LIMITED ENVIRONMENTAL REVIEW

Project Identification

Name: City of Oregon
WWTP Secondary Treatment Improvements, Phase 1

Address: City of Oregon
Attn: Paul Roman, P.E., Director of Public Service
5330 Seaman Road
Oregon, Ohio 43616

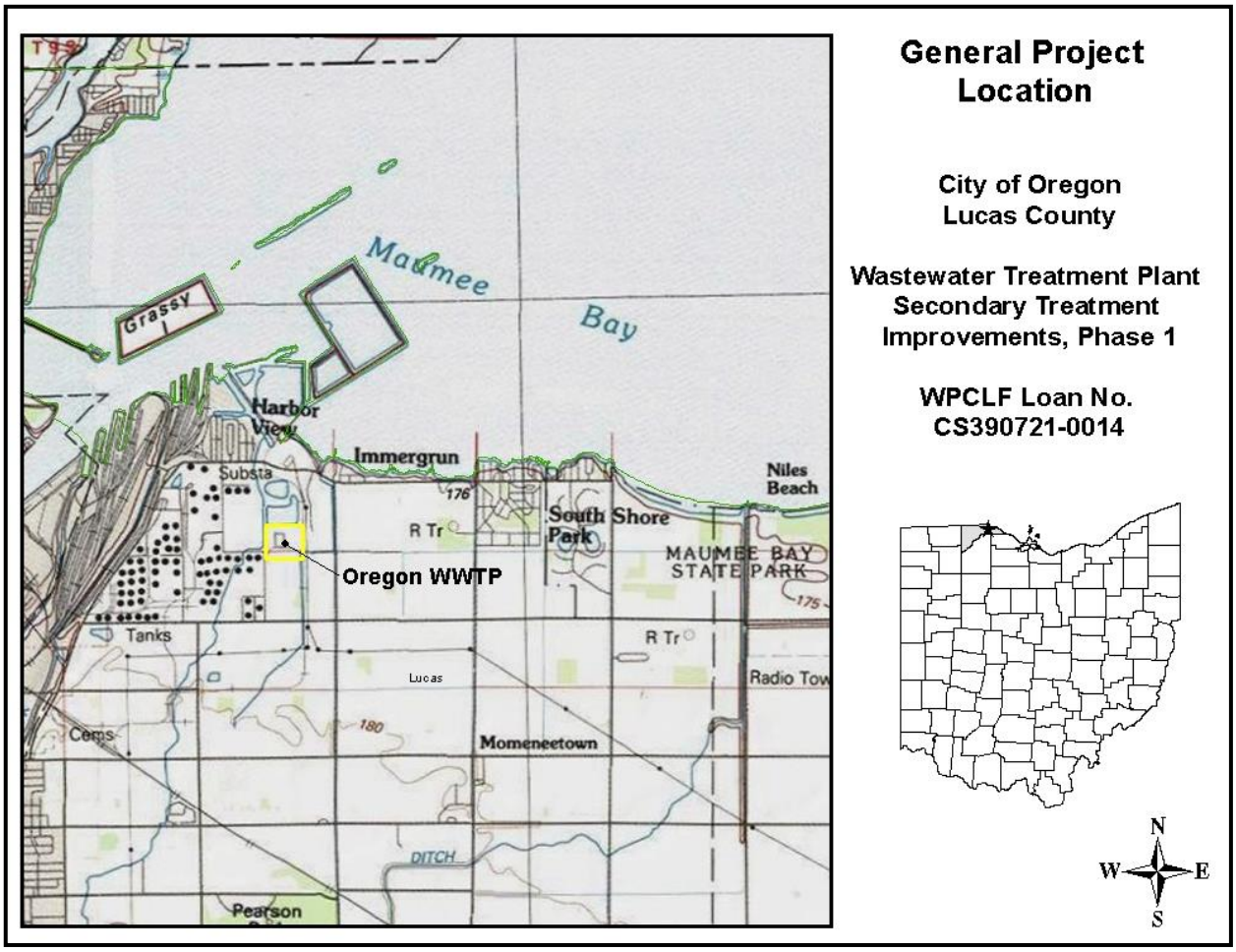
WPCLF No.: CS390721-0014

Existing Conditions and Need

The City of Oregon owns and operates a Wastewater Treatment Plant (WWTP) located at 4657 Dupont Rd in Oregon (as shown below). It has a rated, 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 treatment plant originally went into operation in 1977 and, since that time, has undergone a series of improvements and additions. Treatment is performed using the 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 well out into Maumee Bay/Lake Erie. Digested sludge is spread by injection in liquid form on agricultural land.

The sanitary sewer service area covers the City of Oregon and portions of eastern Lucas County, the Village of Harbor View and portions of northern Wood County. The sewer system is defined as a separate sanitary sewer system, but it is susceptible to very high, wet-weather flows. These flows result in periodic sanitary sewer overflows, since the treatment plant does not have sufficient capacity to treat the high flows received at the treatment plant. During high-flow events, equalization basins are filled, and the stored wastewater is treated once the high flow rates subside.

Ohio EPA required that the City prepare a No Feasible Alternative Analysis to evaluate the options available to greatly reduce or eliminate the sanitary sewer overflows. That report has been completed and resulted in a detailed Compliance Schedule included in the City's most recent National Pollutant Discharge Elimination System (NPDES) permit (2PD00035*MD), with an effective date of November 1, 2012. In accordance with the Compliance Schedule of said permit, improvements will be constructed in two phases over the next five years.



Project Description

The Oregon WWTP Secondary Treatment Improvements project consists of the replacement of equipment deemed necessary and prudent to meet the requirements contained in NPDES Permit No. 2PD00035*MD "to increase the plant's secondary treatment capacity from the current peak of 24 mgd to the hydraulic capacity of 36 mgd."

