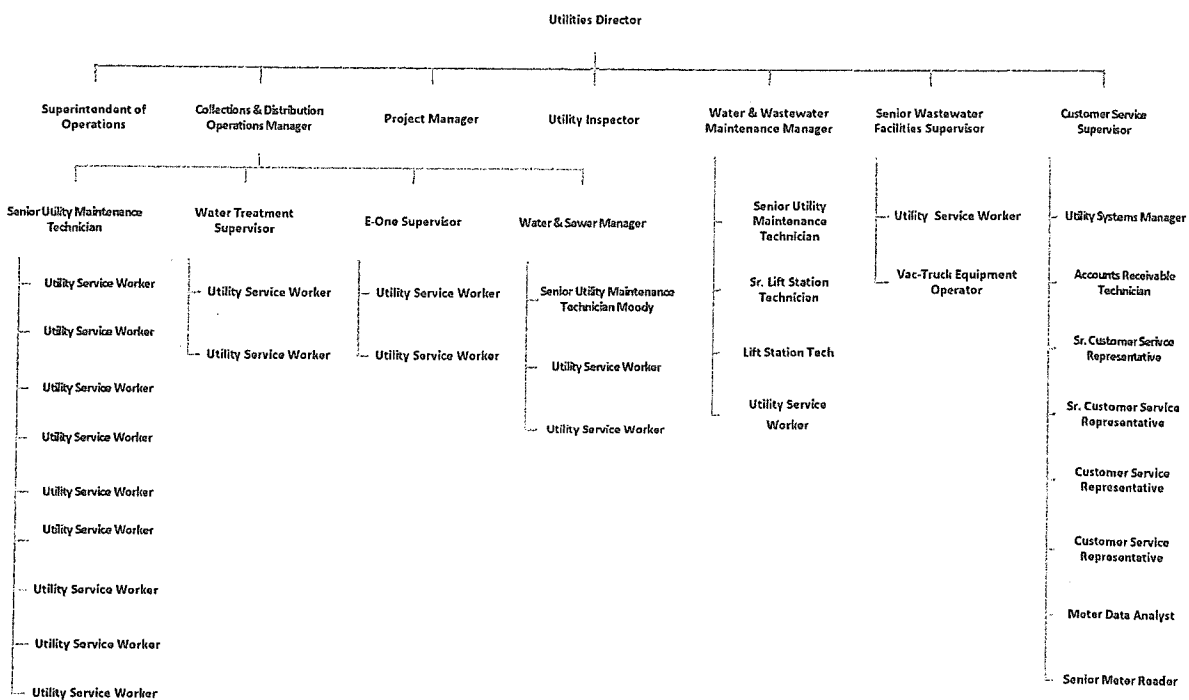


UTILITIES DEPARTMENT ORGANIZATIONAL STRUCTURE

The Utilities Department has 42 positions consisting of administrative, management, operations, and maintenance personnel. Many of these personnel are on call 24 hours per day, 7 days a week to ensure the residents of Lowndes County receive uninterrupted utility services. The current organizational chart is shown below.



DEPARTMENTAL CERTIFICATIONS

The Utilities Department has State of Georgia certified operators for both water and wastewater including the following:

Water Distribution Operators: (5)

Water Treatment Operators: (3) Class 3, (5) Class 2, (1) Class 1

Wastewater Collection System Operators: (2)

Wastewater Treatment Operators: (2) Class 3, (1) Class 1

Projects substantially completed during 2024 include:

- North/South Watermain Interconnection
(Hwy 84 to Indian Ford Rd/Exit 13/Touchton Rd) \$9,754,718
- MAFB Water Interconnection \$886,352
- Lucas Richardson Rd to McMillian Rd
Water Main Extension \$1,195,956
- Hammock Trail Drainage Repair \$179,227
- Spring Creek Nanofiltration Pilot Study \$111,300
- Clyattville Water Tank interior renovation and
multiple other water tank inspections/cleaning \$182,068

Ongoing water system related projects under construction or out for bid include:

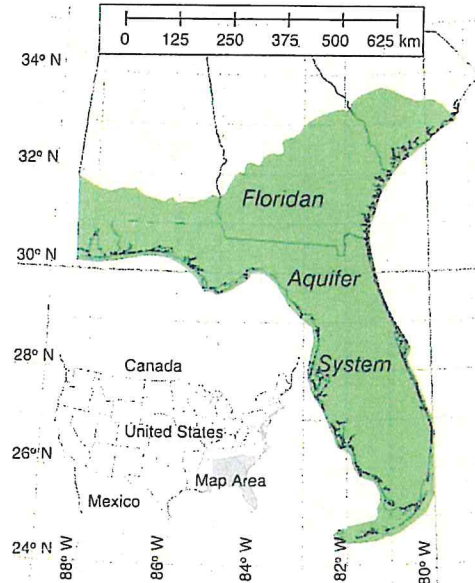
- Interconnection of the Grove Pointe subdivision
water distribution to the Nelson Hill water
distribution system to improve system flow. \$78,393
- Construction of an elevated water tank
at Billy Langdale Business Park to improve
fire flow. \$3,551,666
- Construction of 2 new wells and a Nanofiltration
water treatment plant at Alapaha Plantation Sub. **Out for bid**

