



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397

JB PRITZKER, GOVERNOR

JOHN J. KIM, DIRECTOR

Project Summary and Preliminary Environmental Impacts Determination

Date: JAN 21 2022

Loan Applicant: City of Joliet

IEPA Loan Numbers: L176074 – L176089 (Drinking Water Mains); L176079 – L176086 (Lead Service Line Replacement).

To all interested persons:

Section 662.330 of the Illinois Procedures for Issuing Loans from the Public Water Supply Loan Program requires that the Illinois Environmental Protection Agency (IEPA) conduct an assessment of the environmental impacts of proposed public water supply projects to be funded with loans. This review is carried out in conjunction with the Agency's review of the applicant's project plan.

Prior to final approval of the project plan, the public's comments are sought regarding environmental impacts of the proposed project. Unless new information obtained through the public comment process causes reconsideration, the Agency will approve the project plan at the close of the public comment period.

The applicant will make the attached Project Summary and Preliminary Environmental Impacts Determination (PEID) available for public inspection. Within 60 days of receiving this letter, the applicant must conduct a public hearing regarding both the PEID and project planning. Advertisement of the hearing must be made at least 10 days in advance. The advertisement must include the purpose of the project along with the date, time, and location of the hearing. A comment period of at least 10 days shall be provided after the hearing in which written comments may be submitted to the loan applicant or to the IEPA contact person identified in the attached document.

For information purposes only, a copy of this document is being provided to your local newspaper of record.

Your interest and participation in this process are appreciated.

Sincerely,

Heidi Allen
Pre-Construction Unit Manager
Infrastructure Financial Assistance Section
Bureau of Water

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Attachment

4302 N. Main Street, Rockford, IL 61103 (815) 987-7760
595 S. State Street, Elgin, IL 60123 (847) 608-3131
2125 S. First Street, Champaign, IL 61820 (217) 278-5800
2009 Mall Street Collinsville, IL 62234 (618) 346-5120

9511 Harrison Street, Des Plaines, IL 60016 (847) 294-4000
412 SW Washington Street, Suite D, Peoria, IL 61602 (309) 671-3022
2309 W. Main Street, Suite 116, Marion, IL 62959 (618) 993-7200
100 W. Randolph Street, Suite 4-500, Chicago, IL 60601

**Project Summary and
Preliminary Environmental Impacts Determination (PEID)**

Information in this report was obtained from the Eight Year Water Distribution System Rehabilitation and Six Year Lead Water Service Line Replacement Program written by Baxter & Woodman dated October 2021. Additional documentation was obtained from loan application documents and compiled by the Illinois Environmental Protection Agency (IEPA).

Part I – Applicant and Project Information

Loan Applicant: City of Joliet

Project Name: Eight Year Water Distribution System Rehabilitation Program, and Six Year Lead Service Line Replacement Program

Counties: Will and Kendall

Project Loan Numbers:

IEPA Fiscal Year Construction Begin Date	L17#	Project Type	Cost Estimate
FY23	6074	Water Main	\$ 37,323,000.00
FY24	6075	Water Main	\$ 41,182,000.00
FY25	6079	Lead Service Line Replacement	\$ 4,000,000.00
FY25	6076	Water Main	\$ 46,846,000.00
FY26	6080	Lead Service Line Replacement	\$ 4,000,000.00
FY26	6077	Water Main	\$ 46,020,000.00
FY27	6081	Lead Service Line Replacement	\$ 4,000,000.00
FY27	6078	Water Main	\$ 55,224,000.00
FY28	6084	Lead Service Line Replacement	\$ 4,000,000.00
FY28	6087	Water Main	\$ 41,890,000.00
FY29	6085	Lead Service Line Replacement	\$ 4,000,000.00
FY29	6088	Water Main	\$ 46,964,000.00
FY30	6086	Lead Service Line Replacement	\$ 4,000,000.00
FY30	6089	Water Main	\$ 41,772,000.00

Current Population: 150,362

Future Population (30 years): 206,995

Project Description: The City of Joliet seeks to utilize funding from the Public Water Supply Loan Program (PWSLP) to replace deteriorated and undersized water mains. In addition, lead service lines within the City water distribution system will be replaced at the same time. The City proposes to replace and rehabilitate an average of 21 miles of existing water main annually each year over an eight-year span, targeting 3.2% of the system annually.

