

The Village of Rochester is exploring the option of changing their drinking water supplier. The options include staying with the City of Springfield's City Water Light & Power (CWLP) or switching to the United Regional Water Cooperation (URWC). This white paper will report comparing facts about both options. The information contained herein is believed to be factual based on the most current information available.

WATER TREATMENT PLANT

CWLP has recently completed an 80 million dollar upgrade to their water system. The treatment process uses three separate types of up-flow clarifiers (Spaulding, Permutit and Helical). The plant is designed to produce 46 million gallons per day (MGD) and serves approximately 150,000 people.

URWC is proposing a 10 million dollar plant to be built near the intersection of Mr. Auburn Road (CH 57) and the Sangamon River, adjacent to the existing Illiopolis well field. The treatment process will utilize the Clar-i-Cone up-flow clarifier. The plant is designed to produce 1.2 million gallons per day serving approximately 3,400 individual meters. Construction is scheduled to begin in the Fall of 2019 and be completed by the end of 2020.

TRANSMISSION LINE

CWLP currently delivers water to the Village of Rochester from a 10" water line near Woodhaven Drive. Water consumption is recorded by a 'master meter' at the connection point.

URWC is proposing a 20 mile, 10" water main to provide water to the Village of Rochester along Buckhart Road (Route 4). Water consumption will be recorded at a 'master meter'.

SOURCE

The City of Springfield installed a public water supply in 1868 consisting of water pumped directly from the Sangamon River. From 1884 until the 1936, Springfield used a combination of wells in the Sangamon River Valley and water pulled directly from the Sangamon River. In 1936 Lake Springfield was finished and became the source water for the City of Springfield (CWLP). Currently, water can be pumped from Horse Creek into Lake Springfield as a supplemental water source during times of drought conditions. During the 1980's drought conditions had CWLP searching for supplemental water sources again. Today the choice appears to be an additional impoundment of surface water, Hunter Lake.

URWC is proposing to use the existing Illiopolis wells located in the Sangamon River Valley. This particular area has been the subject of many intensive ground water studies. The Illinois State Water Survey (ISWS) has extensive data and records on this area going back to 1935. All of the information reported about the Sangamon River Valley aquifer comes from the ISWS archives. The reports for investigating the available ground water source were commissioned for:

- 1935 Village of Illiopolis
- 1942 Sangamon Ordnance Plant and Oak Ordnance Plant
- 1959 Borden Chemical Company
- 1964 Borden Chemical Company
- 1973 Illiopolis / Borden Chemical Company

1976 Geology of the Sangamon River Valley
1979 Borden Chemical Company
1983 Borden Chemical Company
1987 Illiopolis / Borden Chemical Company
1998 City of Springfield

In short, these reports state that under drought conditions the aquifer yield would be around 1 MGD and under normal conditions the yield could be as high as 3 MGD. Proper well spacing and pumping speeds would be required to achieve these rates. Historically, the Illiopolis' wells have provided a sustained 1.3 MGD of water for the Village of Illiopolis, Borden Chemical Company, and DeKalb Hybrid Seed Co. since 1942. During the droughts of 1980 and 1988 the pumping rate was sustained. The alluvial Sangamon River Valley aquifer has adequate supply for the proposed 1.2 MGD URWC water plant.

COST

CWLP cost for water on a 6" meter is currently \$3.57/1,000 gallons for customers within the City limits, \$4.63/1,000 gallons for customers outside the City limits and \$6.43/1,000 gallons for wholesale customers. The Village of Rochester is a wholesale customer. The Village's water rate has increased from \$4.03/1,000 gallons to \$6.43/1,000 gallons in 6 years. That is a 60% increase for wholesale customers. During the same period the cost for customers within the City's limits and outside the City's limits has not increased.

URWC will obtain funding through United States Department of Agriculture (USDA) Rural Development Loan program. The funding will be at a fixed rate for a term of 40 years. The cost for the plant and infrastructure will be spread out over the customer base. The more customers proportional to the same infrastructure equates to a lower cost. URWC is comprised of 'founding members' who all have an equal vote on the governing board. That board will ultimately set the URWC rates for water. At this time, with the current founding members customer base and water plant cost estimates, the projected rate for wholesale customers is \$3.50/1,000 gallons of water.

Updated as of March 15, 2018.

This document will be updated as additional information becomes available.