Future water system projects currently under design include:

- Staten Road-Bemiss Road South Water Main Extension
 - This project will provide water service to several large parcels along the Staten Road-Bemiss Road and Knights Academy Road corridors.
- Creekside-Hahira Water System Interconnection
 - This project will provide bi-directional backup water service to both the Creekside West water system and the City of Hahira water system.
- Old Clyattville Road Water Main Extension
 - This project will interconnect the South Lowndes Water System with the North Lowndes Water System.
- Spring Creek Water Treatment Plant
 - This project includes construction of a new well and a Nanofiltration water treatment plant.

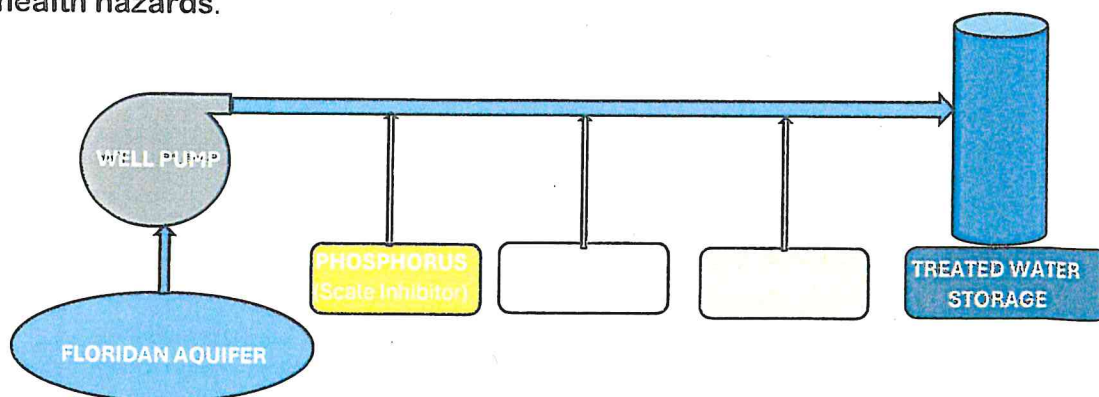
WATER TREATMENT CHALLENGES

The water source for Lowndes County is the Floridan aquifer, a large underground water body embedded in limestone hundreds of feet below the ground surface. The aquifer is expansive and covers parts of Georgia, Alabama, South Carolina, and all of Florida.



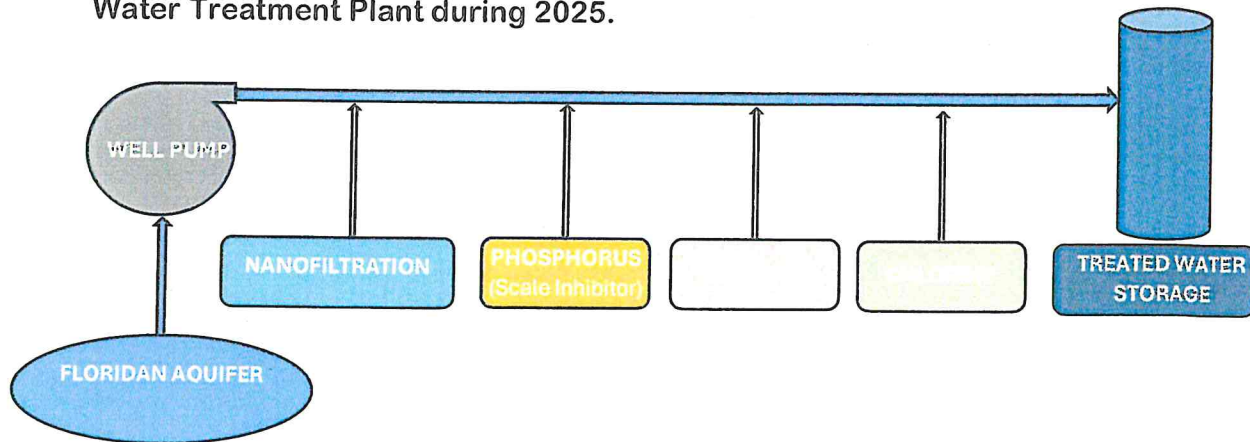
There are areas in Lowndes County along the Withlacoochee and Alapaha Rivers where the river waters seep through fractures in the limestone allowing naturally occurring organic matter in the rivers to reach the Floridan aquifer. Groundwater in these areas is referred to as “groundwater under direct influence” (GWUDI) of surface water.

