



Mike DeWine, Governor
Jon Husted, Lt. Governor
Laurie A. Stevenson, Director

December 27, 2021

Limited Environmental Review and Finding of No Significant Impact

**Montgomery County
Sanitary Conveyance/Treatment Improvements - Western Region
Loan number: CS390057-0063**

The attached Limited Environmental Review (LER) is for a wastewater screening and conveyance project in Montgomery 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 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,

Jonathan Bernstein

Jonathan Bernstein, Chief
Division of Environmental and Financial Assistance

Attachment

LIMITED ENVIRONMENTAL REVIEW

Project Identification

Project: Sanitary Conveyance/Treatment Improvements – Western Region

Applicant: Montgomery County
451 West 3rd Street
Dayton, Ohio 45422

Loan Number: CS390057-0063

Project Summary

Montgomery County has applied for funding from the Ohio Water Pollution Control Loan Fund (WPCLF) for the Montgomery County Sanitary Conveyance/Treatment Improvements – Western Region project (here forward referred to as the “MCES project”). The project, located in Montgomery County, is intended to update and improve wastewater screening and conveyance between the Dryden Road Pretreatment and Pump Station (DRPTP) and the Western Regional Water Reclamation Facility (WRWRF) by constructing a new influent pump station and a new screenings facility. The total estimated loan for the project is \$82,683,761, with construction scheduled to begin in the first quarter of 2022 and to be completed in 30 months.

History & Existing Conditions

Montgomery County Environmental Services (MCES) operates a two-facility arrangement for screening, pumping, and treatment of wastewater associated with the sewershed of WRWRF, located in West Carrollton. WRWRF treats wastewater from DRPTP, the Opossum Creek Pump Station (OCPS), and a pump station operated by Appvion, Inc. Currently, wastewater collects at DRPTP, located in Moraine, and undergoes coarse screening and fine screening. Effluent wastewater flows are then conveyed approximately 10,000 linear feet along the Great Miami River via a 54-inch force main to the WRWRF for treatment. The current pretreatment and pumping arrangement at DRPTP has been in continuous operation since 1977, and much of the DRPTP facility has reached the end of its useful life and is in urgent need of replacement. DRPTP’s condition regularly results in violations of Montgomery County’s National Pollutant Discharge Elimination System (NPDES) permit by allowing Sanitary Sewer Overflows (SSOs) to discharge untreated wastewater into the Great Miami River. The aged facility also results in increased operation and maintenance (O&M) costs related to emergency repairs and staffing levels.

Population and Flow Projections

Because the design capacity of the receiving WWTP will not be increased, and as the project area is not expected to see substantial increases in population in the 20-year planning period, Montgomery County’s proposed project will not result in an increase in pollutant loadings discharged to the waters of the State of Ohio.

Alternatives

1) No-Action

Due to the above-described aged and deteriorated condition for portions of Montgomery County's wastewater infrastructure, the No-Action alternative would allow the aged facilities to remain in place and would result in continued violations of Montgomery County's NPDES permit by allowing SSOs to continue to occur, and likely increase, resulting in the discharge of untreated wastewater into the Great Miami River. The No-Action alternative would also result in increased O&M costs related to emergency repairs and staffing levels. The No-Action alternative would create unacceptable public health and environmental health hazards.

2) DRPTP and WRWRF Improvements

This alternative primarily involves construction of a new, large debris screening and influent pump station (IPS) at DRPTP to replace aged structures. Flows will be conveyed to a proposed pretreatment facility (PTF) at WRWRF via an existing force main for treatment.

3) Other Alternatives

Among the other alternatives considered, a microtunnel alternative, that would include microtunneling a 72-inch diameter gravity sewer between the DRPTP and WRWRF facilities, was considered. This alternative includes construction of various tunnel shafts, two microtunnel crossings of the Great Miami River, the potential for frac-outs¹ into the river, higher potential environmental impacts related to construction, and a higher overall project cost.

