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# LEAKEY WASTEWATER TREATMENT PLANT



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LEAKEY, TX

The Nueces River Authority (NRA), created by the Texas legislature in 1935, was established to protect and develop water resources within a large area of South Texas. Beginning in 2009, the NRA started planning, funding, and design efforts with the Texas Water Development Board to protect the water quality of the Frio River on behalf of the residents of the City of Leakey, Texas, and its surrounding areas.

The NRA recently completed the construction of a wastewater collection and treatment system in a manner that supports its crucial ecological mission.

MRB Group was selected to serve as a sub-consultant to Naismith Engineering, Inc. (NEI) to design the wastewater treatment plant. Texas Water Development Board provided \$35 million in funding for the planning, land acquisition, design, and construction of the WWTP, ponds, irrigation system, collection system, and lift stations. The residential hook-ups on private property were funded by USDA-RD, an estimated \$7.2 million.

Wastewater disposal is accomplished by land application on property owned by the NRA. The treatment process is a continuous flow Sequencing Batch Reactor (SBR) which includes mechanical screening, grit removal, provisions to add tertiary filters if needed, chlorine disinfection, a chlorine contact chamber, and sludge dewatering. Initially, the facility will operate at an interim phase of 250,000 gallons per day (gpd). Ultimately, the project calls for a facility with a capacity of approximately 360,000 GPD. The project also included backup power generation and associated site improvements.

## PROJECT DETAILS

Contact: Thomas Caponi, P.E.

Completion Date: Completed in 2019

Project Role: Wastewater Collection, Treatment System



# 360,000

## Gallons Per Day

The rectangular configuration of the SBR basins allows for cost-effective expansion of basin capacity using a typical wall construction. In addition, the elimination of circular clarifiers by using SBR technology results in lower costs and a more compact site layout.

Construction of the Phase 1 facility was completed in late 2019.

### About MRB Group

MRB Group is an engineering, architecture and planning firm that specializes in municipal support. The firm currently assists more than 150 cities, towns, villages, and counties with design and operational support for public works functions, architecture for rehabilitation of public facilities, and asset management to preserve and maintain critical community infrastructure, like water and wastewater systems. MRB Group also provides long term strategic planning, development reviews and planning board support, as well as economic development services in an effort to strengthen and support local governments and their leadership.

