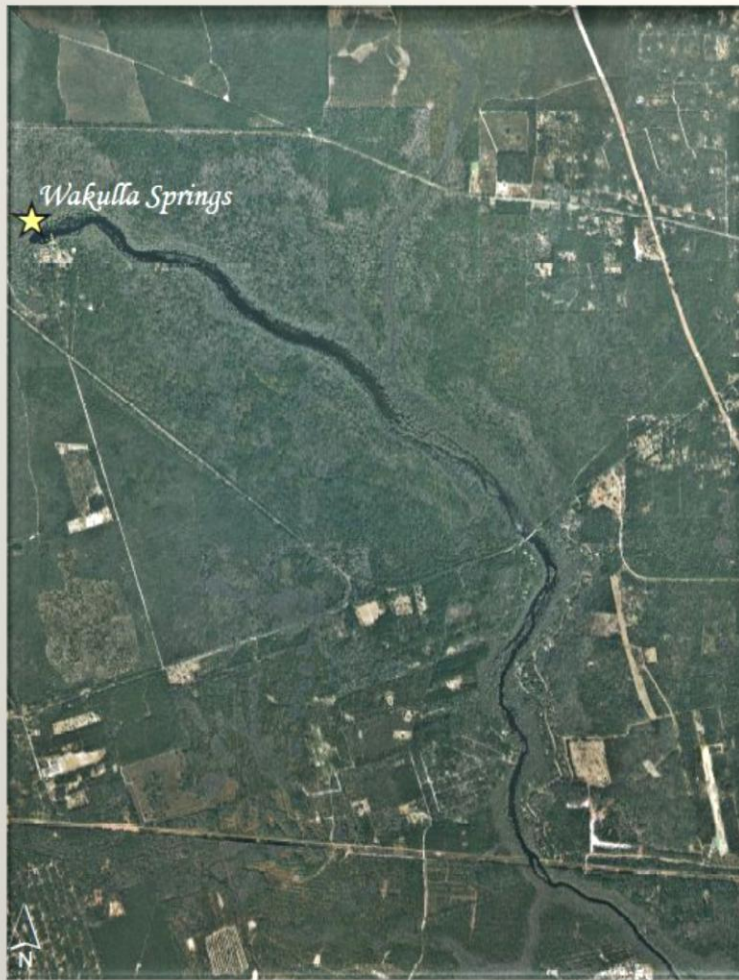




**Wakulla Springs &
Wakulla River**



**Leon County –BMAP Meeting-
February 21, 2013**

Environmental Stewardship

- Leon County is, and has been, actively engaged in beneficial environmental actions and projects within unincorporated county and the Wakulla Springshed for decades.



Actions Taken by Leon County

- **Actions taken by Leon County as stewards of our environment:**
 - **Aquifer Vulnerability Assessment (LAVA)**
 - **Established Primary Springs Protection Zone (PSPZ)**
 - **Enacted a comprehensive Fertilizer ordinance**
 - **Enacted a pet waste ordinance**
 - **Lake Lafayette Watershed Study**
 - **Adopted a land development code which exceeds Florida's stormwater standards**
 - **Jointly funded the Lombardo Report**



