

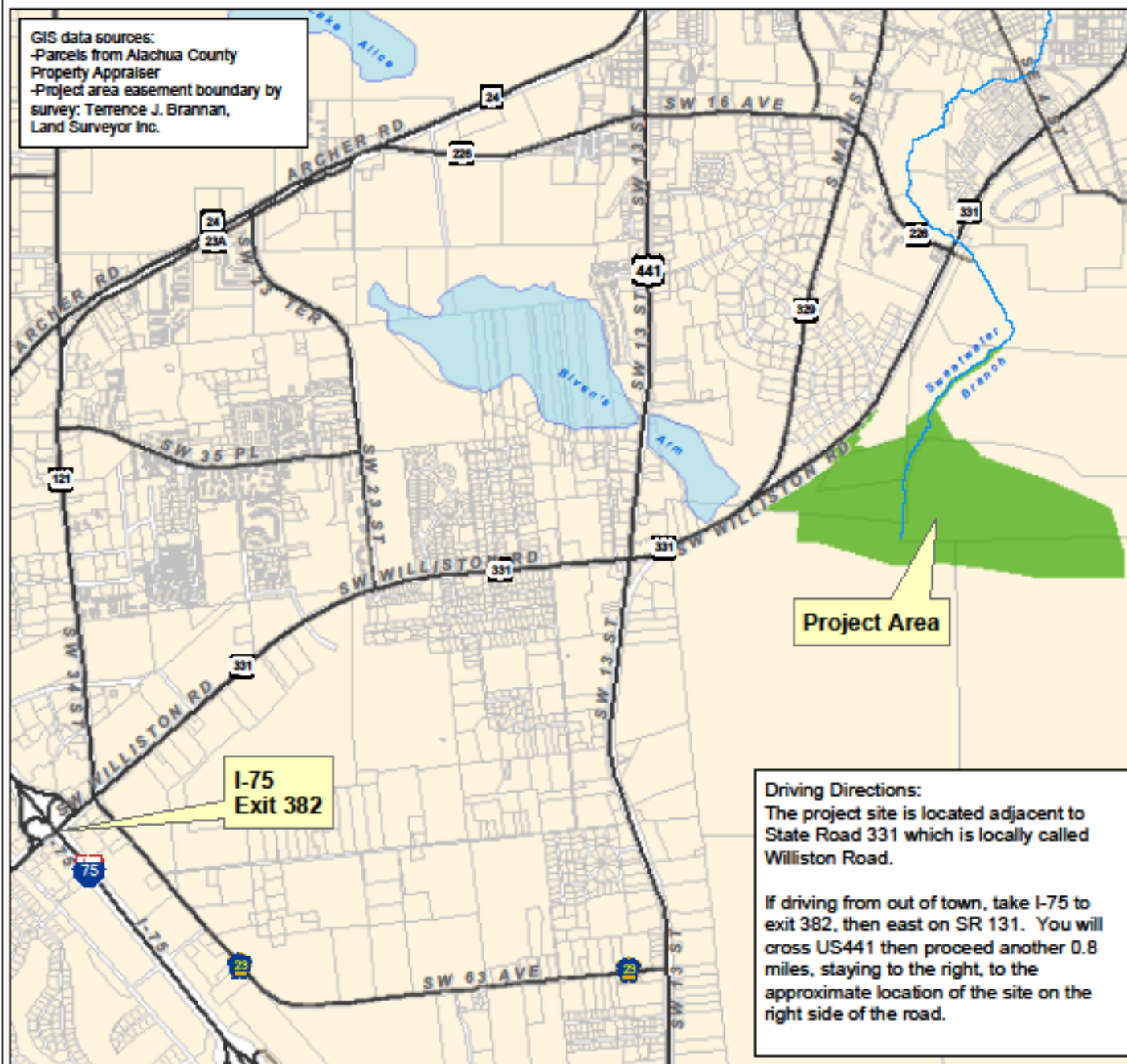
Paynes Prairie Sheetflow Restoration Project Update

Alice Rankeillor
Water/Wastewater Systems
Gainesville Regional Utilities

Orange Creek BMAP Working
Group Meeting
December 17, 2014



GIS data sources:
 -Parcels from Alachua County
 Property Appraiser
 -Project area easement boundary by
 survey: Terrence J. Brannan,
 Land Surveyor Inc.



Project Area

**I-75
Exit 382**

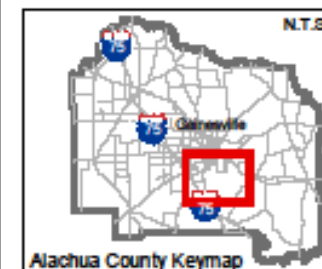
Driving Directions:
 The project site is located adjacent to
 State Road 331 which is locally called
 Williston Road.

If driving from out of town, take I-75 to
 exit 382, then east on SR 131. You will
 cross US441 then proceed another 0.8
 miles, staying to the right, to the
 approximate location of the site on the
 right side of the road.

