



**December 28, 2023**

**Limited Environmental Review and Finding of No Significant Impact**

**City of North Ridgeville – Lorain County  
CM Tank Blower Upgrade Project  
Loan number: CS390698-0011**

The attached Limited Environmental Review (LER) is for a wastewater treatment plant project in North Ridgeville which the Ohio Environmental Protection Agency intends to finance through its Water Pollution Control Loan Fund (WPCLF) 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 WPCLF 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,

A handwritten signature in black ink that reads "Kathleen Courtright".

Kathleen Courtright, Assistant Chief  
Division of Environmental and Financial Assistance

Attachment

## LIMITED ENVIRONMENTAL REVIEW

### **Project Identification**

Project: CM Tank Blower Upgrade Project

Applicant: City of North Ridgeville  
7307 Avon Belden Road  
North Ridgeville, Ohio 44039

Loan Number: CS390698-0011



**Figure 1. Lorain County**

### **Project Summary**

The City of North Ridgeville had requested funding from the Ohio Water Pollution Control Loan Fund (WPCLF) to finance the CM Tank Blower Upgrade project. This project is intended to upgrade and replace equipment at the French Creek wastewater treatment plant (WWTP) in order to improve efficiency and performance.

### **History & Existing Conditions**

The City of North Ridgeville is located in Lorain County (Figure 1). The city owns and operates the French Creek WWTP and the corresponding collection system in conjunction with the two other communities the system serves: Sheffield and Avon. All three satellite communities must approve major changes to the system, but they tend to work independently. North Ridgeville works on the WWTP, and Sheffield and Avon oversee the collection system.

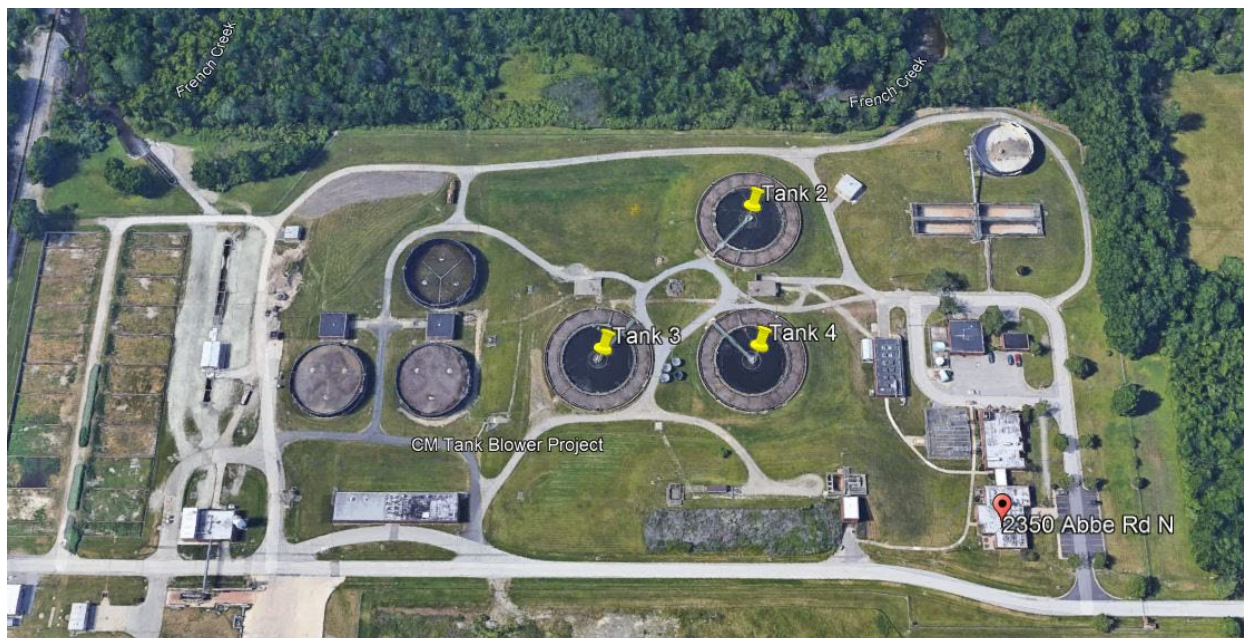
The French Creek WWTP has an existing aeration system that has reached the end of its useful life as twenty years has passed since any significant changes or upgrades have been made to it. The aeration system is a complete mix aeration system with widely spaced diffuser drops. The aeration air distribution valves have been reported to be difficult to work with and dangerous to manually control. The steel piping has severe corrosion and leaks above and below the waterline. The aeration tank envelopes a central clarifier with a distribution column and collection arm which is constructed of steel which also has significant corrosion. The complete mix tanks are constructed of concrete and need repairs to ensure the integrity of the tanks.