Project Locations: Locations throughout the City are shown on the attached map.

Project Justification: The City maintains an aging water distribution system that is approximately 665 lineal miles long, with pipes ranging in size from 2 inches up to 24 inches in diameter. While portions of the water main system date back to the 1890's, approximately 60% of the system was installed in the 1990s and on. The City experiences, on average, 276 water main breaks per year. The average rate is approximately 41.4 breaks per 100 miles of main. The American Water Works Association (Distribution System Performance Evaluation, 1995) (AWWA) recommends a utility should be willing to tolerate a maximum of 25 or fewer breaks per 100 miles of water main per year. These breaks have a significant impact on the City's expenses because the City not only pays for the labor, equipment and materials to make the repairs, but also must pay for the water that is lost. Water main breaks result in lower water quality, decreased capacity in the distribution system, wasted water resources, a risk to the crews that must repair them, an inconvenience to the public that relies on a consistent water supply, and potentially long-term damage to the surrounding areas. In 2019, non-revenue water (NRW) loss in the system was 34.9%. The City is planning to switch water sources from the deep aquifer to Lake Michigan by May 2030. Replacing 3.2% of the system annually will achieve an NRW percentage of 9.7% by 2030, meeting the Lake Michigan Allocation permit requirement of an NRW percentage below 10%.

The City is continually updating its water service line material inventory. As of 2020, the City had a total of 49,681 connections, of which 1,072 were identified as lead and 16,851 were unknown. The Lead Service Line Replacement and Notification Act was signed into law in 2021 and became effective on January 1, 2022. The new law requires Illinois water utilities to replace all lead service lines. The City is already actively replacing lead service lines throughout the system and has an interactive lead service line inventory map available on the City website, along with educational materials for residents.

Part II – Project Cost

Joliet is proposing to finance the water main replacement portion of the project costs with eight separate loans from the PWSLP. For the purposes of this document we will be analyzing the total project costs. Annual repayment on a PWSLP loan totaling \$357,221,000.00 at an estimated interest rate of 1.11% for a term of twenty (20) years is \$20,015,465.00. Interest rates adjust annually on July 1st. The interest rate in effect on the execution date of each loan agreement will determine the corresponding annual repayment amount.

Joliet is proposing to finance the Lead Service Line Replacement portion of the project costs with six separate loans from the PWSLP. Joliet is currently in year three of their first five-year Lead Service Line Replacement program. When the third loan is issued in early 2022, the City will have received nearly \$9,000,000.00 in Principal Forgiveness from the PWSLP and completed all work without a repayment obligation. The six Lead Service Line Replacement loans outlined here each equal the current maximum amount of principal forgiveness available per year, which is \$4,000,000.00 for a total of \$20,000,000.00 in work. Loan and principal forgiveness criteria reset annually on July 1st.

Source of Loan Repayment: The loans will be repaid with revenue collected from water rates. At this early stage of the project, a Water Rate Study has not been completed. A comprehensive rate analysis will be completed prior to the IEPA making a loan offer to the City to assess financing impacts on all City water customers. Currently, customers with water service from the City receive a water bill that is made up of two charge components that are assessed to each customer. The components include a flat rate Monthly Charge of \$6.18 per month and a Water Rate Volume Charge of \$1.64 per 100 cubic feet for the first 200 cubic feet and then \$4.91 per 100 cubic feet for any usage over 200 cubic feet. The City has reviewed its customer database and has found that the “average residential customer” can be generally categorized as a household that uses 5,050 gallons of water per month. The volume of 5,050 gallons equates to 675 cubic feet of water. Using that standard, the average customer’s monthly water bill is computed as follows:

- Monthly Charge: \$6.18/month = \$ 6.18
- Water Volume Charge: \$1.64/100 CF x 200 CF = \$ 3.28
- Water Volume Charge: \$4.91/100 CF x 475 CF = \$ 23.32