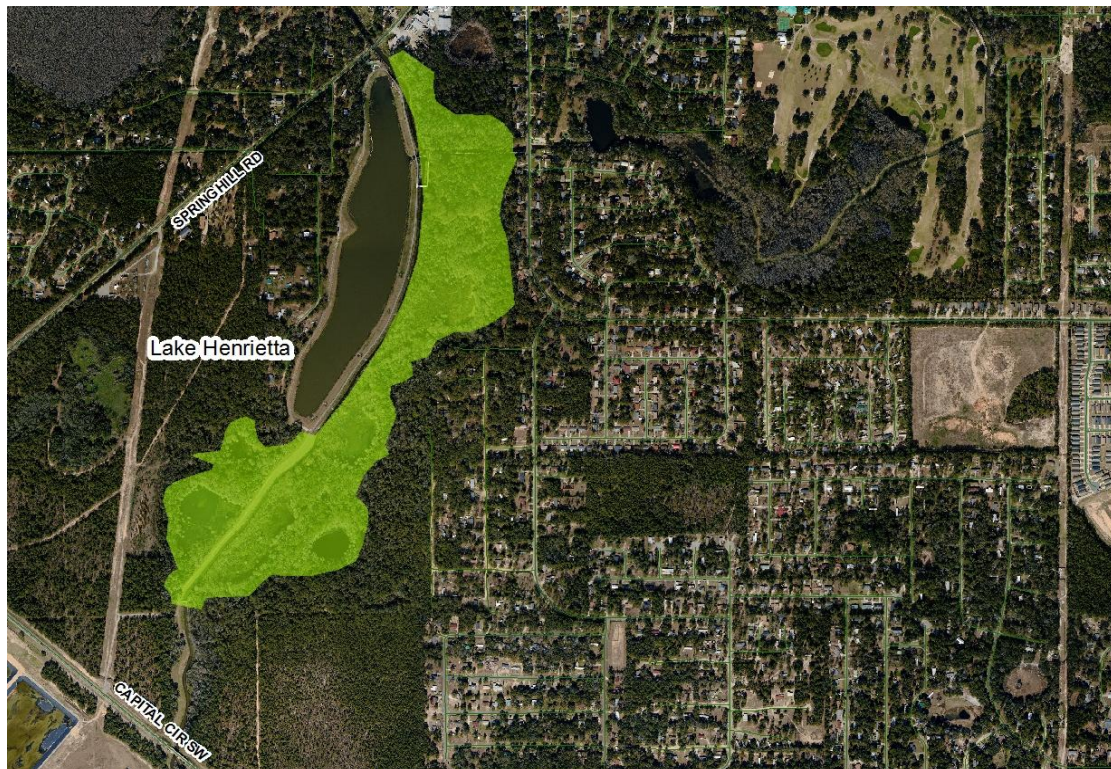
Comprehensive Plan Amendments:

- Reduced allowed development in Urban Fringe inside PSPZ
- Created transfer of development units system that allows no net increase in dwelling units in the PSPZ
- Allows transfer of development rights from Rural and Urban Fringe areas into Woodville



Specific projects taken to enhance water quality

- **Lake Henrietta:**
 - 25-acre stormwater facility- treats up to 1" of rainfall.
 - 85-acre wetland restoration for nutrient uptake
 - Receiving waters for the Cascade Park System



Lake Munson

- Removed 15 acre sediment delta.
- Stabilization of Munson Slough with geotextile fabric to reduce erosion.
- Repaired the dam for stabilization of the lake elevations/hydroperiod.
- Revised the gate locations to reduce bank erosion.
- Enhanced downstream flood protection.