Selected Alternative

The DRPTP and WRWRF Improvements alternative was selected as it updates existing infrastructure, eliminates the need for multiple crossings of the Great Miami River, reduces potential construction-related environmental impacts, and utilizes the existing force main. Despite requiring monitoring of the existing force main for required maintenance, this alternative is still the most cost-effective.

The MCES project will consist of a new large debris screening facility and an IPS at DRPTP, which will connect to an existing force main, and new pretreatment facilities at the WRWRF. The project also will consist of selective demolition of the existing DRPTP, demolition of the existing Opossum Creek screening building, and the removal of existing drinking water wells and related power lines. Work will occur at the DRPTP, WRWRF, and Moraine Airpark.

A rock trap structure with two channels will be constructed at the DRPTP site to provide a location for large heavy debris to settle out and be removed. The IPS will be located downstream from the proposed rock traps and will initially discharge to the existing 54-inch force main, with plans to construct a smaller parallel force main in the future. The IPS will use wet-pit submersible pumps set in the trench-styled wet well, with five pumps will meeting the design flow and a sixth pump serving as a backup pump.

¹ A frac-out occurs when drilling fluid unintentionally penetrates fractured bedrock, or seeps or flows into the rock and sand that surrounds the bedrock and travels toward the earth's surface. Release of these drilling fluids are a potential source of contamination of environmentally or culturally sensitive areas. The drilling liquids and fine particles can be harmful to plants and animals, particularly in an aquatic environment.

The existing force main will convey flows to a new PTF at the WRWRF. This proposed PTF will replace the screenings and grit removal systems currently located at the DRPTP and OCSB. Screening will be performed by a series of four center-flow band screens rated for a flow capacity of 18.75 MGD with a screen opening size of 4mm, with a fifth screen channel containing a coarse non-mechanical bar rack with 5/8-inch bar spacing for redundancy. Two stirred vortex grit removal tanks will be installed, grit removed from influent flows will be pumped through classification and washing systems and discharged into the screenings dumpster for holding and disposal.

Implementation

Montgomery County proposes to borrow the entire cost for the project from Ohio's WPCLF. Montgomery County will recover debt associated with the project from user fees, and these fees have been adjusted to pay for the project. Montgomery County qualifies for the WPCLF standard long-term interest rate, which for January 2022 is 0.77 percent, over 30 years. The monthly residential sewer rate in the project area is \$46.17 (\$554 annually), based on an average monthly usage of 1,037 cubic feet of water. This is 1.07 percent of the median household income of \$51,542.

The total estimated loan amount is \$82,683,761. Borrowing this amount at 0.77 percent will save Montgomery approximately \$18,650,000 over the life of the loan compared to borrowing the same amount at the current market rate of 2.07 percent. Construction is expected to begin in the first quarter of 2022 and be completed in 30 months.

Public Participation

This project has been discussed extensively at local board and council meetings, has been detailed on Montgomery County's website, has been discussed in local media, has been advertised for bids, and direct mailings have been sent to residents in the immediate project area. Advance notice to affected residents in the form of a letter will precede construction and press releases will be issued in local media and via social media outlets. A public notice announcing the availability of this Limited Environmental Review will be posted on Montgomery County and Ohio EPA – Division of Environmental and Financial Assistance websites.

The following agencies reviewed this project's planning information:

Ohio Environmental Protection Agency
Ohio Department of Natural Resources
State Historic Preservation Office
U.S. Army Corps of Engineers
U.S. Fish and Wildlife Service
Miami Conservation District

Thus, there have been adequate opportunities for information dissemination and public participation.

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.

Surface Water and Ground Water: This project will not have significant adverse long-term impacts on surface water resources, as there will be no in-water work, no wetlands are present in the project area, and the majority of work will be performed within existing Montgomery County wastewater facilities that have experienced extensive prior excavation, and in which the predominant cover is pavement, gravel, and lawn grass.

The project will be performed within the Greater Miami River/Little Miami River Buried Valley Aquifer System. The primary potential source of impact to the sole source aquifer (SSA) is expected to be from heavy equipment and stored supplies. Contractors are required to manage these sources of impact by the use of spill prevention and mitigation protocol and plans, as well as materials and equipment storage setbacks.

