Ohio Environmental Protection Agency

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

May 31, 2022

Limited Environmental Review and Finding of No Significant Impact

City of Oregon – Lucas County
WWTP Safety, Disinfection, and Grit Removal Improvements Project
Loan number: CS390721-0028

The attached Limited Environmental Review (LER) is for a wastewater treatment project in Lucas 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 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 WSRLA 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,

Kathleen Courtright

Kathleen Courtright, Assistant Chief
Division of Environmental and Financial Assistance

Attachment

LIMITED ENVIRONMENTAL REVIEW

Project Identification

Project: WWTP Safety, Disinfection, and Grit Removal Improvements Project

Applicant: City of Oregon
5330 Seaman Road
Oregon, Ohio 43616

Loan Number: CS390721-0028

Project Summary

The City of Oregon has requested financial assistance from the Ohio Water Pollution Control Loan Fund (WPCLF) for the WWTP Safety, Disinfection, and Grit Removal Improvements Project. Work for this facilities improvement project will include the replacement of the existing disinfection system and improvements to the grit removal system to allow Oregon to comply with its National Pollutant Discharge Elimination System (NPDES) permit limits. The estimated loan amount is $6,248,000. Debt for the project will be repaid from a monthly capital improvements fee. The project is scheduled to begin in summer 2022 and be completed in 12 months.

History & Existing Conditions

The City of Oregon owns and operates the Oregon Wastewater Treatment Plant (WWTP), made up of an east WWTP and west WWTP, located at 1570 Dupont Road in Oregon (see figures 1 and 2). The WWTP has an average daily design flow and peak secondary treatment capacity of 8.0 million gallons per day (MGD) and 24.0 MGD, respectively. The daily flow received at the plant currently averages about 6.5 MGD. The WWTP went into full operation in 1977 and has undergone a series of improvements and additions. Treatment is performed using an activated sludge process followed by chlorination/dechlorination, and sludge is treated using aerobic digestion. Treated effluent is pumped through a 36-inch diameter force main into Maumee Bay/Lake Erie. Digested sludge is spread by injection, in liquid form, on agricultural land.

Grit removal systems in both plants have exceeded their useful life and are no longer efficiently removing grit, and the west plant's grit removal system is currently out of service due to leaks in the air piping. The city is concerned about the accumulation of grit in the downstream tanks and the additional wear and tear on downstream equipment caused by grit. Cleaning of the aeration tanks was made more complicated following the installation of fine bubble diffusers and air piping across the bottom of the aeration tank floors.

There are a total of five final settling tanks located at the WWTP. All tanks have uncovered weirs and effluent launders. Algae grows and accumulates on this equipment due to sunlight exposure, requiring WWTP staff to perform routine cleaning at a significant cost and labor outlay.

The WWTP currently uses chlorine gas to disinfect effluent and then sodium bisulfite to eliminate chlorine residual. Due to increasing concerns with the hazards of chlorine disinfection to the environment, public, and WWTP personnel, as well as the administrative efforts required to meet safety regulations, the city wishes to change to ultraviolet (UV) disinfection.

Project Description

The WWTP Safety, Disinfection, and Grit Removal Improvements Project (see Figure 3) generally consists of the following:

- Replacement of the existing chlorine disinfection process with UV disinfection, retrofitting existing chlorine contact tanks to include a new single channel with UV disinfection equipment, with water levels in the channel to be controlled by a fixed weir
- Installation of launder covers on five final settling tanks to block sunlight and control algae growth on the weirs and launders
- Repairs to the deteriorated concrete tops of two final settling tanks in the west plant, and installation of new safety railings
- Demolition of the west plant's aerated grit tank, construction of a new concrete circular vortex grit tank in its place, installation of new equipment, including vortex impeller assembly, grit pump, grit cyclone and classifier in the existing grit building, construction of a new concrete tank and flume, and replacement and relocation of the motor control center to the administrative building
- Replacement of vortex grit tank removal equipment in the east plant, including vortex impeller assembly, grit pump, cyclone and grit classifier
- Improvements to safety railings at various structures

