



SPRINGS PROTECTION FOR ALACHUA COUNTY



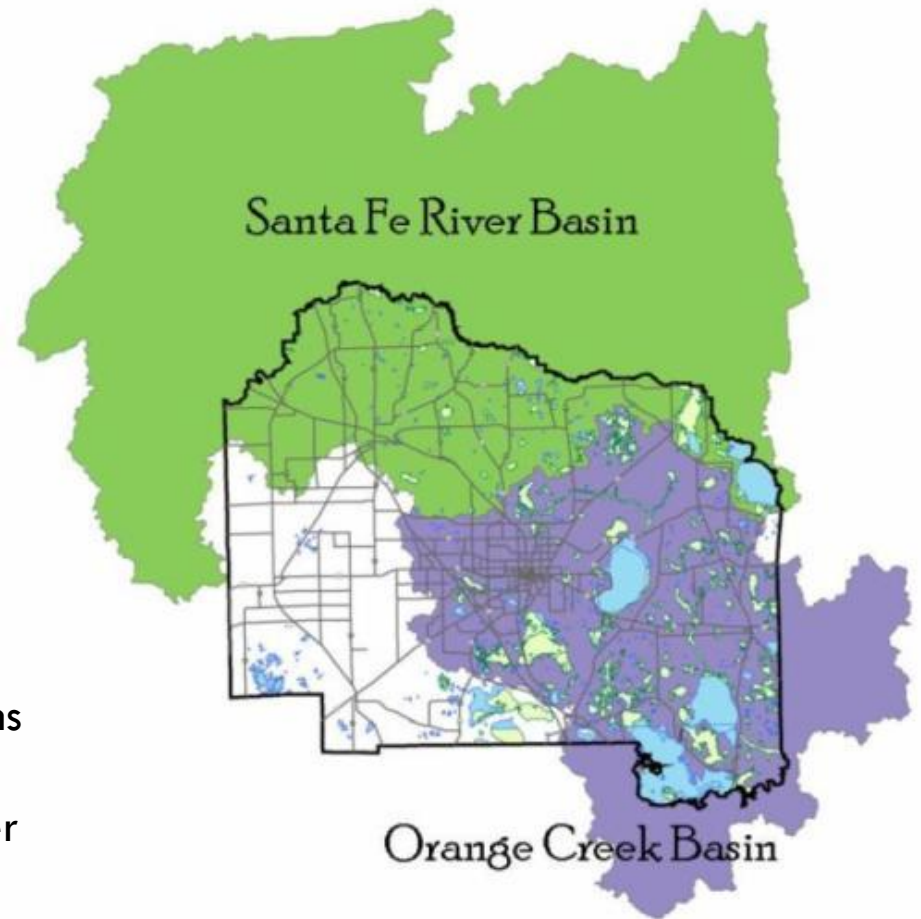
Fanning , Manatee, and
Santa Fe River Springs
Working Groups
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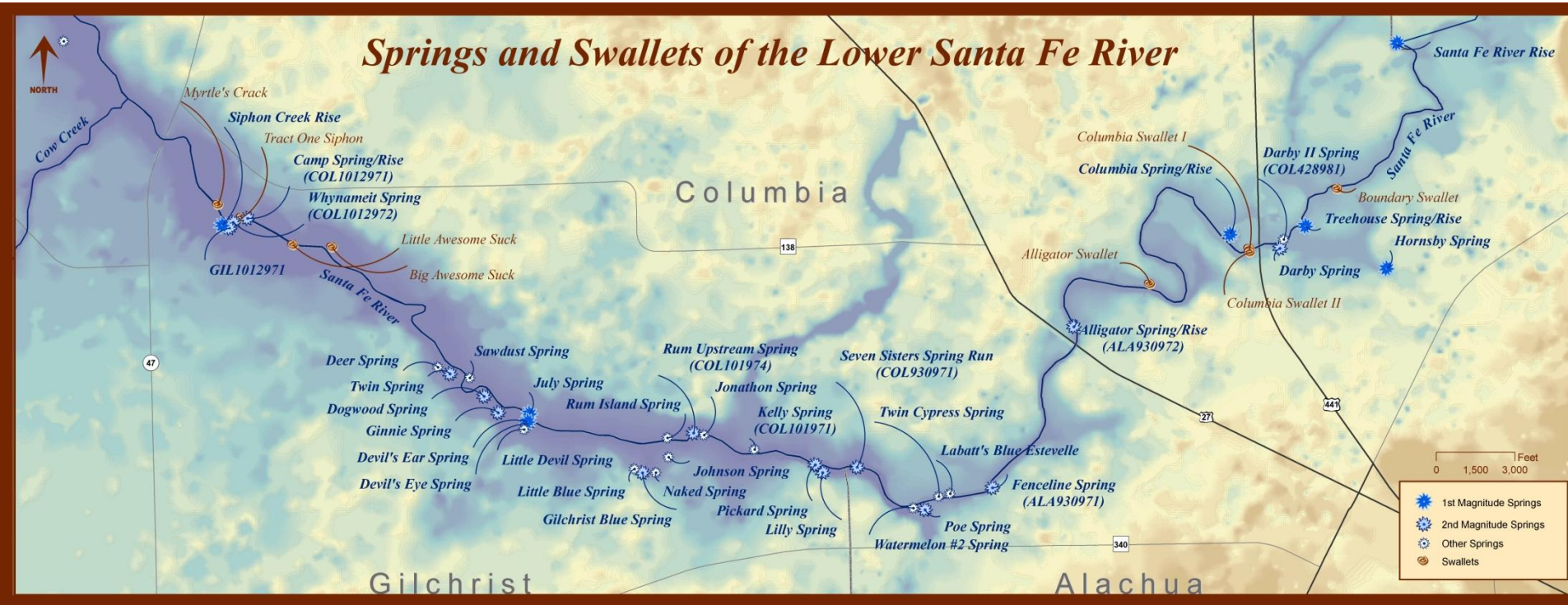
Background

