

Talladega County Water System Projects & Priorities

BACKGROUND

For the last thirty-four years, Talladega County has had “vacation” homes along the lake that already had County water service, but only used water occasionally. At the onset of the pandemic, there was a sudden, substantial influx of people moving into those homes full-time. The County’s old and small rural water system immediately began experiencing potentially serious problems. As people moved into existing homes full-time, there were also a lot of requests for new service (both on and off the lake) and the County was faced with two options: 1) approve new customers and compromise water service for existing customers; or 2) stop allowing new customers and evaluate the system to identify problems and long-term solutions.

IDENTIFYING PROBLEMS

The County chose the 2nd option and hired a qualified engineering firm to evaluate the water system and prepare a system-wide capital improvement plan.

Problems identified:

- Existing pumps are outdated and no longer sufficient to meet current demands. Pumps push water from the treatment plant and throughout the water system. Pumps are now operating above recommended capacity.
- Existing transmission mains are no longer large enough to meet current demands. The transmission main delivering water to the entire water system is 8” in diameter.
- The existing two water tanks (500,000-gal. Alpine & 250,000-gal. Stemley) do not provide sufficient storage to adequately meet current demands.
- “Lost” water in the system each month runs between 35-50%. The engineer's study identified the major sources of loss.

High Priority Major Projects in Capital Improvement Plan:

- High-service pump at treatment plant and installation of approximately 7.5 miles of 12” water transmission main from plant to Alpine tank.
- Replacement of water lines identified as persistent sources of water loss.
 - 2,750-foot segment of pipe on Joe Gamble Road
 - 1,700-foot segment of pipe on Horseshoe Circle
 - 5,900-foot segment of pipe on Constellation Drive
 - 1,000 feet of pipe extending from Alpine tank to transmission main on Renfroe Road
 - 2,000-foot segment of pipe on Clear Creek Drive
- Rehabilitation of Alpine and Stemley water tanks
- Replace/upgrade existing pump station Alpine tank and install approximately 4 miles of 10” water main
- Addition of 500,000-gal. tank, booster pump station, and installation of 8” water main on east side of system (increase storage capacity in areas north of Clear Creek – supplementing the existing Stemley tank, a 250,000-gal. tank)
- Upgrade SCADA (telemetry that monitors tank levels and pump station activity – necessary to keep the system functioning properly)

PRIORITIZING IMPROVEMENTS

At this time, the high priority major projects will consume all available financial resources. These projects are critical to current and future distribution of clean water to customer, so they must be the focus at this time.

The first projects are expected to be ready for bid later-summer to early fall. These will be the replacement of pipe causing the water loss. The other, larger projects will take a more time to design and get to bid, but we anticipate seeing bid activity around the end of 2022 to early 2023.

The study also identified lines in some residential areas that should be considered for replacement in the future. These are the older lines, but are not critical to the operation of the system. Those projects will be considered as resources become available.

It should be noted that labor and materials have been in short supply since last summer, which could cause delays with projects beyond the County's control.

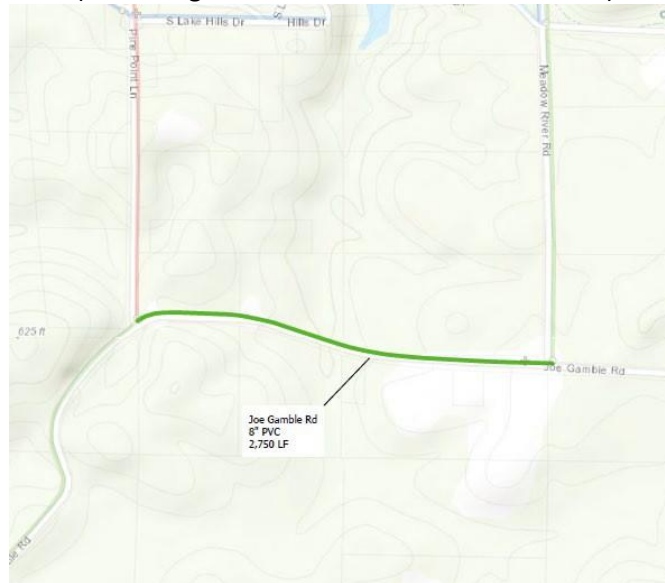
While some areas (neighborhoods) have requested enhancements or improvements to existing infrastructure, the current focus the County's currently planned improvements must focus on the most critical improvements as described above. These are the projects targeted at getting clean water into homes and businesses.

Most of the funding was made available from the County's allocation of funds (approximately \$15 million) from the American Rescue Plan Act of 2021 which comes with a deadline. These are the "major" projects. All of these projects must be designed, bid, and under contract by December 2024, and completed by December 2026.

Water Main Repairs/Replacements

Water losses in the water distribution system are averaging over 35% and appear to be largely affected by a few areas that are experiencing the most significant line leaks. For this reason, replacement of these existing lines is the next priority for capital improvements.

JOE GAMBLE ROAD (extending from Pine Point to Meadow River)



HORSESHOE CIRCLE



CONSTELLATION DRIVE
(extending from Renfro Road to Cedar Cove)



ALPINE TANK
(extending from Renfro Road to tank)



CLEAR CREEK DRIVE
(extending from end of Clear Creek to curve)