Exhibit G: Location Map Paynes Prairie Sheetflow Restoration

Legend

- Project Area
- ~ Sweetwater Branch
- Local Lakes



Historical Impacts



- **1800s to present:**
Urbanization of Gainesville
 - Stormwater runoff
 - Trash & sediment
 - WW Effluent
 - Septic Tanks
- **1930s:** Sweetwater Branch channeled directly to Alachua Sink
 - 1,300 acres of wetlands impacted.
 - Direct flow path from Gainesville to Alachua Sink

Alachua Sink

Total Maximum Daily Load (TMDL)

Adopted in 2006

	N Reduction (%)	N Reduction (lb/yr)
Main Street WRF	55%	48,000
Stormwater	45%	13,000
Other Sources	45%	145,000



Environmental Benefits

Water Quality Benefits

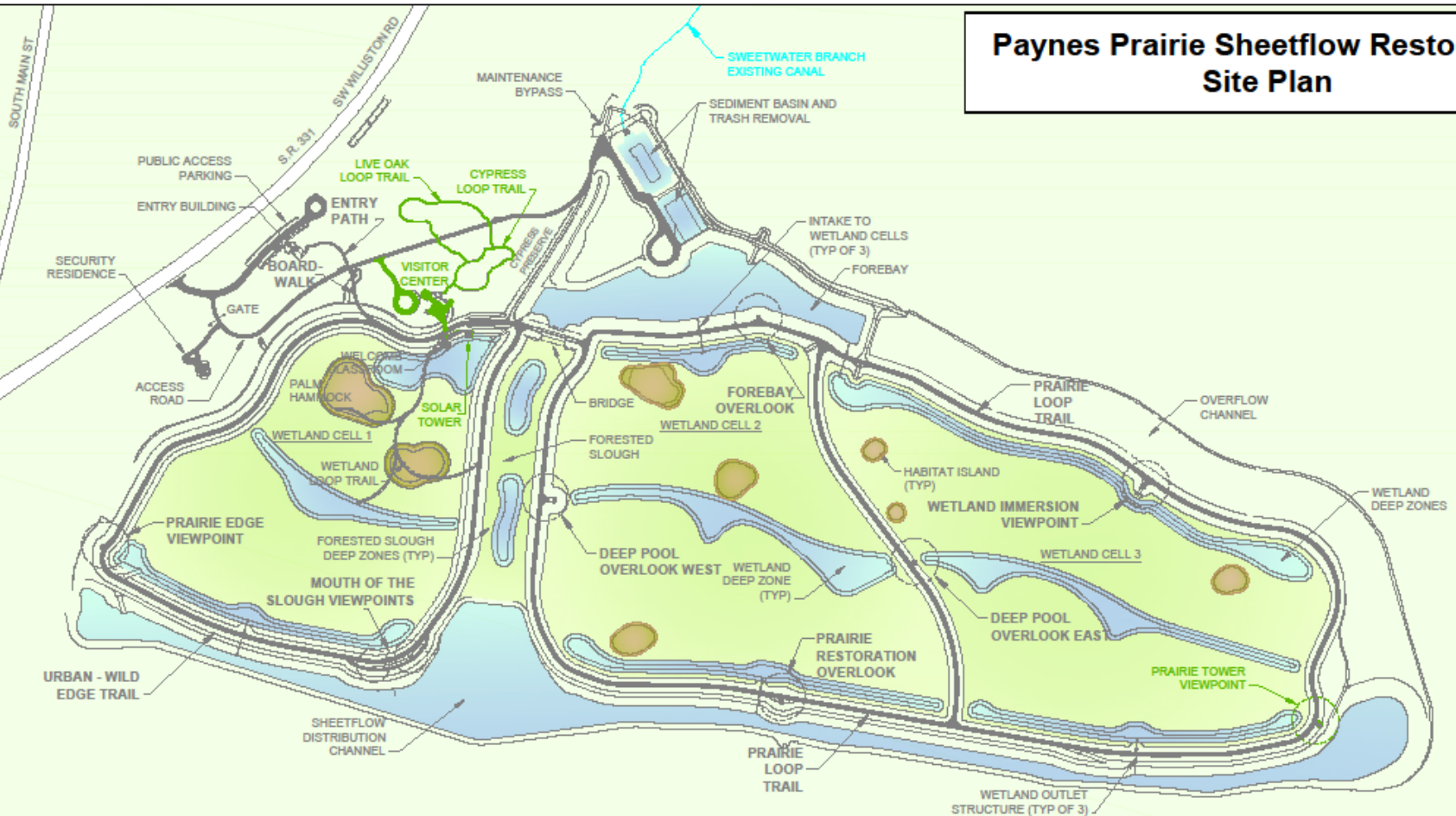
- Exceeds total N TMDL
- Achieves background total N and P on Prairie
- Removes sediment and trash

