

Water and Wastewater Infrastructure Improvements: Shaping Tomorrow's Community with Today's Vision

Maintaining the City's water and wastewater infrastructure is one of the most important responsibilities the City has to its residents and businesses. To ensure the availability and reliability of these services, the City continues to make substantial investments in its infrastructure by improving the quality and robustness of the City's Public Water Supply and Wastewater Treatment systems.

Wastewater Treatment:

The City operates and maintains two wastewater treatment plants. The primary focus of wastewater operations is to treat the wastewater efficiently and in compliance with Illinois Environmental Protection Agency regulations. Therefore, a systematic operation and maintenance plan is strictly adhered. But despite these efforts, many components require partial or total replacement within twenty years. Substantial improvements continue to be made in the both wastewater treatment facilities.

Last fall the City selected a construction company for Wastewater Treatment Plants #2 and #3 improvements. The price submitted for these improvements was \$13,880,000 and will address solids handling, digester capacity, sludge thickening, and other piping improvements. These enhancements will require significant upgrades and expansion of existing equipment and facilities. In order to fund these projects the City is utilizing the Illinois Environmental Protection Agency Loan Program which will provide the City a loan for twenty years, at a very low interest rate. Projects at these facilities are already underway.

Other projects recently completed at Wastewater Treatment Plant #2 include replacement of the old, deteriorating return activated pumps. These were replaced with dry pit submersible pumps. In addition, Wastewater Treatment Plant #3 replaced two 26 year old primary effluent pumping (PEPs) station pumps. This enables the PEP to become more efficient and reduce the need for repairs.

Furthermore, the sanitary sewer collection system requires ongoing attention to minimize backups and address infiltration and inflow of storm water to the system. The City has grouted 23,256 feet and lined 8,033 feet of sewer since 2008 to ensure the structural integrity of the pipe.

Public Water Supply:

Our community's water supply is generated entirely from shallow and deep underground aquifers. This water is pumped from the aquifers and requires special treatment and softening processes.

In the last five years, two of the City's five water treatment plants received new softening systems to replace deteriorating equipment. Two dedicated backup generators also were installed at treatment plants that had no redundant power supply to maintain operations during prolonged power outages.

In addition to pumping and treatment, water storage is needed to maintain an adequate water supply. During the previous five years, seven of the City's nine water storage tanks have been rehabilitated and painted. While the repainting provides an appearance improvement, crews also sandblasted and reinforced the steel and welds on the storage tanks to ensure the integrity of the structures. The Poplar Street Water Tower Tank is scheduled for rehabilitation in 2016.

Finally, water infrastructure is only as good as its distribution system. In addition to replacing watermain in conjunction with State roadway projects on Routes 176 and 31 and Walkup Road and Route 176, the City has advanced several local watermain replacement projects. The final phase of the Country Club area watermain improvement program replaced deteriorating water main in this area was complete in 2015. Additionally, The Route 14 watermain improvement project between Route 176 and Crystal Lake Avenue was recently completed.

A Self-Supporting Public Utility

A major objective of any public utility, such as Crystal Lake's Water and Sewer Utility, is to be financially self-supporting. To do so, a utility must recover its costs, in full, through a water and sewer user fee system. Water and sewer user charges are intended to recover costs associated with operations, maintenance, equipment replacement and capital construction.

As a public utility, Crystal Lake's Water and Sewer Utility must establish a water and sewer user charge system consistent with the policies and regulations of various State and Federal Regulatory Agencies. Those Agencies which have review authority over Crystal Lake's Water and Sewer Utility include the United States Environmental Protection Agency and the Illinois Environmental Protection Agency.

While great strides have been taken to improve the water and sewer infrastructure, additional work is necessary to ensure the reliability and sustainability of our community's equipment and facilities. In addition to the aforementioned items, additional capital improvements are needed at the water and wastewater treatment facilities to maintain their integrity.

In order to continue to ensure the appropriate investment into the Water and Sewer Utility, user charges are reviewed annually.

The following water and sewer user charges went into effect July 1, 2016:

Water rate as of July 1, 2016:
Monthly service charge: \$5.87
Each 1,000 gallons: \$4.00 per 1,000 gallons

Sewer rate* as of July 1, 2016:
Monthly service charge: \$7.01
Each 1,000 gallons: \$4.01 per 1,000 gallons.

*Charges for sewer usage are based on water consumption.

The revenue from water and sewer user charges is used exclusively to pay for the cost of operating and maintaining the City's Water and Sewer Utility.

Senior Citizen Residential Water and Sewer Billing Discount

Senior Citizens are eligible for a 20% residential water and sewer billing discount on the first 5,000 gallons of water used per month. In order to qualify for this discount, the senior must reside at the Crystal Lake address requesting the discount and must be age 65 or older. The water and sewer account must also be in the senior's name. Applications for the discount must be received by the 20th of the month to be applied to the next billing cycle. Proof of age is required. For more information, contact the Finance Department at 815-459-2020.