December 28, 2018

Preliminary Finding of No Significant Impact

Elyria – East Side Relief Sewer Phase 1B South (CS390337-0018),
Phase 1C (CS390337-0014), Phase 1D (CS390337-0017)

Lorain County

The attached Environmental Assessment (EA) is for a wastewater treatment project in your area 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 EA describes the project, its costs, and expected environmental benefits. We would appreciate receiving any comments you may have on the project. Making available this EA and seeking your comments 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. More information can be obtained by contacting the person named at the end of the EA.

Any comments on our preliminary determination should be sent to me at the letterhead address. We will not act on this project for 30 calendar days from the date of this notice in order to receive and consider comments. In the absence of substantive comments during this period, our preliminary decision will become final. After that, Elyria can proceed with its application for the WPCLF loan.

Sincerely,

Jerry Rouch, Assistant Chief
Division of Environmental & Financial Assistance
Office of Financial Assistance

JR/DH

attachment
ENVIRONMENTAL ASSESSMENT

Project Identification

Project Name: Elyria – East Side Relief Sewer Phase 1B South (CS390337-0018), Phase 1C (CS390337-0014), Phase 1D (CS390337-0017)

Applicant: The Honorable Holly Brinda, Mayor
City of Elyria
131 Court Street
Elyria, OH 44035-5511

Project Summary
The City of Elyria, in Lorain County, has requested financial assistance from the Ohio Water Pollution Control Loan Fund (WPCLF) to pay for construction of several phases of the East Side Relief Sewer (ESRS; Figure 1) as part of improvements to eliminate combined sewer overflows. This document covers phases 1B South, 1C, and 1D, scheduled for construction in 2019 and early 2020. Phases 1A and 1B North have been constructed. Additional phases are planned for later years. The project will construct a 78-inch diameter relief sewer to carry excess wet weather flows from various locations in Elyria where overfull sewers in wet weather overflow to area streams and back up sewage into basements. When completed, the ESRS will reduce overflows of sanitary sewage combined with storm water to area streams by up to 48 million gallons per year. All work will be in and adjacent to paved roads in residential and commercial areas, areas lacking important environmental resources and previously excavated for water mains and sanitary and storm sewers.

History & Existing Conditions
Elyria’s 170 miles of sanitary and combined sewers drain about 21 square miles and 21,000 residences and 400 industrial and commercial properties. Elyria’s wastewater treatment plant (WWTP) treats 9 million gallons per day (MGD) of wastewater during dry weather and has a maximum operating capacity of 30 MGD and storage capacity for storm events of 3.4 million gallons. The WWTP discharges to the Black River, which is designated Warmwater Habitat (WWH) in the Ohio Water Quality Standards. The Black River in the greater Elyria area fully meets the WWH criteria except for an area in partial attainment immediately downstream of the WWTP.

Older areas of Elyria have combined sewers (pipes that in dry weather carry sanitary sewage only, and during wet weather carry sanitary flows combined with storm water). When flows rise dramatically during and after rainfall, combined sewer overflow (CSO) structures divert untreated sanitary sewage mixed with storm water to area streams. CSOs potentially threaten human health and water quality. Due to these historical and ongoing CSO events and partial treatment bypasses from its WWTP, Elyria improved the WWTP as
required in a 1986 federal Consent Decree and is improving the combined sewer system as proposed in the 2014 comprehensive Wet Weather Management Plan (Plan) that is being formally negotiated with U.S. EPA.

The ESRS project is a major component of the Plan that includes improvements to reduce the frequency and volume of overflows from the sewer system and bypasses from the WWTP to the Black River. In the Plan, the ESRS is referred to as “Project E3a – Conveyance Expansion.” The ESRS will collect excess flow from 23 overflow locations east of the Black River before it is discharged to the environment and from six points on existing interceptor and trunk sewers to prevent surcharging and carry the flow directly to the WWTP (Figure 1).

The ESRS is being designed and constructed in multiple phases as funding capacity and city resources allow. Phases 1A and 1B North have been completed. Flows will be introduced to the northern spans of ESRS after completion of Phase 1C. The proposed schedule of ESRS project construction runs through 2025:

<table>
<thead>
<tr>
<th>Phase</th>
<th>Completion Year</th>
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<tbody>
<tr>
<td>1A</td>
<td>2017</td>
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<tr>
<td>1B North</td>
<td>2017</td>
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<tr>
<td>1B South</td>
<td>2019</td>
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<td>1C</td>
<td>2019</td>
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<td>1D</td>
<td>2019</td>
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<td>2</td>
<td>2020 - 2022</td>
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<td>3A and 3B</td>
<td>2021 - 2023</td>
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<td>4A, 4B, and 4C</td>
<td>2023 - 2025</td>
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**Population and Flow Projections**
The project area is largely developed and no significant increase in sanitary sewer flows is expected. The existing sanitary sewers are adequately sized to carry sanitary flows and the proposed ESRS will ensure the sanitary sewers can function as designed.

