

Project Summary and Environmental Assessment

The City of St. Charles has applied to the Illinois Environmental Protection Agency's (IEPA) Public Water Supply Loan Program (PWSLP) to request funding to help finance a drinking water system improvement project. The following project summary and environmental assessment has been prepared by the IEPA to assist the loan applicant in complying with the public notice requirements. This report is based on information submitted to the IEPA by the City of St. Charles. Sources of information include the project plan titled Well Number 7 and 13 Interconnection Evaluation and the Well Number 7 and 13 Interconnection Evaluation - Supplemental Memorandum that were prepared by Trotter and Associates, Inc (TAI) and both dated December 5, 2019. Additional documentation was obtained from loan application documents and compiled by the Illinois Environmental Protection Agency (IEPA).

Part I – Project Information

Loan Applicant: City of St. Charles

Project Number: L175775

Project Name: Well No. 7 and 13 Interconnection

County: Kane/DuPage

Current Population Served: 32,974

Future Population (20 year): 38,549

Project Description: The project will demolish the existing Well No. 7 treatment facility, and “interconnect” the supply with the treatment facility at Well No. 13 by utilizing a previously installed, unused new water main along Route 64/Main Street. The existing well pump at Well No. 7 will be replaced to match the increased head conditions at Well No. 13. In addition, the electrical and control systems at Well No. 7 will be replaced and housed within a new, smaller well house.

The garage at Well No. 13 will be retrofitted with two additional pressure filters that will provide the necessary capacity to operate both Well Nos. 7 and 13 concurrently, while removing the elevated iron levels contained in the supply from Well No. 7. The Well No. 13 treatment facility (also referred to as the Oak Street Water Filtration Facility) was originally constructed to allow for this future expansion in treatment.

Project Location: Site specific construction will occur at the individual well sites located near Oak Street and Randall Road respectively. The previously installed water main follows Randall Road south from Well No. 7, turns west to follow Route 64/Main Street to Oak Street where it turns south and terminates at Well No. 13. See attached map for project locations.

Project Justification: The filter media at Well No. 7 has reached the end of its useful service life and requires replacement due to a decrease in finished water quality. In 2017 TAI explored treatment options to reduce iron levels in the finished water being produced from Well No. 7. Through this evaluation, it was determined that the best course of action was to increase the treatment capacity at Well No. 13 and pump the water there for treatment.

Estimated Construction Start Date: June 2021

Estimated Construction Completion Date: June 2022

Project Cost Estimate: \$5,340,637.30

Part II – Environmental Issues Associated With the Project

Illinois Department of Natural Resources: The loan applicant submitted project information to the Illinois Department of Natural Resources (IDNR) EcoCAT website to determine compliance with the Illinois Endangered Species Act, Illinois Natural Areas Preservation Act, the Illinois Wetlands Act, and Title 17 Ill. Adm. Code Parts 1075 and 1090. The review results indicated that protected resources may be in the vicinity of the location submitted. IDNR completed further evaluation and determined in their October 31, 2019 letter that adverse effects are unlikely. Therefore, consultation was terminated.

Illinois Historic Preservation Division of IDNR: The February 24, 2020 letter from the Illinois Historic Preservation Division of IDNR indicates that there are no anticipated impacts to historic, architectural, and archaeological resources from the proposed project.

Part III – Project Implementation and Affordability for Residents and Utility Customers

The estimated costs for the project are:

Construction	\$4,226,403.00
Contingency (10%)	\$422,640.30
Design Engineering	\$345,797.00
Construction Engineering	\$345,797.00
Total Project	\$5,340,637.30

The applicant is proposing to finance the project costs with a loan from the PWSLP. A \$5,340,637.30 loan, with an estimated interest rate of 2.0%, for a twenty (20) year period, would have an annual repayment of approximately \$326,616. The current IEPA loan program regulations include provisions that allow reduced interest rates and extended repayment periods for qualifying loan applicants and types of projects. The final decision for incentive qualification is based on the most up to date information available at the time a loan agreement is issued. Based on the current criteria, St. Charles does not qualify for any incentives.

Source of Loan Repayment: A rate study was performed in 2011 that identified the need for annual rate increases that would allow for long term financial sustainability of the utility. The rate structure has been reviewed and changed accordingly, on an annual basis, in order to fund the operation and maintenance expenses, as well as existing and proposed debt service since that time. The city will continue this practice. It is projected that rates will increase, on average, 4% per year for the foreseeable future.

Sample Residential Monthly Bill

Year	Water User Rate (per 1,000 gallons)	Average Monthly Customer Charge	Average Monthly Residential Bill ⁽¹⁾	% Increase
2019	\$3.86	\$9.20	\$32.36	3.92%
2020	\$4.01	\$9.57	\$33.63	3.99%
2021	\$4.17	\$9.95	\$34.97	4.05%
2022	\$4.34	\$10.35	\$36.39	4.11%
2023	\$4.52	\$10.76	\$37.88	3.99%
2024	\$4.70	\$11.19	\$39.39	3.88%
2025	\$4.88	\$11.64	\$40.92	4.07%
2026	\$5.08	\$12.11	\$42.59	-
⁽¹⁾ Assumes average of 6,000 gallons of metered water consumption.				

Current Average Monthly Residential Cost of Service: St. Charles indicates that an average residential customer uses 6,000 gallons of water per month, which would cost \$32.36 per month.

How is the monthly residential rate/cost of service calculated? \$3.86 per 1,000 gallons x 6 units (6,000 gallons, average monthly use of customer) = \$23.16 per month. Current monthly cost of service: \$23.16 + \$9.20(flat rate) = \$32.36; \$388.32/year.

Projected Average Monthly Residential Cost of Service: Proposed monthly charges: \$5.08 per 1,000 gallons x 6 units (6,000 gallons, average monthly use of customer) = \$30.48 per month. Proposed monthly cost of service: \$30.48 + \$12.11 (flat rate) = \$42.59

Number of Customers and Service Connections: St. Charles serves a total population of approximately 32,974. There are approximately 19,419 service connections.

Median Household Income (MHI): The MHI for St. Charles is \$90,833.

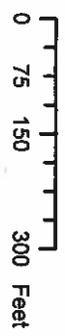
Financial Impact of the proposed project: To evaluate the costs of the proposed project for the community, a percentage comparison of the MHI to the average, annual cost for water service is utilized. The MHI listed above is from the current fiscal year's census information. The existing annual water cost of \$388.32, is 0.42% of the MHI for the area. The projected 2026 total water cost of \$511.08, is 0.56% of the MHI for the area. The percentage is for comparison only and has no impact on whether a project qualifies for funding from the IEPA. The percentage comparison and MHI are two of several criteria used to determine whether a loan project qualifies for interest rate reductions or principal forgiveness.

Public comments are invited on the proposed project. For further information contact:

George Lambert, Project Manager
 Bureau of Water, IFAS
 Illinois Environmental Protection Agency
 1021 North Grand Avenue East
 P.O. Box 19276
 Springfield, Illinois 62794-9276

(217) 782-2027

**City of St. Charles
Project Site Map**



Well No. 7

Interconnect Route

Well No. 13

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community