



June 5, 2024

Limited Environmental Review and Finding of No Significant Impact

**City of Columbus – Franklin County
Alum Creek Trunk Sewer (South) Rehabilitation Phase 1
Loan number: CS390274-0355**

The attached Limited Environmental Review (LER) is for a sewer line rehabilitation project in Columbus 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: Alum Creek Trunk Sewer (South) Rehabilitation Phase 1

Applicant: City of Columbus
910 Dublin Road
Columbus, Ohio 43215

Loan Number: CS390274-0355

Project Summary

The City of Columbus in Franklin County has requested \$26,254,877 from the Water Pollution Control Loan Fund (WPCLF) for rehabilitating portions of the existing Alum Creek Main Trunk Sewer. Construction will take place within the previously disturbed footprint of the existing sewer and is not expected to cause adverse environmental impacts.

History & Existing Conditions

As required by a 2002 consent order with the Ohio Environmental Protection Agency, Columbus must implement a program to address the capacity, management, operation, and maintenance of its sewer system. To address these requirements, Columbus established a prioritization for large-diameter sewer condition assessment and cleaning. The Alum Creek Trunk South (ACT-S) was ranked most critical based on likelihood of failure and would generate the highest impact if the sewer were to fail. As a result, the entire Alum Creek Trunk Sewer was selected to be cleaned and/or rehabilitated starting upstream with the Alum Creek Trunk North (ACT-N), and working downstream to the Alum Creek Trunk Middle (ACT-M), and finishing with the ACT-S.

The ACT South transports sanitary sewage from suburban areas in northeastern Columbus to treatment facilities. It is located on the east side of Columbus and is surrounded by a mix of commercial and residential land with some sections of the sewers located close to Alum Creek and the Alum Creek Trail.

The ACT-S begins upstream south of Livingston Avenue behind the Wexner Heritage Village. The sewer flows southeast, generally following Alum Creek, before terminating at the Big Walnut Outfall located within a farm field just outside of I-270, north of Williams Road. The sewer was constructed between 1966 and 1967 and is comprised of approximately 3,600 feet of 96-inch diameter reinforced concrete pipe (RCP) and 19,500 feet of 102-inch diameter RCP for a total length of approximately 23,100 feet. The ACT-S was constructed by open cut; sewer depths range between 4 and 27 feet deep.

Findings from a closed-circuit TV camera investigation reveal that the ACT-S is in poor structural condition. The most prominent defects involve varying levels of surface damage where the concrete pipe has corroded to the point that, in many locations, reinforcing steel and aggregate is exposed. The amount of steel reinforcement observed is a significant concern, as this indicates that hydrogen sulfide gas has, and will continue, to corrode the RCP sewer. This deteriorated concrete must be repaired in order to continue serving the surrounding areas.

Project Description

Columbus will perform trenchless rehabilitation of the ACT-S in phases, with Phase 1 consisting of nearly 8,500 linear feet of 102-inch diameter sewer. Shotcrete repair methods will be utilized in order to extend the sewer's service life. Shotcrete is a rehabilitation method which utilizes high-pressure air hoses to spray concrete onto the surface of the existing pipe. The shotcrete adheres to the surfaces and cures, revitalizing the reinforced concrete pipe. Admixtures may be added to the concrete to minimize or prevent future corrosion from hydrogen sulfide gas.

The construction footprint for this project will remain within the previously disturbed rights-of-way alongside the roadway and existing sewer, therefore minimizing effects on environmental resources. The contractor is responsible for best management practices to control dust, erosion and sedimentation, and maintain local traffic during construction. Trenchless construction methods will avoid impacts to the wetlands located within the area.

As the trunk sewer is located along the Alum Creek Multi-Use Trail and predominately situated within Three Creeks Park, users may notice caution signs, temporary ramps, and construction activity in close proximity. Every effort will be made to reduce any disruption to public accessed areas.

Maps of the project location are provided in the exhibits below.

Implementation

Project Costs

Columbus plans to borrow \$26,254,877 from the WPCLF. During the 20-year loan period Columbus will save \$4,077,442 by using WPCLF dollars at the standard rate of 2.73%, compared to the market rate of 3.98%. WPCLF interest rates are set monthly and may change for a later loan award.

Local Economy

The current Columbus residential sewer bill is approximately \$661 per year. Projected residential sewer bills with the implementation of this project and other associated clean water projects are expected to increase to approximately \$847 per year, which is approximately 1.4% of \$58,575, the median household income (MHI) of Columbus.