**Feasible Alternatives**
During development of the 2008 Long Term Control Plan, Elyria evaluated various control measures to achieve 100%, 99%, 95%, and 90% combined sewage capture scenarios and to reduce the number of overflow events in a statistical “typical year” to one per year or four per year system-wide scenarios.

Doing nothing, the "no-action" alternative, is not a feasible alternative because it would allow continued overflows and basement backups that threaten human and stream health and would lead to enforcement action and potential fines for Elyria.
Figure 1 – ESRS location
Elyria evaluated four categories of feasible alternatives to eliminate / reduce CSOs: source control (minimizing flow entering the sewer system), collection system controls (modifications to increase sewer capacity), storage technologies (tanks, basins, or tunnels to temporarily hold excess flows), and treatment technologies (WWTP modifications to provide treatment for wet weather flows that otherwise would be discharged without full treatment).

Source controls are typically lower cost than other alternatives and are implemented on a very localized scale. Although some are in use in Elyria, the scale of excess flows in Elyria preclude this being a feasible alternative to achieve the required CSO reduction.

Collection system controls are feasible for parts of Elyria’s sewer system, although much of the system is fully utilized and provides no opportunities for transferring flows within the system. Separation of combined sewers into dedicated sanitary pipes and storm pipes may be feasible in some areas.

In-line and subsurface storage technologies may be feasible in Elyria; surface storage is not feasible due to the lack of undeveloped areas.

Treatment technologies could be added to the WWTP; the lack of undeveloped land in the city otherwise precludes dispersed treatment facilities.

**Selected Alternative**

A wet weather control plan proposed by Elyria includes a combination of collection system improvements (including the ESRS) and treatment technologies to achieve required CSO reductions. The ESRS and the immediate 1B South, 1C, and 1D phases will function as a wet weather relief sewer to convey wet weather flow by gravity to the Elyria WWTP. The ESRS is designed to operate only as a wet weather sewer and is not designed for storage. Excess flow during wet weather will enter the ESRS via static weirs and elevated overflow pipes without flow gates or other mechanical structures. Construction of the ESRS started at the WWTP and will proceed upstream (from north to south). The first connections to the relief sewer that will introduce flow will be at the completion of Phase 1C in late 2019 or early 2020.

Wet weather flow from the ESRS will combine with flow from the existing East Side Interceptor and enter the WWTP through new wet weather screening and diversion facilities (already constructed).

Phases 1B South, 1C, and 1D will construct approximately 12,000 linear feet of 78” diameter pipe and connections to existing trunk sewers in the road rights-of-way beneath pavement (Figure 2).
Implementation
Elyria is scheduled to borrow approximately $25,890,000 in 2019 from the WPCLF for phases 1B South (January 2019 loan award, $5,350,000), 1C (March 2019 loan award, $9,200,000), and 1D (December 2019 loan award, $11,340,000). Elyria qualifies for the standard interest rate with $15,400,000 (approximately the 1B South and 1C loan amounts) at the 0% special CSO discount incentive rate. Loan amounts above the allotted CSO discount amount will be at the standard interest rate for 30-year loans (now 2.47%; the rate is set monthly and may change before loan award). During the 30-year loan period for these project loans, Elyria will save approximately $8,509,000 by using WPCLF dollars.
with the CSO discount, compared to the market rate of 3.77%.

Assuming construction starts within two months after loan award, these projects will start in early 2019 and early 2020 and be completed by late 2019 (1B South), early 2020 (1C), and early 2021 (1D).

**Public Participation**

Besides ongoing local publicity about the development of and negotiations for the city’s long-term control plan, Elyria provided specific information and a public meeting about Phase 1B in early 2018 and will provide similar public participation opportunities for the remaining phases. Ohio EPA is unaware of opposition to or controversy about these projects.

Ohio EPA will make a copy of this document available to the public on its web page [http://epa.ohio.gov/defa/ofo.aspx](http://epa.ohio.gov/defa/ofo.aspx) WPCLF Documents for Review and Comment and will provide it on request to interested parties.

**Environmental Impacts**

This project could directly affect environmental features. Because the project is designed to provide additional pipe capacity to prevent CSO and backup of sewage into basements rather than provide additional capacity in the wastewater system for growth, the project is not expected to lead to new development or associated indirect or cumulative impacts.

