



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

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JB PRITZKER, GOVERNOR

JOHN J. KIM, DIRECTOR

Amended Project Summary and Preliminary Environmental Impacts Determination

Date: JAN 25 2023

Loan Applicant: North Park Public Water District

IEPA Loan Project Numbers: L176307, L176308, L176309

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 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. 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

HA:BS

Attachment

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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. Information in this report was obtained, in part, from the following sources: PFAS Mitigation Project Plan submitted September 2022 by Stanley Consultants on behalf of the North Park Public Water District; Environmental Checklist and Certification Form signed and dated August 16, 2022; and other documents received in November 2022.

Part I – Project Information

Project Name: Per- and Polyfluoroalkyl (PFAS) Removal Phases I, II, III

Loan Applicant: North Park Public Water District (NPPWD)

County: Winnebago

Project Numbers: L176307, L176308, L176309

Current Population: 33,500

Future Population (20 year): 37,009

Background Information: NPPWD provides water to the Villages of Machesney Park and Rosco, IL as well as select customers in Caledonia, Loves Park, South Beloit, and Rockford. The District sources water from four wells with a total capacity of 11,500 GPM, two of these wells are not currently being used for water production. There are six elevated storage tanks. Water is distributed across 215 miles of watermain ranging from 3 to 18 inches in diameter with ten pump stations being spread across the distribution system. Treatment includes the addition of chlorine and fluoride to the source water before it is sent to the distribution system.

Project Descriptions: NPPWD intends to construct two new granular activated carbon (GAC) treatment plants capable of removing PFAS compounds and a new well (Well 7). Pilot studies will be performed to determine if GAC is an appropriate option. The District is also considering reverse osmosis. Each water treatment plant (WTP) will include pretreatment for iron and manganese, GAC treatment, and a water storage tank. WTP 1 (Well 2) will also include treatment for volatile organic compounds (VOC). A transmission main be installed connecting WTP 2 to Wells 3 and 4. Assuming Well 7 does not require advanced treatment, an additional finished water connection will be made from the well to the water transmission main on the highway to the west of the well. If advanced treatment for Well 7 is necessary, then it will also be treated by WTP 2. A test hole near the potential site for Well 7 is being drilled to determine the conditions of the well.

This project consists of three phases of construction. Project L176307 will consist of the design and construction of Well 7 with its associated well house and equipment, a finished water connection from Well 7 to the water transmission main to the west if the groundwater does not require advanced treatment; and the design of a new WTP at Well 3 for the treatment of Wells 3,4, and 7 including water storage reservoir and raw water transmission main from Well 4. Project L176308 will consist of the construction of a new WTP at Well 3 with a water storage reservoir and a raw water transmission main from Well 4; as well as the design of a new WTP and water storage reservoir at Well 2. Project L176309 will consist of the construction of a new WTP and water storage reservoir at Well 2.

Project Justification: This project will address various aquifer contamination concerns at wells throughout the NPPWD system to ensure the protection of public health for the service area. PFAS contamination has been detected at some level in all four NPPWD wells and VOC contamination has been detected at Wells 2 and 5.

Project Locations: The project will be located at multiple sites throughout Machesney Park, including water transmission main construction in the public rights-of-way and easements between Wells 3, 4 and 7. Generally, the proposed treatment plants will be constructed at the locations of Well 2 (8312 Victory Lane – Machesney Park) and Well 3 (8702 Ruby Lane - Machesney Park). The transmission main connecting Wells 4 and possibly 7 to the treatment plant at Well 3 will run either north along Frontage Road to Copper Drive or east along Roosevelt Road to Indigo Lane and will be approximately 3,500 feet long and 16 or 20 inches in diameter. See attached map for project locations.

Project / Phase	Start Construction	End Construction	Cost Estimate
L176307 / Phase 1	2024	Fall 2025	\$7,593,000
L176308 / Phase 2	2025	Fall 2026	\$36,064,000
L176309 / Phase 3	2026	Fall 2027	\$13,715,000

Part II – Environmental Review and Impacts

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

The Illinois Department of Natural Resources (IDNR) State Historic Preservation Office (SHPO) reviewed the initial information submitted for the project review and provided a letter dated August 15, 2022 indicating there are no historic properties affected by the proposed project, therefore the project complies with section 106 of the National Historic Preservation Act of 1966.