- Alachua County
 - 969 square miles
 - Population 250,000
 - 9 Municipalities
 - 7 Municipal wastewater treatment plants
 - 35,000 septic systems
 - 8 Municipal water systems
- Two major watersheds
 - Santa Fe River
 - Orange Creek
- Groundwater supplies essentially all water uses
- Average annual water use 60 million gallons per day (mgd) in 2005
- Flow of the springs along the Santa Fe River ~300 mgd





Santa Fe River Springs





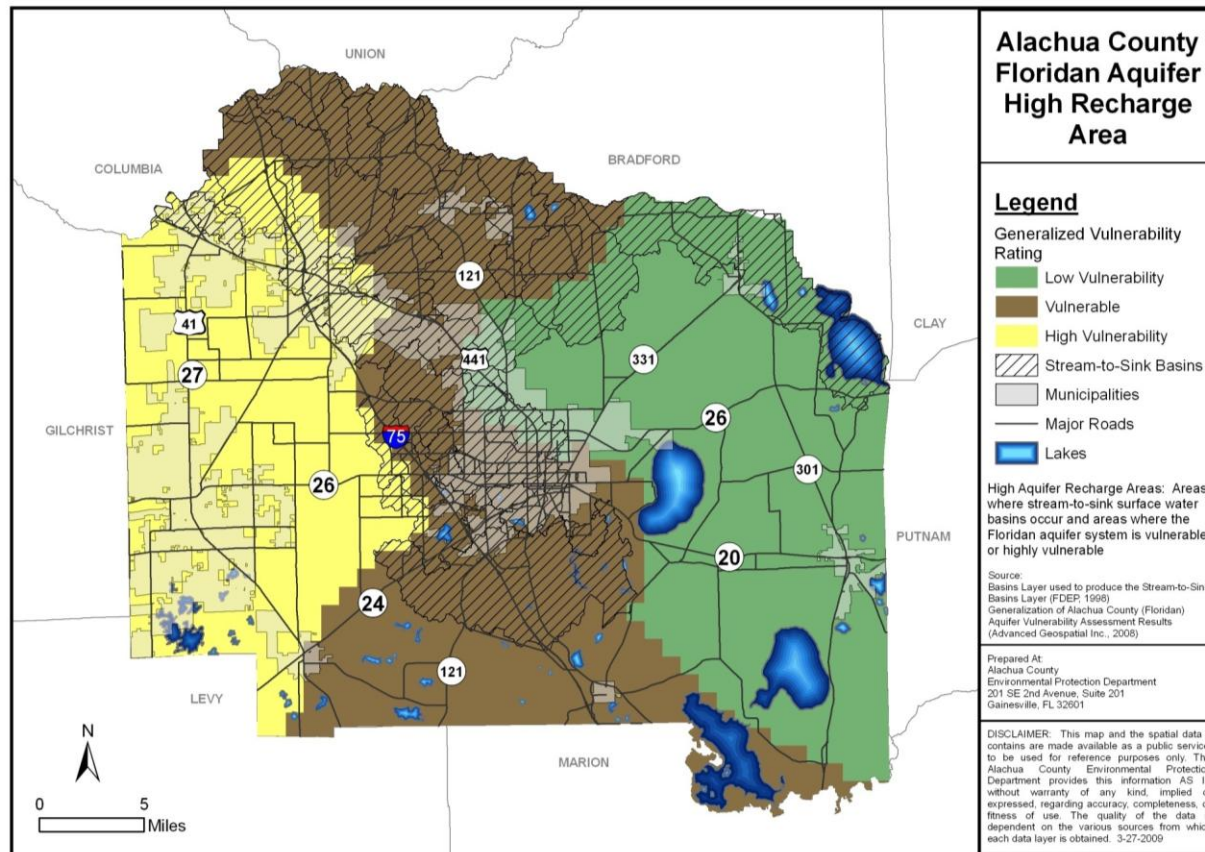