Because all construction will be in or immediately adjacent to existing paved roads with no above-ground structures, the project will not affect major land forms, wetlands, agriculture, land use, ground water resources, or surface water resources.

Phase 1C crosses beneath a Black River tributary in part of the regulatory 100-year floodplain. However, because the new pipe will be underground, its presence will not impact flooding or flood levels nor will it affect important aquatic habitats. Construction will require a local floodplain development permit from the City of Elyria. If open-cut construction is used to install the pipe, a permit from the U.S. Army, Corps of Engineers, will be required.

The project is unlikely to adversely affect federally listed species of importance or important terrestrial habitat in Lorain County: Indiana bat (endangered), Kirtland’s warbler (endangered), piping plover (endangered), northern long-eared bat (threatened), rufa red knot (threatened), and bald eagle (species of concern). Potentially suitable habitat only for the bat species is in the immediate project area. Removal of large landscape trees that could be seriously harmed by excavation root damage along the 1B South project alignment residential street occurred during project development. Tree removal as necessary along the 1C and 1D alignments will occur between October 1st and March 31st to
prevent potential impact to the listed bat species.

Lorain County meets standards for five of the six regulated air pollutants (carbon monoxide, sulfur dioxide, nitrogen oxide, lead, particulate matter); the county is part of a multi-county non-attainment zone for ozone. The ESRS will operate entirely by gravity and includes no energy consuming or air-polluting equipment. Short-term, insignificant increases in local air pollution from construction vehicle exhaust are expected during construction. Otherwise, construction and operation of the ESRS will have no significant adverse short-term or long-term impacts on local air quality or local or regional energy supplies.

Noise from construction vehicles will be audible temporarily in the immediate vicinity of active construction. Work will be limited to daylight hours to avoid sleep disturbance. The project requires deep trenching that will temporarily close portions of roads. Standard construction maintenance-of-traffic measures and temporary detours will minimize the impact and inconvenience to residents and help ensure public safety. Access to all structures for emergency vehicles will be maintained and trenches will be filled or covered at the end of each work day to help ensure public safety. Although the major excavation will temporarily disturb the appearance of the project area, restoration of pavement and off-road areas after construction will leave the appearance of the project area similar to pre-construction conditions. For these reasons, the project presents no significant adverse short- or long-term impacts to noise, traffic, safety, or aesthetics.

Because all construction will be in or immediately adjacent to existing paved roads previously excavated for water mains, sanitary sewers, and storm sewers and involves no surface structures, the project will not cause a significant adverse effect to cultural resources (properties listed or eligible for listing in the National Register of Historic Places). In the event of archaeological finds during construction, Ohio Revised Code Section 149.53 requires contractors and subcontractors to notify the State Historic Preservation Office of any archaeological discoveries in the project area, and to cooperate with the Office in archaeological and historic surveys and salvage efforts when appropriate. Work will not resume until a survey of the find and a determination of its value and effect has been made, and Ohio EPA authorizes work to continue.

A typical Elyria household’s average annual sewer bill is approximately $520, which is 1.3% of local median household income (MHI; $40,967). These numbers compare favorably to the Ohio average sewer bill of $677 and 1.3% of Ohio MHI ($52,407). Sewer bills below 1.8% of MHI are generally considered affordable. Annual rate increases of approximately 4% are in place annually until 2028, although the ESRS financial projection led Elyria to increase the 2018 and 2019 rates by 8.3% each year.
By using the WPCLF low-interest financing combined with the special 0% CSO incentive for this project, Elyria has minimized the cost to customers and the impact to the local economy.

**Conclusion**

Based on its review of this project’s general plans and other information, Ohio EPA concludes that no significant short-term or long-term adverse direct environmental impacts will result from the project as related to the environmental features discussed in this Environmental Assessment. This is because these features do not exist in the project area, the features exist but will not be adversely affected, or the impacts of construction will be temporary and mitigated.

This project equally serves the entire Elyria community and no particular segment of the community will be faced with additional adverse impacts or be deprived of environmental benefits, compared to any other segment.

For these reasons, this project, alone or in combination with other projects, is not expected to result in any significant indirect or cumulative short-term or long-term adverse environmental impacts.

Ohio EPA expects the economic impact of the project on the average user to be insignificant because sewer rates are affordable and Elyria is using favorable construction financing.

The project will help eliminate the human health and environmental threats of routine CSO occurrences and backups of sewage into basements.

**For more information, please contact:**

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