

Greenwood Wastewater Treatment Plant Flood Mitigation and Backup Generator Design Contract

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Background

- Greenwood Wastewater Treatment Plant (WWTP) is the second largest of the City's six wastewater treatment facilities, serving approximately 20% of the population
- Extreme weather events, including tropical storms and hurricanes, often cause widespread power outages and flooding, making it difficult for staff to maintain treatment plant operations
- This project will provide flood mitigation and emergency generator power at the plant to enhance operational resiliency, support continuous treatment processes, and maintain Texas Commission on Environmental Quality (TCEQ) regulatory compliance by reducing the occurrence of system failures caused by flooding events and power outages



Flood Mitigation

- Severe flooding events in September 2010 and April 2015 caused widespread damage across the plant
 - Critical infrastructure was inundated, including the headworks, control room, influent pump station, digester pump station, lift station, UV disinfection system, effluent screen structure, and reclaimed water pump station
- These flooding events interrupted the disinfection process, caused untreated wastewater discharges into La Volla Creek, and increased the risk of sanitary sewer overflows in nearby neighborhoods
- This project will install structural flood protection for critical facilities and upgrade the plant's interior drainage system to divert stormwater away from high-risk areas
- Scope of work includes site grading, piping and floodway improvements, flood walls for vulnerable plant structures, and a new effluent pump station
- These improvements will mitigate potential flood damage to critical structures, allowing the plant to maintain the integrity of the treatment process during flood events



*Greenwood
Wastewater
Treatment
Plant*



*Flooding in
September
2010*



Emergency Generator System

- Currently, the plant does not have an emergency generator system to maintain operations during power outages
- This project will design and install backup generators at the Greenwood WWTP to provide a reliable emergency power supply that can be utilized during power outages to facilitate normal operations at the plant
- This project will provide operational resiliency at the Greenwood WWTP to support continuous treatment processes and maintain TCEQ regulatory compliance by reducing the occurrence of system failures caused by power outages



Temporary Generator Rental at the Blower Building

Project Timeline

2026 - 2027	2028	2028 - 2029
August - December	January - March	April - November
Design	Bid/Award	Construction

Project schedule reflects City Council award in August 2026, with anticipated construction completion by November 2029.

Staff Recommendation

Staff recommends awarding the professional services contract for the Greenwood WWTP Flood Mitigation and Backup Generator project to Ardurra Group in an amount of \$1,619,336.00, with funding available from the Emergency Management Grant Fund and the Wastewater Capital Fund.

The Texas General Land Office (GLO) awarded \$6,660,280.00 to the City through the Community Development Block Grant Mitigation (CDBG-MIT) program to support the completion of this project.

Fiscal Impact

- The fiscal impact in FY 2026 is an amount of \$830,535.00 for the professional services contract, with funding available from the Emergency Management Grant Fund and the Wastewater Capital Fund
- The remaining funds for design will be incurred in FY 2027 in the amount of \$788,801.00

