



September 5, 2025

**Preliminary Finding of No Significant Impact
To All Interested Citizens, Organizations, and Government Agencies**

**Ross County
State Route 104 Sewer Project
Loan Number: CS390071-0015**

The attached Environmental Assessment (EA) is for a sewer extension and regionalization project in Ross County 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 EA describes the project, its costs, and expected environmental benefits. We would appreciate receiving any comments you may have on the project. Making available this EA and seeking your comments 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 program review and approval process. We have concluded that the proposed project should not result in significant adverse environmental impacts. More information can be obtained by contacting the person named at the end of the attached EA.

Any comments on our preliminary determination should be sent to the email address of the contact named at the end of the EA. We will not act on this project for 30 calendar days from the date of this notice. In the absence of substantive comments during this period, our preliminary decision will become final. After that, Ross County can then proceed with its application for the WPCLF loan.

Sincerely,

Kathleen Courtright, Assistant Chief
Division of Environmental & Financial Assistance

Attachment

ENVIRONMENTAL ASSESSMENT

Project Identification

Project: State Route 104 Sewer Project

Applicant: Ross County
2 North Paint Street
Chillicothe, Ohio 45601

Loan Number: CS390071-0015

Project Summary

The commissioners of Ross County (Figure 1) applied to the Ohio Water Pollution Control Loan Fund (WPCLF) for \$4 million for a sanitary sewer regionalization project along State Route (SR) 104 in Chillicothe. This project aims to extend sanitary sewers to the Union Heights neighborhood, Ross County Shoemaker Airport, Gleason Mobile Home Park (MHP), Country Woods MHP, and potential development areas near the airport along SR 104. Flows will be sent to the Chillicothe Corrections Institution (CCI) Wastewater Treatment Plant (WWTP).



Figure 1

History & Existing Conditions

Ross County is located in the south Ohio Appalachian region, with the county seat in Chillicothe, the first capital of Ohio. The project area, located on the north side of Chillicothe in Union Township, will focus on the Union Heights subdivision, Country Woods and Gleason MHPs, and Ross County Shoemaker Airport (see Figure 2).

The county owns and operates a sewage package plant located in Union Township, at the intersection of SR 104 and Old Elm Road, that serves the Union Heights subdivision. In March 2009, Ohio Environmental Protection Agency issued Director's Final Findings and Orders requiring the county to make repairs at the plant and to complete inflow and infiltration reduction measures. The failing package plant has reached the end of its useful life. The Country Woods MHP package plant has reached the end of its useful life and Gleason MHP has an unpermitted package plant that will need to be removed.

The CCI WWTP is located south of the CCI site near the Scioto River and east of the intersection of SR 104 and US-35. It is in a central location to the project area and has additional capacity to accept additional flows. CCI currently provides sewer service to the Veterans Administration Hospital, Camp

Sherman Memorial Park, Union Scioto School campus, and the Hopewell Culture Historic Park visitors center.

Population and Flow Projections

As of 2024, the Ross County population was 77,204, an increase from 73,345 in 2000. The population of the project area in 20 years is projected to be about 5,700 people due to anticipated expansion of residential units.

The estimated flows for the project were determined through a flow study of the Union Heights subdivision, the two mobile home parks, and the Ross County Shoemaker Airport. The anticipated flows from the project area total a peak of 210,000 gallons per day.

Future developments are expected southwest of the airport and are projected to accommodate light industrial uses, such as warehouses. Residential development is anticipated in areas south and east of Union Township subdivision. Additionally, a jail expansion northeast of the fairgrounds is projected to house additional inmates.

The CCI WWTP has an average daily design capacity of 4.4 million gallons daily (MGD). Currently, the system is well below the design capacity with 2023 average flow of approximately 1.25 MGD. Therefore, the WWTP has sufficient capacity to take additional flows from the project area.

Alternatives

Three alternatives were considered: No action, replacement of the package treatment plants, or extension of service with regionalization to CCI, as described below.

No-Action Alternative

The No-Action alternative would not make any changes to the size, condition, or location of the sanitary sewer system. Under this alternative, the existing package plants would remain and would eventually be unable to adequately process wastewater. The No-Action alternative is not a viable option, as it would result in substantial long-term maintenance costs and potential fines for non-compliance with environmental regulations. Consequently, this alternative does not meet the community's needs.

Replacement of Sewage Treatment Plants

This alternative involves the replacement of the Union Heights package treatment plant and the two MHP package plants. While this option addresses the critical need for updated treatment plants, it is cost prohibitive. The cost of constructing new plants would substantially exceed the cost of extending sanitary sewer service to the project area along SR 104.

Despite its high cost, this alternative would provide long-term benefits, including improved sewage treatment efficiency and compliance with current environmental standards. It would also support the community's growth and development by ensuring a stable and effective sewage system. However, given financial considerations replacing the sewage treatment plants is not the preferred alternative.

Extension of sewers and regionalization with the CCI WWTP

This alternative involves the extension of the sanitary sewer collection system including gravity sewer and force main from the airport to and along SR 104, and three new pump stations to send flows to the CCI WWTP.

