Ohio Environmental Protection Agency

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

August 24, 2022

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

Village of Crestline – Crawford County
New WWTP and Collection System Improvements
Loan Number: CS390289-0011

The attached Environmental Assessment (EA) is for a new wastewater treatment plant construction project in Crawford 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 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 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, the Village of Crestline can then proceed with its application for the WPCLF loan.

Sincerely,

Kathleen Courtright

Kathleen Courtright, Assistant Chief
Division of Environmental & Financial Assistance

Attachment

ENVIRONMENTAL ASSESSMENT

Project Identification

Project: New WWTP and Collection System Improvements

Applicant: Village of Crestline
100 North Seltzer Street
Crestline, Ohio 44827

Loan Number: CS390289-0011

Project Summary

The Village of Crestline has requested financial assistance from the Ohio Water Pollution Control Loan Fund (WPCLF) for the New WWTP and Collection System Improvements project. Work for this wastewater collection and treatment project will primarily include the construction of a new wastewater treatment plant (WWTP), wastewater pump station, and force main sewer to correct environmental and public health issues related to sanitary sewer overflows in the community and a WWTP that is beyond its useful life. Crestline is eligible for approximately $6.2 million in grants from various entities to help pay for this project. The remaining estimated WPCLF loan amount is $8,220,316. Debt for the project will be repaid from monthly sewer fees. The project is scheduled to begin in autumn 2022 and be completed in 23 months.

History & Existing Conditions

The Village of Crestline (see Figure 1) is situated along U.S. Route 30, west of Mansfield in northern Ohio. The village is primarily situated in Crawford County, though a small section of the village on the eastern side is situated in Richland County. The Village of Crestline owns and maintains a WWTP and sanitary sewer system that serves the residents and businesses residing in the village. The village's WWTP, located on Westgate Drive, was originally constructed with a combined sewer system that was installed in conjunction with the treatment plant in 1946. The WWTP currently has an average daily flow (ADF) capacity of 0.95 million gallons per day (MGD), and a peak capacity of 2.2 MGD. The WWTP is currently beyond its useful life, requiring extensive and continued maintenance and repairs. The WWTP also is unable to meet its current National Pollutant Discharge Elimination System (NPDES) permit limits for total phosphorus.

Crestline is undergoing a multi-phase upgrade of its wastewater facilities and continues to perform various projects to address infiltration and inflow (I/I)[1], storm sewer overflows (SSOs), level of treatment and treatment capacity. Among these projects were the WPCLF funded Sewer Separation Improvements Phase I (2011), Wastewater Treatment Plant Improvements (2014), and Overflow Elimination Project (2015).

[1] Infiltration is the ground water that seeps into sanitary sewers through cracks, offset joints, and other flaws in the pipe. Inflow is surface runoff that enters sanitary sewers through directly connected downspouts, area drains, etc.

The combined sewer system was separated in 2007, but SSOs are still present due to continuing I/I entering the sewer collection system. Crestline received so many water in basement (WIB) complaints after SSOs were closed that they had to reopen all SSOs to alleviate WIB. Ohio EPA issued Director's Final Findings and Orders (DFFOs) to Crestline on April 4, 2011, finding Crestline in several violations of its NPDES permit.

The Park Road Pump Station (PS) was constructed in the 1940's to convey combined flows directly to the WWTP. The existing pumps have a combined capacity of 2.2 MGD; however, the force main discharges to a nearby gravity sewer which, during wet weather events, flows back to the Park Road PS and an active SSO. The PS is beyond its useful life, requiring extensive and continued maintenance and repairs.

Population and Flow Projections

The Village of Crestline has seen declines in population for most of the last 50 years, and has a current population of 4,448. Assuming a moderate growth rate of 1.5 percent rather than continued population decline, the population would reach 6,150 in 2040. The existing WWTP, rated for 0.95 MGD, currently sees an ADF of 0.9 MGD. This yearly average is inflated by I/I during wet weather events. The dry weather flow experienced by the village is actually less than 0.5 MGD. The population projection above adds an additional 1,702 residents. Assuming a wastewater flow of 100 GPD/person, this would add approximately 0.17 MGD to the ADF by 2040. Combined with the existing ADF of 0.9 MGD, this would be 1.07 MGD. The proposed 1.1 MGD design ADF will be able to accommodate this population.

