January 22, 2024

Limited Environmental Review and Finding of No Significant Impact

Village of Richwood – Union County
Water Treatment Plant Upgrades
Loan number: FS390793-0005

The attached Limited Environmental Review (LER) is for a drinking water project in Richwood which the Ohio Environmental Protection Agency intends to finance through its Water Supply Revolving Loan Account (WSRLA) below-market interest rate revolving loan program. The LER describes the project, its costs, and expected environmental benefits. Making available this LER fulfills Ohio EPA's environmental review and public notice requirements for this loan program.

Ohio EPA analyzes environmental effects of proposed projects as part of its WSRLA program review and approval process. We have concluded that the proposed project should not result in significant adverse environmental impacts. This project's relatively narrow scope and lack of environmental impacts qualifies it for the LER rather than a more comprehensive Environmental Assessment. More information can be obtained by calling or writing the person named at the end of the attached LER.

Upon issuance of this Finding of No Significant Impact (FNSI) determination, award of funds may proceed without further environmental review or public comment unless new information shows that environmental conditions of the proposed project have changed significantly.

Sincerely,

Kathleen Courtright

Kathleen Courtright, Assistant Chief
Division of Environmental and Financial Assistance

Attachment

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LIMITED ENVIRONMENTAL REVIEW

Project Identification

Project: Water Treatment Plant Upgrades

Applicant: Village of Richwood
153 North Franklin Street
Richwood, Ohio 43344

Loan Number: FS390793-0005

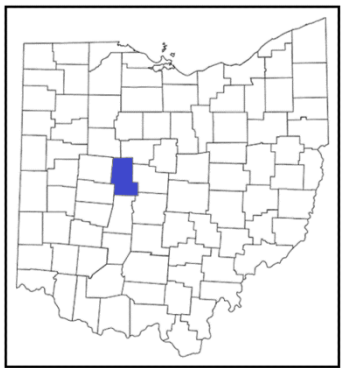

Figure 1. Union County

Project Summary

The Village of Richwood, in Union County (Figure 1), has requested $1.67 million from the Ohio Water Supply Revolving Loan Account (WSRLA) to construct a new water treatment plant (WTP) to serve the village. The new WTP will replace Richwood's existing plant, which exhibits signs of deterioration and is approaching the end of its useful life. Richwood considers the age and condition of their WTP a serious concern and intends to improve the long-term reliability of their system through completion of this project.

History & Existing Conditions

The Richwood public water system (PWS) provides water service to over 2,300 individuals through nearly 900 service connections within the village. On average, 82 percent of water usage is residential, and 18 percent is commercial. Richwood's PWS consists of a WTP, two ground water wells, a 250,000-gallon elevated water storage tank, and a network of distribution mains. The WTP was originally constructed in 1936 and underwent an expansion in 1975. Raw water is sourced from two nearby ground water wells and treated through a process of gas chlorine injection, detention, gravity filtration, and a second gas chlorine injection prior to entering the clearwell and later the distribution system. The plant is rated for an average daily production of 84,000 gallons per day (gpd) and an approved design capacity of 374,000 gpd.

The water treatment equipment installed during the plant's expansion in 1975 is still in use. At nearly 50 years old, the equipment has reached or is nearing the end of its useful life. The treatment process previously included aeration, but the aeration unit is no longer functional and has been bypassed for several years. Upgrades to the electrical and plant control systems are needed, and replacement of the aeration unit and gravity filters are recommended based on a recent inspection. The WTP building itself is also in poor condition and in need of repairs.

Richwood considered several alternatives for addressing their aged WTP including rehabilitating the existing WTP, regionalizing and purchasing water from a neighboring community, and building a new WTP. The nearest community to Richwood with a PWS is the Village of Prospect, over five miles away. Regionalizing with Prospect would require installation of booster pump stations, chlorination stations, and chemical treatment in addition to a trunk water line to connect the systems. Richwood determined this alternative not financially feasible and desires to remain in ownership of their PWS. In evaluation of Richwood's existing WTP, the building was found to be in such poor condition that

the estimated cost of rehabbing the building parallels that of constructing a new building. Ultimately, Richwood determined it most cost effective and beneficial to construct a new WTP.

