



August 13, 2025

Limited Environmental Review and Finding of No Significant Impact

City of West Carrollton – Montgomery County

WTP Improvements

Loan number: FS390972-0004

The attached Limited Environmental Review (LER) is for a water treatment plant project in West Carrollton which the Ohio Environmental Protection Agency (Ohio EPA) intends to finance through its Water Supply Revolving Loan Account (WSRLA) below-market interest rate revolving loan program. The LER describes the project, costs, and expected environmental benefits. Making available this LER fulfills the 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 program review and approval process. We have concluded that the proposed project should not result in significant adverse environmental impacts. In accordance with Ohio Administrative Code 3745-150-05, this project meets the criteria for an LER rather than the more comprehensive Environmental Assessment. More information can be obtained by contacting the person named at the end of the attached LER.

Upon issuance of this Final 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,

A handwritten signature in black ink, reading "Kathleen Courtright".

Kathleen Courtright, Assistant Chief

Division of Environmental and Financial Assistance

LIMITED ENVIRONMENTAL REVIEW

Project Identification

Project: Water Treatment Plant Improvements

Applicant: City of West Carrollton
300 East Central Avenue
West Carrollton, Ohio 45449

Loan Number: FS390972-0004

Project Summary

The City of West Carrollton is proposing to make improvements at its water treatment plant (WTP) and has requested a loan from the Ohio Water Supply Revolving Loan Account (WSRLA) program for \$8.8 million.

The project is expected to take two years and ten months to complete. Based on the limited scope of the proposed project, Ohio EPA has concluded that there will be no major environmental impacts.

History & Existing Conditions

The city's WTP serves approximately 12,850 people and provides water within the city limits. There are currently approximately 3,181 residential customers, 183 commercial customers, and an unspecified number of connections to city properties. West Carrollton has approximately 54.5 miles of distribution mains and a service area of approximately 6.6 square miles. The existing WTP has a production capacity of 2.5 million gallons daily (MGD), with an average of 1.07 MGD.

The Great Miami River runs through the City of West Carrollton and forms the northern border of the residential area of the city. The WTP is located approximately 3,200 feet from the Great Miami River. The WTP is also adjacent to residential areas and a railroad.

The city's WTP is supplied by four on-site wells. Under normal circumstances, Well Number 3 and Well Number 4 feed the sand filtration and membrane facilities and are the primary production wells. Well Number 1 is only used for additional water during filter backwash runs as necessary. Well Number 2 is out of service. Water from Well Number 1 has a higher iron content than the others, requiring the city to provide additional iron removal through its potassium permanganate feed system.

The sand filtration facility was constructed in 1986 and has not been significantly rehabilitated since. This facility consists of a potassium permanganate feed system for oxidation of iron and manganese, one set of four concrete gravity cluster style filters, a subgrade reinforced concrete clearwell, chemical feed equipment for chlorine gas and hydrofluorosilicic (HFS) acid, and three high-service pumps and controls. The membrane facility, which was constructed in 2005, receives water directly from Well Number 3 and Well Number 4, which are low in iron, and bypasses the gravity filter system entirely.

The water is softened before being blended in the clearwell with the water from the filtration facility to the desired hardness for distribution to the system.

In a separate future project, the city is designing Well Number 5 to be located northeast of the WTP. This well will replace Well Number 1, which will be abandoned.

Project Description

As much of the WTP equipment is 37 years old and past its useful life, taking no action is not a viable option for providing continued water treatment. Based on discussions with neighboring utilities, known interconnection issues, and reduced redundancy, regionalization is not considered an effective or practical alternative. As such, rehabilitation of the existing WTP was selected as the recommended alternative.

The proposed work includes replacement of various chemical feed equipment, rehabilitation of several gravity filter components, improvements/repairs to the sand filtration WTP building and environmental controls.

Chemical feed improvements are proposed for the gaseous chlorine and HFS acid feed systems. This will include safety improvements in the building, new scales, and SCADA for automatic control. Additionally, the HFS scale and metering pumps will be replaced. With the planned abandonment of Well Number 1, the potassium permanganate feed system will no longer be needed.

The gravity filters require extensive rehabilitation, which will include replacement or improvement of components for the filtration and backwash valves, filter control panel, center column, filter media, troughs, underdrains, airwash headers, and backwash blower.

The three high service pumps are to be replaced in kind, along with associated valves and piping, and the basement's sump pumps will be replaced.

The filtration building will receive many vital improvements to improve safety and efficiency, such as new doors and windows, new paint, repairs to the parking lot, a new water heater, and a new eyewash station. Additionally, the HVAC system will be replaced, as well as the electrical equipment.

Figure 1 below shows the location of the proposed improvements.



Figure 1. Existing WTP site plan

Implementation

West Carrollton has requested \$8.8 million from the WSRLA at the interest rate of 3.78%. Borrowing at this rate will save the city about \$2.5 million over the 30-year loan period compared to the market rate of 5.08%. Interest rates are set monthly and may change for a later loan award.

In 2024, West Carrollton residents paid on average \$358 annually for water, with the most recent rate increase happening in 2024. This figure represents 0.65% of the city's median household income of \$54,861. This is less than the average annual Ohio water bill of \$490.

The anticipated loan award date is September 2025; construction will last approximately two years and ten months.

Public Participation

The city held a public session during a city council meeting on April 11, 2023, at which the proposed project was discussed and approved.

Ohio EPA is unaware of controversy about or opposition to these projects. The Limited Environmental Review (LER) and Finding of No Significant Impact (FNSI) will be posted on the Ohio EPA Division of Environmental and Financial Assistance website. Additionally, the LER and FNSI have been provided to the City of West Carrollton to made available according to their public participation procedures.

Conclusion

The proposed project meets the criteria for a LER; namely, it is an action within an existing public drinking water treatment system, which involves the functional replacement of and improvements to existing mechanical equipment. Furthermore, the project meets the other qualifying criteria for an LER; specifically, the proposed project:

Will have no significant environmental effect, require no specific impact mitigation, and have no effect on high-value environmental resources because all of the work takes place in previously disturbed areas at the WTP site that lack any important environmental resources. No tree removal is expected.

Is cost effective because the selected action presents the best alternative to address the necessary improvements. The city considered three alternatives, including regionalization with Miamisburg, Jefferson Regional Water Authority, and Montgomery County.

Is not controversial because this project was discussed at a public session before city council and there was no known opposition to the project or controversy.

Does not create a new or relocate an existing discharge to surface or ground waters, or substantially increase the volume of discharge or loading of pollutants from an existing source or from new facilities to receiving waters since the improvements are merely replacing failing WTP equipment and will have no effect on water demand or discharges. Rather, the proposed project is expected to result in improved drinking water quality.

Will not provide capacity to serve a population substantially greater than the existing population because the project is only replacing or improving existing WTP components and no new water service connections will be added.

Based upon Ohio EPA's review of the planning information and the materials presented in this Limited Environmental Review, we have concluded that there will be no significant adverse impacts from the proposed project as it relates to the environmental features discussed previously. This is because these features do not exist in the project area, the features exist but will not be adversely affected, or the impacts will be temporary and mitigated. The proposed project is expected to improve drinking water for the residents of West Carrollton. All applicable construction mitigating practices have been incorporated into the contract documents to reduce any environmental impacts as a result of construction activities.

Contact Information

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