Lake Jackson

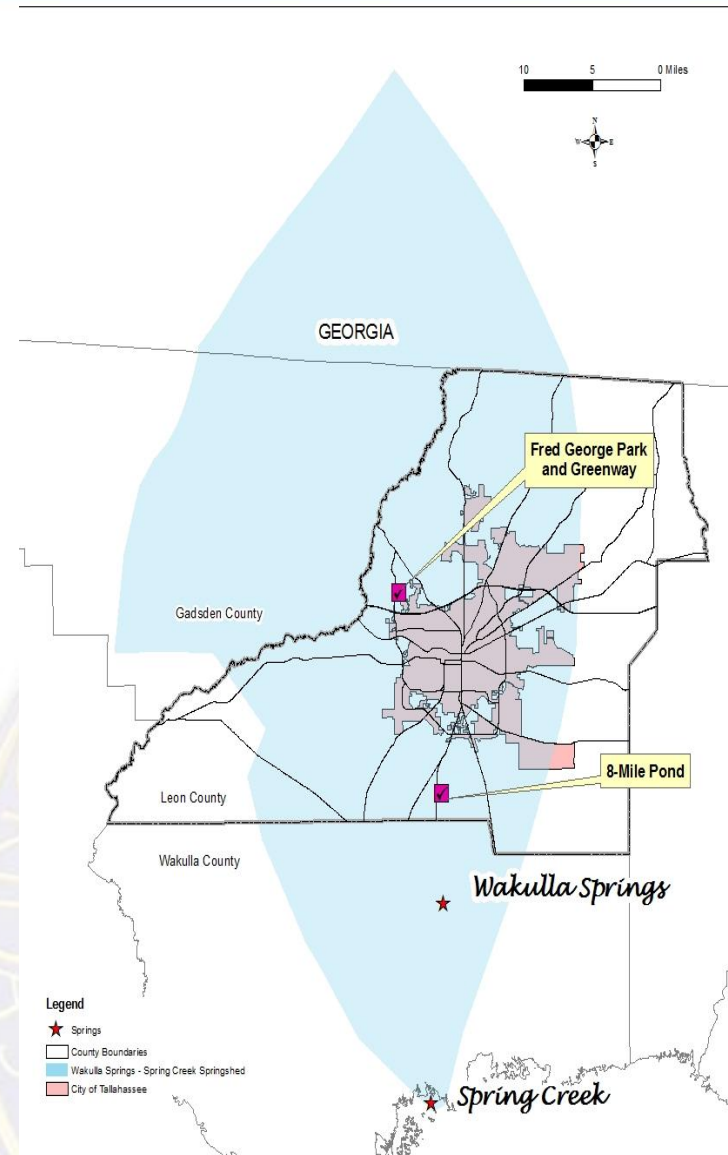


- Muck Removal – Two million cubic yards of muck removed btwn 1999-2001. Joint funded project Leon County, State, FDEP, FFWCC and NFWFMD.
- Harbinwood Estates – Constructed 2 stormwater retrofit ponds with wetland plantings, 1200 LF of channel stabilization – completed in 2008.
- Fuller Road Regional Facility – Joint project with NFWFMD for 10 acre retrofit facility at I-10 & US 27.



Land Acquisition

- Fred George Basin- 166 acres includes Fred George Sink. Wetland rehydration for treatment is planned.
- Eight Mile Pond –Conveyance from Florida Gas Transmission- 132 acres immediately upstream from Ames sink receiving swallet for Munson Slough.



Voluntary Sampling

- In house staff of 3 biologists- conduct water quality sampling at 73 sites. 13 lakes, 27 streams and 2 rivers.
- Sampling started in early 1990's and enlarged its scope through 2006.
- Water Quality Report summarizes water quality trends and is used for targeting the most beneficial environmental projects.



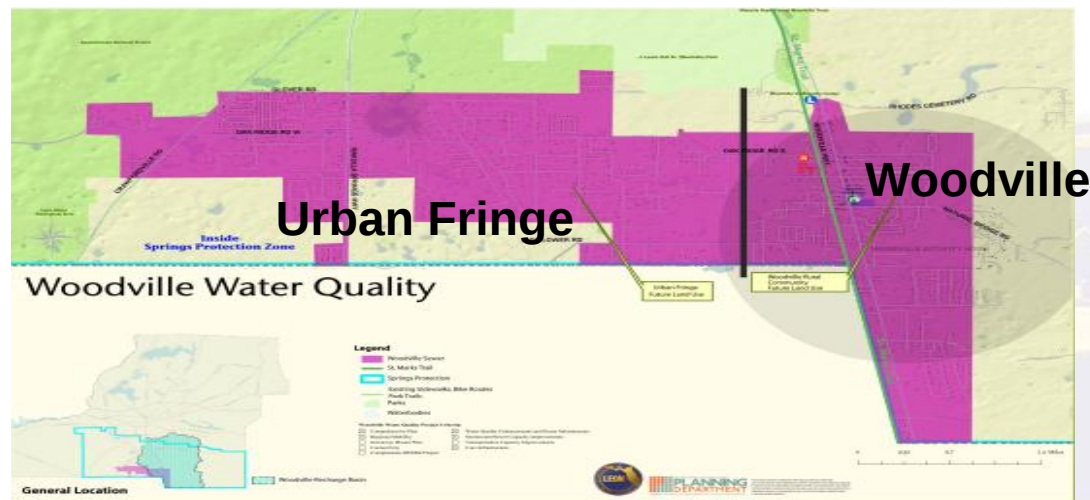
Legal Actions

- Cairo Georgia- closed sewage land application and built new treatment facility.
- Ongoing actions to require Georgia EPD to mandate BASF plant in Attapulgus Ga to treat for nutrients. Pumps 1 million pounds of nitrate into the Little River which flows to Lake Talquin.