The implementation of improvements will be divided between two phases. In the first phase, two influent screens will be replaced; raw wastewater pumping will be improved, including the addition of a sixth pump; two blowers, air lines, and air diffusers will be replaced; and related SCADA system[1] upgrades will be made.

The second phase includes aeration tank hydraulic improvements, a final clarifier and secondary sludge pumping improvements, effluent disinfection improvements, effluent pumping improvements and related SCADA system upgrades.

[1] SCADA (or Supervisory Control and Data Acquisition) is a type of industrial (computer-controlled) system used, in this instance, to monitor and control wastewater collection and treatment processes.

Because of project initiation timing associated with the NPDES permit, only Phase 1 is included in this review document. A separate environmental review document will be produced for Phase 2.

Estimated Project Costs

The proposed Oregon WWTP Secondary Improvements, Phase 1 project has an as bid cost of $7,660,100, which includes $1,250,000 in Ohio Public Works Commission funding. The remainder of the project is expected to be funded with a low-interest loan through the Water Pollution Control Loan Fund (WPCLF), administered by Ohio EPA. The City of Oregon qualifies for the standard, below-market interest rate, which is currently 3.37 percent (effective for loan awards in December 2013). Compared to the December 2013 market rate of 5.12 percent, a total savings of approximately $1,455,000 will be realized by financing through the WPCLF.

Loan repayment revenue is expected to be covered by an increase in local user fees. Previously, the City has funded capital improvements with revenues from the City income tax, while only operation and maintenance costs have been supported by wastewater user fees. However, the City is planning to change that approach and the construction loan repayments will be covered with new capital improvement rate charges expected to increase overall wastewater fees by 25 to 30 percent over the next five years. The estimated capital improvements rate for phase 1, which is expected to last for the duration of the loan repayment period (i.e., 20 years), is $4.54 per 1000 cubic feet of usage.