Total Current Average Monthly Water Bill \$32.78

For discussion purposes, applying an interest rate of 2% and assuming eight loans for water main replacement at an average of \$44.7 million per year amortized over 20 years and eight loans for LSLR with principal forgiveness of \$4,000,000 each year, the total annual loan repayment is approximately \$2,720,000 for each loan. As of 2021, the City has approximately 44,302 residential customers. Uniformly distributing the approximate loan repayment among these customers would result in a cost increase of \$472 per year or \$39 per month to the average customer’s water bill, for an average bill of \$72.10 per month in 2030. This represents a 120% increase in the average customer’s water bill by 2030. The minimum required rate increases are calculated assuming the number of customers increases at the same rate as the population and the average per capita water use remains constant. Once again, a comprehensive rate analysis will be completed prior to the IEPA making a loan offer to the City to assess financing impacts on all City water customers and determine actual rates.

Median Household Income (MHI): \$67,205

Financial evaluation 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 proposed annual water cost of \$865.20 is 1.29% 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.

Percentage of MHI needed to pay the projected average annual residential cost of service in 2030: 1.29%

Part III – Environmental Review and Impacts

Construction will occur in previously dedicated right-of-way and existing easements, previously disturbed by open-cut construction in the past. The project has been reviewed by the IL Historic Preservation Agency (IHPA) for compliance with the National Historic Preservation Act, Section 106. IHPA's review indicated that negative impacts to historical or archaeological resources are not expected as a result of this project. The project was also reviewed by the Illinois Department of Natural Resources (IDNR) to determine compliance with the IL Endangered Species Act, IL Natural Areas Preservation Act, and the IL Wetlands Act. IDNR's review found that adverse impact to rare or endangered species of animals and plants; natural areas; nature preserves; or wetlands are unlikely.

At this time, no construction will occur at or near a body of water that will require a review/sign-off from the U.S. Army Corps of Engineers (USACOE). If, once detailed plans are developed this changes, then the USACOE and/or the IDNR Office of Water Resources may need to be consulted. If either determine regulatory oversight or permitting is required, these determinations will need to be included in the Plans and Specifications for the projects.

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

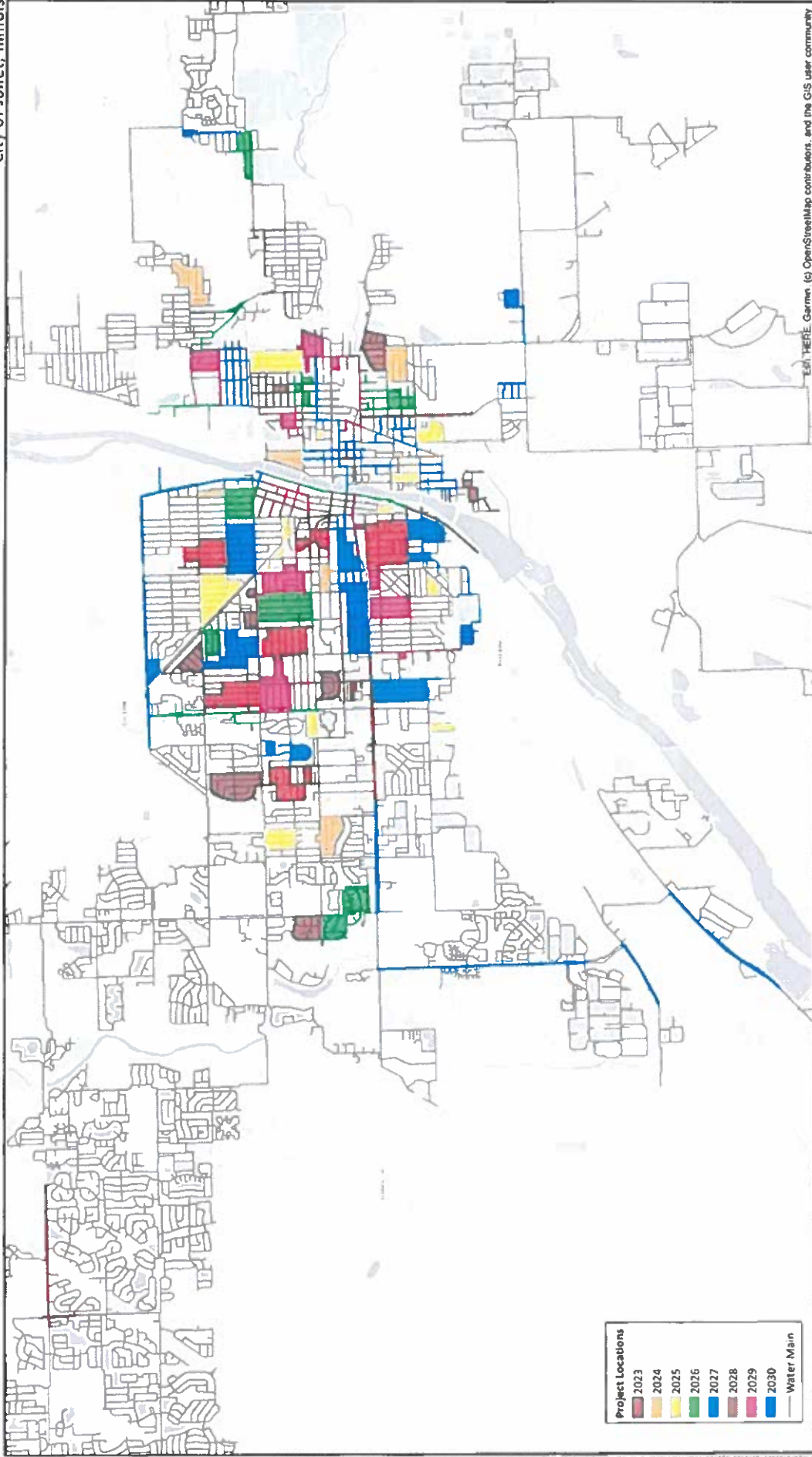
George Lambert, Project Manager
Infrastructure Financial Assistance Section
Illinois Environmental Protection Agency
Bureau of Water
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276
(217)782-2027

