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Jon Husted, Lt. Governor
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February 2, 2021

Limited Environmental Review and Finding of No Significant Impact

**City of Lorain - Lorain County
Red Hill Boosted Pressure Zone Improvements Phase 1
Loan number: FS390532-0030**

The attached Limited Environmental Review (LER) is for a water distribution project in Lorain which the Ohio Environmental Protection Agency intends to finance through its Water Supply Revolving Loan Account (WSRLA) 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,

Jonathan Bernstein

Jonathan Bernstein, Assistant Chief
Division of Environmental and Financial Assistance

Attachment

LIMITED ENVIRONMENTAL REVIEW

Project Identification

Project: Red Hill Boosted Pressure Zone Improvements Phase 1

Applicant: City of Lorain
200 West Erie Avenue
Lorain, Ohio 44052

Loan Number: FS390532-0030

Project Summary

The City of Lorain has nominated an estimated \$7.5 million water distribution system project for Ohio EPA Water Supply Revolving Loan Account (WSRLA) financial assistance. Of this amount, \$479,660 is for lead service line replacement and the balance of roughly \$7 million is for water main improvements as shown in Figure 1 below. The lead service line replacement is eligible for principal forgiveness, which does not need to be repaid. All the proposed construction will be limited to road rights-of-way with the exception of the section of transmission line installation between Washington Avenue and Dayton Avenue and the improvements at the Red Hill booster pump station (BPS).

While the city previously announced plans to determine if future water rate increases will be needed through 2027 as part of its ten-year capital improvements plan, Lorain has indicated that this individual project should not require them. The city has dedicated revenues collected through its water fees as its loan repayment mechanism for this proposed project.

History & Existing Conditions

The City of Lorain owns and operates a complete water system consisting of source supply, treatment, storage, and distribution that serves both the City of Lorain as well as adjacent communities like Amherst and Sheffield Lake. Raw water from Lake Erie is treated at the city's 17.2 million gallons per day water treatment plant, built in 1906, before entering the city's storage and distribution system consisting of three pressure zones, two booster pump stations, storage tanks, and about 316 miles of water mains. The remainder of this document will cover the smallest of the city's three pressure zones or districts, the Red Hill pressure zone as shown in Figure 1.

The Red Hill pressure zone with its 21 miles of water mains is located on the southern side of Lorain. Customers of this pressure zone are mainly residential and are served by the Red Hill Drive booster station and the Red Hill elevated storage tank located on the south-central side of the city and built in 1989. This area has some of the older water mains within Lorain. As a result, they experience excessive main breaks, exhibit poor fire flows, and serve homes on the city's normal pressure zone with lower-than-desired pressures due to being in the higher elevation areas of Lorain. In addition, the Red Hill project area is a transition between the normal pressure zone (Central Zone) and the boosted zone served by the Red Hill BPS and elevated tank.

