Plant Additions and Capital Projects

Liberty Woodmark Plant Additions and Capital Project Since Last Rate Case (March 31, 2013)

- **Liberty Woodmark Wastewater Treatment Plant Expansions in 2014:** Since the last rate case, Liberty Woodmark has completed expansions of its wastewater treatment plant from 0.25 million gallons per day (MGD) (250,000 gallons per day) to 0.363 MGD (363,000 gallons per day) in 2014; and, then to 0.4 MGD (400,000 gallons per day) in 2015.

- **Facility Improvements:** Since the last rate case, Liberty Woodmark has made approximately $1.8M of capital improvements, including $500,000 for lift station improvements (including $170,000 for our Highway 69 lift station rehab) and approximately $200,000 for a digester at the wastewater treatment plant. These Woodmark project improvements included a modification of the treatment technology from a conventional activated sludge system to an integrated fixed film activated sludge system (IFAS).

- **Liberty Woodmark Current Plant Expansion:** The Texas Commission on Environmental Quality (TCEQ) has required that Liberty Woodmark expand the capacity of its wastewater treatment plant. That current plant expansion is underway and we expect it to be completed in February 2017. The current expansion project involves expanding the capacity of the plant to 0.7 MGD (700,000 gallons per day) by installing a new clarifier, a new aeration basin with IFAS media and expanding the chlorine contact basin. We also are adding one influent pump to the existing influent pump station, adding an influent pump station splitter box, adding one aeration basin process blower, adding a scum pumping station, upgrading the chemical feed equipment and chemical storage, and other items. The expected cost of the current plant expansion is $3.45 M.
Re-Routing of Tall Timbers Customers:
As part of the current expansion project, we are re-routing 500 Liberty Tall Timbers customers to that facility. Those customers will use 0.1 MGD (100,000 gallons per day) of treatment capacity. Expansion of the Liberty Woodmark plant to accommodate those 500 customers will avoid a current need to expand the Liberty Tall Timbers wastewater treatment plant facility. The incremental cost of the additional 100,000 gpd at Liberty Woodmark wastewater treatment plant expansion is estimated to only cost an additional $500,000, when compared to the approximately $3.6 M it would cost to expand the Liberty Tall Timbers treatment plant, resulting in a current savings of approximately $3.1 M. This will allow Liberty Tall Timbers to postpone a plant expansion until a future date.

Liberty Tall Timbers Plant Additions and Capital Project Since Last Rate Case (2008 Test Year)

- Liberty Tall Timbers Wastewater Treatment Plant Expansions:
  Since the last rate case for Liberty Tall Timbers with a test year ending December 31, 2008, an expansion of the Liberty Tall Timbers wastewater treatment plant was completed increasing treatment capacity from 0.312 million gallons per day (MGD) to 0.455 MGD. Since the last rate case, Liberty Tall Timbers has made approximately $4.1 M of capital improvements, including $2.1 M for the plant expansion.

- Additional Projects:
  Since the last rate case, Liberty Tall Timbers upgrades included modification of bio solids separation and balancing through the capital additions of a clarifier splitter box, ancillary pumping valves and piping improvements to re-direct the clarifier flows to the newly constructed splitter box. These improvements were necessary to maximize the treatment capability of the existing treatment plant based on diurnal flows entering the plant.

- Relocation of Force Main under FM2493.
The Texas Department of Transportation has required Liberty Tall Timbers to remove and relocate the force main under FM-2493 outside of future roadways and to avoid conflicts with expansion of Old Jacksonville Highway. The cost of relocation of this force main is approximately $890,000. In addition to the relocation of the force main, Liberty Tall Timbers completed hydraulic improvements to the Liberty Tall Timbers wastewater treatment plant in 2015 that were necessary to achieve compliance with TCEQ regulations. Those hydraulic improvements costs approximately $440,000.
COMMON QUESTIONS AND ANSWERS

Q. Why is Liberty Utilities re-routing 500 of its Tall Timber customers?

A. The Texas Department of Transportation has required removal and relocation of the force main to be outside of future roadways and avoid conflicts with the expansion of Old Jacksonville Highway. In order to make the most cost effective use of resources and minimize costs for ratepayers, Liberty Woodmark and Liberty Tall Timbers will use this governmental requirement as an opportunity to divert the flows from certain Liberty Tall Timbers customers to the expanded Liberty Woodmark wastewater treatment plant as part of the force main removal and relocation project. This decision will contribute to producing total lower costs for the customers of both Liberty Woodmark and Liberty Tall Timbers, and it will allow Liberty Tall Timbers to postpone expansion of its treatment plant to a future date.

Q. How does removal and relocation of the Liberty Tall Timbers force main under FM-2493 affect Liberty Utilities Customers?

A. By slightly enlarging the current expansion of the Woodmark plant and changing the direction of the force main to discharge at that facility it becomes a benefit to all customers by making systems operations more efficient and it will allow Liberty Tall Timbers to postpone expansion of its treatment plant to a future date.

Q. Why are water services less expensive than sewer services?

A. Water services are inherently lower in cost than sewage treatment, primarily because sewer service requires greater capital expenditures for wastewater treatment and expenses related to disposal. In the state of Texas, most water systems use a well to fill a ground water storage tank. That water is then disinfected for the protection of its customers and pump it into line. Treatment of wastewater involves a more intensive process requiring higher capital investment and higher operating expenses. Everything from human waste, garbage, and various other materials that are put down drains and flushed down the toilets are contained within wastewater flows. All of those constituents have to be removed through some form of treatment and then disposed of through other facilities. Depending on various factors within regulatory requirements, the quality of any effluent must be no less than the water quality of the stream or lake where you are discharging it to protect both human and wildlife. In some cases, the standards required can be as high as the overall drinking water quality standard. It takes significant equipment and infrastructure to remove everything from the effluent contained in our sewers to get it to a safe standard to discharge.