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OVERALL PROJECT LOCATIONS

Water Distribution System Rehabilitation Program

City of Joliet, Illinois



Map data: © OpenStreetMap contributors, and the GIS user community. Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community.



Not to Scale

Exhibit 3

BAXTER & WOODMAN

Mailing List - Environmental Review

Project: Joliet 8yr Water System Rehab + LSLR

L17: See below

Check entities to receive Preliminary Environmental Impacts Determination/Notice of Categorical Exclusion. Agencies may be omitted if they have already provided an unconditional written sign-off on the planning.

_____ Illinois Historic Preservation Agency (SHPO)

_____ Illinois Department of Natural Resources
Office of Realty & Environmental Planning (for rare/endangered species, natural areas, and Interagency Wetlands Policy Act)

_____ Illinois Department of Natural Resources
Office of Water Resources (for lakes, rivers and stream crossings, floodway/floodplain construction)

_____ Illinois Department of Agriculture

U.S. Army Corps of Engineers - Check Appropriate Regional Office

_____ Rock Island District

_____ St. Louis District

_____ Chicago District

Designated 208 Areawide Planning Agency - Check Appropriate Agency

_____ CMAP

_____ GERPDC

_____ SWIPC

Green Infrastructure Coordinator: _____ Chris Covert

IEPA Field Office (Elgin)

Loan Applicant

City of Joliet

Attn: Allison Swisher

150 W Jefferson Street

Joliet, IL 60432

	LSLR	DWMAINS
FY23 Yr 1 -	L175746	+ L176074
FY24 Yr 2 -	5747	+ 6075
FY25 Yr 3 -	6079	+ 6076
FY26 Yr 4 -	6080	+ 6077
FY27 Yr 5 -	6081	+ 6078
FY28 Yr 6 -	6084	+ 6087
FY29 Yr 7 -	6085	+ 6088
FY30 Yr 8 -	6086	+ 6089

(Continued on Back)

Local Newspaper of Record

Herald News

2175 Oncida Street

Joliet, IL 60435

Consulting Engineer

Baxter + Woodman

Olisa Bonkowski

Crystal Lake

Other Interested Parties

Project Manager:

George Lambert

Date:

1/21/22

Copies of the Preliminary Environmental Impacts Determination/Notice of Categorical Exclusion have been mailed to the above entities.

Signed:

[Signature]

Date:

1/21/2022