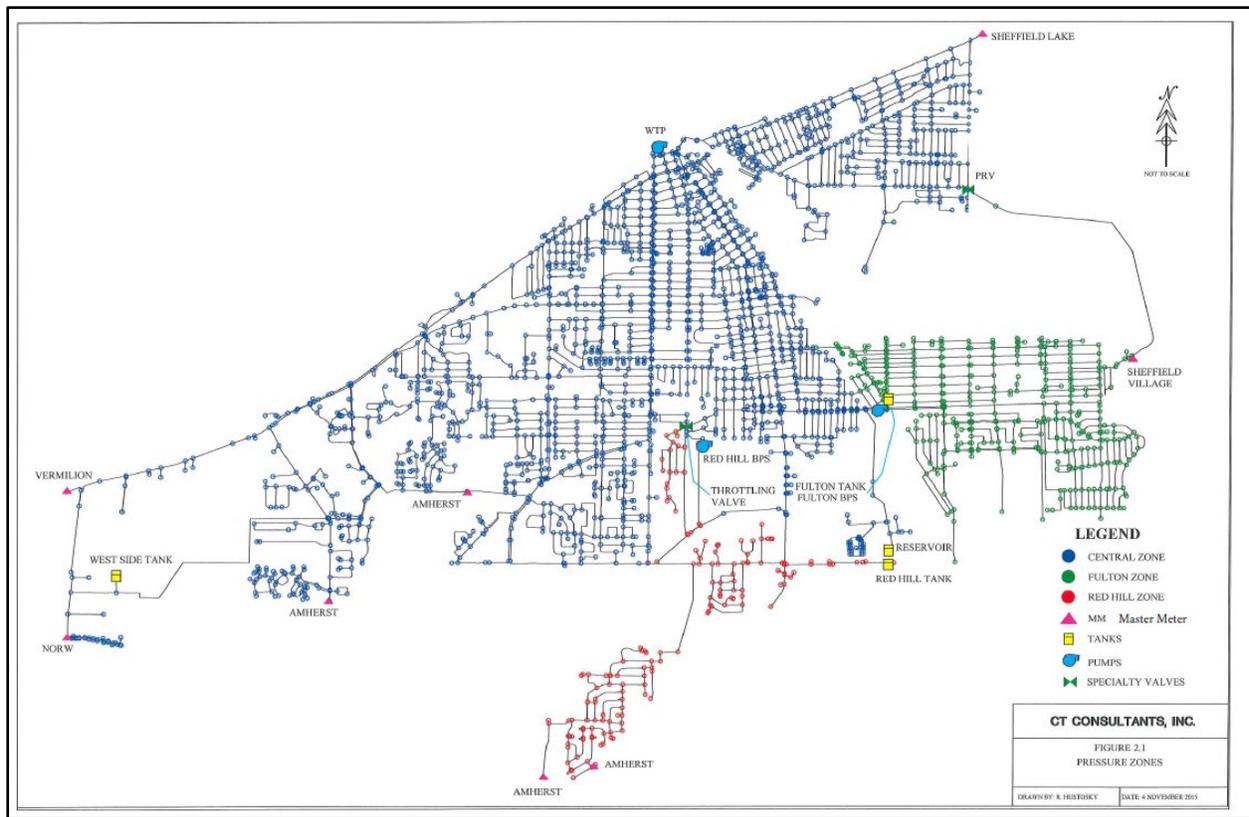


Figure 1. City of Lorain water service area and pressure zones

Other than the problems experienced with the city’s water mains and the lack of surge relief at the Red Hill BPS, there are no known existing problems with water mains in the project area. The water demand in the project area has been stable and is not anticipated to grow or decline in the future.

In addition to the aging water mains in the project area, the city has noted that there are a significant number of residential homes in this pressure zone with lead service lines or similar material that can pose potential human health concerns. For that reason, a late addition to this project occurred in 2020 to address these potential problems. Figure 2 below shows the location of the proposed improvements to the Red Hill project area. In general, the project area is located in the south-central part of Lorain and is generally bounded on the north by 36th Street, the west by Washington Avenue, the east by Dutton Road and Elyria Avenue, and the south by North Ridge Road.