Floodplain and wetland maps were submitted in the project plan showing that all project work is not within any wetlands or floodplains.

The project was also submitted to the IDNR to determine compliance with the IL Endangered Species Act, IL Natural Areas Preservation Act, and Wetlands Act. IDNR’s review identified protected resources that may be in the vicinity of the proposed project. Specifically, IDNR noted that the Rusty-patched Bumble Bee (*Bombus affinis*), a state-listed species, could be in the project area. A field visit should be performed by a qualified individual (biologist, entomologist, or others who have been trained accordingly) to determine if suitable habitat exists for the Rusty-patched Bumble Bee in areas to be disturbed. Factors to consider prior to conducting a site visit include time of year and how this affects the bee’s life cycle, activity, and colony development. If suitable habitat is located, the Department should be contacted to discuss possible options to avoid adverse impacts to the species. The information regarding the Rusty-patched Bumble Bee must be incorporated into the District’s plans and specifications for the proposed projects. Assuming these recommendations are adopted, IDNR has determined that adverse impacts are unlikely if Rusty-patched Bumble Bee habitat is not identified by survey efforts. Adverse impacts to other identified

resources were determined unlikely as well. Consultation for Part 1075 and Part 1090 were closed July 15, 2022.

While the ILSHPO determined the project complies with Section 106 of the HPA, the Osage Nation requested that a cultural resources survey be performed at the project location due to the fact that it is occurring on historic properties that may have religious or cultural significance to Indian tribes. North Park Public Water District agrees to perform the survey during the preliminary engineering phase and submit all findings to the Osage Nation for review and comment.

Part III – Project Affordability for Residents and Utility Customers

The applicant is proposing to finance each of the three (3) project phases with loans from the IEPA Public Water Supply Loan Program (PWSLP). Loans totaling \$57,372,000 with an estimated interest rate of 1.24% for a twenty (20) year period, would have an annual repayment of approximately \$3,240,468. 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. A rate increase is necessary to repay the loan.

The loan program rules include provisions for incentives such as reduced interest rates, partial principal forgiveness (a reduction in the amount of principal borrowed that would otherwise have to be repaid), and extended repayment periods for qualifying applicants. 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.

Source of Loan Repayment: User Fees

Current Average Monthly Residential Cost of Service: \$29.31 per month

Projected Average Monthly Residential Cost of Service: \$53.67 per month

Average Monthly Residential Water Use: 5,450 gallons

Number of Customers or Service Connections: 12,609 service connections

How is the bi-monthly residential rate/cost of service calculated?

The District measures usage in gallons and bills bi-monthly. Current bi-monthly charges are a minimum bill of \$17.46 for the first 4,000 gallons used then \$4.63 per 1,000 additional gallons used with additional \$3.80 capital improvement and \$5.40 meter service fees. An average user of 5,450 gallons would have a bill that equates to:

$5,450 \text{ gal/month} \times 2 = 10,900 \text{ gal} - \text{first } 4,000 \text{ gal used} = 6,900 \text{ gal}$

$\$17.46 + (\$4.63 \times (6,900 \text{ gal used} / 1,000 \text{ gal})) + \$3.80 + \$5.40 = \58.62

How will the projected bi-monthly residential rate/cost of service be calculated?

The District will be implementing a rate increase of \$4.47 across all volumetric rates. Bi-monthly charges will include a base charge of \$17.46, \$4.47 per 1,000 gallons of the first 4,000 gallons used then \$9.10 per 1,000 additional gallons used with additional \$3.80 capital improvement and \$5.40 meter service fees. An average user of 5,450 gallons would have a bill that equates to:

$5,450 \text{ gal/month} \times 2 = 10,900 \text{ gal} - \text{first } 4,000 \text{ gal used} = 6,900 \text{ gal}$

$\$17.46 + (\$4.47 \times (4,000 \text{ gal used} / 1,000 \text{ gal})) + (\$9.10 \times (6,900 \text{ gal used} / 1,000 \text{ gal})) + \$3.80 + \$5.40 = \107.33

Median Household Income (MHI): \$75,126

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

.86%

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 \$644.04 (\$53.67/month) is .86% 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:

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Bureau of Water
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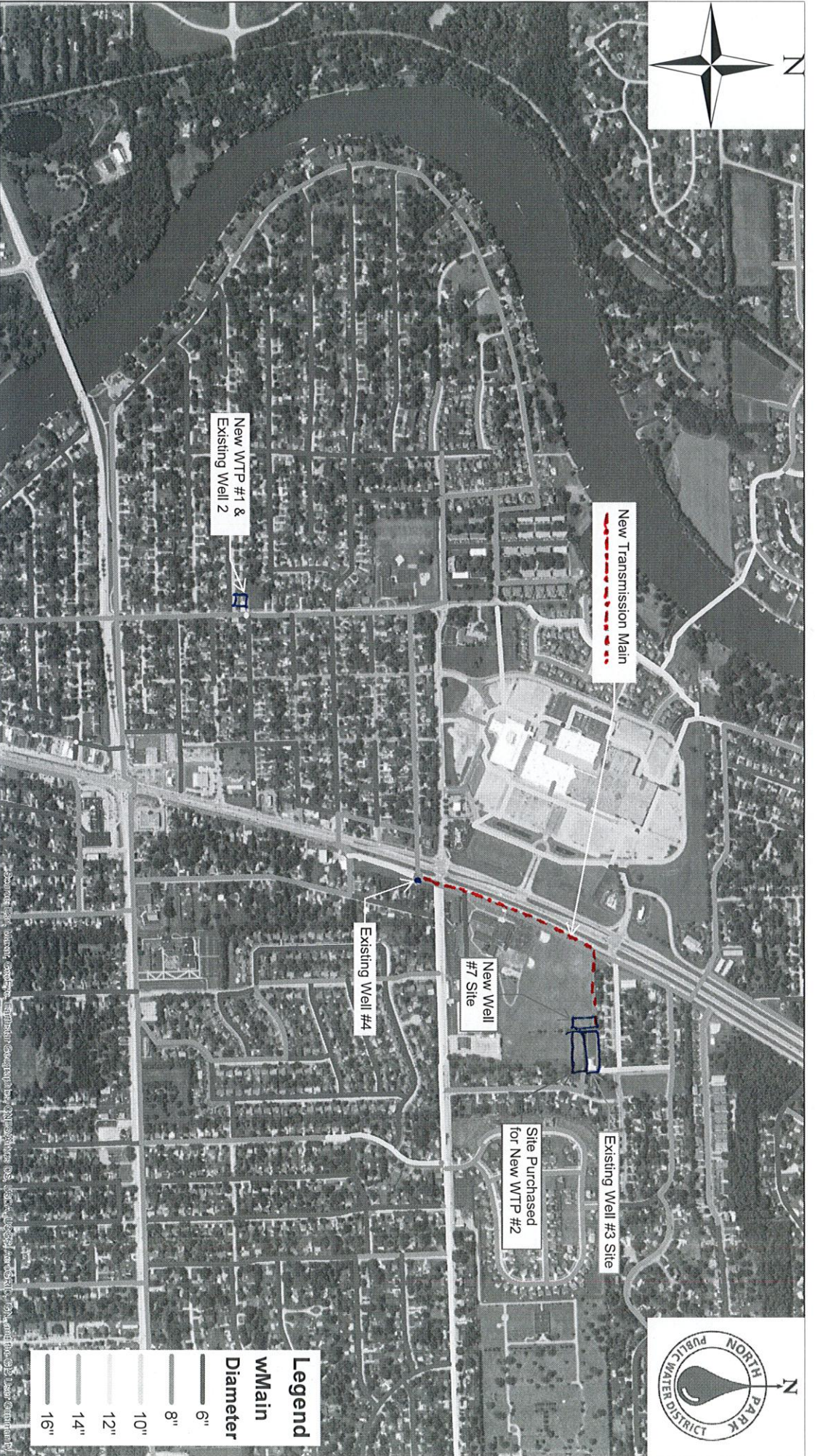


Figure 1
 NNPWD Proposed PFAS Mitigation Project Locations



New Transmission Main

New WTP #1 & Existing Well 2

Existing Well #4

New Well #7 Site

Site Purchase for New W

Existing V