



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

April 29, 2020

Limited Environmental Review and Finding of No Significant Impact

**City of Pataskala - Licking County
Water Reclamation Facility Improvements - Phase 1
Loan number: CS390739-0016**

The attached Limited Environmental Review (LER) is for a water reclamation facility improvements project in Pataskala 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, Assistant Chief
Division of Environmental and Financial Assistance

Attachment

LIMITED ENVIRONMENTAL REVIEW

Project Identification

Name: Pataskala – Water Reclamation Facility Improvements – Phase 1

Applicant: Benjamin J. King, City Administrator
City of Pataskala
621 West Broad Street
Suite 2B
Pataskala, OH 43062

Loan number: CS390739-0016

Project Summary

The City of Pataskala in Licking County has requested \$1,446,380 from the Water Pollution Control Loan Fund (WPCLF) for improvements to the water reclamation facility's existing oxidation ditch, pump stations, and other associated equipment to reduce levels of phosphorus.

History and Existing Conditions

The current Pataskala Water Reclamation Facility (WRF) is a mechanical treatment system constructed in 1989 with additional upgrades in 2010. It has an approved average daily capacity of 1.1 million gallons per day (MGD) and the current average daily flow is 0.77 MGD. The treatment equipment consists of influent screens, an oxidation ditch for biological screening, circular clarifiers, lagoons for wet weather peak flows, aerobic digesters, a gravity thickener, a rotary fan press for dewatering, and biosolids storage.

The receiving stream is the South Fork Licking River which is tributary to the Licking River that then discharges into the Dillon Reservoir and eventually the Muskingum River. Pataskala has been growing by about 46 residences per year for the last few years and growth is expected to continue at this rate for the foreseeable future. While the average flow in 2017 was 0.77 MGD, the dry weather minimum flow was 0.58 MGD, which leaves plenty of room to grow before the city would need to expand beyond the existing 1.1 MGD plant capacity.

While efforts to control nutrient enrichment over the past 30 years have yielded some positive results, current evidence shows the need to develop new solutions and improve the effectiveness and efficiency of existing strategies to reduce nutrients, such as phosphorus, in our waterways. Phosphorus supports the growth of algae and aquatic plants in our rivers and lakes can create excessive algae growth. Excessive algae harms water quality, food resources, habitats, and decreases the oxygen that fish and other aquatic life need to survive. Some algal blooms are harmful to humans because they produce elevated toxins and bacterial growth that can make people sick if they come into contact with polluted water, consume tainted fish or shellfish, or drink contaminated water. Publicly owned treatment works (POTWs) which have a design flow of 1.0 MGD or more and do not currently have a phosphorus effluent limit were required to submit a Phosphorous Removal Study by December 1, 2017. Pataskala has completed this study internally and has completed a design for these improvements.

Project Description

Pataskala explored three dewatering technologies and four different oxidation ditch technologies to achieve biological phosphorus removal. The city selected jet aeration as the technology for the oxidation ditch. Jet aeration modifies the oxidation ditch design with a jet mixing system using submersible pumps and air aspirators properly optimized for phosphorus removal. This system requires no blowers. Providing a new clarifier splitter box and raising the weirs will allow more aeration volume and treatment time. The existing discs are at a fixed elevation and the changing water level affects the aeration capacity.

For dewatering, the city selected a belt filter press. This replaces the existing rotary fan press with a new belt filter press in the existing dewatering room. A belt filter press is a biosolids/sludge dewatering device that applies mechanical pressure to a chemically conditioned slurry, which is sandwiched between two tensioned belts, by passing those belts through a serpentine of decreasing diameter rolls.

Pataskala's WRF improvements will also include a vacuum truck dump pad and pump station to increase the plant's functional location for vacuum truck unloading, and a new administration building and laboratory to address lack of sufficient office and laboratory space.

The construction footprint for this project will remain within the confines of the existing water reclamation facility, thereby minimizing effects on environmental resources. The contractor is responsible for best management practices to control erosion and sedimentation, minimize the creation of dust, and maintain local traffic during construction.

Maps of the project location are provided in the exhibits below.

Implementation

Project Costs

Pataskala plans to borrow \$1,446,380 from the WPCLF. During the 7-year loan period, Pataskala will save approximately \$70,054 by using WPCLF dollars at the Standard Long-Term rate of 0.92%, compared to the market rate of 2.17%.

Local Economy

The current Pataskala residential sewer bill is approximately \$729/year. Projected residential sewer bills with the implementation of this project are expected to decrease to approximately \$716/year, which is approximately 1% of median household income (MHI) of Pataskala, which is \$71,469. A sewer bill less than 1.8% of MHI is typically considered affordable.

