



John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

December 6, 2018
Preliminary Finding of No Significant Impact
Summit County – Q-959, WWTP No. 36 RBC Replacement
Summit County
WPCLF# CS390078-0095

The attached Environmental Assessment (EA) is for a wastewater treatment project in your area 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 WPCLF 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 EA.

Any comments on our preliminary determination should be sent to me at the letterhead address. We will not act on this project for 30 calendar days from the date of this notice in order to receive and consider comments. In the absence of substantive comments during this period, our preliminary decision will become final. After that, Summit County can then proceed with its application for the WPCLF loan.

Sincerely,

A handwritten signature in blue ink that reads "Jerry Rouch". The signature is written in a cursive, flowing style.

Jerry Rouch, Assistant Chief
Division of Environmental & Financial Assistance
Office of Financial Assistance

JR/DH

attachment

ENVIRONMENTAL ASSESSMENT

Project Identification

Project Name: Summit County – Q-959, WWTP No. 36 RBC Replacement

Address: Michael Weant, Director
Summit County Department of Sanitary Sewer Services
1180 South Main Street, Suite 201
Akron, OH 44301

WPCLF #: CS390078-0095

Project Summary

The Summit County Department of Sanitary Sewer Services (DSSS) has requested approximately \$20,166,000 from the Ohio Water Pollution Control Loan Fund (WPCLF) to improve its Upper Tuscarawas Wastewater Treatment Plant (WWTP) No. 36 in Springfield Township (Figure 1). The existing rotating biological contactor (RBC) treatment apparatus is aged and deteriorating and difficult to maintain. This project will convert the WWTP to a proprietary biological nutrient removal treatment system and remove the RBCs. All work will be in the existing WWTP footprint in areas disturbed by previous construction and lacking important environmental resources. Soil on part of the site is contaminated with industrial waste, which has been well documented and requires specific protections for workers during excavation.

History and Existing Conditions

The Summit County Upper Tuscarawas WWTP #36 is a 4.0 million gallons per day (MGD) tertiary treatment facility constructed in 1980. Sewage from more than 8,200 customers is treated by fine screening, aerated grit removal, primary clarification, rotating biological contactors (RBCs), secondary clarification, chemical clarification, tertiary filtration, and ultraviolet light disinfection. Treated effluent flows into the Tuscarawas River. Average daily flow is 2.88 MGD; peak design flow is 10.5 MGD. The RBCs and secondary and chemical clarifiers have reached the end of their useful service life and the RBCs are not optimal for meeting the lower phosphorus and ammonia limits in the facility's National Pollutant Discharge Elimination System (NPDES) permit.

The service area is partly undeveloped and Summit County expects modest growth in the area in the next thirty years, which requires consideration of expanding the treatment capacity of WWTP No. 36 to 5.0 MGD.

The Tuscarawas River upstream and downstream of WWTP No. 36 is in full attainment of its Warmwater Habitat (WWH) Ohio EPA Aquatic Life Use designation, suggesting that the operation of the WWTP protects local water quality.



Figure 1 – Project Location

Feasible Alternatives

To replace the aged RBCs and provide technology to meet nutrient (phosphorus and ammonia) limits, Summit County rejected a "no-action" (do nothing) alternative that would mean increasing repair and replacement costs and the risk of discharge violations. Driven by nutrient limits, Summit County considered treatment technologies that would reliably meet NPDES requirements, chemical nutrient removal and biological nutrient removal. Chemical nutrient removal relies on the addition of chemicals to bind with phosphorus and sequester it in the sludge. Biological nutrient removal (BNR) relies on maintaining certain bacteria and other microbes in varying aerobic (with oxygen) and anaerobic (without oxygen) conditions to allow the microbes to take up or metabolize nitrogen and phosphorus and remove both from the wastewater. Summit County rejected alternatives using "fixed film" technology (variations of the RBCs) because of the historically unsatisfactory RBC experience at WWTP No. 36.

Selected Alternative

Summit County selected a hybrid BNR process, combining aspects of the Virginia Initiative Plant (VIP) and Modified University of Cape Town (MUCT) processes optimal to WWTP No. 36. The proposed design will include an initial anaerobic stage followed by an anoxic zone and an aerobic zone, providing sequentially different environments for removal of both ammonia and phosphorus. The MUCT process enhances phosphorus under optimal conditions and the VIP process provides greater ammonia removal, together yielding greatest overall nutrient removal capability.

The new BNR system requires construction of two rectangular tanks measuring 220 feet x 80 feet x 14 feet deep, two new circular final clarifiers 75 feet in diameter and 17 feet deep, and associated piping, blowers, sludge collection system, and controls (Figure 2). The BNR average daily flow design capacity is 5.0 MGD; the remainder of the plant is designed for 4.0 MGD and may be expanded when flows approach 5.0 MGD. The existing NPDES permit for 4.0 MGD remains unchanged.