Implementation

The total estimated loan amount for the project is $6,248,000, and Oregon proposes to borrow the entire amount from Ohio's WPCLF. Oregon will recover debt associated with the project with revenue generated by its monthly capital improvement charge. Oregon qualifies for the WPCLF standard long-term interest rate, which for June 2022 is 2.23 percent, over 20 years (WPCLF loan interest rates are set monthly, and the rate may change for a later loan award). The 2022 monthly residential sewer rate in Oregon is $40.85 ($490.20 annually), based on an average monthly usage of 1,037 cubic feet of water. This is 0.82 percent of the median household income of $60,078, as compared to the state average of 1.3 percent.

Borrowing $6,248,000 at 2.23 percent will save Oregon approximately $946,000 over the life of the loan compared to borrowing the same amount at the current market rate of 3.48 percent. Construction is expected to begin in the summer of 2022 and be completed in 12 months.

Oregon also expects to receive a grant from the Ohio Public Works Commission in the amount of $1,800.000 to help pay for additional project expenses.

Public Participation

This project has been discussed in multiple Oregon City Council meetings, which were advertised in local media, open to the public, and allowed for review and comment, with no negative feedback

noted. This Limited Environmental Review will be posted on Oregon and Ohio EPA Division of Environmental and Financial Assistance websites. Thus, there have been adequate opportunities for information dissemination and public participation.

Conclusion

The proposed project meets the project type criteria for a Limited Environmental Review; 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 adverse environmental effect and will require no specific impact mitigation, as there are no known sensitive environmental resources within the proposed project area. The proposed project activities include improvements within the boundaries of an existing WWTP that has experienced extensive prior excavation. There will be no significant adverse effects as a result of project implementation, or the need for any additional mitigation measures beyond typical erosion control and construction best management practices. Therefore, the project will not have any long-term negative impacts on any historical resources.

Will have no effect on high-value environmental resources, as construction will take place within the boundaries of an existing WWTP that has experienced extensive prior excavation and where no high-value resources are present.

Is cost effective, as the proposed action was evaluated as the most cost-effective alternative, and improves wastewater treatment within the existing system.

Is not a controversial action, as there is no known opposition to the proposed project and the cost of the project is not overly burdensome to ratepayers.

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 loading of pollutants from an existing source or from new facilities to receiving waters, since the project only involves improvements to and replacement of infrastructure to improve the existing wastewater treatment facility and safety.

Will not provide capacity to serve a population substantially greater than the existing population, since the project is not related to serving new growth or increasing capacity at the wastewater treatment facilities.

In summary, the planning activities for the project have identified no potentially significant adverse impacts. 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 (surface water, ground water, air quality, floodplains, wetlands, riparian areas, prime or unique agricultural lands, aquifer recharge zones, archaeologically or historically significant sites, federal or state-designated wild, scenic or recreational rivers, federal or state-designated wildlife areas, or threatened or endangered species). Typical construction impacts, such as noise, dust, and exhaust fumes, will be short-term and addressed through the use of standard construction best management practices.

The proposed project is a cost-effective way to address necessary improvements within aged portions of an existing WWTP. Once implemented, the project will improve aged infrastructure, helping Oregon comply with its NPDES permit, enhancing effluent water quality, increasing safety

and process performance, reduce public health risks to the surrounding community related to treatment chemicals, and improve water quality for Maumee Bay and Lake Erie. Also, by using WPCLF low-interest financing, Oregon has minimized the project cost.