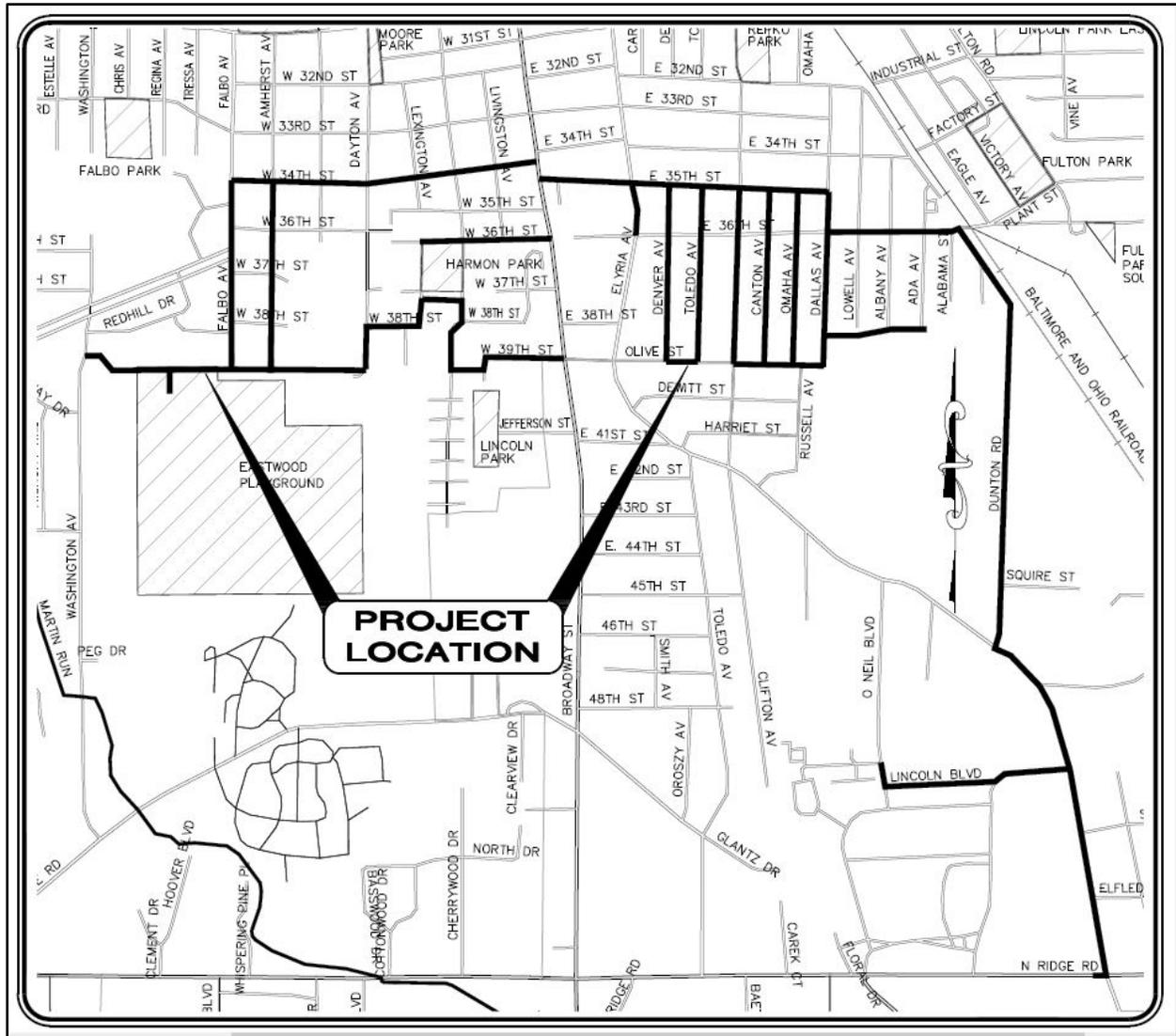


Figure 2. Red Hill project scope

Project Description

The City of Lorain has chosen the following improvements as its selected alternative for the service area: a new surge relief valve to correct an operational issue, a new transmission main for increased pressures, reliability and redundancy, replacement water mains due to size, age and break history, and new water mains to loop existing mains. Overall, the proposed project’s major benefits include cost savings from no longer having to repair water main breaks, elimination of low pressure and water loss problems, and a solution to an operational issue at the Red Hill BPS.

Red Hill BPS: As part of the proposed project, the improvements to the Red Hill BPS consist of making modifications within the existing booster pump station to rehab or replace the existing non-operable surge relief valve; relocating the existing overhead electric power service to underground from Washington Street to the booster pump station; and clearing trees and brush to provide for maintenance access for the suction line, the discharge line, and the power service.