Alternatives

Crestline and its consultants began evaluating alternatives for wastewater collection and treatment facilities to serve the village. Various technologies were considered, as well as an analysis of capital costs, operation and maintenance (O&M) costs, present worth analysis, and non-monetary factors. The following alternatives were considered:

Alternative 1 No Action
A "no-action alternative" is not feasible since it would result in continued threats to human health and the environment related to SSOs of untreated wastewater.

Alternative 2 Relief Sewers
This alternative would include construction and installation of relief sewers parallel to the existing sanitary sewers, as needed, to convey all overflows to the WWTP.

Alternative 3 Relief Sewers and I/I Reduction
This alternative would include construction and installation of relief sewers parallel to the existing sanitary sewers, as needed, to convey all overflows to the WWTP. This alternative would also include Cured-in-Place Pipe (CIPP) lining throughout the public sanitary sewer system and private laterals, manhole relining, and downspout and sump pump redirection to storm sewers.

Alternative 4 Relief Sewers, I/I Reduction, Pump Station Improvements, and EQ Basin
This alternative would include construction and installation of relief sewers parallel to the existing sanitary sewers, as needed, to convey all overflows to the WWTP. This alternative would also include

Cured-in-Place Pipe (CIPP) lining throughout the public sanitary sewer system and private laterals, manhole relining, and downspout and sump pump redirection to storm sewers, PS improvements, relief force main, and equalization (EQ) basin located at the PS.

Alternative 5 Replacement WWTP, I/I Reduction, and Pump Station Improvements
This alternative would include construction and installation of a replacement WWTP, Cured-in-Place Pipe (CIPP) lining throughout the public sanitary sewer system and private laterals, manhole relining, and downspout and sump pump redirection to storm sewers, PS improvements, and a relief force main.

Selected Alternative

Alternative 5, Replacement WWTP, I/I Reduction, and PS Improvements, was the chosen alternative as it would address I/I issues and allow the collection system to handle larger storms with fewer SSO events, implement necessary PS improvements, and add a force main to the WWTP, eliminating a recirculating SSO. This alternative would also replace a WWTP that is beyond its useful life. These improvements will allow the WWTP to handle a greater average daily flow, and also allow the WWTP to meet its new NPDES permit limits for total phosphorus.

The proposed project (see Figure 2) includes the construction of a new/replacement WWTP, replacement/upgrade of the Park Road PS, along with the installation of approximately 3,200 linear feet of 12-inch diameter force main. The new WWTP plant will be designed for a peak capacity of 6.6 MGD (up to 8.8 MGD during extreme wet weather events), and constructed on the site of the current village WWTP. It is designed to treat an average daily design flow of 1.1 MGD and a peak flow of 2.2 MGD.

The new WWTP headworks will consist of an influent PS, an influent screening system, a grit removal system, and equalization tanks. Flow will enter the WWTP through the existing 24-inch sanitary influent sewer, before entering the influent screening system constructed along the influent sewer. The influent PS is sized for a total capacity of 8.8 MGD and a firm capacity of the peak hour flow (PHF) of 6.6 MGD, and will divert all flows above the PHF into the equalization tanks.

The new WWTP process will utilize an oxidation ditch, a jet aeration and mixing system, and internal mixed liquor recycling. To achieve biological nutrient removal, this oxidation ditch includes anaerobic, anoxic, and aerobic zones throughout three channels in a racetrack configuration.

An existing aeration tank and clarifiers are proposed to be used as equalization tanks that will alleviate storm flows (in excess of 6.6 MGD) into the WWTP. Other components of the treatment facility will include a chemical feed system, post aeration, and UV disinfection. There will be no new sludge handling equipment or tanks, only upsized piping and valves; otherwise, existing sludge handling equipment will continue to be utilized. The existing WWTP generator will also be replaced with a larger model. Treated effluent from the WWTP will continue to be discharged to Westerly Creek via the existing discharge line and outfall structure.

