

Technology Helps City of Granbury, TX Water and Wastewater Plants

**LOCATION**

Granbury, Texas

INDUSTRY

Water & Wastewater Treatment

WEBSITEgranbury.org**CHAMPION**

Bill Massey

The City of Granbury, TX., is approximately an hour's drive southwest of Dallas. The man-made lake runs through the heart of the city and is a source for both recreation and drinking water for this rural community of approximately 10,000 residents.

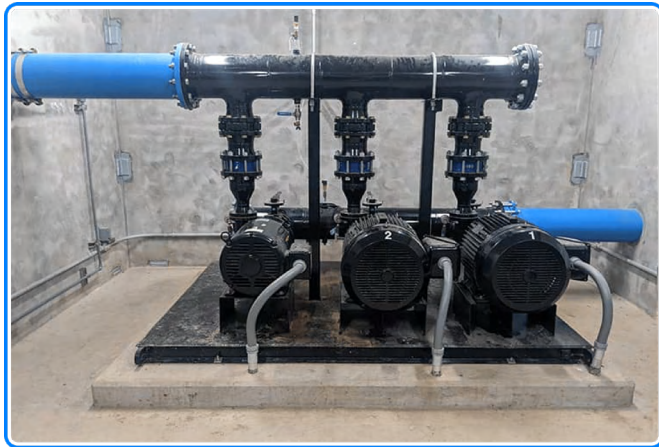
Water and Wastewater Treatment Granbury, TX

Ensuring the water and wastewater plants operate as efficiently as possible are Bill Massey, Wastewater Plant Superintendent, and Chris Maples, Wastewater Treatment Foreman. They, along with their team, manage the water and wastewater plants, 44 lift stations, 15 pump stations, and 20 wells. They will also be overseeing a second water plant coming online soon.

The City of Granbury's water treatment plant began operations utilizing micro-filtration/reverse osmosis technology when it went online in October 2017. The plant expanded Granbury's treated surface water capacity by more than 500% and replaced the old water treatment plant. The Granbury wastewater treatment plant is an activated sludge process, an aerobic biological process in which microorganisms grow by using oxidizable material in the wastewater as food. The microorganisms are recycled to the treatment phase in order to increase the rate of reaction. Laboratory personnel collect and analyze wastewater samples daily to verify compliance with state and federal requirements.

CASE STUDY

Staff at the wastewater plant also clean, check, and maintain the 44 lift stations that are located throughout the city. As Granbury continues to grow, lift stations will be added to serve those areas.



This is one of 15 pump stations throughout the city that collects sewage or wastewater and stores it in a chamber. The collection is an intricately designed system that uses a series of downstream pipes, pumps, and controls. Helping ensure this series of complex processes works properly and keeps wastewater from entering Lake Granbury is SmartSights remote alarm notification software.

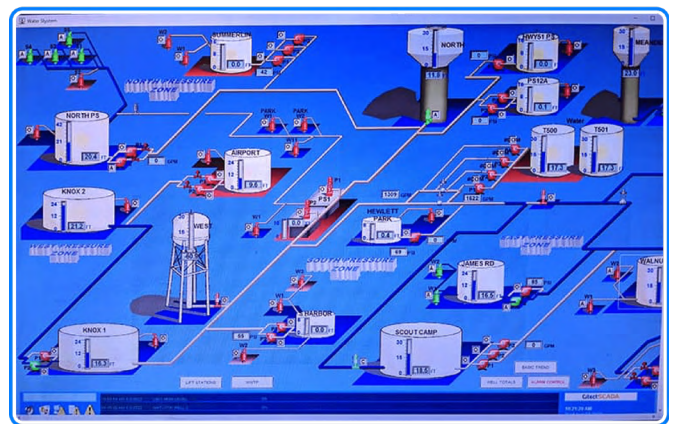
Photo Credit: Pictures provided by City of Granbury, Texas



The City of Granbury's 44 lift stations are monitored to help ensure the community doesn't experience any flooding, backups, or environmental hazards.

Monitoring the System

Twenty years ago, the city contracted with Schneider Electric to install Citect SCADA system to ensure the equipment in this vast network runs smoothly and without any unplanned downtime. Integrated with the Citect SCADA system is SmartSights Legacy V7 remote alarm notification software. Together, these systems monitor pump maintenance, flow meters, and tank levels. While the alarm software only monitors the wastewater plant overnight, the water plant is monitored 24/7. Although the city doesn't monitor power voltages, the SCADA system monitors the generators.



The City of Granbury wastewater treatment plant depends on remote monitoring software to help reduce critical equipment's unplanned downtime.

Alarms Prevent Downtime

SmartSights WIN-911 software is critical to preventing downtime by alerting the 10-person team to critical alarms for power outages, high-level alarms for the lift stations, high- and low-level alarms for water tanks, blower failure, and pump and motor faults.

SmartSights WIN-911 alerts the team, all of whom are on-call, with texts for each alarm. Additionally, the voice alarm notifications, which describe the alarm details via a phone call, are sent to people who Massey has assigned to receive them. The system is set up to automate escalation so that no alarm goes unanswered.

“Having WIN-911 means we don’t have to physically go to many of the stations like we used to because we can monitor the levels online, which saves us a lot of time driving back-and-forth to the very remote stations checking things out,” commented Massey.

The system is extremely important with maintenance for the city’s pumps because the team can see if a pump is going to run long and needs to be cleaned or requires other maintenance issues to be addressed.

The city uses an external modem for SMS alarms, the phone for dial-up, and email notification as a backup if the SMS doesn’t send out messages.

“WIN-911 helps the City of Granbury water and wastewater plants save time, lessen maintenance expenses, and avoid future equipment downtime by alerting the team to minor issues when they arise.”

Bill Massey

Wastewater Plant Superintendent,
City of Granbury, Texas

