Ohio Environmental Protection Agency

Mike DeWine, Governor
Jon Husted, Lt. Governor
Anne M. Vogel, Director

April 3, 2023

Limited Environmental Review and Finding of No Significant Impact

Village of Covington – Miami County
WWTP Improvements Phase 2
Loan number: CS390287-0014

The attached Limited Environmental Review (LER) is for a wastewater treatment plant replacement project in Covington 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,

Kathleen Courtright

Kathleen Courtright, Assistant Chief
Division of Environmental and Financial Assistance

Attachment

LIMITED ENVIRONMENTAL REVIEW

Project Identification

Project: WWTP Improvements Phase 2

Applicant: City of Covington
1 South High Street
Covington, Ohio 45318

Loan Number: CS390287-0014

Project Summary

The City of Covington has applied to the Ohio Water Pollution Control Loan Fund (WPCLF) for a wastewater treatment plant (WWTP) improvements project. The work includes various improvements to the existing WWTP as described below. The total project cost is $18,950,957 and Covington will receive $4 million of this cost as principal forgiveness, as described further below. The project will result in reduced nutrient loading to the Stillwater River to meet new National Pollutant Discharge Elimination System (NPDES) discharge limits. Environmental impacts will be minimal as this project involves improvements to existing facilities at the current WWTP. Replacement sewer will be installed by horizontal directional drilling under the Stillwater River to prevent impacts, and there will be no in-water work. Additionally, pump stations will replace two existing siphons.

This loan allows Covington to cooperate with The Nature Conservancy through the Water Resource Restoration Sponsorship Program (WRRSP) to protect and restore high-quality aquatic resources. The WRRSP funding will provide $420,500 to purchase the Edge of Appalachia Frame tract of land for conservation in Adams County. This project would protect 98 acres of riparian habitat including 1,554 linear feet of Middle Branch (of Mill Creek), which is exceptional warm water habitat, 4,360 linear feet of perennial streams, and 1,100 linear feet of an ephemeral stream. More information about the WRRSP project is available from the contact named at the end of this document.

History & Existing Conditions

The Village of Covington is located in Miami County (Figure 1), along the Stillwater River. Covington owns and operates a wastewater treatment plant (WWTP) that discharges treated wastewater to the Stillwater River. The original wastewater treatment plant was built in 1941 with its most recent upgrades in 1980. Covington's WWTP has a design flow of 750,000 gallons per day (gpd) to serve its population of approximately 2,678 people.

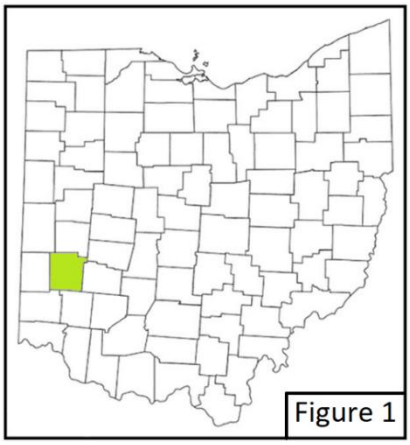
Figure 1

The current WWTP uses a combination of trickling filters and activated sludge biological treatment processes. The gravity collection system conveys flows to the WWTP through four siphons that pass under the Stillwater River, and discharge directly to the plant pre-treatment structure (see Figure 2). The pre-treatment structure consists of

a grinder unit and grit removal chamber. These units are beyond their useful life and are currently not in operation. The primary clarifier tanks were built in 1956, and are well beyond their useful life as well, showing cracks and wear. The trickling filters experience operating problems due to high organic loads or small changes in wastewater characteristics, as well as issues caused by cold weather combined with low flow. The biological treatment facilities are also beyond useful life and require extensive operator maintenance to keep in working order. Intermediate and final clarifiers are functioning but are not up to modern standards and are beyond useful life. Aeration tanks are also beyond their useful life, and post-aeration tank processes need to be reassessed. Ultraviolet disinfection process is currently used but requires tedious manual bulb cleaning which is time consuming for the operator.

An effluent pump station is also located at the WWTP to prevent flooding during times of high flow on the Stillwater River. The pumps are in need of an upgrade if peak flow is expanded. The sludge thickening tank is not functional. The WWTP uses anaerobic digestion, but the buried tank makes maintenance difficult. Covington has reevaluated this process and aerobic digestion was determined as a better option.

