



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

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JB PRITZKER, GOVERNOR

JAMES JENNINGS, ACTING DIRECTOR

Amended Project Summary and Preliminary Environmental Impacts Determination

Date: FEB 11 2025

Loan Applicant: City of Canton

IEPA Loan Project Number: L174635

To all interested persons:

Section 365.330 of the Illinois Procedures for Issuing Loans from the Water Pollution Control Loan Program requires that the Illinois Environmental Protection Agency (IEPA) conduct an assessment of the environmental impacts of proposed wastewater projects to be funded with loans. This review is carried out in conjunction with the State'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. After receiving this letter, the loan 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.

Your interest and participation in this process are appreciated.

Sincerely,

Nidhan Singh, M.B.A.
State Revolving Fund Manager
Infrastructure Financial Assistance Section
Bureau of Water

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Attachment

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115 S. LaSalle Street, Suite 2203, Chicago, IL 60603
1101 Eastport Plaza Dr., Suite 100, Collinsville, IL 62234 (618) 346-5120
9511 Harrison Street, Des Plaines, IL 60016 (847) 294-4000

595 S. State Street, Elgin, IL 60123 (847) 608-3131
2309 W. Main Street, Suite 116, Marion, IL 62959 (618) 993-7200
412 SW Washington Street, Suite D, Peoria, IL 61602 (309) 671-3022
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Amended Project Summary and Preliminary Environmental Impacts Determination (PEID)

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 Canton. Sources of information include the following documents: Wastewater Treatment Plant Improvements Planning Study, dated February 2022; the Canton Wastewater Treatment Plant Improvements Bidding and Contract Documents, Volumes 1 and 2, dated January 2025, with attachments; the City of Canton PEID – Scope of Work Planning Amendment, dated February 6, 2025; and, in response to IEPA requests for additional information, email(s) with attachments dated August 24 and August 25, 2022, January 24 and January 29, 2025, and February 6 and February 7, 2025. All information was prepared by Maurer-Stutz, Inc.

Part I – Project Information

Project Name: Wastewater Treatment Plant (WWTP) Improvements

Project Number: L174635

Loan Applicant: City of Canton

County: Fulton

Current Population: 12,875

Future Population (30 year): 14,500

Design Average Flow: 3.43 MGD

Design Maximum Flow: 8.34 MGD

Project Description: The City of Canton owns, operates, and maintains its collection system and a wastewater treatment plant (WWTP) under National Pollutant Discharge Elimination System (NPDES) Permit No. IL0027839. The collection system consists of gravity sewers, including sanitary and combined sewers; force mains; and pump stations. The WWTP presently utilizes an activated sludge digestion process and UV disinfection. Treated effluent is discharged to Big Creek.

Portions of the WWTP, including the primary clarifier, aeration tanks, and influent pumping station, date back to 1938. The City is seeking to extensively upgrade outdated processes and equipment so that NPDES permit limits that will take effect in 2030 can be met. This project will not modify the design flow of the WWTP or the existing NPDES permit limits.

Two alternatives were evaluated. Ultimately, it was determined that converting the existing WWTP to an extended aeration facility was the most cost-effective option. Therefore, multiple upgrades are planned for the treatment processes. The four primary clarifiers will be demolished. The aeration tanks and aerobic digesters will be demolished and replaced. The blower system that provides air to the aerobic digesters and aeration tanks will be demolished. The four secondary clarifiers will be demolished and replaced with two clarifiers. A new flow splitter structure for the clarifiers will be installed. Aerobic digester capacity will be added. A grit removal system will be installed. The existing sludge drying beds will be replaced. The sludge press will be replaced with a new facility. The existing sludge pumping system will be replaced. Two parallel oxidation ditch systems, including aerator/mixing units, regenerative blowers, and mixers in both aerobic and anaerobic zones, prior to the aeration basins, will be installed. This will allow for increased

removal of phosphorus and nitrogen. A recycle pumping station for the anoxic tanks, and a splitter chamber ahead of the oxidation ditch systems will also be installed. Lastly, a drain pump station will be installed to facilitate draining the new tanks and clarifiers.