Scientific Basis for Policies

- Various studies and projects:
 - Aquifer confinement map
 - Aquifer vulnerability assessment
 - Dye study
 - Poe Springs riparian restoration
 - Evaluation of nitrate sources
 - Springshed mapping
 - Water conservation report
 - Estimated groundwater travel times





High Floridan Aquifer Recharge Areas



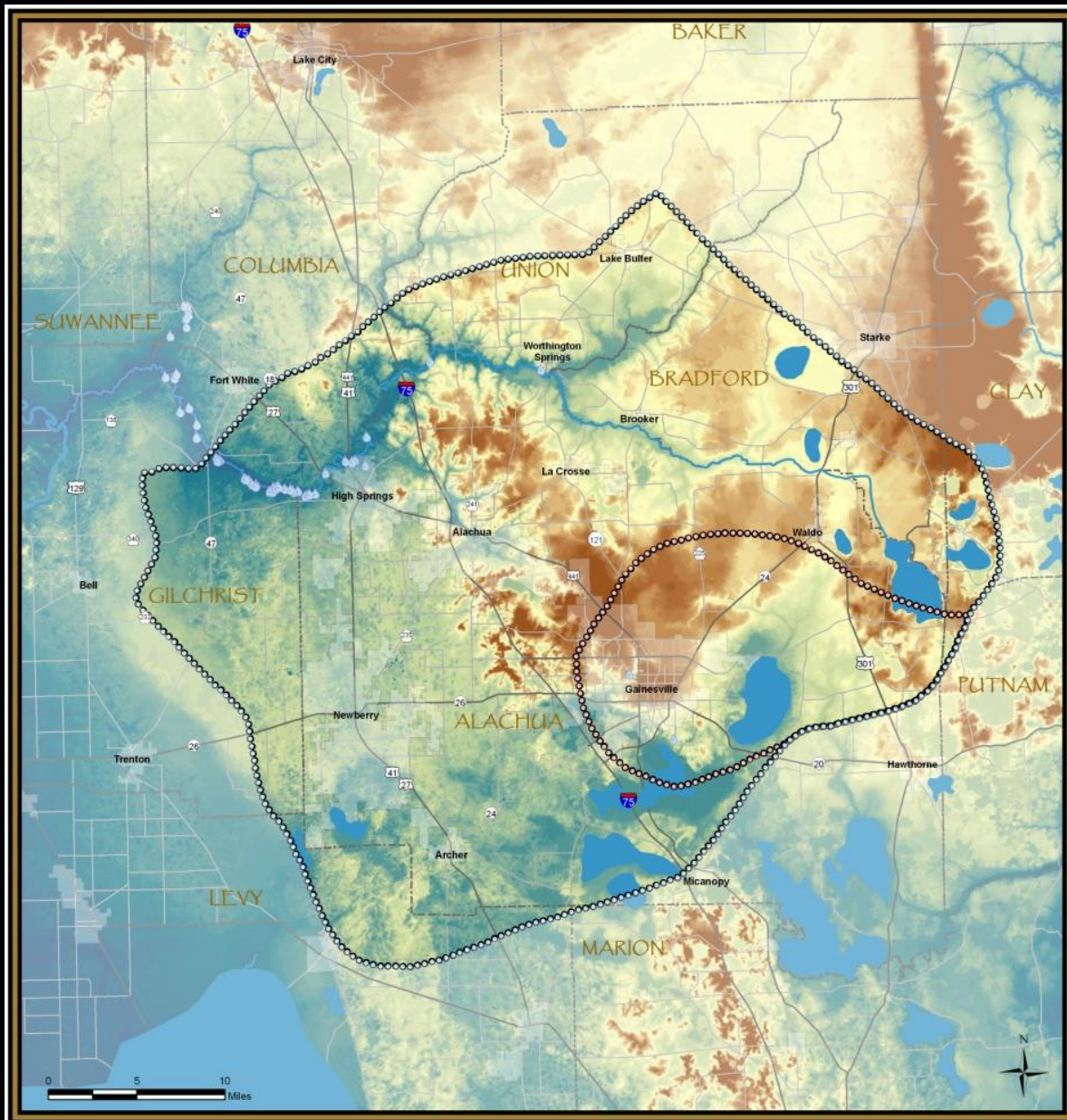
(Based on relative Floridan aquifer vulnerability mapping and location of stream-to-sink basins)



