



**April 12, 2024**

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

**Board of County Commissioners of Hamilton County, Ohio – Hamilton County  
PRWWTP Sludge Storage Tank with Odor Control  
Loan number: CS391525-0169**

The attached Limited Environmental Review (LER) is for a wastewater treatment plant upgrades project in Cincinnati 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: PRWWTP Sludge Storage Tank with Odor Control

Applicant: Board of County Commissioners of Hamilton County, Ohio  
138 East Court Street  
Cincinnati, Ohio 45202

Loan Number: CS391525-0169



**Figure 1. Hamilton County**

### **Project Summary**

The Board of County Commissioners of Hamilton County, Ohio (Board) has requested funding from the Ohio Water Pollution Control Loan Fund (WPCLF) to finance the Polk Run Wastewater Treatment Plant (PRWWTP) Sludge Storage Tank with Odor Control project. Work for this project will include upgrades within the plant to address sludge storage and odor control.

### **History & Existing Conditions**

The Board, based in Hamilton County (Figure 1), manages the Metropolitan Sewer District of Greater Cincinnati (MSDGC), also known as the Metropolitan Sewer District (MSD). MSD operates a number of different wastewater treatment plants (WWTPs) within the City of Cincinnati, including the Polk Run WWTP. This WWTP serves communities in the Loveland areas. It is designed with an average daily flow of eight million gallons per day (MGD) and discharges to the Little Miami River.

Under current Polk Run WWTP operating conditions, the plant only has enough storage capacity for three days of sludge production, and other nearby plants such as the Little Miami WWTP cannot always accept excess sludge from Polk Run, making storage a major issue. In addition, the existing sludge storage tanks were constructed in 1968 and are at the end of their useful life. An inspection revealed significant corrosion and structural defects within the tanks.

Odor control for the sludge storage tanks has been provided in the past by a mulch bulk media biofilter. This biofilter is also past its useful life and is not currently in service, making it necessary to obtain a replacement odor control method.

### **Project Description**

This project will expand the sludge storage capacity at the Polk Run WWTP by constructing new sludge storage tanks with a new building for equipment and controls. Additionally, the project includes mitigating odors from the sludge storage tanks by installing a new odor control system. The increased storage volume will provide flexibility for plant operations to better manage solids to meet permitted discharge effluent limits and odor compliance goals and increased maintainability by providing redundancy. The work includes the following:

### Sludge Storage Tanks (SSTs)

- Demolish existing SSTs and mulch beds.
- Construct three new SSTs.
- Install jet mixing system in each tank.

### Sludge Pump Building

- Demolish existing sludge pump building.
- Construct new sludge pump building to house three sludge mixing/transfer pumps.
- Install associated electrical and controls.

### Odor Control

- Demolish existing SST odor control system, including removal of mulch media, fans, and ducting.
- Install new carbon adsorption odor control unit.
- Install new foul air ducting to connect odor control system to new SSTs.
- Install associated instrumentation and controls.

### Sludge Loadout

- Construct new sludge loadout station.
- Demolish existing sludge loadout location.

See Figure 2 below for a map of the project area.



Figure 2. Polk Run WWTP

## **Implementation**

The Board proposes to borrow approximately \$2.4 million from the Ohio WPCLF at the standard interest rate of 2.48%. WPCLF interest rates are set monthly and may change for a later loan award. Assuming a 20-year loan, borrowing this amount could save the Board approximately \$370,000 over the life of the loan compared to the current market rate of 3.73%.

Sewer rates will not be raised in order to pay for this project. The average annual sewer bill for residents served by the Board is \$638. This is 1.4% of the median household income (MHI: \$45,235) and is higher than the Ohio average annual sewer bill, \$490. Construction began in September 2023 and is scheduled to be completed in approximately 25 months.

## **Public Participation**

This project has been discussed during Hamilton County commissioner's meetings that are open to the public. These meetings ranged from December 2019 to April 2024.

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 treatment equipment. 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 the construction will be taking place inside of 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 there is no viable alternative to replacing failing equipment within a WWTP. Ohio EPA is unaware of controversy about or opposition to this 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, and will not provide capacity to serve a population substantially greater than the existing population** because this project merely upgrades existing equipment within the WWTP and has no other effect on the city sewer system. 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 expanded sludge storage capacity and improved odor control at the Polk Run WWTP.

**Contact Information**

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