Additional upgrades are planned to improve flow, replace deteriorated structures, facilitate maintenance, and improve the overall condition of the plant. These items include piping, sluice gates, valves, and variable frequency drives. The existing influent pumps in the basement of the existing lab/office building will be demolished. A new headworks facility with parallel bars screens, a compactor, a grit removal unit, and three submersible influent pumps will be constructed. The existing non-potable water pumps will be replaced with submersible pumps. The tertiary pump station will be demolished. Facilities will have necessary piping and electrical upgrades installed. A new garage will be constructed for equipment storage. A new standby generator will be installed. Lastly, a new lab/office building will be built, and a portion of the perimeter fence will be replaced.

Project Location: All construction will take place at the Canton Wastewater Treatment Plant, located at 350 West Hickory Street in Canton, IL. See the attached map for further details.

Project Justification: The City anticipates that its existing treatment process will not be able to achieve the stricter effluent phosphorus limits required by its NPDES permit in 2030. Additionally, numerous system deficiencies exist, largely due to the advanced age of multiple facilities.

The influent pumps and wet well are located in the basement of the existing office and lab building. This creates an unhealthy working environment and will not be appropriate with other proposed changes to the plant layout. The four existing primary clarifiers were installed in 1938 and 1973, and all are in poor condition. Some of the aeration system piping and mixing equipment in the aeration tanks is totally nonfunctional. Additionally, the concrete aeration tanks have numerous structural issues.

The existing mechanical bar screen has deteriorated from age and no backup screen currently exists. The existing grit chamber is no longer functional and also lacks a backup. The two small secondary clarifiers, installed in 1973, do not meet current depth requirements. The aerobic digester does not have enough capacity, the drying beds are inadequate to dry sludge in winter, and the sludge press and sludge pump, installed in 1994, are now outdated. The tertiary pump station, installed in 1988, must be retired. The lab and office spaces are inadequate. Lastly, garage space for equipment storage is lacking and the perimeter fence is significantly deteriorated.

This project will resolve the above issues and establish a new process for extended aeration treatment, which will be easier to operate, capable of reducing effluent phosphorus and nitrogen to meet future NPDES permit requirements, and have a lower sludge yield.

Estimated Construction Start Date: August 2025

Estimated Construction Completion Date: July 2027

Project Cost Estimate: \$45,550,000

Part II – Project Affordability for Residents and Utility Customers

Detailed Cost Estimate	
Construction Engineering & Bidding	\$1,550,000
Construction	\$40,000,000
Construction Contingency (10%)	\$4,000,000
Project Cost Estimate, not including construction period interest	\$45,550,000

The City of Canton is proposing to finance the project costs with a loan from the Water Pollution Control Loan Program (WPCLP). A loan in the amount of \$45,550,000, with an estimated interest rate of 1.87% for a thirty (30) year period, would have an annual repayment of approximately \$1,984,992. The current loan program interest rate is 1.87%. The interest rate adjusts annually on July 1st. All loans are subject to the interest rate in effect at the time a loan agreement is issued.

The loan program rules include provisions for incentives such as reduced interest rates and partial principal forgiveness (a reduction in the amount of principal borrowed that would otherwise have to be repaid). The criteria used to determine incentive qualification are found in Section 365.210 and 365.250 of the Procedures for Issuing Loans from the WPCLP, which is available on the Agency's website. The final decision for incentive qualification will be determined at the time a loan agreement is issued, using updated Census Bureau and Department of Labor data. The Agency adjusts qualifying criteria annually on July 1st.