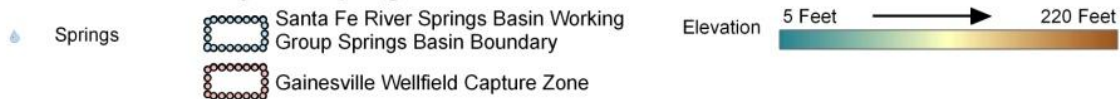
Springshed Delineation

- Funded by FDEP Springs Initiative and Alachua County
- Focused on springs of the Lower Santa Fe River (excluding Ichetucknee)
- Major contributing area is the upper Floridan aquifer in western Alachua and eastern Gilchrist counties





May 2008 Springshed Delineation





Springs Protection Strategies— Water Quality and Quantity

- Springshed includes the karst limestone plain in western Alachua and eastern Gilchrist counties as well as portions of Columbia, Union and Bradford
- Protection of vulnerable areas, unconfined Florida aquifer, sinkholes, other karst features
- Reduce water use to preserve spring flow
- Improve water quality by nutrient reduction





Policies and Ordinances

- Comprehensive Plan Policies
 - Groundwater protection policies based on the 1988 Degree of Confinement of the Floridan Aquifer
 - Map of High Aquifer Recharges Areas based on Floridan aquifer vulnerability mapping (2008) and stream-to-sink basins
- Ordinances
 - Wellfield Protection – 1988 (revised 2000)
 - Hazardous Materials – 1991 (revised 2000)
 - Wastewater – 1992 (moved to LDRs 2006)
 - Landscaping, Habitat Protection, Wetlands and Surface Waters, Floodplains (LDRs) – 1992 (revised 2006)
 - Water Quality -2002
 - Fertilizer; Irrigation – 2009
 - Springs LDRs – (proposed 2011)





