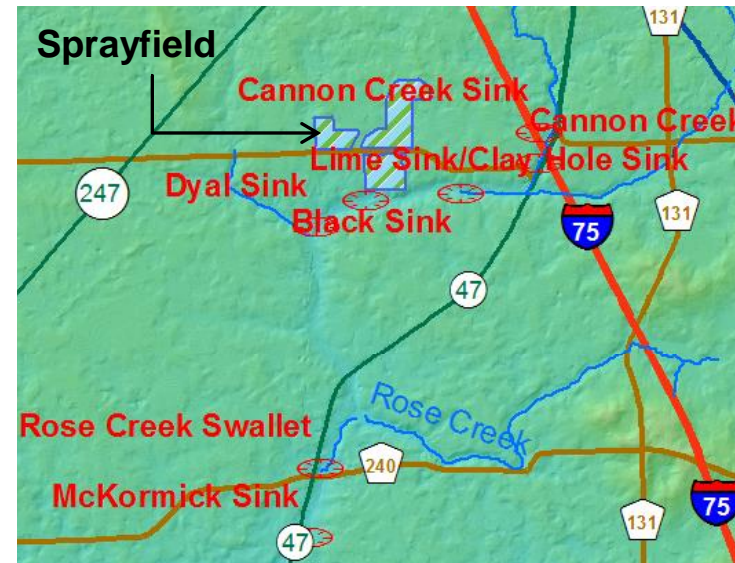
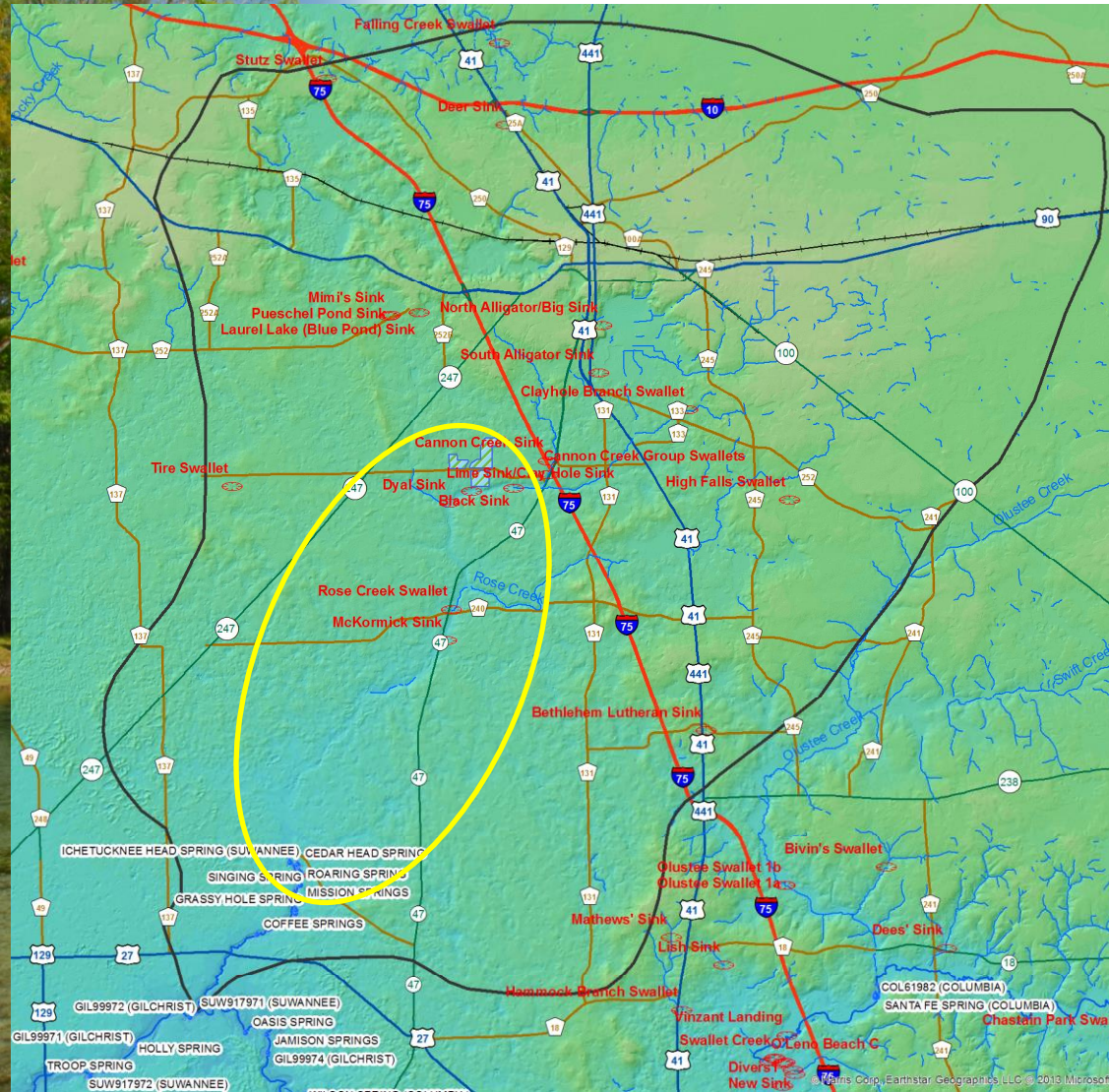
Reduce Nitrate in Groundwater (Ginnie/Gilchrist Blue Springshed)



