



# Alachua County Springs Protection

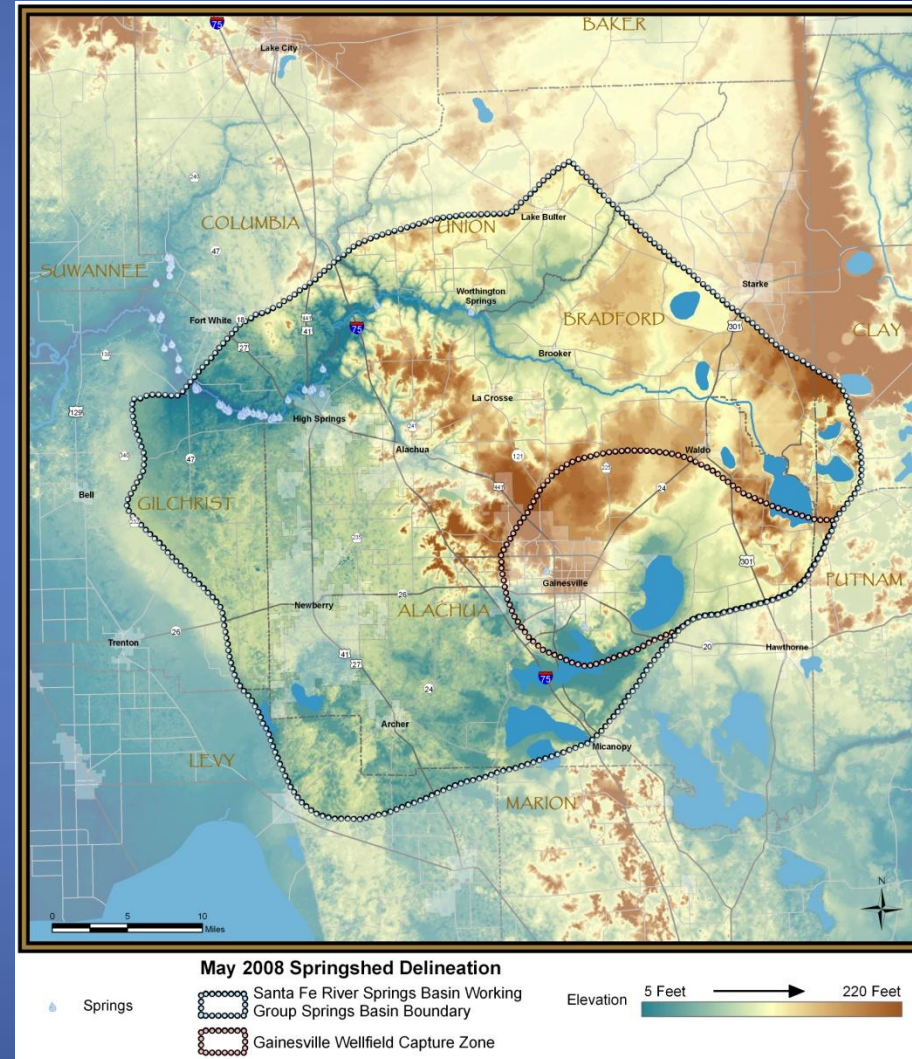
Stephen Hofstetter  
Alachua County  
Environmental Protection Department

