## EXECUTIVE SUMMARY

This Wastewater Feasibility Analysis was funded by the Florida Department of Environmental Protection (FDEP) in order to provide specific data for Wakulla County regarding wastewater within the Upper Wakulla River and Wakulla Springs Basin Management Action Plan (BMAP) area. Deliverables from this project included geographic information system (GIS) data and training, reports and analyses, maps, sewer system standards, public meetings, community surveys, and educational materials. The Final Report details the deliverables, the methodology involved in their creation, and ultimately the findings they led to regarding the feasibility of efforts to reduce the amount of nitrogen entering the BMAP within Wakulla County via wastewater systems.

In order to meet remediation requirements set forth in the *Upper Wakulla River and Wakulla Spring Basin Management Action Plan* (BMAP), upgrades to existing facilities are proposed. These include conversion of existing septic systems to the County's sewer collection system, upgrades to the transmission system, additional treatment capacity at Otter Creek WWTP, and additional capacity for effluent disposal and reuse. A copy of the Final Report can be obtained on the County website at www.mywakulla.com/departments/public_works/wastewater_treatment_plant/.

## CONTACT INFORMATION

For questions regarding the Wakulla County Wastewater Treatment Feasibility Analysis:

**WAKULLA COUNTY BOARD OF COUNTY COMMISSIONERS**
P.O. Box 1263
Crawfordville, FL 32326
Phone: 850-926-0919

For questions regarding the BMAP and wastewater permitting:

**FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION**
160 W. Government Street, Suite 308
Pensacola, FL 32502
Phone: 850-595-8300

WAKULLA COUNTY


# WAKULLA COUNTY WASTEWATER TREATMENT FEASIBILITY ANALYSIS

## COMMUNITY OUTREACH

In order to gauge community acceptance of sewering projects, surveys were posted on the County's website and Facebook page. WFSU published an article on their website and radio station to further generate public interest and involvement in the data collection. A total of four surveys were posted that covered general knowledge of sewer and the Basin Management Action Plan (BMAP), general environmental concerns, personal experience with septic upgrade projects, and personal acceptance of sewering projects. This survey showed that most respondents were residents of Wakulla County who had concerns about Wakulla Springs and the groundwater. The causes for environmental concern were varied with the three most common factors being septic systems, the County's growth and development, and general contaminant concerns. Over half of respondents feel it is the County's responsibility to provide corrective action. The full survey responses are included in the attachments of the Final Report for further evaluation and reference.

## GIS MAPPING

In recent years Wakulla County has begun to develop a robust geographic information system (GIS) database. Along with this database the County has invested in training and equipment to allow skilled technicians to maintain and utilize the map information in the operation and maintenance of County-owned infrastructure. As a result of this project, a significant amount of data was compiled and organized into a series of maps that the County will use into the future to track growth and maintenance of their system. The maps will also assist in planning future projects to further serve the residents of Wakulla County. A detailed description of the maps, as well as a copy of each map is included in the Final Report. The maps include the following:

- Existing Septic and Sewer Areas
- Location, Age, and Type of Wastewater Systems
- Smoke Testing Results
- Anticipated Growth Patterns
- Proposed System Improvements
- OSTDS Within the BMAP
- Service Areas and Census Tracts

## HYDRAULIC MODELING

In order to assess future improvements, the County's sewer transmission system was modeled using Bentley SewerGEMS. This program allows the system's hydraulics to be analyzed to determine proper pipe sizes or pump capacities. Field testing is conducted to ensure that the results of the model match real world conditions regarding pumping rates and system pressures. The primary focus of the "active" modelled area was for the main growth areas of the system which included the following:

- Lift stations along US 319 north of Crawfordville which discharge to Hickory Park Lift Station
- Lift Stations around the Crawfordville area which discharge to Hickory Park Lift Station
- Lift Stations between Hickory Park Lift Station and the WWTP (primarily along US 319)
- Lift Stations between Lift Station 76 and the WWTP (primarily along Coastal Highway)
- Proposed Alexander Lift Station with lift stations proposed to be rerouted to this point