A Stormwater Pollution Prevention Plan (SWPPP), which describes the measures that will be taken to prevent pollution caused by runoff into surface waters, is required, as is a frac-out contingency plan for horizontal drilling, which describes how inadvertent escapes of drilling slurry to the surface (known as “frac-outs”) will be managed.

Based on the above, the proposed project will not result in significant adverse impacts to surface waters.

Terrestrial Habitat, Wildlife, and Endangered Species: The U.S. Fish and Wildlife Service (USFWS) indicates that the project is within the range of the federally endangered Indiana bat and federally threatened northern long-eared bat. Tree removal is not expected to be a part of this project. However, if plans change such that tree clear will occur, it will only be permitted to occur October 1 to March 31 or in coordination with USFWS, and tree removal will be limited to only those trees necessary for completion of the project (e.g., trees within the excavation location or within the path of heavy equipment, etc.). These tree clearing restrictions will further ensure that any potential impacts to Indiana bats or northern long-eared bats are avoided.

The project includes no in-water work, and no impacts are expected for aquatic species.

The bald eagle is within the range of this project. However, no bald eagle nests are present within the general project area

Based on this information, the project will have no significant short-term or long-term adverse effect on terrestrial habitat, wildlife, or endangered species.

Air Quality: Montgomery County air quality meets standards for the six regulated air pollutants (carbon monoxide, sulfur dioxide, nitrogen oxide, lead, particulate matter, and ozone). During construction, dust and vehicle exhaust will be insignificant sources of local air pollution. 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.

Based on this information, the project should have no significant adverse short-term or long-term impacts on local air quality.

Noise and Odors: Motorized equipment will be used for the majority of project work, generating noise and odors that will be unavoidable but temporary. Noise will be controlled by using equipment that does not generate excessive noise or vibration. Work will be restricted to weekdays from 7:00 AM to 6:00 PM. Emissions controls on motorized construction equipment will reduce diesel odors. Once the project is complete, this wastewater project will operate with no additional noise or odors.

Based on this, the project will have no short-term or long-term significant adverse effects from noise, dust, and odors.

Safety and Traffic: Construction in road rights-of-way will cause temporary traffic disruption and potential threats to public safety. Contract documents require contractors to implement standard traffic controls to minimize traffic disruption and public safety risks. For example, contractors are required to cover or close trenches overnight, to maintain access for emergency vehicles at all times, and utilize traffic direction devices such as flaggers, cones, and barricades. With these precautions, the project is unlikely to create significant traffic disturbance or threats to public safety.

Once construction is complete, the project areas will be restored and returned to pre-construction conditions. The project will not permanently alter traffic patterns. Therefore, the project will have no long-term change or adverse impacts on safety and traffic.

Archaeological and Historical Resources: A Phase I cultural survey of the project area was completed as part of the alternatives evaluation. The survey concluded that no features listed on, or eligible for listing on, the National Register of Historic Places will be adversely impacted by the proposed project.

Based on this information, Montgomery County and Ohio EPA believe that unrecorded archaeological sites or properties eligible for or listed on the National Register of Historic Places are not likely to be impacted.

In the event that archaeological properties are found during construction, contractors and subcontractors are required under Ohio Revised Code Section 149.53 to notify the Ohio State Historic Preservation Office and Ohio EPA and to cooperate with those entities in archaeological and historic surveys and salvage efforts when appropriate.

Unaffected Environmental Features: The project is not located in the Lake Erie coastal zone, no Wild or Scenic Rivers are present within the project area, it will have no effect on energy consumption, and will not impact prime farmland.

Conclusion

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 a cost-effective way to address an aged wastewater screening and conveyance system. Once implemented, the project will improve and replace aged infrastructure, helping Montgomery County improve the screening and conveyance of collected wastewater, and reduce sanitary sewer overflows of untreated wastewater into the Great Miami River. Also, by using WPCLF low-interest financing, Montgomery County has minimized the project cost.