By using WPCLF financing for this project, Pataskala has minimized the economic impact on customers.

Project Schedule

The anticipated loan award will occur in April 2019. Construction is expected to commence shortly after the funds have been awarded. Completion of the project and initiation of operation is expected to be completed by August 2020.

Public Participation

This project has been discussed at Pataskala City Council meetings. Minutes from these meetings are

available for public access online. Reviews of the respective environmental resources were completed by Ohio EPA, Division of Environmental and Financial Assistance (DEFA). The review agency does not oppose 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> (Under the “What’s New” tab, scroll to: “Documents Available for Review and Comment – WPCLF Documents for Review and Comment”) and will provide it upon request to interested parties. Information supporting this Limited Environmental Review (LER) is available from the project contact named below.

Conclusion

The proposed project meets the project type criteria for an LER; namely, it is an action in a sewer community for the upgrade of existing treatment works. Furthermore, the project meets the other qualifying criteria for an LER; specifically, the proposed project:

- *Has no significant environmental effect, no effect on high value environmental resources, and does not require extensive specific impact mitigation.*

Construction for the project is limited to the previously disturbed footprint of the existing WRF, which lacks important environmental features. Standard construction best management practices will be required to control dust, sediment runoff, noise, and maintain safety.

- *Is cost-effective and not controversial.*

The proposed project is cost-effective as it involves seeking improvements to existing equipment so that the phosphorus production can be reduced. DEFA is unaware of any specific opposition to or controversy about this project that will provide a reduction in phosphorus and therefore less potential for harmful algal growth in waterways.

- *Does not create a new, or relocate an existing, discharge to surface or ground waters; will not create a new source of water withdrawals from either surface or ground waters; will not significantly increase the amount of water withdrawn from an existing water source; 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.*

This project involves the replacement and construction of structures and equipment related to phosphorus reduction within the footprint of the existing treatment plant. The project will not increase wastewater discharges, nor serve a greater population. There will be no change in pollutant loading. Rather, the project proposes to construct a more efficient removing phosphorus from the wastewater treatment system.

Based upon the available planning information for this project and the materials presented within this LER, Ohio EPA concludes that the proposed project will not result in any significant adverse impacts to any environmental features. The project is expected to have no significant short-term or long-term adverse impacts on the quality of the human environment or on sensitive resources such as surface waters, coastal zones, riparian areas, floodplains, wetlands, state-designated scenic or recreational rivers, prime or unique agricultural lands, aquifer recharge zones, archaeologically or historically significant sites, or threatened or endangered species.

This project will upgrade the city's water reclamation facility to meet requirements for phosphorus removal, therefore removing potential pollutants to waterways which could negatively impact the environment and human health.

Contact

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Exhibit 1: Project Location Map



Exhibit 2: Project Location Map

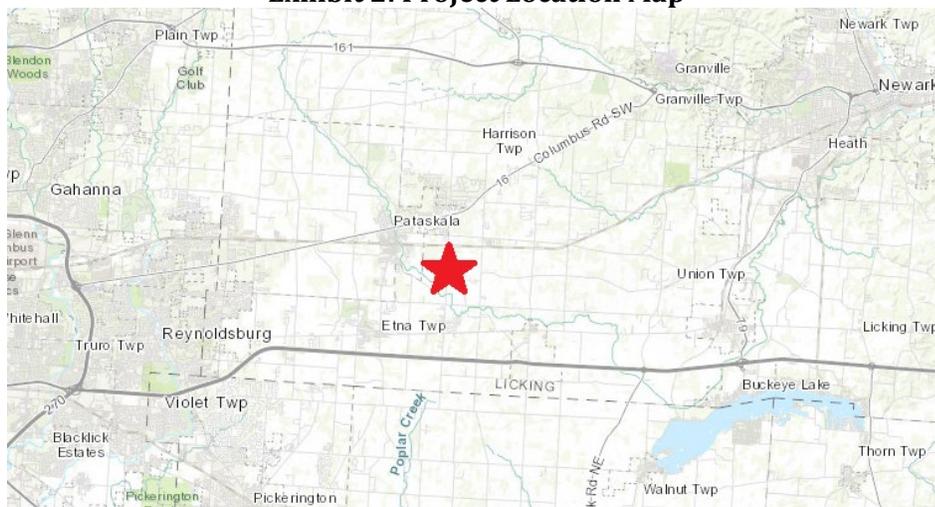


Exhibit 3: Project Location Map