Contact information

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Figure 1: General project area

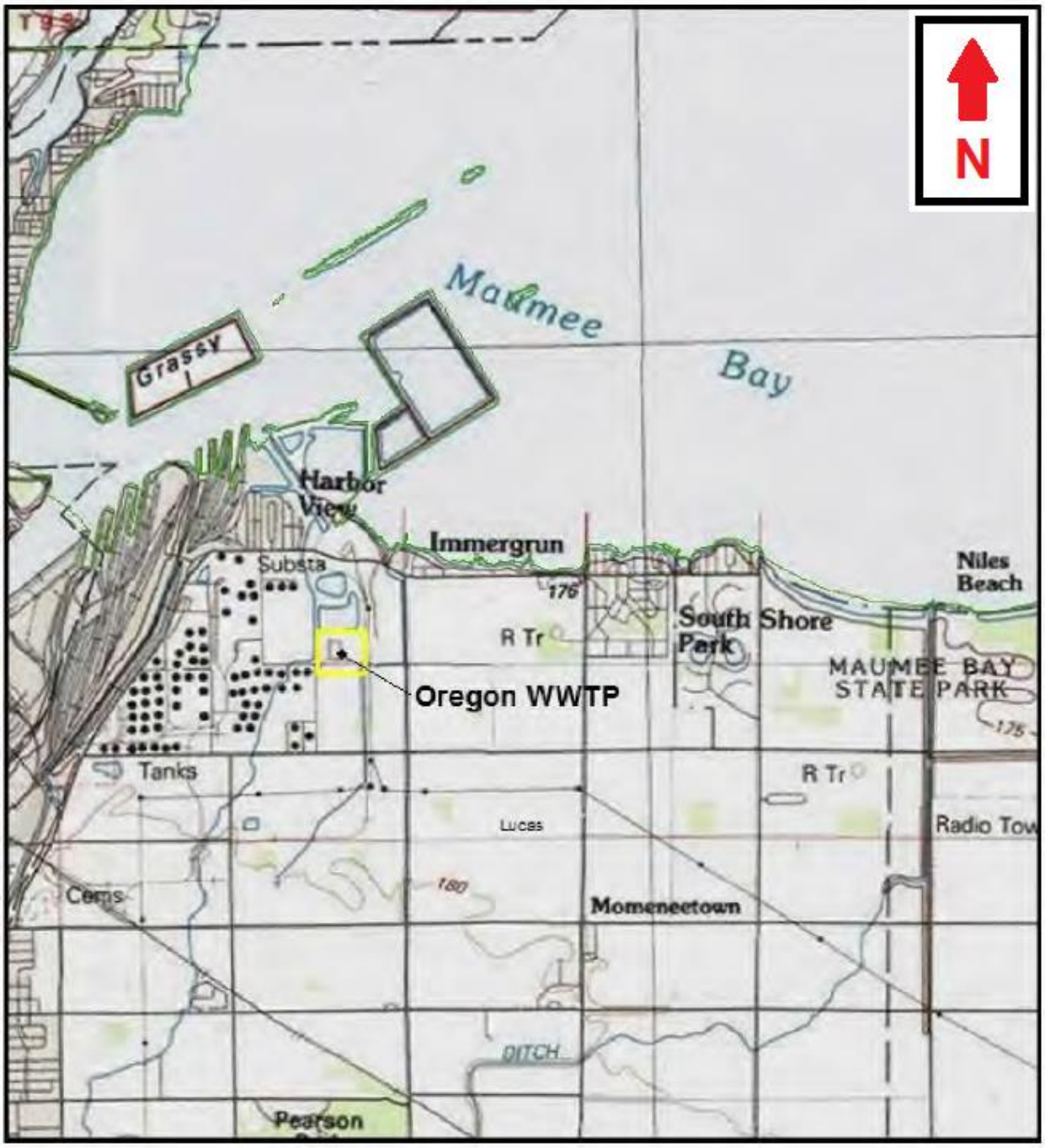