The two existing secondary clarifiers and two chemical clarifiers will become flow equalization basins storing up to 1.7 million gallons of influent sewage to better manage wet-weather high flows after the new BNR facilities are operational.

Implementation

Summit County will borrow approximately \$20,166,000 from the WPCLF at the Standard interest rate (now 2.39%; the rate is set monthly and may change for a later loan award). During the 20-year loan period, Summit County will save approximately \$3,135,000 by using WPCLF dollars at this rate, compared to the market rate of 3.64%.

Construction will start after the anticipated March 2019 loan award and be completed by mid-2020.



Figure 2 – Proposed structures (shown in white)

Public Participation

Summit County posted project information on its web page and requested public comments.

Ohio EPA is unaware of controversy about or significant opposition to the project. Ohio EPA will make a copy of this document available to the public on its web page (<http://epa.ohio.gov/defa/ofa.aspx> WPCLF Documents for Review and Comment) and will provide it on request to interested parties.

Environmental Impacts

Because this project is designed to replace outdated equipment and improve wastewater treatment, rather than provide additional capacity in the wastewater system for growth, it will not lead to new development or associated indirect or cumulative impacts. All work will be on the WWTP No. 36 site, land that has been previously excavated and lacks important environmental resources. Although adjacent to the Tuscarawas River, no work is in the regulatory floodplain. The site was previously graded for earlier WWTP work, and this project will not alter local landforms. No wetlands or agricultural land are on the site, which is dedicated to wastewater treatment and requires no change in land use. The project will affect no aquatic habitat or surface water resources because no work will occur in or immediately adjacent to the Tuscarawas River. No public or private ground water wells are in the greater project area, so the expected temporary, significant dewatering of ground water required for excavation will not adversely affect ground water resources. A small area of shrub/scrub vegetation and small trees was cleared during cold weather during the “seasonal clearing” timeframe allowed by the U.S. Fish and Wildlife Service to protect endangered bat species, avoiding impacts to important terrestrial habitat.

While the project adds no permanent source of air pollution, temporary, insignificant increases in dust and exhaust from construction vehicles are expected during construction, which should have no significant adverse short-term or long-term impacts on local air quality. Likewise, changing from one treatment technology to another will not significantly alter the overall energy demand of the WWTP or significantly affect regional energy supplies.

Construction vehicle noise will be audible only on and immediately adjacent to the construction site, which is isolated from residences. All work is on the fenced WWTP site and will affect no public roads or traffic or unauthorized members of the public. The construction contract references the site’s Health and Safety Plan and ensures adherence to its stipulations for worker safety when soil is exposed in areas of known industrial waste contamination. Upon project completion, the WWTP’s appearance will be largely similar to pre-construction conditions. For these reasons, the project will cause no significant adverse short- or long-term impacts to noise, traffic, safety, or aesthetics.

Because all work will be on the existing WWTP site on land previously filled and graded, Ohio EPA concluded this project will not affect important cultural resources (properties listed or eligible for listing in the National Register of Historic Places). In the event of archaeological finds during construction, Ohio Revised Code Section 149.53 requires contractors and subcontractors to notify the State Historic Preservation Office of any archaeological discoveries in the project area, and to cooperate with the Office in archaeological and historic surveys and salvage efforts when appropriate. Work will not resume until a survey of the find and a determination of its value and effect has been made, and Ohio EPA authorizes work to continue.

The typical annual residential sewer bill is \$675 (flat-rate fee billed monthly for customers using private wells), which is approximately 1.3% of the county's median household income (MHI). This compares favorably to the state average annual sewer bill, \$677. Sewer bills below 1.8% of MHI are generally considered affordable. This project requires no rate increase. By using the WPCLF low-interest financing for this project, Summit County has minimized the cost and the impact on customers and the local economy.

Conclusion

Based on its review of this project's general plans and other information, Ohio EPA concludes that no significant short-term or long-term adverse direct environmental impacts will result from the project as related to the environmental features discussed in this Environmental Assessment. This is because these features do not exist in the project area, the features exist but will not be adversely affected, or the impacts of construction will be temporary and mitigated.

This project equally serves the entire WWTP No. 36 service area and no particular segment of the community will face additional adverse impacts or be deprived of environmental benefits, compared to any other segment.

For these reasons, this project, alone or in combination with other projects, is not expected to result in any significant indirect or cumulative short-term or long-term adverse environmental impacts.

Ohio EPA expects the economic impact of the project on the average user to be insignificant because average sewer bills are affordable and the project requires no rate increase.

The project will ensure that WWTP No. 36 will meet phosphorus and ammonia limits and help protect water quality in the Tuscarawas River for the indefinite future.

For more information, please contact:

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