The new Park Road PS will include a packaged 3.8 MGD PS, with three pumps, a prefabricated HDPE pipe wet well and above-ground valve vault to house controls, and will be installed on the north side of the existing PS. The existing PS building will be demolished but the existing wet well and dry well

below the building can be converted into a small EQ tank for the new PS. A grit trap and screen will be constructed prior to this EQ wet well to protect the new PS. The existing generator will be replaced with a larger generator situated within a sound enclosure.

The new PS will be connected to a 12-inch, 3,200 LF force main that will travel directly to the WWTP, and which will greatly reduce SSOs.

Construction work at the Park Run Road PS will occur adjacent to the existing PS on property owned by the village. The force main will be installed within existing road right of way along Park Road, Thrush Drive, and Westgate Road.

Implementation

Crestline expects to receive grants and funding from, among others, U.S. Army Corps of Engineers and the Ohio Public Works Commission, totaling approximately $6,200,000. The remaining estimated project amount is $8,220,316, and Crestline proposes to borrow this balance from Ohio's WPCLF, and qualifies for a zero percent WPCLF hardship interest rate. Borrowing $8,220,316 at zero percent will save Crestline approximately $5,374,000 for the 30-year loan period compared to borrowing the same amount at the current market rate of 3.65 percent.

Crestline will recover debt associated with the project with revenue generated by monthly sewer fees. The projected 2022 monthly residential sewer rate in Crestline is $55.31 ($663.72 annually), based on an average monthly usage of 1,037 cubic feet of water. This is 1.65 percent of the median household income of $40,321, as compared to the state average of 1.3 percent.

Public Participation

This project has been discussed in multiple public meetings, letters have been sent to property owners within the project area regarding the proposed project, and the project has been discussed in the local media and though social media. A public notice announcing the availability of this Environmental Assessment will be posted on the Village of Crestline and Ohio EPA Division of Environmental and Financial Assistance websites. The public notice for the Environmental Assessment will be open for a 30-day public comment period. Furthermore, coordination for this project has taken place with various federal, state, and local agencies and institutions, including the following:

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

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 is not expected to have significant adverse long-term impacts on surface water resources, as there will be no in-water work, and no wetlands are present in the project area. The majority of the proposed gravity and force main sewer will be performed within previously-disturbed road rights-of-way and limited easements on private properties, in which the predominant cover is pavement, gravel, and lawn grass. The proposed lift stations are located in road rights-of-way with prior disturbance. The proposed WWTP site is the same as the existing Crestline WWTP, in an area that has extensive and repeated prior disturbance. Portions of the project will be located within the 100-year floodplain of Westerly Creek, but not within the regulatory floodway or special floodway.

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 endangered Indiana bat and threatened northern long-eared bat. No tree clearing is expected as part of this project. Should tree clearing or trimming become necessary, it will only be permitted to occur October 1 to March 31 or in coordination with USFWS, and tree removal is 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.).

The project is within the range of the eastern massasauga, a federally threatened and state endangered species; smooth green snake, a state endangered species; and the Kirtland's snake, a state threatened species. However, due to the location of the project and the lack of appropriate habitat present, these species are not likely to be impacted.

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: Crawford 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 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, the wastewater collection and treatment systems 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, force main sewer 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.

Land Use: The installation and operation of the new WWTP and collection system will have limited indirect, development-related impacts. This is because the current and expected levels of population growth are low in the project area as a whole.

Archaeological and Historical Resources: Ohio EPA and Crestline have concluded, based on the extensive pre-design review and historic structure avoidance that went into the design of the project, combined with proposed construction occurring primarily in previously-disturbed areas, 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, Ohio EPA believes that due to the extent of disturbance in the project area, unrecorded archaeological sites or properties eligible for or listed on the National Register of Historic Places are not likely to be present. The Ohio State Historic Preservation Office has agreed with this conclusion.

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, no sole source aquifers are present under the project, and no prime or unique farmland will be impacted.

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. Once implemented, the project will provide a cost-

effective way to address environmental and public health issues related to sanitary sewer overflows and a WWTP that is beyond its useful life. Also, by using WPCLF low-interest financing, Crestline has minimized the project cost.