Proposed Woodville Water Quality Project Advanced Wastewater Treatment

- **\$57.9 million capital cost estimate**
- **2,945 septic systems – transitioned to AWT Central sewer**
- **15,187 kg/yr. nitrate reduction (30mg/l to 3mg/l)**



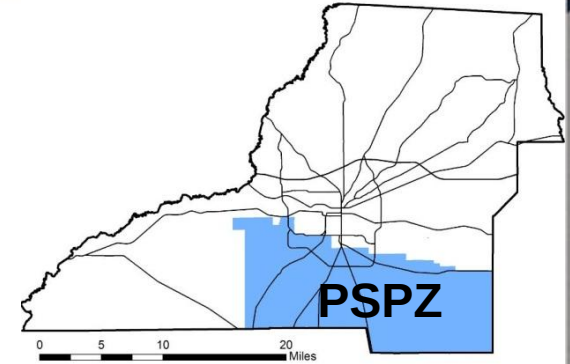
Pursue AWT for Woodville Rural Community through the Sales tax extension or other funding sources.



Amend Code of Laws to Limit Future Impact – New Construction in Primary Springs Protection Zone (PSPZ)

Amend the Code to require:

- Advanced Wastewater Treatment (AWT) nitrogen standard for new construction in PSPZ and a means for managing those systems not on central sewer.
- Repairs of existing septic systems to retrofit to have a minimum of 24 inch separation between wettest season groundwater and bottom of the drainfield.



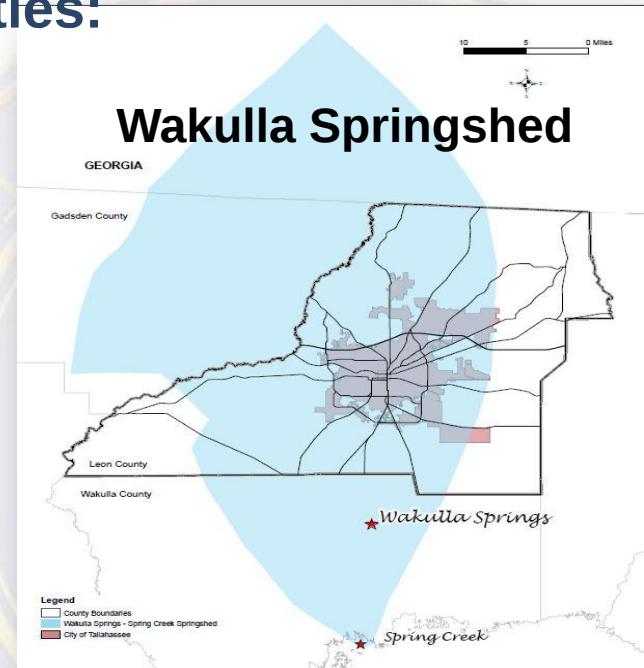
Revise the Comprehensive Plan to:

- Remove the technical specificity for nitrate removal for onsite wastewater treatment to allow for advances/innovation in technology.



Basin Management Action Items

- Include \$50,000 in the FY14 budget for an inventory of septic systems.
- Recommend additional sampling to determine contributions within Wakulla Springshed, which extends into Grady, Decatur, and Gadsden counties:
- Additional sampling may better identify additional actions to take north of Cody Scarp



Leon County Environmental Stewardship History

- Proactive- voluntary actions to enhance, protect and preserve our natural systems through the combination of:
- Capital Projects
- Studies – LAVA/Lake Lafayette/Lombardo etc
- Land Preservation and Restoration
- Ordinances-Pet Waste, Fertilizer etc
- Land Development Codes/Comprehensive Plan
- Utilization of staff resources for monitoring and tracking
- Legal Actions