Using current data, the City is eligible to receive partial principal forgiveness of up to 30% of the loan amount, capped at a maximum of \$4,800,000 per applicant in the current fiscal year, and a hardship interest rate of 1.0%. If the City receives these incentives, the annual debt service would be reduced to approximately \$1,572,817. If this cost is divided between the City's 5,210 residential customers, the average user would pay an additional \$25.16 per month. Without program incentives, this would be \$31.75 per customer per month. The Agency adjusts qualifying criteria annually on July 1st.

A user rate increase will be necessary to repay this loan. The final loan and annual repayment amounts will be based on the as-bid project costs and the loan terms in effect on the date the loan agreement is issued. Applicants that qualify for principal forgiveness will not have a repayment obligation for a portion of their loan. Principal forgiveness and/or a reduced interest rate will reduce the loan payment amount and possibly any associated increase to the user charges. Principal forgiveness is not guaranteed until a loan agreement is issued.

Source of Loan Repayment: The City intends to add a debt service charge to the monthly bill of system customers.

Average Residential Monthly Water Use: 5,300 gallons (708.5 cubic feet)

Current Average Monthly Residential Cost of Service: \$40.67

Projected Average Monthly Residential Cost of Service: \$65.83

Number of Residential Customers: 5,210

How the monthly residential rate/cost of service is calculated:

Current: Minimum Base Charge of \$9.50/month + Current Debt Service Charge of \$2.388 per 100 cubic feet (c.f.) of water use + Operation and Maintenance Charge of \$2.012 per 100 c.f.
The average resident, consuming 708.5 c.f. per month, would pay $\$9.50 + 708.5(\$2.388/100 + \$2.012/100) = \underline{\$40.67}$

Future: Minimum Base Charge of \$9.50/month + Current Debt Service Charge of \$2.388 per 100 cubic feet (c.f.) of water use + Operation and Maintenance Charge of \$2.012 per 100 c.f. + Loan-related Debt Service Charge of \$25.13 per month, assuming program incentives are received as described above.

The average resident, consuming 708.5 c.f. per month, would pay $\$9.50 + 708.5(\$2.388/100 + \$2.012/100) + \$25.16 = \underline{\$65.83}$

Median Household Income (MHI): \$52,749

Percentage of MHI needed to pay the projected average annual residential cost of service:
1.50%

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 cost for service of \$789.96 is 1.50% of the MHI for the City. This 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.

Part III – Environmental Issues Associated with the Project

Project construction impacts: Temporary adverse environmental impacts such as construction-associated noise, blowing dust, air emissions, soil erosion, and traffic disruption will likely occur during construction.

Illinois Department of Natural Resources: The City submitted project information to the Illinois Department of Natural Resources, State Historic Preservation Office (IDNR SHPO) for consultation under Section 106 of the National Historic Preservation Act of 1966. The Department has concluded that adverse effects are unlikely.

The City additionally submitted project information to the IDNR EcoCAT website to determine compliance with the Illinois Endangered Species Act, Illinois Natural Areas Preservation Act (Section 17 Ill. Administrative Code Part 1075), and the Illinois Wetlands Act (Section 17 Ill. Administrative Code Part 1090). The Department has concluded that adverse effects are unlikely.

The IDNR Office of Water Resources (IDNR OWR) determined that construction activities will require a permit concerning the planned improvements at the City's wastewater treatment plant and the outfall to Big Creek. Final design was reviewed by IDNR OWR and permit no. DS2021078 was issued. However, this permit expired on December 31, 2024, and must be renewed prior to receipt of a loan agreement.

U.S. Army Corps of Engineers (USACE): The City submitted project information to the USACE. The USACE determined that the proposed project will not impact water features or wetlands and has no potential for the placement of dredged or fill material into waters of the United States. Therefore, a Section 404 permit will not be required.

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

Ellen Jordal, Project Manager
Infrastructure Financial Assistance Section
Illinois Environmental Protection Agency
Bureau of Water

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Figure #1

Treatment Plant - Aerial Map