

CASE STUDY

# Redesigned Water Rates for Joliet Illinois Pave Way for New Water Supply Resource

With a longtime water resource going dry, the city of Joliet embarked on a feasibility evaluation of new water supply options. After a due diligence period spanning several years, Joliet and five other neighboring Chicagoland communities will soon begin obtaining water from Lake Michigan.



## Challenge

Joliet was facing a water supply crisis. Along with other neighboring communities, Joliet would not be able to continue drawing on the Ironton-Galesville aquifer for many more years as its primary water supply source. Despite being near the Great Lakes region, the aquifer was in a steady state of decline.

This reality prompted Joliet to begin intensively evaluating replacement options. After several years of studies and review of more than a dozen options, the city decided in early 2021 to convert to Lake Michigan as its primary water source via a transmission line that would be connected to treatment facilities operated by the city of Chicago.

## Project Stats

### Client

City of Joliet

### Location

Joliet, Illinois

**\$1B+**

COST OF NEW  
SUPPLY INFRASTRUCTURE

**250K**

POPULATION SERVED BY  
REGIONAL WATER COMMISSION

**2030**

EXPECTED IN-SERVICE DATE

Joliet and five neighboring communities have formed a regional water commission to govern a sustainable, reliable and high-quality water supply, expected to be operational by 2030. The price tag for construction of the new water transmission line, pump stations and related conveyance equipment is expected to be more than \$1 billion.

## Solution

The cost of the new water supply will be borne jointly among the six partnering municipalities, though Joliet is the largest and will be responsible for funding about half of the project.

For Joliet, the water supply conversion will come with other key project elements, such as a water main replacement program to reduce water losses from its distribution system. The multiyear project will include auditing provisions aimed at reducing unaccounted water flow (i.e., system losses) to less than 10% of the total flow.

## Focus on Affordability

The new water supply project is an enormous undertaking that has required in-depth analysis of the financial impacts on the utility and its ratepayers. Backed by 1898 & Co. financial planning, Joliet began phasing in programmatic rate increases in 2019 to strengthen the utility's cash flow and help mitigate the need for larger rate increases later.

A recent follow-up study by 1898 & Co. updated the financial plan to reflect more detailed water supply design cost estimates and other changes. A four-year plan was adopted in 2023 that authorizes annual increases through 2027, while also restructuring water rates to soften the impact for lower income households. The rate restructuring included implementing a fixed fee that increases in accordance with meter size, improving cost recovery from larger connections. Residential volumetric rate blocks were redesigned to include an expanded initial block, providing a basic level of service at a more affordable price. Further, an additional third block was added to the inclining block rate structure to improve cost recovery from high-volume residential connections.

The new rate program also expands eligibility for residential rates to include rental households, who previously paid higher commercial rates. The program also streamlined Joliet's senior discount program. To further address affordability concerns, Joliet's water turn-on fee policy was reviewed. This fee was commonly applied to accounts following service shutoffs for nonpayment, a charge that made it more difficult to restore service for low-income households. The solution adopted by the city was to eliminate the fee if service was reconnected during normal business hours. If reconnection is performed outside of normal business hours, a \$100 fee is assessed, which is still lower than the previous fee.

Connection fees also were analyzed and a proposal to increase those charges for new accounts was adopted, helping to reduce the revenue that would otherwise be provided by ratepayers. This adjustment improved equity in recovering the cost of capacity being made available to new residential and commercial connections.

Collectively, these steps help mitigate increasing water costs for households of limited economic means.

## Education Is Key

The redesigned rate structure is aimed at improving equitable cost recovery, while maintaining fairness and affordability to those households least able to absorb the higher costs of new water supplies. The rate program aims to incentivize and encourage conservation and is supported by the city's education efforts in providing tips and suggestions on using less water.

Though the three-tier rate blocks are set to maintain moderate costs for water usage below 300 cubic feet, rates begin to ramp up progressively for usage in second- and third-tier blocks. Joliet launched an online portal that provides real-time access to water use data, empowering customers to adjust their water use if it appears that their usage may extend into a higher-cost rate block.

## Results

The financial plan for Joliet also takes advantage of federal loans available through the Water Infrastructure Finance and Innovation Act (WIFIA), and low interest rate loans through the Illinois Environmental Protection Agency. The financial plan and adopted rate adjustments put critical funding in place through 2027, enabling the issuance of debt to begin construction of new water supply facilities while also positioning the city to pursue grant funding available through various state and federal agencies.

Changes in rates and fees resulting from this rate study represent an important step in program implementation, but more action is likely to be needed as the city progresses toward completion in 2030. Strategies to address affordability concerns are expected to remain a focus for the foreseeable future.

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