The City of North Ridgeville considered three alternatives for this project before making its selection. The first alternative explored was to maintain the existing complete mix system design. This alternative was not selected due to oxygen transfer inefficiency and difficulty in controlling air distribution to various portions of the tank. The second alternative was a floor-mounted diffuser design. This alternative was not selected due to a higher cost estimation as well as the difficulty in maintaining a tightly spaced floor grid of diffusers.

### **Project Description**

The final and selected alternative was a jet aeration design. This alternative was chosen because of the lower estimated installation cost, easier cleaning and maintenance of the tank, and fewer pieces

of equipment required. This alternative also provides the best method of dissolving the oxygen in the activated sludge. Demolition and modifications to the current aeration tank channeling, grating, and catwalk design will be a part of this project in order to install the new jet aeration system. New multi-stage blowers will be installed, and the existing blowers will be abandoned, with air pipe modifications to accommodate the new design. See Figure 2 below for a map of the project area.



**Figure 2. French Creek WWTP**

### **Implementation**

The City of North Ridgeville proposes to borrow approximately \$8,200,000 in Ohio WPCLF funding at the standard interest rate of 3.08%. WPCLF interest rates are set monthly and may change for a later loan award. Assuming a 20-year loan, borrowing at this rate could save North Ridgeville approximately \$1,300,000 over the life of the loan compared to the current market rate of 4.33%.

North Ridgeville recently completed a rate survey and found that a 4% increase over the next five years would be necessary to cover the costs of both this project and various other projects that are planned for the next several years. Each satellite community approved the rate increase and has been informing their respective residents. The increase has been posted on the city website and on Facebook, and city employees have already begun to hear feedback from residents.

The average annual sewer bill for residents served by North Ridgeville is \$494. This is 0.6% of the median household income (MHI: \$77,560) and is about the same as the Ohio average annual sewer bill, \$490. Construction is scheduled to begin upon award of the loan and to be completed in approximately 15 months.

### **Public Participation**

This project and its associated rate increase was discussed at a yearly meeting of the three municipalities that comprise the French Creek WWTP service area. Each municipality has informed their respective residents of the upcoming rate increase.

Ohio EPA is unaware of opposition to or controversy about the project. Ohio EPA will make a copy of this document available to the public on its web page: <https://epa.ohio.gov/divisions-and-offices/environmental-financial-assistance/announcements> and will provide it on request to interested parties.

### **Conclusion**

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

**Will have no significant environmental effect, will require no specific impact mitigation, and will have no effect on high-value environmental resources** because construction will be taking place entirely within an existing WWTP that has experienced previous excavation. There are no high-value environmental resources in this developed area.

**Is cost effective and is not a controversial action** because replacement of failing components with a new jet system was a better option than maintaining the existing inefficient design or installing a high-cost floor-mounted diffuser grid design. Ohio EPA is unaware of opposition to or controversy about the project.

**Does not create a new, or relocate an existing, discharge to surface or ground waters, and will not result in substantial increases in the volume of discharge or the loading of pollutants from an existing source or from new facilities to receiving waters** because this project merely replaces existing WWTP components and has no other effect on the city sewer system.

**Will not provide capacity to serve a population substantially greater than the existing population** because this project is purely replacement within a WWTP, service will not be extended in any way nor provide additional capacity.

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. This project will result in improved efficiency and reliability of equipment at the French Creek WWTP.

### **Contact Information**

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