Hydrologic Restoration Benefits

- Restores Sweetwater Branch sheetflow to about 1,300 acres
- Removes 2 miles of Sweetwater Branch Canal Conservation
- Adds 264 acres to the State Park



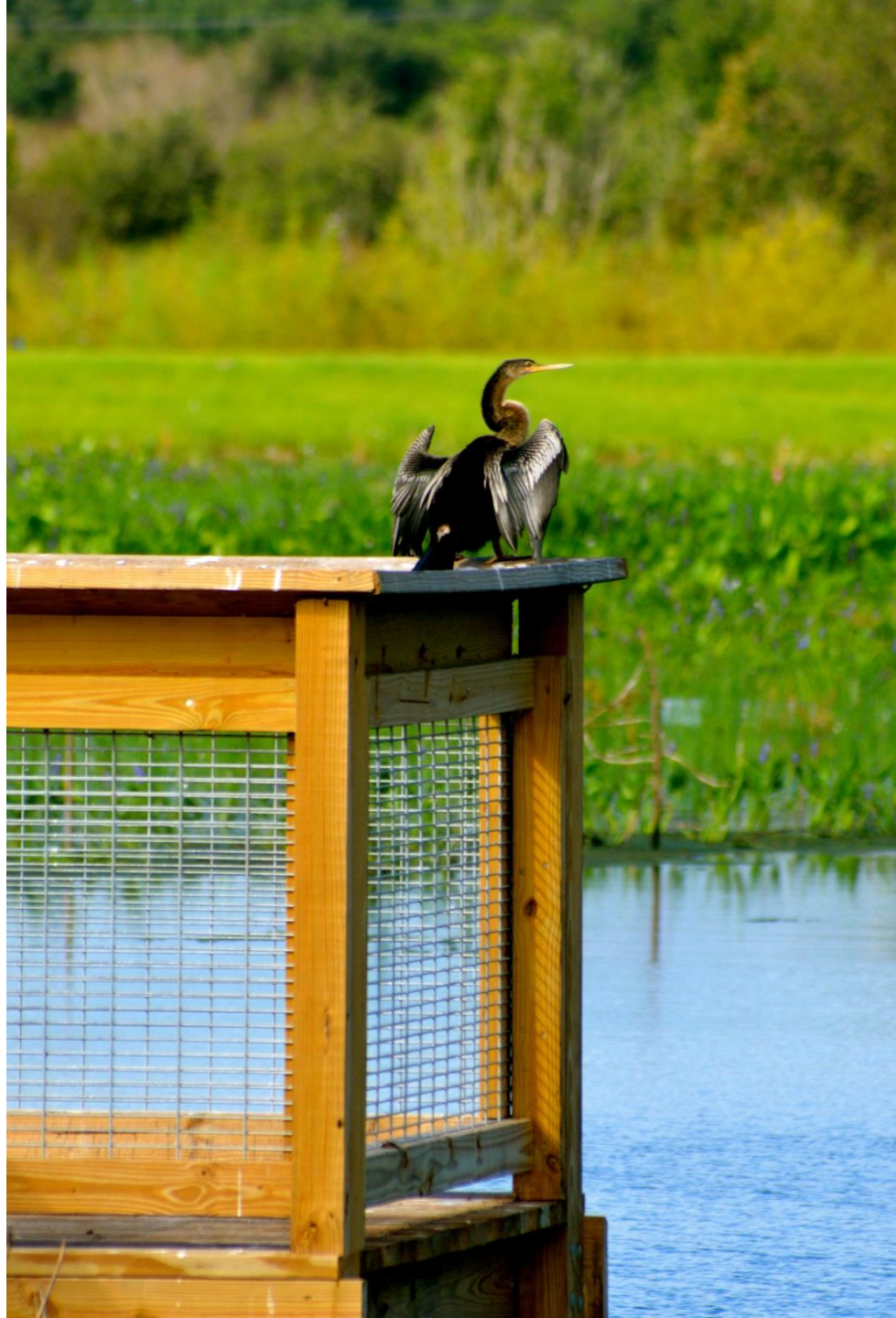
Paynes Prairie Sheetflow Restoration Site Plan















Compliance with NNC

Sweetwater Branch – 1.3 mi Section downstream of MSWRF

- Currently No TMDL for TN or TP
- Nutrients not affecting biology
- Biologically impaired due to high runoff flows
- Highly channelization & Incised



Alternatives to Comply w/ NNC for Sweetwater Branch

A. Meet Threshold Criteria (TN 1.87 mg/l, TP 0.30 mg/l)

- Build \$8M Pipeline to Bypass Sweetwater Branch**

B. Alternatives for Seeking Site Specific Criteria

- 1. Reclassification**
- 2. Level II WQBEL**



Current Status

- Data has been collected
- WQBEL Study Plan has been Approved
- Stressor ID Study and Water Quality Modeling Underway



Questions?