This alternative offers long-term benefits, including enhanced sewage treatment efficiency and adherence to current environmental standards. It supports the community's growth and development by ensuring a stable and effective sewage system. The preferred alternative meets the project's purpose and need without the increased earth disturbance and prohibitive costs associated with constructing new sewage treatment plants. By regionalizing with the CCI WWTP, the Union Heights and MHP package plants can be decommissioned.

Selected Alternative

To regionalize the project area, the three package plants will be removed and one will be converted to a pump station. Two more pump stations will be installed, and sewer will be extended from the airport to SR 104 and down SR 104 to the CCI WWTP. See Figure 2 for a map of the project.

The gravity sewer and force mains will be located within existing road rights-of-way to minimize the need for new easements and environmental impacts. Likewise, the pump stations have been located at the site of existing treatment facilities or on public property to reduce impacts. Each pump station will include submersible pumps, vault access, backup power generators, wet well level sensors, SCADA communication, and flow meters.

Gravity sewer will be installed for the first segment of the project area from Ross County Shoemaker Airport to Pump Station 1. Pump Station 1 will be located near the northeast corner of the Country Woods MHP near the existing package plant. The gravity sewer will consist of an 8-inch-diameter PVC pipeline, designed to serve the airport, two nearby mobile home parks, and some anticipated future light industrial development near the airport. The gravity sewer will be installed using the traditional open-cut trenching process. Following connection, the package plant will be decommissioned.

From Pump Station 1, a 4-inch force main will traverse across the northern portion of the Ross County Shoemaker Airport property and continue east to SR 104. The force main will cross State Route 104 and will continue along the east side of SR 104 within the Ohio Department of Transportation (ODOT) right-of-way toward Pump Station 2.

Pump Station 2 will be located at the existing Union Heights package plant. The 4-inch force main will cross under SR 104 near the Union Heights treatment plant. From Pump Station 2, a new 6-inch force main will cross under SR 104 and continue south along the east side of SR 104 within the ODOT right-of-way to Pump Station 3. Following connection, the existing package plant will be demolished.



Figure 2. Project map, where the proposed sewer is marked in purple, each pump station marked with a yellow box, and the CCI WWTP, airport, and Union Heights areas labelled.

Pump Station 3 will be located near the Ross County Fairgrounds on county-owned property south of the intersection of SR 207 and SR 104. From Pump Station 3, an 8-inch force main will continue along the west side of SR 104 running south to Moundsville Road. At Moundsville Road, the force main will run west to the intersection of Moundsville Road and Cincinnati Avenue and connect to a nearby manhole A22. A22 is part of an existing sanitary sewer that connects to the existing CCI WWTP.

The force mains will be installed using hydraulic directional drilling (HDD), a trenchless technology used for installing underground utilities with minimal surface disruption. It involves a drilling rig creating a guided pilot bore, which is then enlarged to pull the utility pipe through. HDD has been selected for the majority of this project because it will substantially reduce the amount of disturbed area and potential environmental impact compared to open-cut trenching.

The pump stations and force mains will be located to minimize easements and environmental impacts. Bioxide odor control will be installed at the first pump station to protect the system from hydrogen sulfide production. To protect the pumps from rags and debris, a fine screen will be included at the second pump station located at the Union Heights package plant site.

Implementation

Ross County requested \$4 million from the WPCLF. This loan is eligible for a 0% regionalization interest rate. The county will also receive \$6.3 million from the American Rescue Plan Act (ARPA) and \$4 million in Congressionally Directed Spending funds. During the 30-year WPCLF loan term, Ross County will save approximately \$3.8 million, compared to the September market interest rate of 5.13%.

The last sewer rate increase was 7.14% in 2006, with a \$13 monthly rate increase planned for 2025, and a \$4 monthly rate increase in 2026, 2027, and 2028. After rate increases, residential customers will pay \$46 monthly, or \$552 annually, by 2028. The estimated median household income (MHI) for a resident of Ross County is \$54,005. The average annual sewer bill will amount to 1.0% of the MHI.

Assuming loan award in October 2025, construction will begin shortly thereafter with expected completion by the end of 2026.

Public Participation

Ross County has made good efforts over multiple years as this project was planned and designed to include and inform the public about its scope and implementation. News articles began as early as 2017 and were published in subsequent years multiple times to include discussions about all project areas. Many public meetings were held, as recently as March 2025 to discuss project details.

Ohio EPA is unaware of any controversy about or opposition to this project. This Environmental Assessment (EA) and preliminary Finding of No Significant Impact (FNSI) will be posted on the Ohio EPA Division of Environmental and Financial Assistance website for a 30-day comment period. Additionally, the EA and FNSI have been provided to Ross County to be made available according to their public notification procedures.

Environmental Impacts

The project has the potential to affect the following features, but the effects will be reduced or mitigated to acceptable levels as explained below.