Project Description

This project will replace the existing WWTP within the property, including installation of a new headworks building, grit removal system sequencing batch reactor, dried sludge processing facilities, and an administrative building (see Figure 3). This project will also upgrade the existing tankage for aerobic digestion and UV disinfection, construct two pump stations, and install force mains from the pump stations to the WWTP. The two new pump stations will replace WWTP siphons located on Bridge Street and Wright Street (see Figure 4). Additionally, 1,113 linear feet of 10-inch force main, 1,445 linear feet of 8-inch force main, 302 linear feet of 32-inch gravity sewer, 93 linear feet of 15-inch gravity sewer, and 218 linear feet of 8-inch gravity sewer will be installed along Wright Street, South Main Street, and Bridge Street, connecting to the WWTP. Horizontal directional drilling will be used for installing the 10-inch force main below the Stillwater River, minimizing impacts to the stream.

The WWTP improvements include a sequence batch reactor (SBR) system, a continuous-flow biological treatment system providing aeration, decanting, and control in a single treatment tank. It is fully automated and includes a completely integrated process design consisting of the aeration system, blowers, pumps, mixers, effluent decanters, monitoring and control equipment, and a comprehensive process control system. The treated wastewater is then decanted to the post-aeration tank, and then flows through the UV disinfection system. The improvements will not increase their average capacity of 750,000 gpd, though the improvements will allow Covington to treat an increased quantity of flow during peak conditions.

Current NPDES limits are more restrictive than the current effluent limits set by the existing NPDES permit. Because of this, the project requires a modification to Covington's NPDES permit. The Ohio EPA is issuing the draft NPDES permit for the discharge of treated wastewater to the Stillwater River concurrent with this project.

