



**October 3, 2024**

**Limited Environmental Review and Finding of No Significant Impact**

**Lancaster - Fairfield County  
South Water Plant Booster Pump  
Loan number: FS390504-0038**

The attached Limited Environmental Review (LER) is for a booster pump installation project at the South Water Treatment Plant in Lancaster which the Ohio Environmental Protection Agency (Ohio EPA) intends to finance through its Water Supply Revolving Loan Account (WSRLA) below-market interest rate revolving loan program. The LER describes the project, costs, and expected environmental benefits. Making available this LER fulfills the 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 program review and approval process. We have concluded that the proposed project should not result in significant adverse environmental impacts. In accordance with Ohio Administrative Code 3745-150-05, this project meets the criteria for an LER rather than the more comprehensive Environmental Assessment. More information can be obtained by contacting the person named at the end of the attached LER.

Upon issuance of this Final 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,

A handwritten signature in black ink that reads "Kathleen Courtright".

Kathleen Courtright, Assistant Chief  
Division of Environmental and Financial Assistance

## LIMITED ENVIRONMENTAL REVIEW

### **Project Identification**

Project: South Water Plant Booster Pump

Applicant: City of Lancaster  
104 East Main Street  
Lancaster, Ohio 43130

Loan Number: FS390504-0038



**Figure 1. Fairfield County**

### **Project Summary**

The City of Lancaster in Fairfield County (Figure 1) has requested \$4,212,005 from the Ohio Water Supply Revolving Loan Account (WSRLA) for the installation of booster pumps at the South Water Plant to reduce sedimentation and increase water velocity and finished water production. All project construction will occur in a previously disturbed area within the existing water treatment plant and rights-of-way and is not expected to have any adverse environmental impacts.

### **History & Existing Conditions**

The City of Lancaster has owned and operated the South Water Treatment Plant (SWTP) since 2004. Water treatment of groundwater from the South Wellfield is provided by a combination of a pressure filtration system and a reverse osmosis (RO) membrane system. Residuals from the plant are conveyed to the city's sanitary sewer system and include waste backwash (WBW) from the pressure filters and concentrate from the RO membrane system. These residuals are transported by a concentrate force main from the SWTP to a discharge location to the city's sanitary sewer system about 22,000 linear feet away.

The concentrate force main is experiencing severe restrictions in capacity due to a combination of several factors, including scale formation near the blending point of the RO and WBW water, long residence time for water in the force main, and the mixing of air with concentrate. Additionally low velocities in the force main leads to the settling of solids at various locations.