By using WPCLF financing for this project, Columbus has minimized the economic impact on customers.

Project Schedule

The anticipated loan award will occur in June 2024. Construction is expected to begin soon after and is expected to be complete by January 2025.

Public Participation

The City of Columbus' Public Utilities webpage details proposed Capital Improvement Projects within the Division of Sewerage & Drainage. Contact information is provided for any public questions or concerns.

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 upon request to interested parties. Information supporting this Limited Environmental Review (LER) is available from the project contact named below.

Conclusion

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

Has no significant environmental effect, no effect on high value environmental resources, and does not require extensive specific impact mitigation.

The project rehabilitates sewers located within the previously disturbed rights-of-way alongside the roadway and existing sewer, therefore areas lacking important environmental features. Rehabilitation of sewer lines within wetland areas will utilize trenchless construction methods and will not cause further disturbance. Any work occurring within the floodplain will be approved by the city's floodplain administrator. If necessary, tree clearing is to occur within seasonal clearing dates to protect endangered bat species located in the area. The contractor is responsible for dust control, sedimentation and erosion control, and maintenance of traffic during construction. As the trunk sewer is located along the Alum Creek Multi-Use Trail and predominately situated within Three Creeks Park, extra effort will be made to reduce disruption to the public and maintain safety through the use of caution signs and temporary ramps.

Is cost effective and not controversial.

The proposed project is cost effective, as it involves rehabilitating the existing sewer lines rather than complete replacement. Taking no action could impact flow efficiency, lead to public health impacts, and continue to accumulate maintenance costs. DEFA is unaware of any specific opposition to or controversy about this project that will improve the safety and efficiency of wastewater transport.

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.

This project involves the rehabilitation of the existing sewer line which services the area. It does not create or relocate a discharge to surface or ground waters and will not serve a greater population nor increase the volume of current wastewater discharges.

Will not provide capacity to serve a population substantially greater than the existing population.

This project does not increase treatment capacity or extend service into undeveloped areas.

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 mitigate potential risks associated with the structural failure of the Alum Creek Trunk Sewer South which could contaminate Alum Creek or pose a threat to public health.

Contact Information

Kristin Parrish
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PO Box 1049
Columbus, OH 43216-1049

(614) 644-3662
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Exhibit 1: Project location map

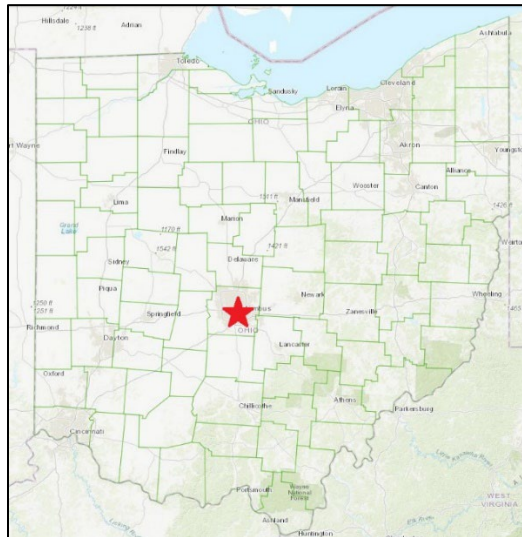


Exhibit 2: Project location map

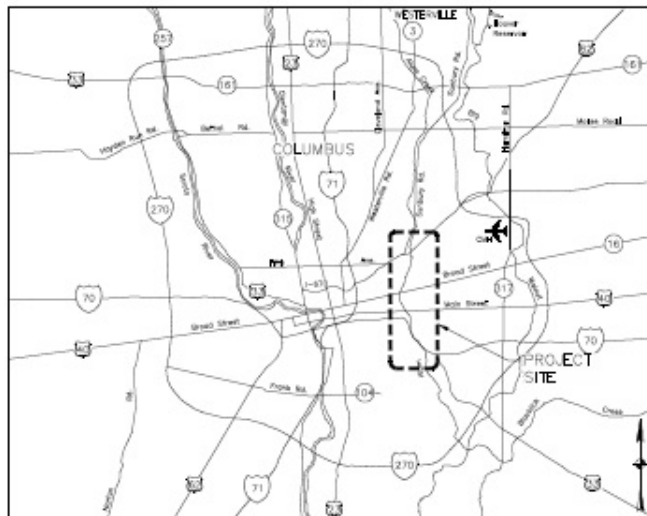


Exhibit 3: Project location map