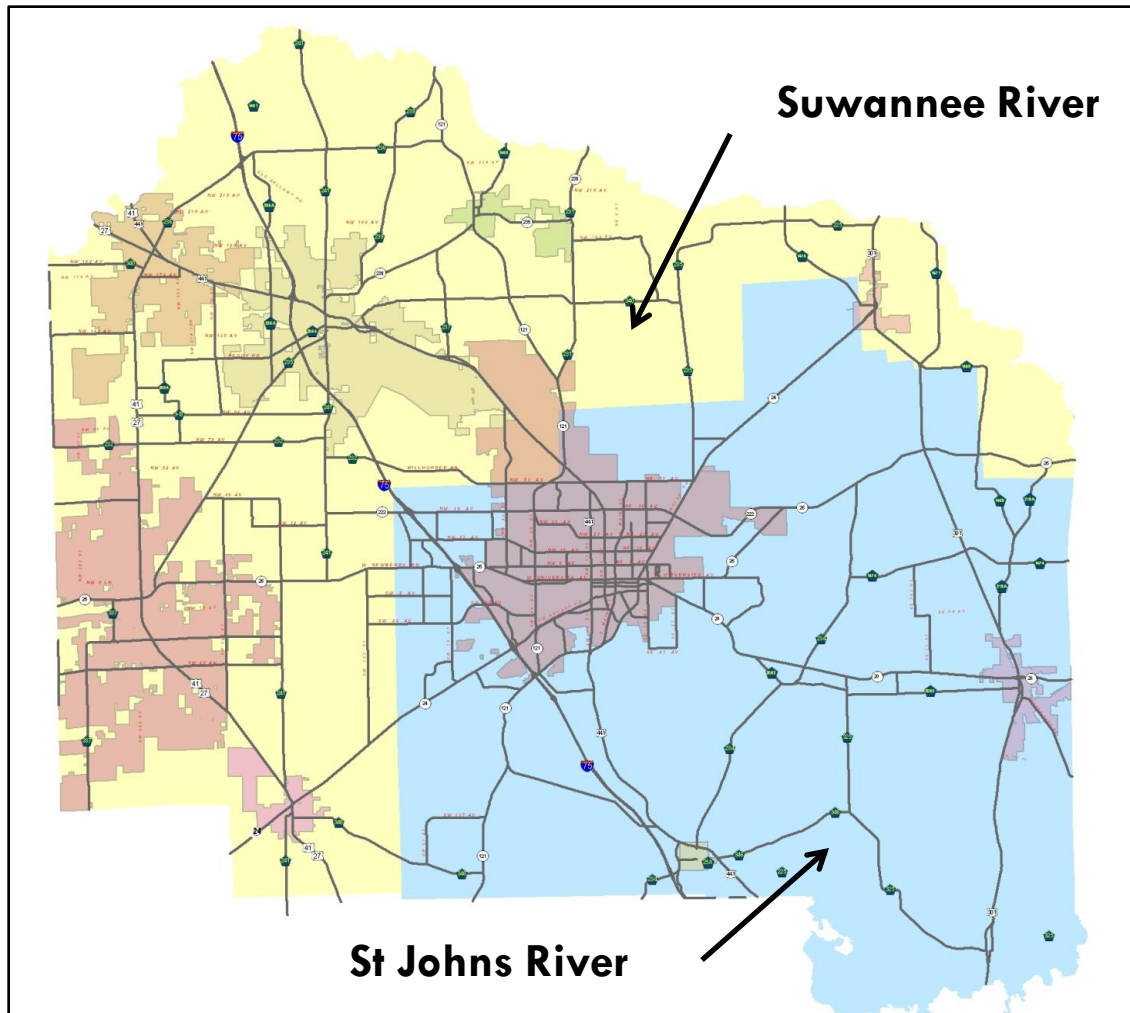
Comprehensive Plan Amendments

- EAR-based Comp Plan amendments
 - ▣ Florida Friendly Landscaping (xeriscaping)
 - ▣ Water Conservation Initiative
 - ▣ Low impact development (LID)
 - ▣ Wastewater disposal/reuse restrictions
 - ▣ Septic systems standards
- Implementation
 - ▣ Develop and revise LDRs based on adopted policies





Water Management Districts





Water Supply Planning (WSP)

- 2002 WSP in SJRWMD led to addressing groundwater and indirectly adding springs protection policies
- WSP did not apply in SRWMD, the western half of Alachua County
- 2010 WSP is joint effort between SRWMD and SJRWMD
- Minimum Flows and Levels (MFLs) will contribute to additional springs protection
 - ▣ Upper Santa Fe River (2008)
 - ▣ Lower Santa River (proposed 2011)
- On-going efforts to increase overall protection of natural resources will lead to additional springs protection



Future Actions

- ❑ Comprehensive Plan amendments to address WSP outcomes
- ❑ Develop and implement Springs LDRs
- ❑ Education and Outreach
 - ❑ Santa Fe Springs Working Group
 - ❑ Coordination with other governmental entities
- ❑ Water Conservation
 - ❑ Education
 - ❑ Enforcement





Resources and Contacts

- **Alachua County Environmental Protection Department:**

- <http://www.alachuacounty.us/Depts/EPD/WaterResources/Pages/WaterResources.aspx>

- AlachuaCountyWater.org

- SantaFeRiverSprings.com

Contacts:

- Robin Hallbourg: robin@alachuacounty.us
- Stephen Hofstetter: shofstetter@alachuacounty.us
- (352) 264-6800

- **Alachua County Growth Management Department:**

- http://growth-management.alachuacounty.us/comprehensive_planning/

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