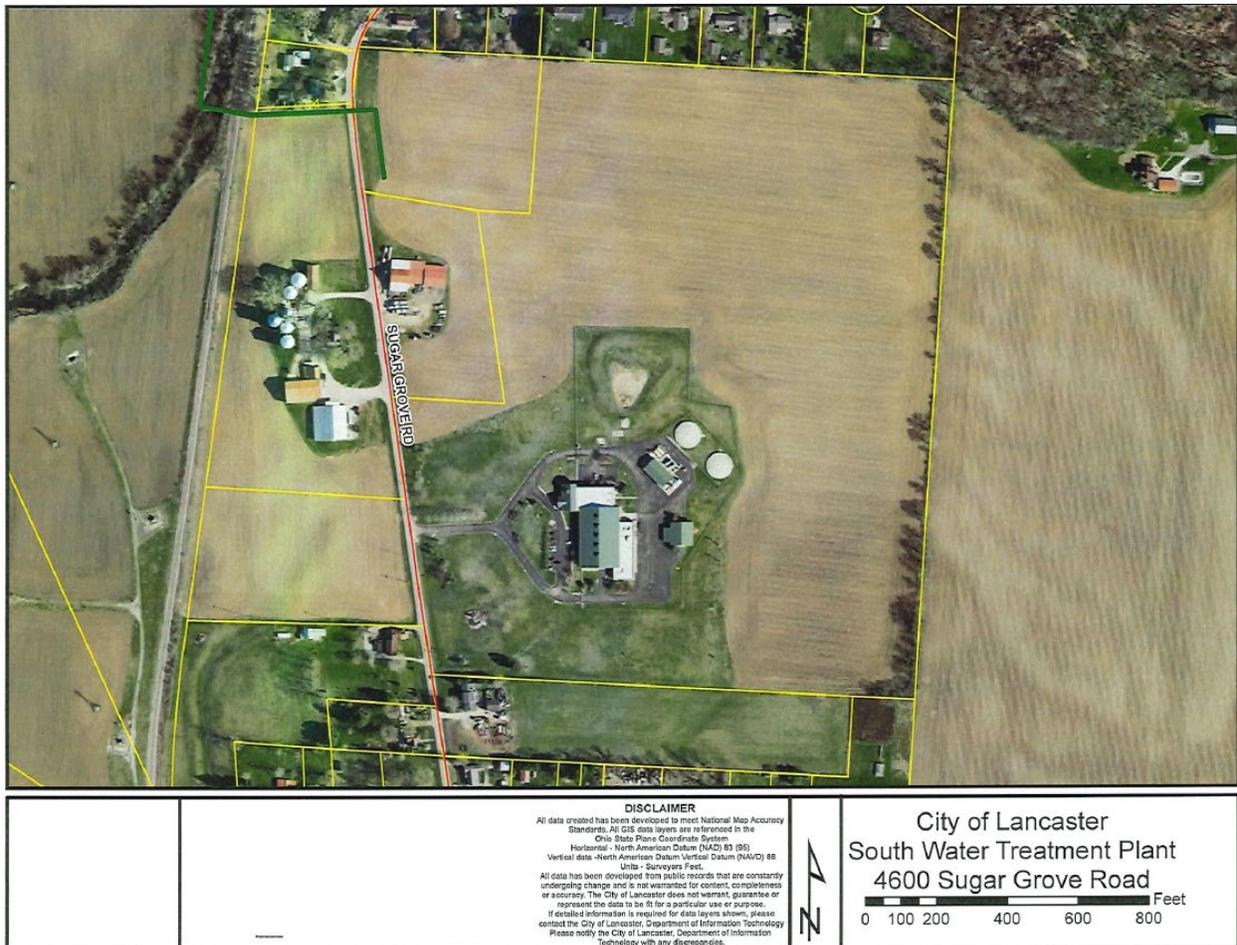
The reduced capacity of the concentrate force main was discovered from higher pressures in the line, which results in the city being unable to turn on additional RO skids, limiting the amount of finished water the plant can produce. The plant has four RO skids and is rated for a capacity of approximately 8 MGD. Currently, the SWTP has difficulty operating more than one RO skid, limiting the plant to a capacity of approximately 2 million gallons per day (MGD). Lancaster is experiencing significant increase in water demand related to industrial users, so these capacity issues need to be addressed to allow the plant to produce sufficient finished water.

## **Project Description**

The installation of two concentrate booster pumps was selected to increase pressures in the force main and allow more flow through the line, which will increase the plant's finished water capacity during normal operations. The booster pumps will also allow raw water to be pumped through the line at a flow high enough to produce scouring velocities, which will allow Lancaster to flush solids out of the force main periodically.

The construction footprint for this project will remain within previously disturbed area within the confines of the existing water treatment plant, thereby minimizing effects on environmental resources. The contractor is responsible for best management practices to control erosion and sedimentation and minimize the creation of dust.

See Figure 2 below for a map of the project area.



**Figure 2. South Water Treatment Plant**

## **Implementation**

Lancaster plans to borrow \$4,212,005 from the WSRLA over a 20-year loan period at the standard rate of 2.53%, compared to the market rate of 3.78%, which will save the city \$647,568.

The current annual Lancaster residential water bill is approximately \$709. Projected residential water bills with the implementation of this and other associated water projects are expected to increase to approximately \$1,332, or 2.5% of median household income (MHI) of Lancaster, which is \$52,716. By using WSRLA financing for this project, Lancaster has minimized the economic impact on customers.

The anticipated loan award will occur in October 2024. Construction is expected to be completed by October 2026.

### **Public Participation**

The City of Lancaster publishes information regarding its ongoing Division of Water projects on Lancaster's website. Public meeting minutes, project related documents, and contact information for questions are also available.

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 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 criteria for an LER; namely, it involves improvements to existing water treatment infrastructure. 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 water treatment plant, 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.**

This project is the best feasible alternative to make necessary improvements to increase the velocity of treated water, creating a larger supply of finished water to meet Lancaster's increasing water demands. Ohio EPA is unaware of any specific opposition to or controversy about this project that will maintain a treatment facility to ensure a continuous supply of potable drinking water to customers.

**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 will not allow for a new source of water withdrawal, nor increase the amount of water withdrawn from an existing water source. It will not contribute to increased discharge or pollutant loading and the population served will remain the same.

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 improve Lancaster's water treatment process at the South Water Treatment plant so the plant can more efficiently produce the water at the rated capacity.

### **Contact Information**

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