As per the 2011 Annual Residential Sewer Rates Survey (based on use of 7,756 gallons per month or 1,037 cubic feet per month), the average Oregon household is charged a pre-user fee expansion cost of $279 annually. As per the 2006-2010 American Community Survey, the median household income (MHI) for the City of Oregon with a population of 20,206 was $51,632. Therefore, the current average annual sewer service charge represents about 0.5 percent of the MHI for the City of Oregon. This amount of household income spent on sewer service charges is well below the Ohio average of 1.14 percent (the state annual average user charge for wastewater services as a percentage of the 2000 Ohio MHI).

Oregon's annual average user charge, as compared with other similarly-sized communities in the area, is as follows:

Community Name	Population	MHI	Annual Sewer Rate
Oregon	20,206	$51,632	$279
Sylvania	18,886	$68,488	$251
Maumee	14,227	$56,267	$372
Perrysburg	20,772	$72,051	$776

Project Schedule

The $6,410,100 WPCLF loan is anticipated to be awarded for the proposed project in December 2013. Construction of Phase 1 should begin in January of 2014 as per the compliance schedule in the NPDES permit, and is expected to take place over an approximate 16-month period.

Public Notification

Ohio EPA will issue a copy of its Limited Environmental Review (LER) decision and Finding of No Significant Impact (FNSI) for this project to interested parties, as well as posting the documents on the Division of Environmental and Financial Assistance web page http://epa.ohio.gov/defa/EnvironmentalandFinancialAssistance.aspx. Supporting documentation for the LER decision is available for public inspection upon request at the following address:

City of Oregon
5330 Seaman Road
Oregon, Ohio 43616

Planning Information

The following agencies have reviewed and commented on the facilities planning information for this project:

Ohio Environmental Protection Agency
Ohio Department of Natural Resources
Ohio Historic Preservation Office

No adverse comments were received from any of the above agencies/organizations.

Conclusion

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

- will have no significant adverse environmental effect, since all of the work will be located within the confines of the wastewater treatment plant property and will have no effect on any aquatic or terrestrial habitats, or other important environmental resources;

- does not require extensive specific impact mitigation, since impacts will be short-term and temporary, and will be confined to typical construction impacts (noise, dust, traffic, runoff, etc.) at the WWTP site;

- will have no effect on high-value environmental resources, since there are none present in the highly-disturbed project area;

- is cost-effective, since upgrading existing facilities is generally less expensive than building completely new ones, and since user rates will not be substantially effected;

- is not a controversial action, since it has been adequately noticed to the community and, to the best of Ohio EPA's knowledge, there is no opposition to it;

- does not create a new, or relocate an existing, discharge to surface or ground waters, since all of the work involves upgrades to existing infrastructure, none of which includes work on either a new or existing point source discharge;

- 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 ultimate goal of the project is to eliminate sanitary sewer overflows, thus resulting in a reduction of pollutants into receiving waters;

- will not provide capacity to serve a population substantially greater than the existing population, since the upgrades are intended to serve the existing population, which has grown beyond the plant's current capabilities.

As indicated above, the proposed project is sufficiently limited in scope and meets all applicable criteria to warrant an LER. The planning activities have identified no potentially significant adverse short-term or long-term impacts on the environment or sensitive resources, including land forms, floodplains, ground water, culturally significant sites, threatened or endangered species, wetlands, aquatic and terrestrial habitat, surface water, air quality or state and federal natural areas; nor, will it have secondary impacts (those related to new development served by improvements to a publicly-owned treatment works), such as the conversion of farmland to more intensive (i.e., residential/commercial) uses.

Completion of this project will help Oregon achieve and maintain compliance with the plant's NPDES permit by eliminating sanitary sewer overflows that would otherwise continue to pollute waterbodies in the area and continue to threaten human health and the environment.

For further information, please contact:

Rahel Babb
Ohio Environmental Protection Agency
Division of Environmental and Financial Assistance
Telephone: (614) 644-3711
E-mail: rahel.babb@epa.state.oh.us

City of Oregon
WWTP Secondary Treatment Improvements, Phases 1 and 2