July 21, 2020

Limited Environmental Review and Finding of No Significant Impact

Northeast Ohio Regional Sewer District
Easterly and Southerly Fiber Replacement
Loan number: CS391430-0180

The attached Limited Environmental Review (LER) is for a wastewater treatment project in Cuyahoga 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 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

Jonathan Bernstein, Assistant Chief
Division of Environmental and Financial Assistance

Attachment
LIMITED ENVIRONMENTAL REVIEW

Project Identification

Project: Northeast Ohio Regional Sewer District
Easterly and Southerly Fiber Replacement

 Applicant: Northeast Ohio Regional Sewer District
3900 Euclid Avenue
Cleveland, Ohio 44115

Loan Number: CS391430-0180

Project Summary

The Northeast Ohio Regional Sewer District (NEORSD) has requested financial assistance from the Ohio Water Pollution Control Loan Fund (WPCLF) for the Easterly and Southerly Fiber Replacement project. Work for this Progressive Design-Build project includes the replacement of all existing fiber optic cabling with new single mode fiber optic cabling. The project is designed to address aged and limited fiber optic cable that is necessary to operate and control equipment at these wastewater facilities. The total project cost is $3,843,007. Debt for the project will be repaid from monthly service charges. The project is scheduled to begin in mid-2020 and be completed in 21 months.

History & Existing Conditions

NEORSD is responsible for wastewater treatment facilities and interceptor sewers in the greater Cleveland metropolitan area. This service area encompasses the City of Cleveland and all or portions of 61 suburban municipalities in Cuyahoga, Summit, Lake, and Lorain counties. The proposed Easterly and Southerly Fiber Replacement project is located within NEORSD’s Easterly Wastewater Treatment Plant (WWTP) and Southerly Wastewater Treatment Center (WWTC), which are two of the three wastewater treatment facilities owned and operated by NEORSD.

NEORSD’s Easterly district service area comprises approximately 48,700 acres east of the Cuyahoga River. About forty percent of the service area has combined sewers, with the remainder served by separate sanitary sewers. The tributary sewers discharge to the Easterly WWTP located on the Lake Erie shoreline at East 140th Street.

NEORSD’s Southerly district serves a population of more than 601,000 in the Greater Cleveland area, with its flows transported to the Southerly WWTC. Southerly WWTC is one of the largest plants of its kind in the country and has an average flow of 125 million gallons per day (MGD) of wastewater. It can provide complete treatment to 400 MGD of wastewater, and primary treatment to an additional 335 MGD of storm water. The Southerly WWTC is situated on a 273-acre site at 6000 Canal Road, Cuyahoga Heights.

NEORSD has undergone many changes and upgrades at its wastewater collection and treatment facilities and processes. As NEORSD has performed projects, they have not necessarily addressed the fiber optic cabling condition of its various facilities, which are integral to their wastewater operations. The existing fiber optic networks for the facilities were first installed in the late 1990s.
Since then additions to the fiber network were made, however most of the fiber optic network was installed more than 15 years ago. As more projects have come online, numerous network segments have been added and the fiber optic network has been patched and spliced to support extended communications and additional connected components. This has degraded the reliability, decreased available capacity, and negatively impacted the overall health of the fiber optic network. These problems, coupled with changes in technology and the need for more bandwidth and availability, have accelerated the need of an overall fiber optic network upgrade and replacement.

**Project Description**

Easterly and Southerly Fiber Replacement (see Figures 1-3) is a Progressive Design-Build project being undertaken to assess the existing fiber optic network and its infrastructure, design a replacement of the network, install, test and commission the new fiber optic network utilizing single mode fiber optic cable. The new network will support both the existing Process Control System (PCS) and Administration IT infrastructure, as well as accommodate the planned future PCS upgrades, all while ensuring a reliable, robust, maintainable, and expandable network.

**Implementation**

The total cost of the Easterly and Southerly Fiber Replacement project is $3,843,007, all of which NEORSD proposes to borrow from the WPCLF. The project service area qualifies for the standard WPCLF below-market interest rate on 20-year construction loans, which for July is 0.87 percent (WPCLF loan interest rates are set monthly and the rate may change for a later loan award). Borrowing at 0.87 percent will save NEORSD approximately $540,000 over the life of the loan compared to the current market rate of 2.12 percent.

The sewer service charges for NEORSD customers are driven by the total indebtedness of NEORSD (and annual O&M costs), as opposed to the specific indebtedness of any particular project. NEORSD will not enact a special increase in user rates specifically to pay for this project; instead, rates were increased in 2017 to cover debt expected during the period of 2017-2021, which includes debt for this and other projects.

| NEORSD Monthly Sewer Service Charge Rates |
|-------------------------------|---------------------|---------------------|
| Rates Effective               | 2020                | 2021                |
| Cleveland                     | $108.10             | $116.20             |
| Suburbs                       | $108.70             | $116.50             |

The median household income of the benefitting properties is $46,720. The annual sewer bill based on 7,480 gallons of monthly water use is $1,301. This represents 2.78% of the MHI.

**Public Participation**

NEORSD has a long history of working with the general public and local public officials when proposed projects are to be located in their community. NEORSD has several publications and an internet website that serve to keep the members of their district informed of upcoming projects. NEORSD conducted public participation by advertising for bids and providing bid updates on their website, and by advertising for bids in the Cleveland Plain Dealer. This Limited Environmental
Review will be posted on the websites of NEORSD and Ohio EPA – Division of Environmental and Financial Assistance. 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 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 construction will take place within existing wastewater treatment facilities where extensive excavation has previously taken place and where no high-value resources are present. 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.

*Will have no effect on high-value environmental resources*, as construction will take place within existing wastewater treatment facilities where extensive excavation has previously taken place and where no high-value resources are present.

*Is cost-effective*, as the proposed action satisfies technical goals of the project and utilizes a Progressive Design-Build process to minimize project costs.

*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, and will be financed through the WPCLF, saving approximately $540,000 in interest payments compared to conventional financing.

*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 involves the functional replacement of and improvements to existing equipment, and not increases to pollutant discharges.

*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 by standard construction best management practices.

The proposed project is a cost-effective way to address the aged fiber optic network at two wastewater treatment facilities. Once completed, the new network will support both the existing Process Control System (PCS) and Administration IT infrastructure, as well as accommodate the
planned future PCS upgrades all while ensuring a reliable, robust, maintainable, and expandable network. Also, by using WPCLF low-interest financing, NEORSD has minimized the project cost.

Contact information

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Figure 1: Project locations (in red)
Figure 2: Easterly WWTP