Project Description

Richwood intends to construct a new iron- and manganese-removal, ion-exchange, softening WTP with a design treatment capacity of 340,000 gpd and provisions for expansion up to 500,000 gpd. The new plant will be located adjacent to the current plant (Figure 2). Plans include an aerator and detention tank, four pressure filters, two low-service pumps, two ion-exchange softeners, one clearwell, two high-service pumps, sodium hypochlorite and brine feed systems, an office, and a bathroom. New sections of raw and finished water piping and sanitary sewer piping, for conveyance of wastewater to Richwood's wastewater treatment plant, will connect the new plant to existing infrastructure. A generator will be installed outside of the new plant in a weatherproof enclosure. Space will be provided in the new building for future filters and ion-exchange softening units, should Richwood need additional treatment capacity. Other components will already be sized to handle an increase in treatment capacity up to 500,000 gpd with little or no modifications.

Following completion of the new WTP, equipment in the existing building will be removed and the space repurposed for storage. The clearwell and waste handling facilities will be abandoned in place and no longer used. Sections of raw and finished water piping and sanitary sewer pipes no longer needed once the new plant is constructed will also be abandoned in place.

Implementation

Richwood proposes to borrow $1.67 million from the Ohio WSRLA at the small-community rate of 2.58 percent (interest rates are set monthly and may change for the requested February loan award) to cover the cost of this project. Borrowing this amount in WSRLA monies could save Richwood roughly $590,000 over the 30-year loan term compared to the current market rate of 4.33 percent. Richwood also expects to receive $750,000 in Community Development Block Grant funding and $2.65 million in American Rescue Plant Act funding for use towards this project.

The debt associated with this project will be recovered from monthly user charges. The water charges for Richwood are driven by the total indebtedness of Richwood and annual operation and maintenance costs as opposed to the specific indebtedness of any one particular project. Richwood implemented in January 2022 a 2 percent increase to their base and additional water rates. Based on a monthly water usage of 4,000 gallons, the average annual residential water bill for Richwood is $404. This represents 0.9 percent of the median household income for Richwood (MHI; $47,969) and compares favorably to the Ohio average annual water bill of $477.

Public Participation

Richwood Village Council holds public meetings the second and fourth Monday of every month. The agenda for these meetings are posted ahead of time at the village's administrative building, and records of the meeting minutes are available on Richwood's website. Richmond reports that the project and the need to replace the aging WTP has been discussed at these meetings for multiple years and believes the public is well informed.

Ohio EPA is unaware of significant controversy about or opposition to this project. Ohio EPA will make a copy of this document available to the public on the following webpage and will provide it upon request:

https://epa.ohio.gov/divisions-and-offices/environmental-financial-assistance/announcements.

Conclusion

The proposed project meets the criteria for a LER; namely, it is an action within an existing PWS, which involves the functional replacement of water treatment components through construction of a new WTP. Furthermore, the project meets the other qualifying criteria for an LER; specifically, the proposed project:

Will have no significant environmental effect, will have no effect on high-value environmental resources, and will require no specific impact mitigation. Construction included in this project will take place on Richwood WTP property where there are no sensitive, unique, or otherwise valuable environmental resources. No specific measures beyond standard construction best management practices, which will be implemented by the contractor, are expected to be necessary.

Is cost effective. Richwood investigated several alternatives for addressing their aged WTP including constructing a new WTP, rehabilitating the existing WTP, and abandoning their WTP and regionalizing with a neighboring PWS for the purchase of water. After considering monetary and nonmonetary factors, Richwood determined it most cost effective to construct a new WTP.

Is not a controversial action. The nature of the project is such that there will be no significant adverse impacts to residents or the environment, and no opposition to the project has been reported.

Does not create a new or relocate an existing discharge to surface or ground waters, does not create a new source of water withdrawals from either surface or ground waters or significantly increase the amount of water withdrawn from an existing water source, does not substantially increase the volume of discharge or loading of pollutants from an existing source or from new facilities to receiving waters, and will not provide the capacity to serve a population substantially greater than the existing population. The new WTP will source raw water from Richwood's existing ground water wells. The new WTP is not sized larger than the existing plant, but provisions will be included to allow Richwood to expand the treatment capacity in the future if needed. Richwood expects no significant population increase over the next twenty years.

To conclude, Richwood's proposed project is sufficiently limited in scope and meets all applicable criteria to warrant an LER. The planning review of the project identified no potentially short-term or long-term adverse impacts on the quality of the human environment and on sensitive resources (surface waters, coastal zones, floodplains, wetlands, state-designated scenic and recreational rivers, prime and unique agriculture lands, aquifer recharge zones, archaeological and historically significant sites, threatened and endangered species, and state and federal wildlife areas). Rather, completion of the project will have long-term benefits associated with the provision of safe and adequate water supply to support the needs of Richwood's local water customers.

Contact Information

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Figure 2. Location of proposed new WTP in relation to the existing plant and auxiliary buildings