June 12, 2019

Limited Environmental Review and Finding of No Significant Impact

Northwestern Water and Sewer District - Wood County
Millbury Area Sanitary Sewer Improvement Phase 2
Loan number: CS391432-0145

The attached Limited Environmental Review (LER) is for a wastewater treatment project in the village of Millbury 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, as described in Ohio Administrative Code (OAC) 3745-150-05.

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, as described in OAC 3745-150-06. 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,

[Signature]
Jonathan Bernstein, Assistant Chief
Division of Environmental and Financial Assistance

Attachment
LIMITED ENVIRONMENTAL REVIEW

Project Identification

Project: Millbury Area Sanitary Sewer Improvement Phase 2
Applicant: Jerry Greiner, President
Northwestern Water and Sewer District
12560 Middleton Pike
Bowling Green, OH 43402

Loan Number: CS391432-0145

Project Summary

The Northwestern Water and Sewer District (NWWSD) has applied for funding from Ohio EPA's Water Pollution Control Loan Fund (WPCLF) for the Millbury Area Sanitary Sewer Improvement Phase 2 project (here forward referred to as the “Phase 2 project”). The project is intended to reduce wet weather flows within the aged wastewater collection system by repairing and replacing existing sewer laterals. The total estimated loan for the project is $1,047,163, with construction scheduled to begin in the summer of 2019 and to be completed in six months.

History & Existing Conditions

NWWSD, chartered under Section 6119 of the Ohio Revised Code, was organized in 1994 to assume the water and sewer operations of the Wood County Sanitary Engineer. NWWSD Sanitary Sewer 200 (SS-200) Area is located in northern Wood County and provides separate sanitary sewer service to approximately 2,800 homes and businesses in the political subdivisions of Millbury, Northwood, Walbridge and Lake Township. Wastewater flow from this area is collected and conveyed through sewer infrastructure to the City of Oregon Wastewater Treatment Plant (WWTP) for treatment.

Infiltration and inflow (I/I) increase flows beyond the hydraulic capacity of Millbury's and Oregon's systems, causing the bypassing of untreated wastewater at Oregon’s WWTP, sanitary sewer overflows (SSO), basement flooding, and raising a public health risk from potential human contact with raw sewage. The presence of raw sewage in streams and lakes can also contribute to the proliferation of Harmful Algal Blooms (HAB) and their associated algal toxins in water. Algae populations generally proliferate during the summer and fall, corresponding to warm water temperatures, and HAB are becoming increasingly prevalent. These seasonal issues in water quality have led to beach closures and “Do Not Drink” advisories being issued in communities whose source water has become contaminated with algal toxins. During wet weather events, SS-200 Area contributes peak flows as high as 12 million gallons per day (mgd), well beyond the maximum flow...
of 5 mgd allowed under NWWSD’s contract with Oregon. Ohio EPA issued the City of Oregon administrative orders (Director's Final Findings and Orders, or DFFO) to address SSOs occurring within the city's collection system. The City prepared a “No Feasible Alternatives Analysis (NFA) Final Report” and “Sanitary Sewer System Evaluation and Capacity Assurance Plan” (SSECAP), both submitted to Ohio EPA in March 2012, which outlined a plan for eliminating these SSOs. The need for a 5 mgd flow limitation for the SS-200 Area is noted in the city’s NFA Final Report and SSECAP. The Phase 2 project, which will be undertaken by NWWSD, is the latest of several projects to address the management of I/I in the SS-200 area, thus helping reduce wet weather flows to Oregon. NWWSD was awarded a WPCLF loan in December 2016 for the Millbury Area Sanitary Sewer Rehabilitation project, which included repairs, sealing and grouting of manholes, root cutting and sewer cleaning, and rehabilitation of the existing sewers.

Numerous inspections, monitoring and modeling have been performed on this system by NWWSD and its contractors, the results of which were used in this project's alternatives analysis. Projects have taken place with the goal of reducing wet weather flows, including: spot repairs and relining of sewers, root cutting and sewer cleaning, installation of T-liners at lateral sewers, pipe joint grouting, manhole grouting, internal manhole joint seals and casting replacement. These efforts have reduced the volume of I/I in the village. However, based on sanitary sewer inspections, extensive I/I problems still exist. The inspections found sewer laterals with infiltration due to bad connections, poor seals and small cracks, root infiltration, material deposits, and pipes with structural defects and weakness. A factor contributing to I/I is that significant portions of the sanitary sewer and laterals lie below the normal ground water table.