New transmission main, water main replacements under side streets, and looping of open-ended water mains: The city has identified nineteen locations along or under streets needing water main improvements as shown in Figure 2. Of these locations, the new west to east transmission main alignment between Washington Avenue and Broadway Avenue is the most environmentally sensitive location because of the wetlands found there.

As part of this proposed work, temporary impacts from four-inch diameter electrical conduit installation to two small wetlands totaling less than a tenth of an acre and about 150 feet in length is unavoidable. However, by adhering to the requirements of the relevant Clean Water Act Section 404 nationwide permit for wetlands impacts, such as setting aside suitable excavated material and reusing it as trench backfill above the conduit, Ohio EPA expects that the potential impacts on 0.031 acres of wetlands will not be significant.

In addition to the roughly 40,000 linear feet of water lines comprising these proposed improvements, the city proposes to replace both private and publicly owned lead service lines within the project area at a cost not to exceed \$479,660.

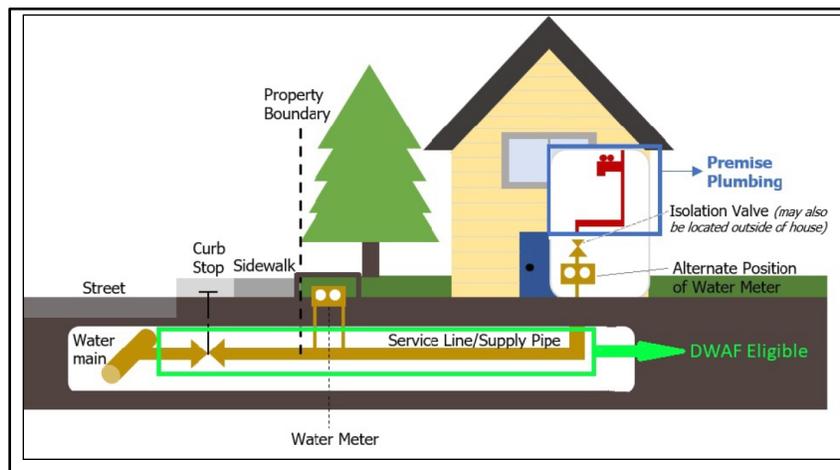


Figure 3. General illustration of typical lead service line replacement

Figure 3 above illustrates a typical situation where lead and other similar material service lines may require replacement to address potential human health concerns.

Implementation

To implement the proposed \$7.5 million improvements described above, the City of Lorain intends to finance its project through a 20-year low-interest loan from Ohio EPA's Water Supply Revolving Loan Account. Currently, the WSRLA standard interest rate is 0.43%. This fixed interest rate is adjusted monthly to reflect changing market conditions. The city expects to receive principal forgiveness funding for the lead service line replacement portion of the proposed project.

Under the previously established water rates in effect in January 2021, a typical, in-city residential customer using on average 685 cubic feet of water per month is currently paying a fee of \$48.46 per month, or about \$581 a year. When expressed as a percentage of the service area's latest median household income (MHI) figure of \$37,014, this annual fee is about 1.57% of the area's MHI and is considered generally affordable for an average residential water customer in Lorain. For qualifying residents on fixed incomes or with disabilities, the city currently offers a reduced usage fee that is

\$1.20 less than the regular fee. Assuming the project funding presented above, Ohio EPA expects that the city will save about \$1.54 million when compared to a market-rate loan of 1.68% on the project's estimated total project cost of \$7.6 million. By proposing to fund their project in this way, Ohio EPA anticipates that the City of Lorain should be able to generate enough revenue under its current and proposed rate structure to continue to own, operate, and maintain its water distribution and treatment systems well into the future.

Under the city's proposed project schedule, WPCLF funds are expected to be awarded in February 2021, so that construction can commence soon thereafter. The city estimates that construction on this project can be completed in about two years.

