

Leon County Comprehensive Wastewater Treatment Facilities Plan

Scope of Services

Introduction:

The Comprehensive Wastewater Treatment Facilities (CWTF) Plan will evaluate alternative wastewater treatment technology for application throughout the unincorporated area of Leon County in order to reduce nitrate loading from OSTDS to the aquifer. The CWTF Plan will analyze and develop options for extending central sanitary sewers, locating central sewer alternatives such as decentralized sewage treatment facilities, or implementing alternative onsite sewage treatment and disposal system (OSTDS) technology. The Plan will map areas for implementation of the appropriate technology throughout the unincorporated area. The recommendations will identify associated capital and operating expenses sufficient to meet state and federal requirements for financial assistance such as the State Revolving Fund Loan Program.

Project Background:

The water quality and biological health of Wakulla Springs and the Upper Wakulla River have declined over the past several decades. Research by the NFWFMD, the FDEP and the US Geological Survey determined that increased nitrate loadings in the groundwater discharged at Wakulla Springs are the primary cause for the decline. The FDEP adopted a Total Maximum Daily Load (TMDL) of 0.35 mg/L nitrates in the Upper Wakulla River in 2012 to restore a healthy biological community to the river. Following adoption of the TMDL, the FDEP started development of a Basin Management Action Plan (BMAP) to identify the necessary steps to achieve the healthy biological system. The primary focus of the BMAP adopted in October 2015 is reducing nitrate loadings from sources upgradient from Wakulla Springs, particularly wastewater treatment plants and OSTDS.

The BMAP adopted by FDEP includes a number of management strategies proposed by stakeholders to assist in achieving the necessary nitrate reductions. One of the strategies committed to by Leon County was construction of central sewers in the Primary Springs Protection Zone (PSPZ), subject to annual budget and appropriation, utilizing funds from the County's share of the Sales Tax Extension. The County also committed to evaluating the Florida Department of Health (FDOH) study of passive nitrogen-reducing systems to amend the code of laws to require the use of appropriate systems in the PSPZ where central sewers are not available.

The City and County Commissions, acting as the Blueprint Intergovernmental Agency (IA), sponsored a referendum to extend the one cent sales tax for infrastructure and economic development. The Alternative Sewer Solutions Study is one of the identified projects. The IA voted to initiate the Facilities Plan at their June 13, 2017 meeting. Leon County was designated to manage the CWTF Plan as the jurisdiction responsible for the unincorporated area which will be addressed by the Plan.

Data Provided:

Project background from the IA agenda item, the Sales Tax Committee deliberations and the informational brochure will be provided to two consultants under Utility Engineering Continuing Supply contract to Leon County. TLCGIS will provide the 2015 Basemap planimetric and digital elevation model update and the Leon Aquifer Vulnerability Analysis coverage.

Leon County Public Works will also provide the following reports and presentations for use in developing the project approach and schedule for completion:

- Davis, J. Hal, Brian G. Katz, and Dale W. Griffin. "Nitrate-N Movement in Groundwater from the Land Application of Treated Municipal Wastewater and Other Sources in the Wakulla Springs Springshed, Leon and Wakulla Counties, Florida, 1966-2018". 2011
- Lombardo & Associates, Inc. "Onsite Sewage Treatment and Disposal and Management Options – Final Report for Wakulla Springs, Leon County, Wakulla County & City of Tallahassee, FL". 2011
- Eller, Kirstin T. and Brian G. Katz, Ph. D. "Nitrogen Source Inventory and Loading Estimates for the Wakulla Spring Contributing Area". 2014
- Hughes, Jamie. "Septic Tank Conversion Prioritization Using Geographic Information System (GIS) in Wakulla springs Springshed". February 2017 BMAP OSTDS Committee Presentation
- Groover, Roxanne L. "Decentralized Onsite Systems". May 2017 BMAP OSTDS Committee Presentation
- Homann, Moira R. "Upper Wakulla River and Wakulla Springs Basin Management Action Plan (BMAP)". May 2017 BMAP OSTDS Committee Presentation

Scope of Services:

Leon County requests proposals to provide environmental support, mapping and utility engineering services for the Comprehensive Wastewater Treatment Facilities Plan comprising the following activities:

1. Environmental Support – evaluate groundwater susceptibility to nitrates throughout the unincorporated area utilizing LAVA, NSILT and other generally accepted technical studies. Assist with prioritization criteria for wastewater treatment technology selection. Provide environmental review of alternatives for Facilities Plan.
2. Mapping – integrate current GIS data relating to BMAP focus area, existing and future land use, existing population density, LAVA coverage, Leon County wastewater treatment method inventory by parcel, and FDOH septic tank permit data (2012 – 2017). Incorporate infrastructure mapping provided by utilities. Develop map of coherent project areas for implementation of alternative wastewater treatment technologies.
3. Utility Engineering – evaluate alternative wastewater treatment technology to include upgrade of OSTDS, utilization of cluster systems and connection to central sanitary sewer. Coordination with existing utility providers is essential. Delineate appropriate project areas for technology implementation. Determine capital and operating expenses for project areas, including impacts to utility provider as appropriate. Develop prioritization criteria for Facilities Plan implementation, considering at a minimum benefit/cost analysis, easement or right-of-way constraints, construction feasibility, permitting constraints, and established Rural Communities. The final report shall be sufficient to meet requirements of State Revolving Fund Loan Program.
4. Public Meeting Support – sufficient graphic and technical support will be necessary to staff two public presentations and compile public input.

Selection of Firm:

Project proposals will be evaluated for the project approach and the time to complete the work.