**Project Description**

The proposed Phase 2 project (see Figures 1 and 2) will involve repair or replacement of approximately 70 damaged sewer laterals, root cutting and cleaning of sewer main and laterals, relining by cured in place pipe (CIPP), repair and replacement of sewer laterals, installation of new lateral cleanouts, repair of storm sewers, and site restoration.

This project combines replacement of laterals beyond their useful life with the rehabilitation of mains and laterals. The joints and cracks of the various sewer pipes and laterals create infiltration sites that sealing, grouting and CIPP repairs would eliminate. Repairs by sealing, grouting and CIPP are also the most cost-effective alternative, as it will restore structural integrity to the deteriorated pipe and laterals and significantly reduce infiltration. These repairs also minimize traffic disruption, environmental and habitat degradation, site restoration and potential impacts to historic or cultural resources as opposed to full excavation and replacement of all structures. This project will also allow NWWSD to reduce wet weather flows to Oregon’s WWTP and the potential of sanitary sewer overflows and bypassing into Lake Erie. This will help reduce the public health risk from potential human contact with raw sewage as well as reducing potential impacts related to HAB.

**Implementation**

NWWSD proposes to borrow the entire cost for the project from Ohio’s Water Pollution Control Loan Fund (WPCLF). NWWSD will recover debt associated with the project from a general maintenance fund, which means that the sewer rate paid by Millbury's customers will not change to pay for the
project. NWWSD qualifies for the WPCLF standard long-term construction interest rate, which for the month of June 2019 is 1.66 percent over 20 years. The 2019 monthly residential sewer rate in Millbury is $88.38 ($1,061 annually), based on an average monthly usage of 1,037 cubic feet of water. This is 1.84 percent of the median household income of $57,500, which is considered affordable.

The total estimated project cost is $1,047,163. Borrowing this amount at 1.66 percent will save NWWSD approximately $154,000 over the life of the loan compared to borrowing the same amount at the current market rate of 2.91 percent. Construction is expected to begin in the summer of 2019 and be completed in six months.

**Public Participation**

NWWSD has a long history of working with the general public and local public officials when proposed projects are to be located in their community. This project has been discussed at NWWSD board meetings, has been detailed on NWWSD’s website, and has been advertised for bids. Advance notice to residents in the form of a letter will precede construction. NWWSD is not aware of controversy surrounding this project. For a project of such limited scope and impact, this is considered adequate public involvement.

**Conclusion**

The proposed project meets the project type criteria for a Limited Environmental Review (LER); namely, it is an action within an existing public wastewater treatment system, which involves the functional replacement of and improvements to existing mechanical equipment. Furthermore, the project meets the other qualifying criteria for an LER; specifically, the proposed project:

**Will have no significant environmental effect and will require no specific impact mitigation** because construction will not adversely affect any special resource type, general construction environmental protections will be in place: noise will be controlled with silencers on mobile equipment, and dust and odors will be controlled and air quality will be protected with emissions controls on mobile equipment and with the use of street sweeping and dust suppressants, as applicable. It will have the public health and environmental benefits related to reducing risks related to potential human contact with raw sewage and will potentially reduce nutrients which contribute to Harmful Algal Blooms in Lake Erie.

**Will have no effect on high-value environmental resources** because the construction will be limited to the repair of sewer pipes under and within roads and in road rights-of-way. No significant ground disturbance will take place as part of this project, so there will be no effects to the following: floodplains, wetlands, surface water, endangered/threatened species or their habitat, state and federally designated wild and scenic rivers, recreational rivers, or wildlife areas, and archaeological, historic or cultural resources.

**Is cost-effective** because the combination of replacement of laterals, as well as the sealing, grouting and CIPP repairs to the existing pipes and laterals is the most cost-effective alternative, as it will remove the sources of I/I without the more intrusive and costly actions related to the full excavation and replacement of all sewer pipe and laterals.
Is not a controversial action because no local rate increase will be associated with the debt repayment. It will have no effect on population, nor will it have significant adverse environmental effects that could raise public concern. The rates that NWWSD applies to its general service area are affordable.

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 because the project does not require the expansion of Oregon’s wastewater treatment facility beyond its current design capacity, the installation of a satellite treatment facility, or other action that could increase discharges or add or relocate discharge points.

Will not provide capacity to serve a population substantially greater than the existing population because increases in pipe capacity or service extensions into undeveloped areas have not been included in the projects. Thus, the projects will not result in adverse secondary (development-related) environmental impacts, such as farmland or wetland conversion for building purposes.

Contact info

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Figure 1: General project location (in red).
Figure 2: Project location of sewer repairs.