Santa Fe River Springs Basin  
Working Group  
May 19, 2011



# 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





# Policies and Ordinances

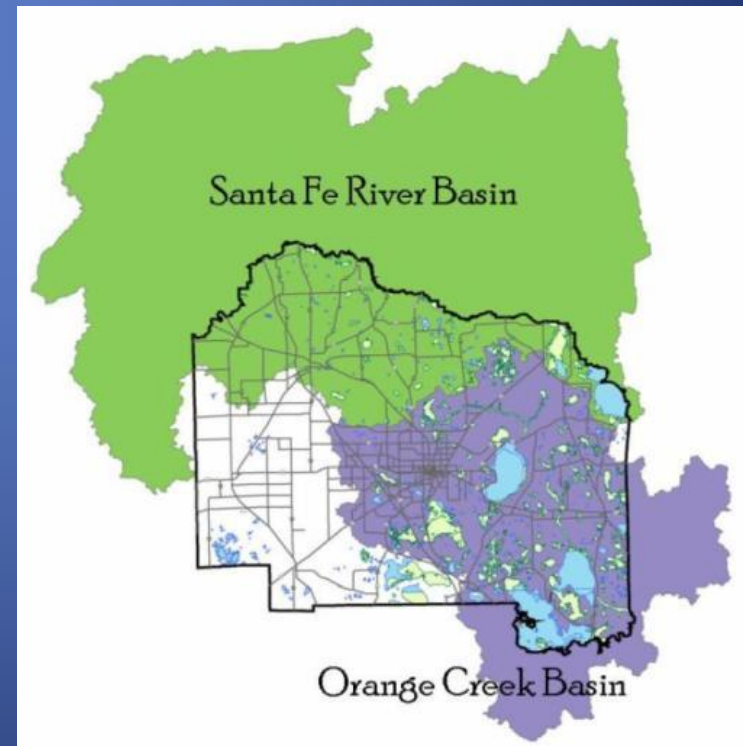
- Comprehensive Plan Policies
  - Groundwater protection policies based on the 1988 Degree of Confinement of the Floridan Aquifer
  - Open space, increased buffers, upland habitat - 2005
  - Map of High Aquifer Recharges Areas based on Floridan aquifer vulnerability mapping (2008) and stream-to-sink basins
  - Springs protection policies -2011
- 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)





# Protection Measures

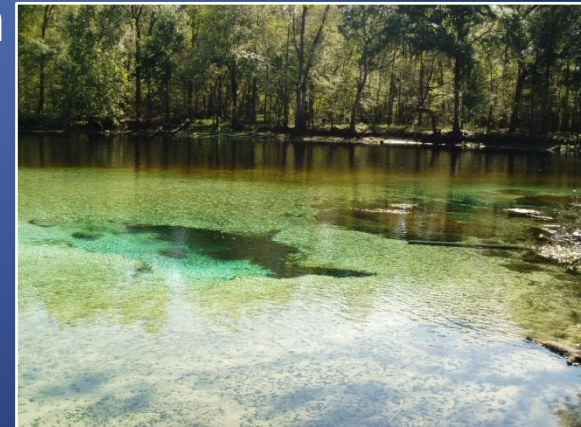
- Comprehensive Plan
- Zoning
- Land Development Regulations
- Water Quality Code
- Hazardous Materials Code
- Fertilizer Code
- Irrigation Code