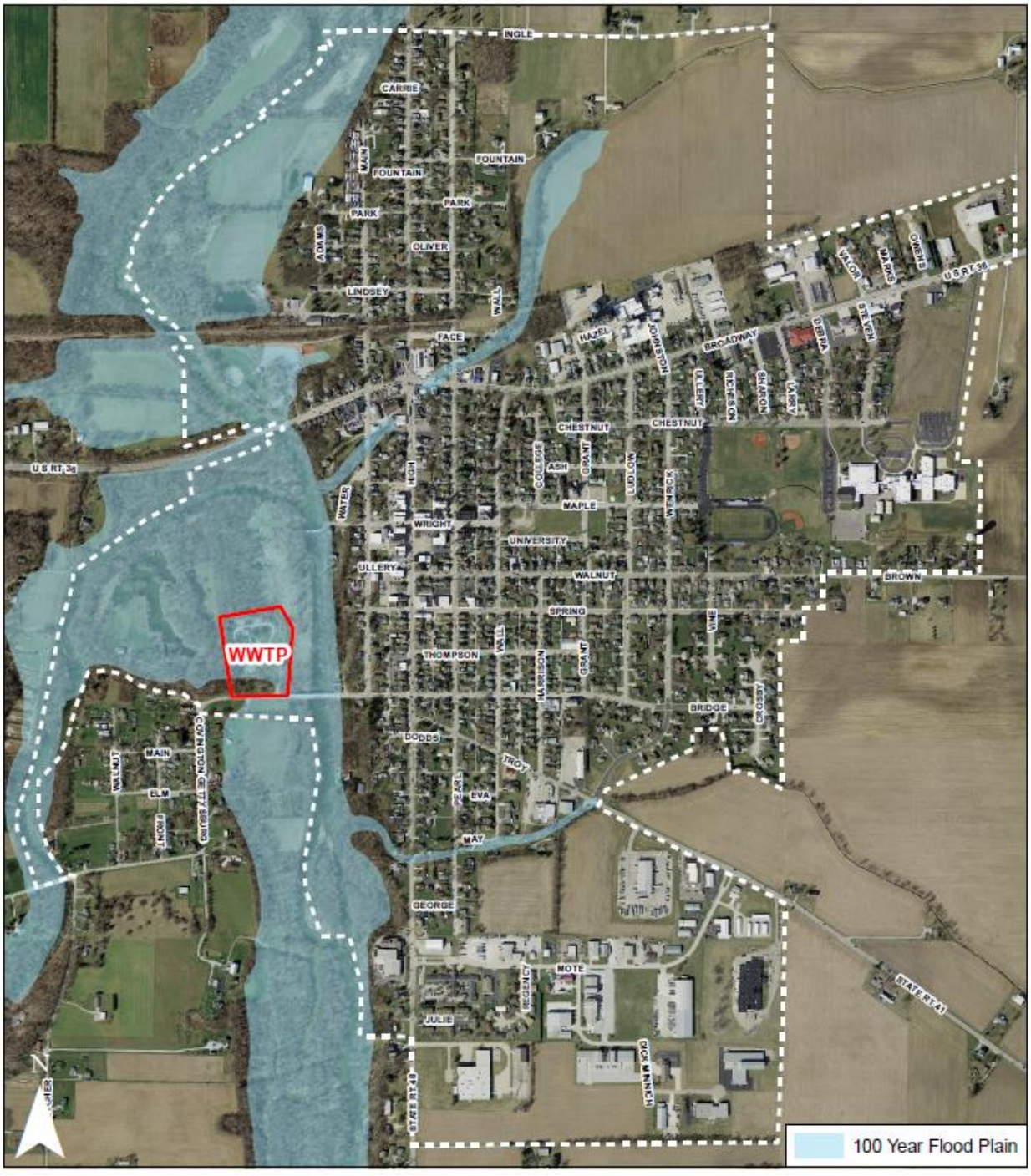

Figure 2. Map of Covington and location of WWTP along Stillwater River

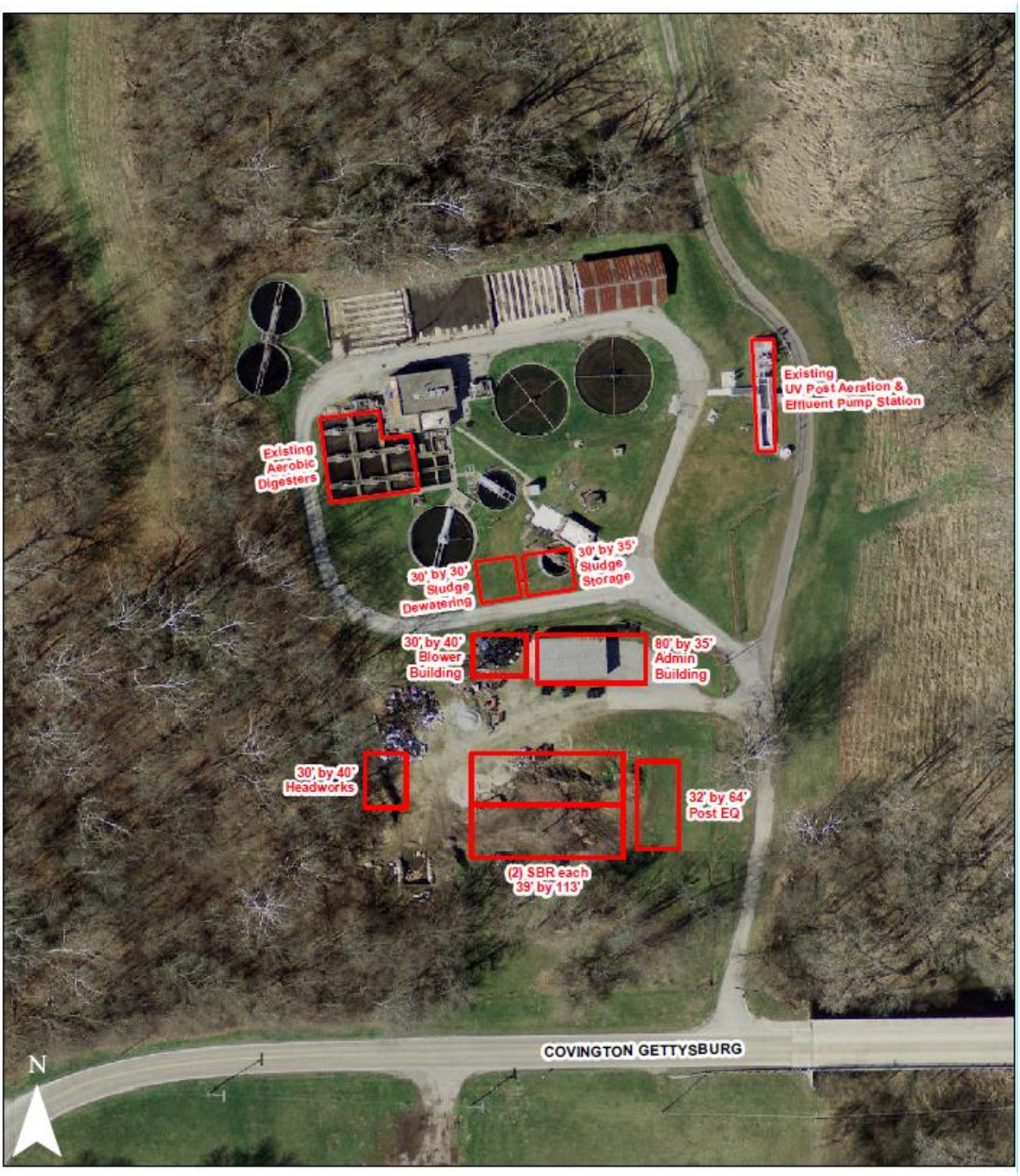

Figure 3. Map of Covington WWTP and proposed improvements

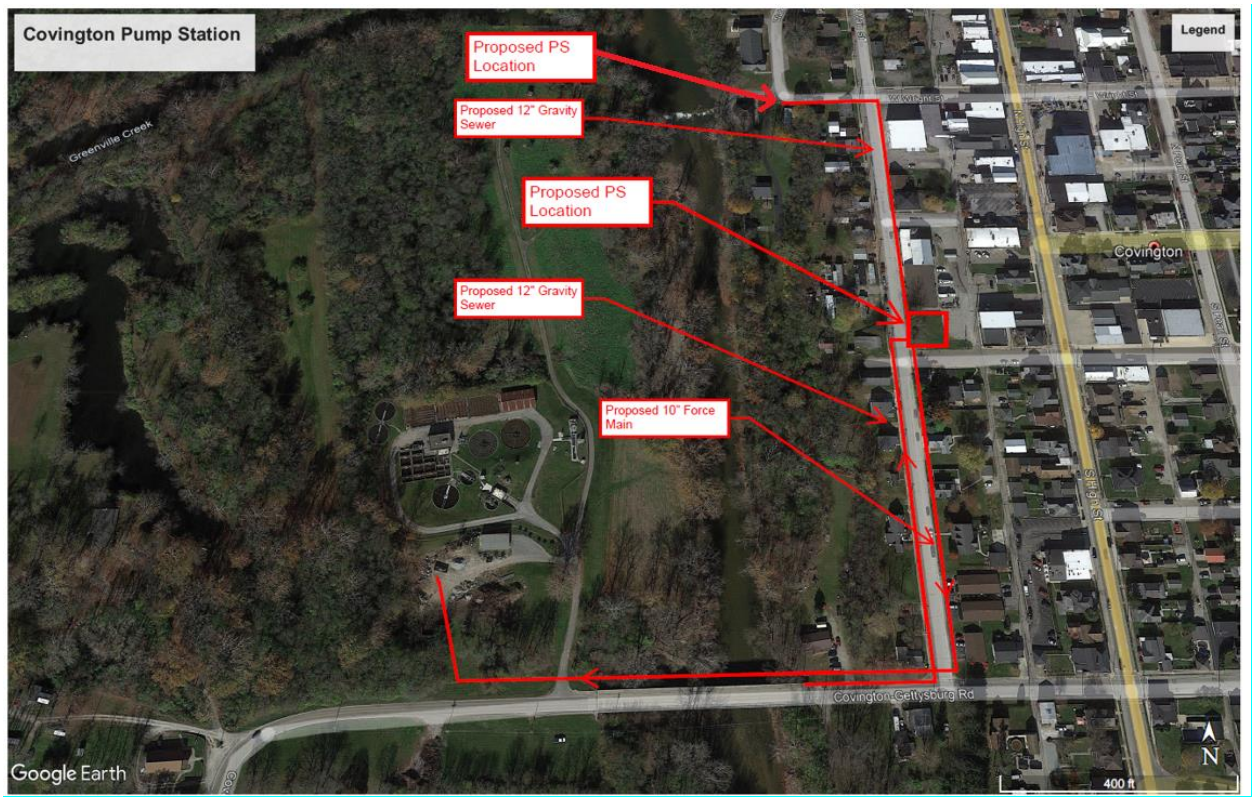

Figure 4. Map of proposed pump stations and 10-inch sewer force main

Implementation

Covington will borrow $18,950,957 from WPCLF and is eligible to receive $4 million of this cost as principal forgiveness, which means this amount need not be repaid. The village will receive a 0% nutrient reduction discounted interest rate on qualifying portions of the project. Covington will also receive up to a 0.1% interest rate discount by sponsoring a Water Resource Restoration Sponsorship Program project: The Edge of Appalachia Frame Addition conservation project, which will be implemented by The Nature Conservancy. During the 30-year loan period, Covington will save a substantial amount of money using WPCLF funding at this interest rate, compared to the market rate of 3.98%. Interest rates are set monthly and are subject to change upon final loan award month.

A typical residential customer living in Covington is currently paying $24.05 monthly for sewer service. The most recent sewer rate increase was 10% in 2023. The next sewer rate increase will be 10% in 2024, and the village plans to increase sewer rates 3% each subsequent year. According to the 2020 American Community Survey, the estimated median household income (MHI) for a resident of Covington is $50,842. The average yearly sewer costs amount to $289 year, which is 0.57% of the MHI, and compares favorably to the average Ohio sewer bill of $749.

Anticipating loan award in May 2023, construction is estimated to be complete in 18 months.

Public Participation

