FEMA Grant Worth $426K Awarded to Walker, LA

December 10, 2022

Several years of hard work has finally paid off in the efforts to obtain federal funding to make needed improvements to the City of Walker Sewer Collection System.

Thanks to the effort of Mark Harrell and his staff at Livingston Parish Office of Homeland Security and Emergency Preparedness, the City of Walker was able to secure a grant in the amount of $426,475.

Funding was secured through the Federal Emergency Management Agency (FEMA) and the Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP) through the Hazard Mitigation Program.

These funds will be used as part of a Sewer Mitigation Project to reduce sanitary sewer overflows, reduce or eliminate losses of sewer service, and reduce or eliminate other negative conditions that are caused by an inflow and infiltration of stormwater into the system during rain events.

These upgrades to the system will not only be beneficial to Walker residents but will also help mitigate the statewide issue of stormwater pollution introduced into natural waterways.

Last year, City of Walker engineers completed a Sewer Vulnerability Study to evaluate inflow and infiltration issues within the sewer collection system to develop a plan to address these issues.

The sewer collection system consists of 32 miles of gravity sewer lines, 8 miles of force mains, 12 miles of low-pressure sewer lines, and 650 manholes that all transport wastewater to the city treatment plant.

Data collected for the Sewer Vulnerability Report shows that 58% of the manholes within the City of Walker Collection System have top elevations that fall below the 100-year storm flood elevation.

Of those manholes, many are vulnerable to lesser storms, allowing for stormwater to enter the collection system more easily. When significant rain or rainfall occurs for multiple consecutive days, the sewer collection system, because of the inflow and infiltration issues, can collect more than three times the normal dry weather sewer flows, indicating significant infiltration concerns.

Infiltration of rainwater via manhole covers is a widespread issue through the industry. Many independent studies have shown that a 24-inch diameter manhole cover with 1” of steady water cover can potentially allow as much as 45 gallons per minute into a collection system — about one-quarter of an average 8” gravity main dry weather capacity.

The FEMA grant will be used to mitigate the inflow and infiltration by retro-fitting 395 vulnerable manhole covers with a device that effectively seals and prevents rainwater from entering the system, all while allowing the system to vent. This will reduce corrosive gasses from negatively affecting the infrastructure.

Although there are many device options available, the Device will be used in this project. Sewer Sentry Devices were previously installed in a small area of the system in 2019 and have proven very effective in reducing the inflow. This is a relatively affordable solution that will provide tremendous improvements by reducing sanitary sewer overflows and loss of sewer services.

Less surcharge to the system will also have positive effects on the lift stations and the treatment plant by reducing expenses associated with infrastructure equipment maintenance, energy cost and man hours associated with maintenance, repairs. and extended time spent monitoring the system during rain events.

The majority of the city's sewer system is more than 30 years old. While staff actively maintain a preventative maintenance plan and act quickly to make repairs when an emergency event occurs, the aging infrastructure will always present new challenges.

This system improvement project will be a large step forward for the system and will have a significant long-term positive effect on the community. This new project is slated to begin in the first quarter of 2023 and is estimated to take roughly nine months to complete.

(This article was submitted by Wendy Montalbano, director of Water Services and Environmental Compliance, City of Walker.)