



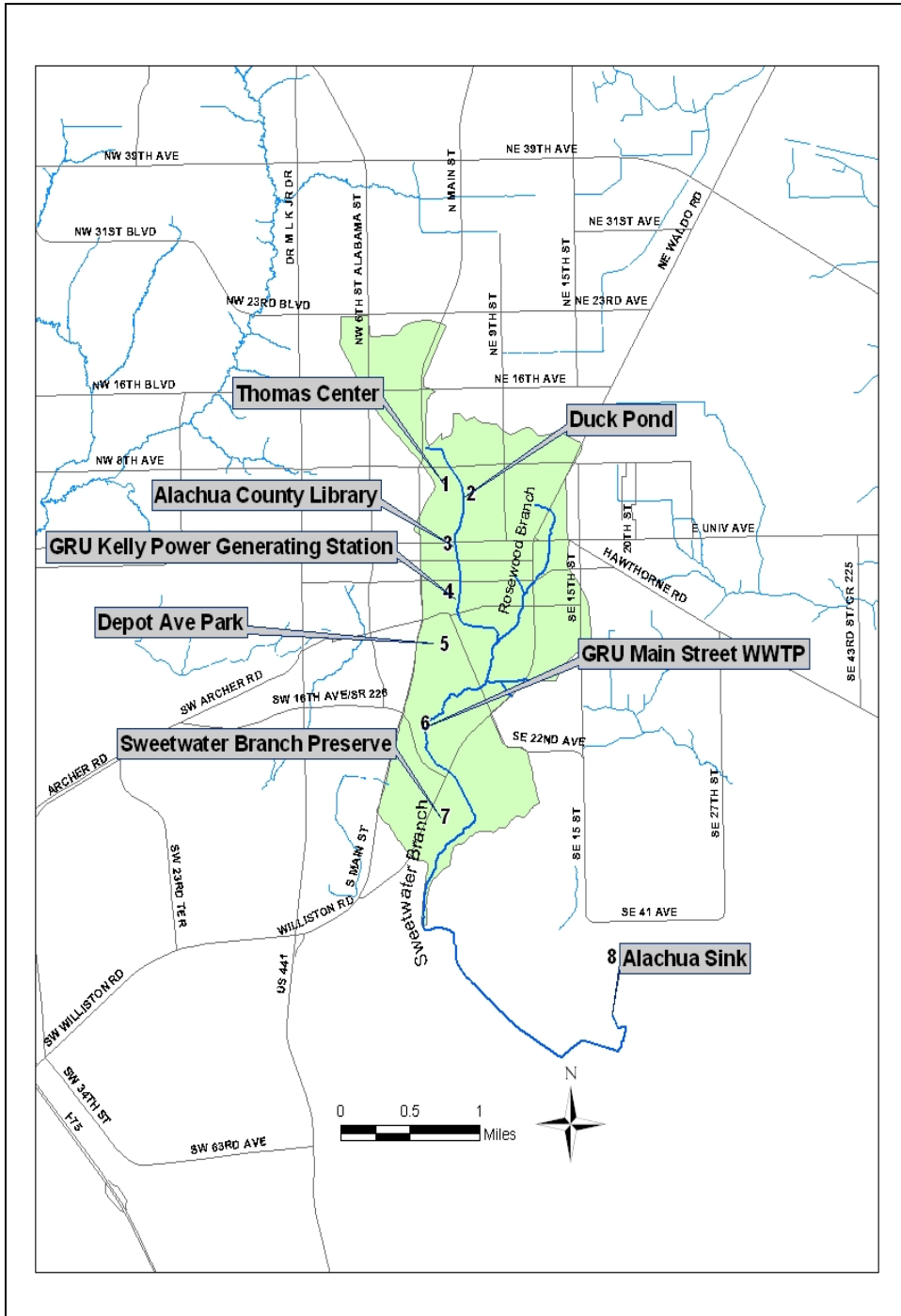
First Annual Gainesville Environmental Film and Arts Festival
Sweetwater Branch Tour

Sunday, March 28, 2010 1:00 to 3:30 PM

Tour Leader: Chris Bird, Director

Alachua County Department of Environmental Protection

Phone 352-264-6801



Sequence of Tour

- 1 – **Begin Tour 1:00pm**
Thomas Center 302 NE 6th Avenue Gainesville. Meet in the parking lot.
- 2 – Duck Pond Restoration, Stewart Pearson, City of Gainesville
- 3 – Sweetwater Branch east of Alachua County Library ACEPD staff
- 4 – GRU Kelly Power Generating Station (drive by)
- 5 – Depot Avenue Stormwater Park
- 6 – GRU Main Street Wastewater Treatment Plant
- 7 – Sweetwater Branch Preserve short hike with Sandra Vardaman, Alachua County Forever/ACEPD and Alice Rankeillor, GRU Sheetflow Restoration Project
- 8 – Alachua Sink at Paynes Prairie Preserve State Park. (Park at La Chua Trail parking area off Kincaid Road located at 4801 Camp Ranch Road).
End Tour 3:30pm

Sweetwater Branch Facts

Size and Location

- Watershed above Paynes Prairie approximately 3.3 square miles in area
- Major tributary Rosewood Branch
- Upper portion of the watershed is now channelized via ditches and culverts
- Primary portion of main channel above ground begins at NE 10th Avenue east of Main Street and north of the Duck Pond; some open channel between NW 14th and NW 16th Ave. west of Main Street
- Flows onto Paynes Prairie and discharges to Alachua Sink and ultimately the Floridan aquifer

Pollution Sources

- Urban stormwater, most of the watershed was developed prior to stormwater control requirements
- Former landfill south of Depot Avenue and north of SR121 (Williston Road)
- Urban campers, failing septic systems, failing wastewater infrastructure
- Receives a discharge of an average of 6 million gallons per day (mgd) treated sewage effluent from the GRU Main Street Wastewater Treatment Facility

Water Quality

- Designated impaired for fecal coliform by FDEP
- 2008/2009 median coliform levels 560 cfu/100 mL, 71% samples above 400 cfu/100 mL and 33% above the state single sample maximum 800 cfu/100 mL standard
- Historical median nitrate concentrations upstream of GRU Main Street 0.23 mg/L and downstream of the wastewater plant 2.863 mg/L, greater than a 10-fold increase
- Historical median nitrate concentration on Paynes Prairie downstream of Alachua Sink and upstream of the primary sink feature where the water enters the Floridan aquifer is 1.936 mg/L
- Historical median phosphorus concentrations upstream of GRU Main Street 0.19 mg/L and downstream of the wastewater plant 0.84 mg/L; greater than a 4-fold increase

Flow

- Average flow in Sweetwater Branch at Depot Avenue 1.2 cubic feet per second (cfs) or 0.78 million gallons per day (mgd)
- Average flow in Sweetwater Branch at SR 331 (Williston Road) 12.7 cubic feet per second (cfs) or 8.2 million gallons per day (mgd)
- GRU Main Street Wastewater Plant provides 67% to 79% of the flow to Sweetwater Branch downstream of the treatment plant

In-stream Biology

- Historical bioreconnaissance show the creek to be impaired
- In-stream habitat and assemblages of aquatic biota improve on Paynes Prairie where habitat improves

For more information on Sweetwater Branch and Gainesville water bodies see the Gainesville Creeks Report on our web site at alachuacountywater.org

For more information on what you can do to protection and conserve water visit our web site at alachuacountywater.org