The village has held several public meetings where the project was discussed. Meetings were announced on the village Facebook page and the village newsletter. The village website discusses

upcoming utility bill changes and the proposed project. The local news has covered the project and rate increase over the past couple years. The Ohio EPA is unaware of controversy about or opposition to 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.

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 functional replacements and improvements to the treatment plant. 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 has no effect on high-value environmental resources because this project will occur within the existing Covington WWTP footprint, along local roads, and at existing siphons. The WWTP is a site that has been previously disturbed and graded. Changes and additions to the WWTP buildings will be sequentially constructed in a manner that allows the WWTP to continue treatment throughout the project. Force main sewers will be constructed using HDD to avoid impacting the Stillwater River. Where the siphons will be replaced with pump stations, there will be no in-water work. A frac-out contingency plan is in place to protect the sensitive Stillwater River, a state Scenic River. The project is within the 100-year floodplain and has been reviewed by the local floodplain coordinator and approved.

Where force main sewers, pump stations, and other WWTP structures will be installed by open excavations, a stormwater pollution protection plan is included with the project plans, as well as detailed erosion control measures. Because Covington is within the Great Miami Buried Valley Aquifer (a sole source aquifer), extra care will be taken to prevent runoff or chemical spills that could contaminate the Stillwater River and enter the aquifer. If a spill is discovered, it must be reported to Ohio EPA's spill hotline within 30 minutes, as well as local fire department and local emergency planning committee. If dewatering is to occur, sediment filtration settling basins or filtration devices will be used before water is discharged to the river. Care will be taken to preserve the riparian setback along the Stillwater River as well. Soil will not be disposed of in wetlands, and demolition and construction debris will be disposed of in an Ohio EPA approved C&D landfill. Because these best management practices and plans are in place, valuable environmental resources are unlikely to be impacted.

Is cost effective and not a controversial action because doing nothing was not an option and the WWTP alternatives were evaluated based on best technologies available and appropriate for this project. This project is not controversial because Covington will reduce repayment burden to its customers by borrowing WPCLF funding at a low interest rate, and further reducing the interest rate by other incentives described earlier. Ohio EPA is unaware of any 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 will be replacing the existing WWTP. The NPDES discharge permit limits have been reevaluated and are more stringent than the previous discharge limits. The capacity of the WWTP will remain unchanged and will not change sewer service connections.

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 the replacement of the old WWTP, updated NPDES discharge limits, and the improvement of treated wastewater quality discharged to the Stillwater River.

Contact Information

Megan Osika
Ohio EPA-DEFA
P.O. Box 1049
Columbus, Ohio 43216-1049
Email: Megan.osika@epa.ohio.gov