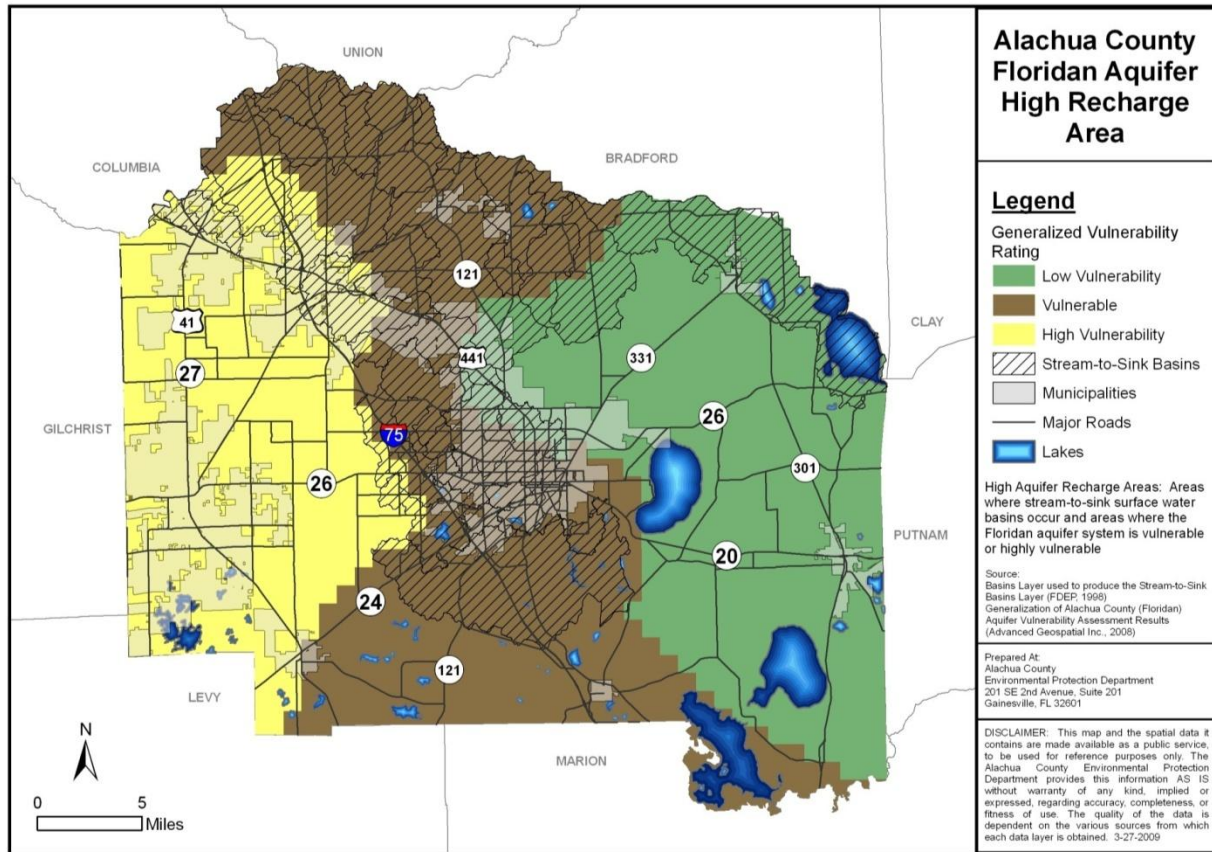
# Springs Protection Strategies— Water Quality and Quantity

- 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
- Buffer and Upland protection
- Development design and planning
  - (Open space, stormwater, habitat...)





# High Floridan Aquifer Recharge Areas



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



# Comprehensive Plan Amendments

## Adopted in April – Go into Effect in June 2011

- 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





# Conservation & Open Space Element (COSE) Policy 4.5.21

- Promote and support water conservation measures
- Stricter landscaping standards (reduce irrigation needs)
- Water use meet Florida Water Star SM criteria
- Develop a water conservation program
- Objective of no net loss in biological, ecological, and hydrological function of springs
- County goal to meet Water Star standard by 2015

# Comprehensive Springshed Protection

## COSE Policy 4.5.22

- Identify springshed protection areas
- Use scientific modeling to determine protection areas
- Develop regulations to protect identified areas
- Regulate fertilizer use
- Provide standards to municipalities
- List prohibited uses(RIBS, biosolids, septage,...)
- Reclaimed water standards
- Standards for new and existing septic systems



# New Springs Protection Policies

- Identify and protect green infrastructure and encourage LID (COSE Policy 3.6.15)
- Stormwater: No utility lines beneath basins (4.5.5.2)
- Coordinate with WMD water supply plans (4.5.9.1)
- Land use impacts of surface waters (4.6.16):
  - Increased surface water buffers for activities that could cause water quality and health problems (RIBS, septage, biosolids, golf courses, dairies, spray fields,...)
  - Prohibit fertilizer & limit pesticide in surface water buffers
  - Limits for use of reclaimed water based on protected resources
  - Limit phosphorous-rich fill material
  - Performance-based treatment may be required in sensitive areas, OFWs, impaired waters, and springsheds based on specific criteria



# Future & Ongoing Actions

- Comprehensive Plan amendments to address WSP outcomes
- Develop and implement Springs LDRs (fall 2011)
- 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](mailto:robin@alachuacounty.us)
  - Stephen Hofstetter: [shofstetter@alachuacounty.us](mailto:shofstetter@alachuacounty.us)
  - (352) 264-6800
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- **Alachua County Growth Management Department:**  
[http://growth-management.alachuacounty.us/comprehensive\\_planning/](http://growth-management.alachuacounty.us/comprehensive_planning/)

## Contacts:

- Michael Castine: [mcastine@alachuacounty.us](mailto:mcastine@alachuacounty.us)
- (352) 374-5249