Contact information

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Figure 1. General project area

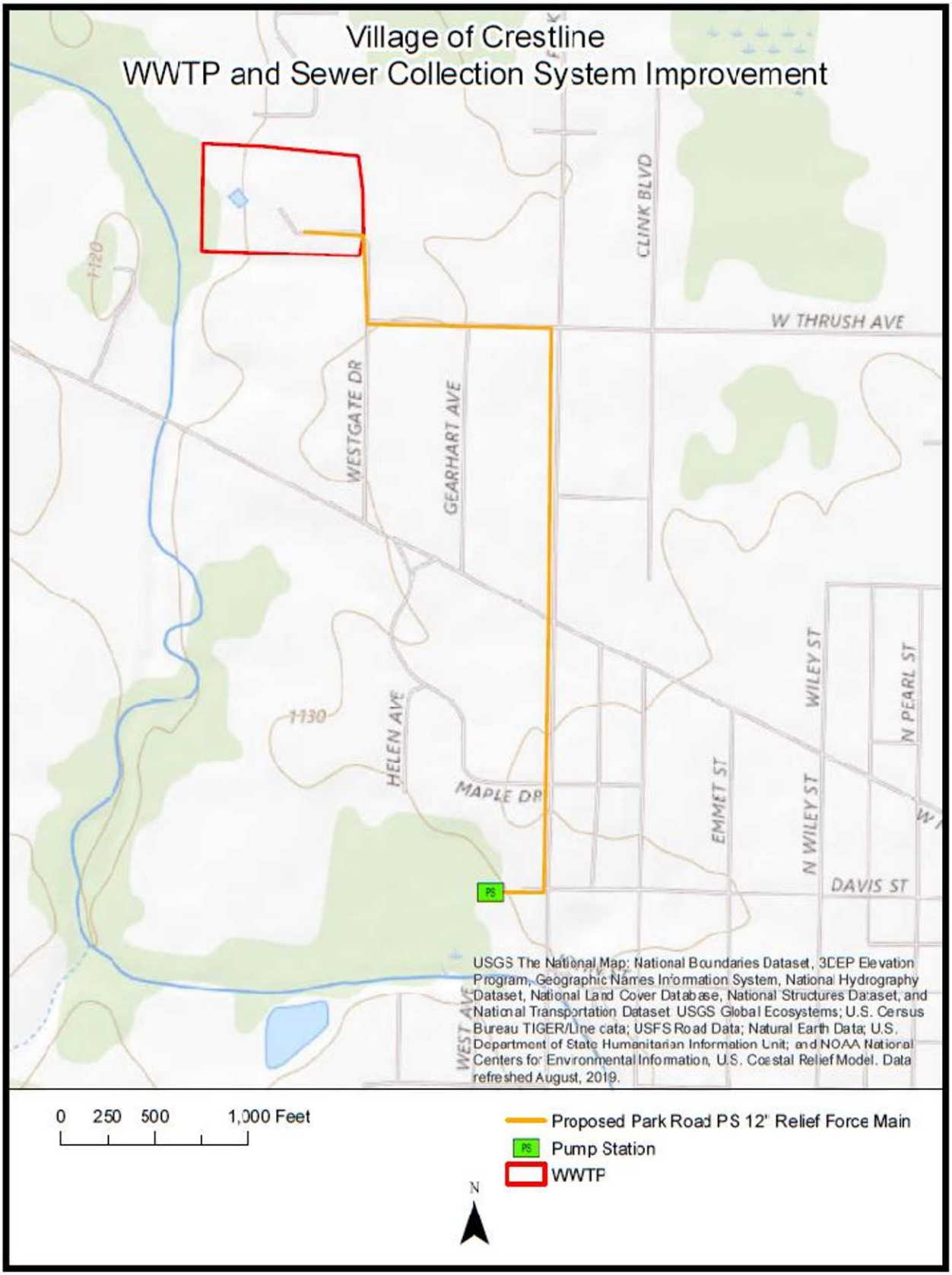

Figure 2. Project area