- Capture Elevated Nitrate from Groundwater, Treat Through Bioreactor and Recharge back into Aquifer
- Potential Nitrate Removal of 7,500 pounds annually



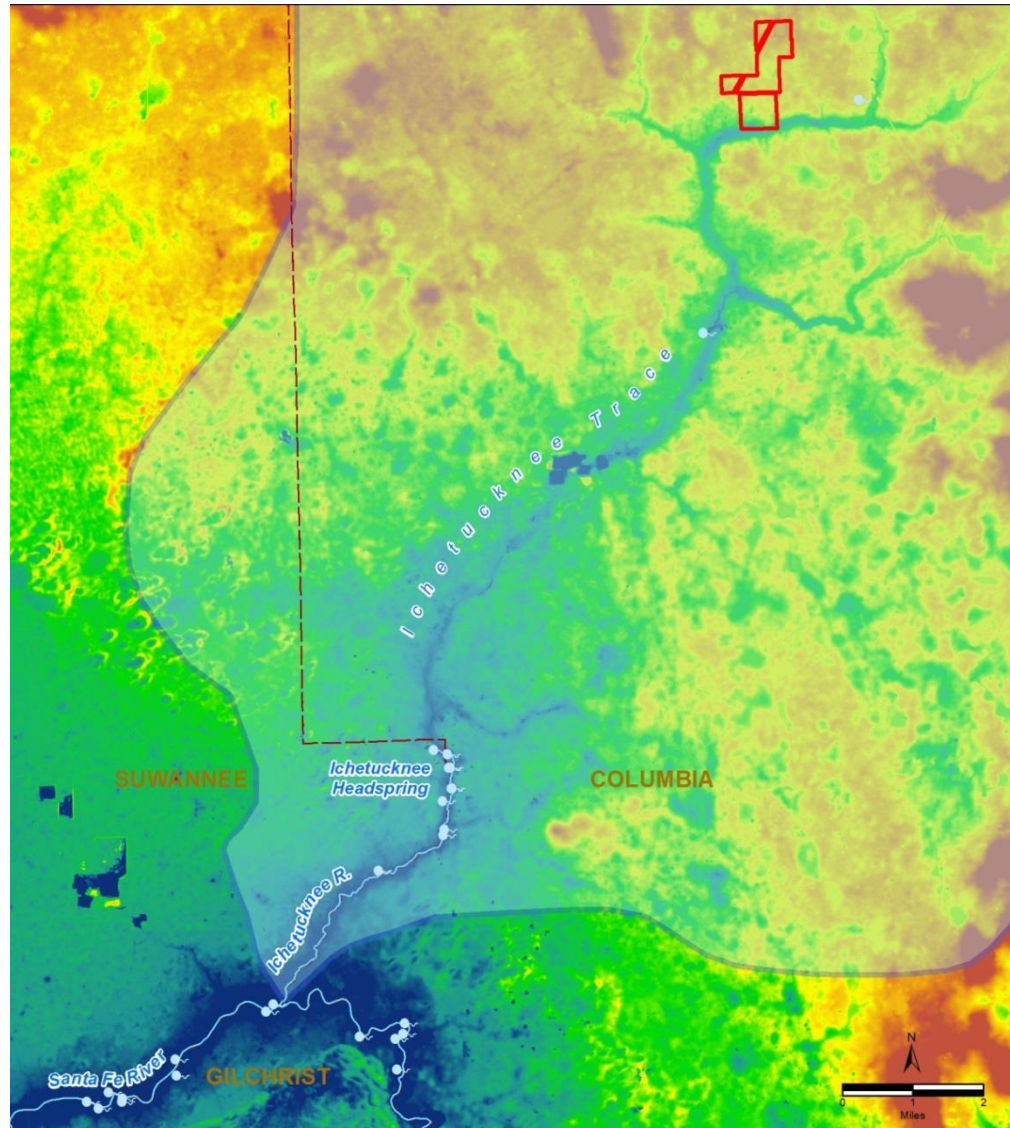
Ichetucknee Springshed



Dye studies have linked sinks along Rose Creek to Ichetucknee Springs within 8 days and demonstrate connection from Lake City's sprayfield.



Ichetucknee Trace



- [illegible]



Path Forward

- Regional and local projects for alternatives to UFA
- Next generation “better” management practices and tools
- Incentivize change in most vulnerable areas
- Foster public-private solutions