Air Quality, Dust, and Noise: The proposed project will result in a temporary increase in dust, exhaust fumes, and noise from construction activities. This will be mitigated by standard construction best management practices, including emission control on motorized equipment and limiting work hours to the daytime. Dust due to excavation in dry weather will be controlled by good housekeeping measures (minimizing the area of disturbed soil, road sweeping, dust suppression with water or other benign dust suppressant). Because of its temporary nature and the use of emissions controls on motorized equipment, construction vehicle exhaust will be an insignificant pollution source compared to background sources of motorized vehicle exhaust in the greater project area.

Archaeological and Historical Resources: The project was reviewed by the State Historic Preservation Office (SHPO), who provided comments. The project area had a Phase 1 Cultural and Archaeological survey conducted to identify resources within or adjacent to the project area. Multiple cultural resources have been recorded by this survey and previous surveys of the area, including the National Register listed Hopewell National Historic Park and Veterans Administration Hospital. The sewer will be located along SR 104 which passes by these sites on the opposite side of the roadway and will not disturb them. Although many archaeological fragments and items have been recorded or collected within the project area and adjacent areas, the locations of the project alignment are along roads, neighborhoods, package WWTPs, and other developed and disturbed land. SHPO has requested archaeological monitoring occur during open-trench construction, but no further archaeological survey work required.

Aquatic Habitat, Surface Water Resources: The sewer extension will cross five tributary streams to the Scioto River along SR 104. The crossings will all be made by HDD to avoid impacting aquatic habitat and wildlife. No in-water work will occur. A stormwater pollution prevention plan will be in place to prevent runoff of sediment or silt into waterways.

Endangered Species, Fish and Wildlife: The entire state of Ohio is within the range of the Indiana bat (*Myotis sodalis*) and northern long-eared bat (*Myotis septentrionalis*), state endangered and federally endangered species, the little brown bat (*Myotis lucifugus*), a state endangered species, and the tricolored bat (*Perimyotis subflavus*), a state endangered species. During the warm months, these species of bats predominately roost and breed in trees. However, these species are also dependent on the forest structure surrounding roost trees. Tree cutting shall only occur from October 1 through March 31, which is outside of bat roosting season. Because these projects will occur along developed roads, in neighborhoods, and rights-of-way, and any tree cutting will occur when bats are inactive and less likely to be using this habitat, these projects are unlikely to impact these species.

The project is within the range of the club shell (*Pleurobema clava*), a state endangered and federally endangered mussel, Northern Riffleshell (*Epioblasma rangiana*), a federally endangered mussel, Rayed Bean (*Villosa fabalis*), a federally endangered mussel, Round Hickorynut (*Obovaria subrotunda*), a federally threatened mussel, and Salamander Mussel (*Simpsonaias ambigua*), a federally proposed

endangered mussel. Due to the location, that there is no in-water work proposed in a perennial stream, and the use of HDD for all stream crossings, the project will not impact these species.

The project is within the range of the Monarch Butterfly (*Danaus Plexippus*), a federally proposed threatened species. Monarch butterflies are dependent on milkweed for their caterpillars to feed on, as well as meadow and prairies native flowering plants for adults to feed on. Because this project will be located predominantly in existing roads close to or within right-of-way, grassland and prairie habitats will not be impacted.

In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act, there are additional responsibilities under the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act to protect native birds from project-related impacts. There are no eagle nests currently within the project area, so these species should not be impacted.

Floodplains: Part of the sewer will pass through a 100-year floodplain. When complete, the sewer will be buried and will not permanently impact the floodplain. The local floodplain coordinator has reviewed the project and issued a permit.

Land use: Land use changes will be minimal. New sewer will be buried upon completion and will not permanently change land use where sewer pipes are installed.

Local economy: Ross County has not increased sewer rates in 20 years, and was in need of a modern rate study. For this and other infrastructure projects, the sewer rates will need to increase significantly. Despite the rate increases, the annual sewer bill is only slightly higher than the Ohio average of \$528. Ross county is minimizing costs to its users by seeking a 0% regionalization interest rate from the WPCLF and by obtaining other grant funding.

Safety, Traffic, and Aesthetics: This project will occur within developed residential and commercial areas, and a traffic plan will be maintained by the contractor during construction. Aesthetics will not be permanently altered from a public perspective, and the landscape will be restored once construction is complete. Construction best management practices and safety standards will be followed by the contractors for this project. A traffic management plan will be maintained by the contractor during construction.

Wetlands: There are two wetlands near the project area that will be avoided. The sewer will follow SR 104 and stay in right-of-way or easements of the highway. Force main sewer will be installed by HDD to minimize disturbance past these sensitive areas.

Unaffected Environmental Features: The project will not impact *Coastal Zones, Energy Use, Prime Farmland, Safe Drinking Water, Sole Source Aquifers, State or Federal Wild or Scenic Rivers, or Drinking Water Resources*. These resources are not present in or near the work site and therefore will not be affected.

Conclusion

Based upon Ohio EPA's review of the planning information and the materials presented in this Environmental Assessment, 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 project will remove untreated sewage discharge sources from failing package treatment plants by regionalizing residences and businesses of the SR 104 corridor area with the CCI WWTP. The sewer infrastructure will also allow for future development in the corridor.

Contact Information

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