When public drinking water wells are drilled into these areas, there are often problems where the naturally occurring organics react with chlorine injected into the water system for disinfection purposes resulting in the formation of trihalomethanes (TTHMs) and halo-acetic acids (HAAs). These chemical compounds at certain concentrations and temperatures in drinking water can be health hazards.



The significance of this is that organic levels in some of the County's water supply wells are causing exceedances of the allowable amounts of TTHMs and HAAs as set by the US EPA. To come into compliance requires additional treatment beyond the traditional methods used in Lowndes County for several years.

To address the exceedances, the Utilities Department has conducted pilot studies on several treatment methods for removing the organics in the groundwater including blending, advanced ion exchange (MIEX), ultrafiltration, peroxide, and nanofiltration. The only consistently effective process for removing the organics was nanofiltration. Based on these results, the Utilities Department will move forward with planning for nanofiltration plants for the Spring Creek well site on Hattie Place and at the Alapaha Plantation Subdivision Water Treatment Plant during 2025.

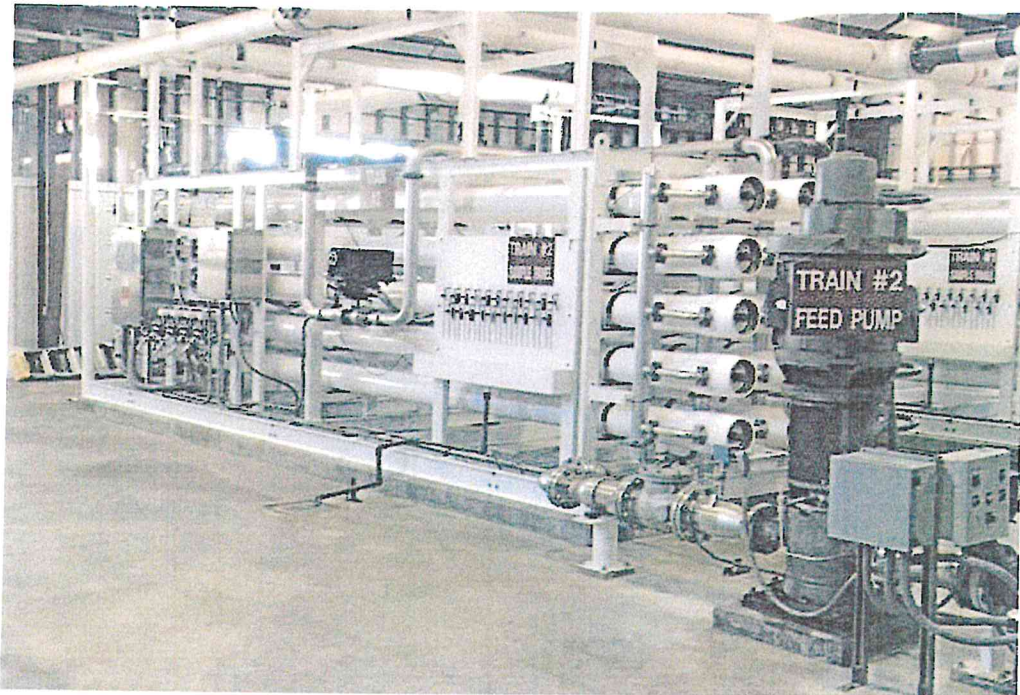


TYPICAL LOW FLOW NANOFILTRATION TREATMENT PLANT

(Similar to the plant that will be constructed at Alapaha Plantation.)



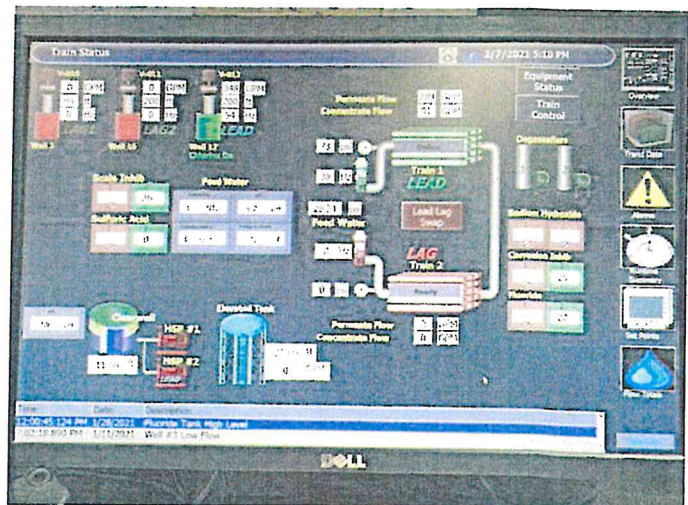
TYPICAL MEDIUM FLOW NANOFILTRATION TREATMENT PLANT



MEMBRANE SKID
(Side View)



MEMBRANE SKID
(End View)



TYPICAL CONTROL PANEL