Contact information

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Figure 1: General Project Area

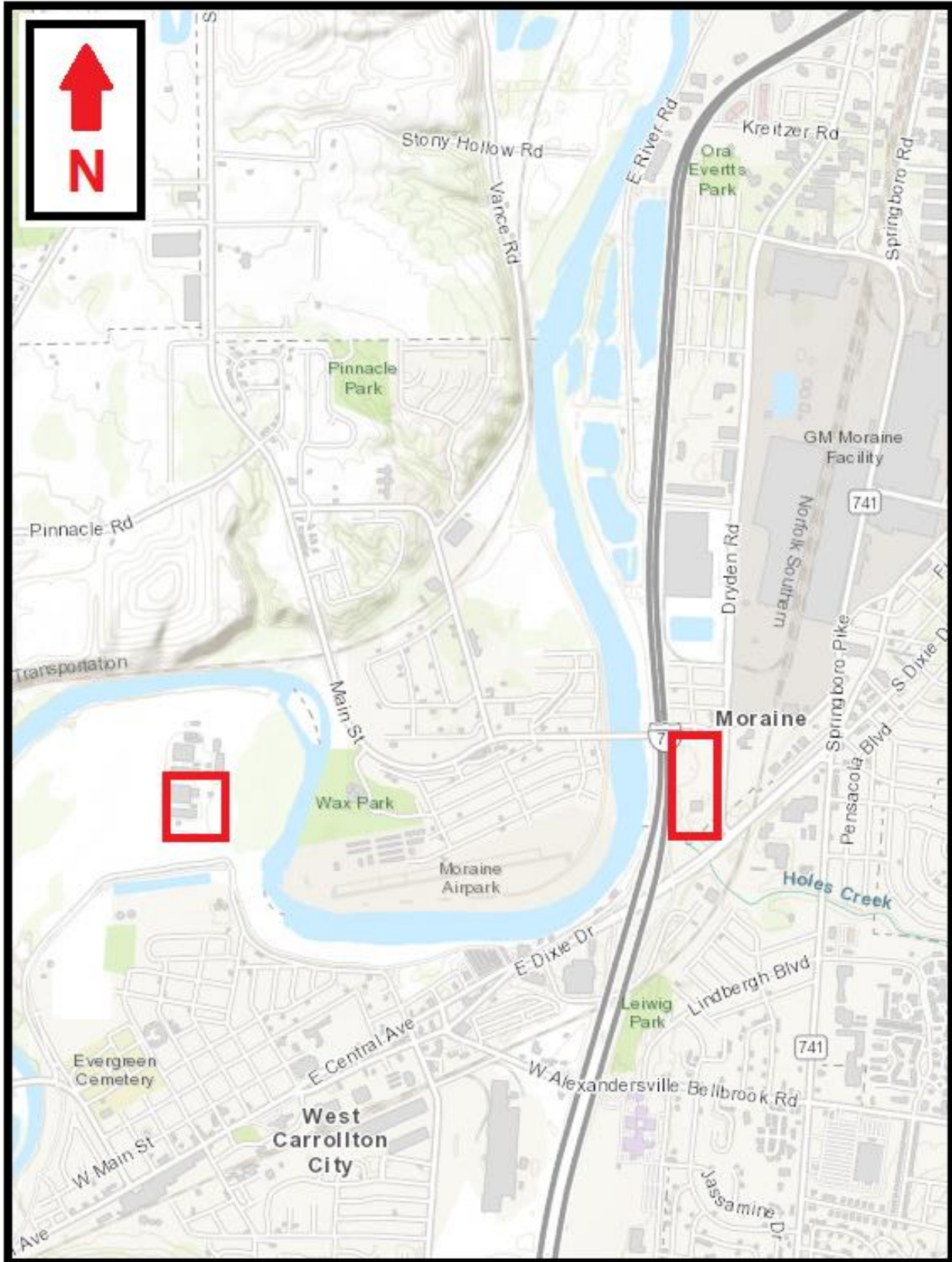


Figure 2: Proposed project areas, in red