Figure 2: Oregon WWTP and project area

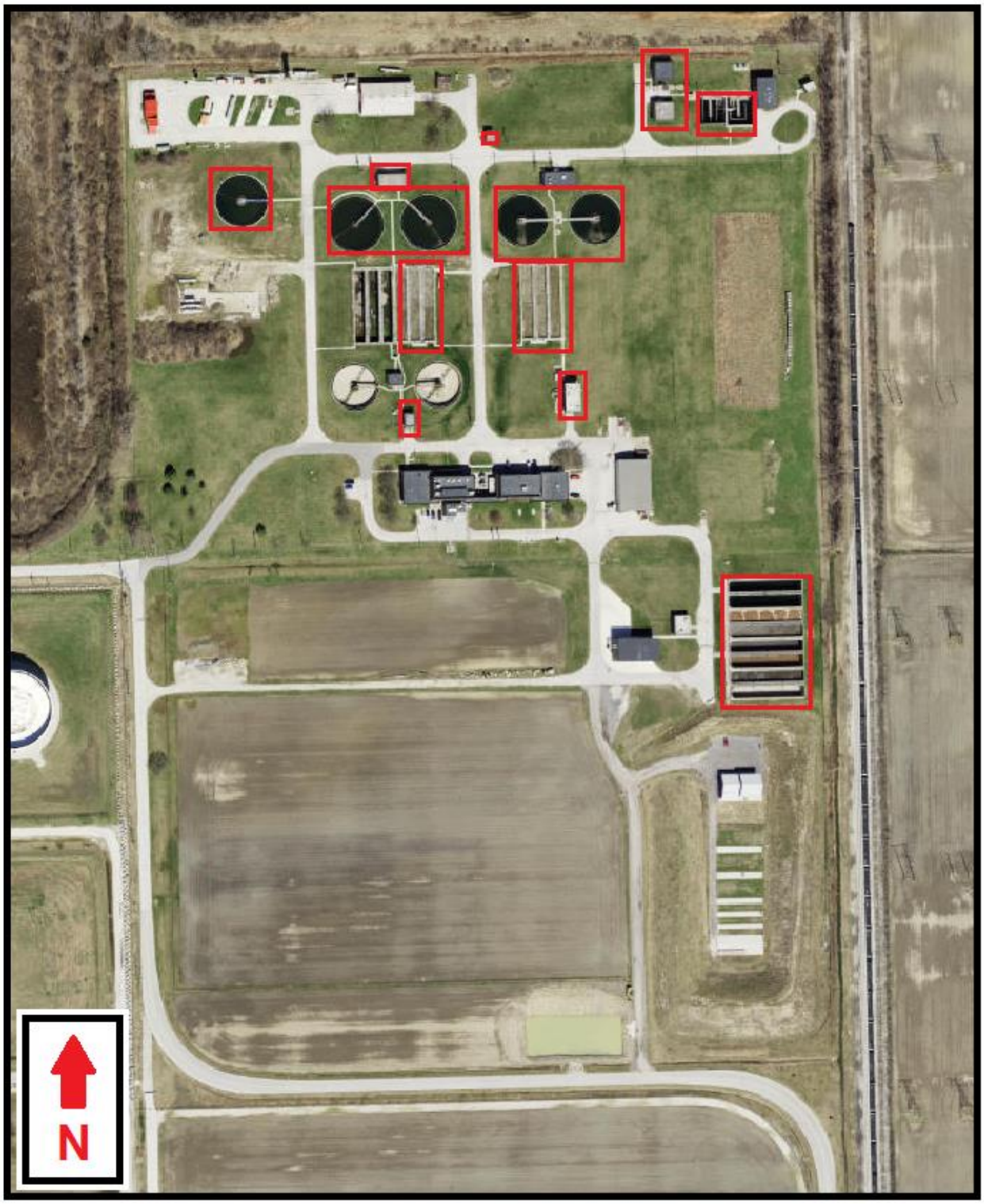

Figure 3: Oregon WWTP and project areas, in red