Public Participation

During project planning, the City of Lorain indicated that there had been no public participation to date and that it intended to hold a public meeting with affected residents in the future to inform them of the improvements and the increased water pressures. The city also said it would post information on the project on the city's website. This information can be found in letters sent to all affected property owners and at:

<https://www.cityoflorain.org/522/Waterline-Projects>

Ohio EPA will make a copy of this document available to the public on its web page (<https://epa.ohio.gov/defa/ofa#169638770-wsrla-documents-for-review-and-comment>) and will provide it upon request. A copy may also be posted at city hall, other city buildings, and on its web site (if available).

Conclusion

The proposed project meets the project type criteria for a Limited Environmental Review (LER); namely, it is an action within an existing water distribution system, which involves the functional replacement of and improvements to existing mechanical equipment and water mains. Furthermore, the project meets the other qualifying criteria for an LER; specifically, the proposed project:

Will have no significant environmental effect and will have no effect on high value environmental resources. During project planning, the city modified the project's scope to eliminate an access road and section of water line that would have impacted wetlands between North Ridge Road and the Red Hill BPS. As a result of this change, the most significant potential impacts from this project were removed. Of the remaining project components, the sixteen-inch diameter transmission main construction between Washington and Dayton Avenues and the work to relocate the existing overhead electric power service to underground from Washington Street to the Red Hill BPS will entail clearing trees and brush to provide for maintenance access to the project area. As such and given the location of the existing Red Hill BPS in a wooded area, this work and the associated environmental impacts are unavoidable. However, by using trenchless techniques, such as jacking and boring or directional drilling, Ohio EPA expects that construction impacts on wetland and other natural areas such as shown in Figure 4 will be reduced, if not eliminated. Main access to the project area will be through the City of Lorain's access driveway to the Red Hill BPS and existing streets.

Outside of the area around the Red Hill BPS, street tree impacts during water main replacement and lead service line construction on eighteen residential streets are the most likely environmental impacts. These too are unavoidable given the potential conflicts between street trees and the city's

pre-existing water distribution system and other utilities in and along city streets. The city and its consultant estimate that 50 street trees as shown on the project plan sheets will need to be removed to avoid future utility conflicts and provide access to the public and private water lines in this part of the overall project. Any tree removal will need to occur in accordance with US Fish and Wildlife Service seasonal cutting recommendations to protect federally listed bat species.

With these environmental impacts defined, the remainder of the proposed project's potential impacts are not expected to be adverse or significant. Ohio EPA reached this conclusion on the basis of the urbanized character of the project area in general and the absence of any coastal management areas or floodplains found elsewhere in Lorain. This conclusion also was validated by the reviews completed by other federal and state governmental agencies of the known features of the project area as part of the Army Corps of Engineers wetlands impact review. Accordingly, the city's environmental impact mitigation in the project's contract documents should address all of the concerns considered during the planning of this project, including proper disposal of excess excavated material outside of floodplains and wetlands.

Will not require extensive impact mitigation unique to the assistance proposal. In general, the proposed work to complete this project is straight-forward and does not require any extensive mitigation of environmental impacts. As noted above, street tree removal because of utility conflicts and vegetative removal for maintaining access to the Red Hill BPS are unavoidable aspects of this proposed project. They will not be mitigated. However, such routine management practices as are typically found in storm water pollution prevention plans and other impact mitigation related to air quality, noise and traffic control, tree and drip line area protection, site dewatering, and archaeological resources are part of the city's proposed project during its estimated two-year construction timeframe.

Is cost-effective and not the subject of significant public interest, or controversy. The necessary improvements were selected by Lorain as more cost-effective than a no-action option on the basis of costs and non-monetary factors. Moreover, the proposed improvements constituting this project are non-controversial because they will not adversely impact the environment, or the residential rates paid for water service.

Does not create a new, or relocate an existing discharge to surface or ground waters, and does not create a new source of water withdrawals from either surface or ground waters, or significantly increase the amount of water withdrawn from an existing water source, or substantially increase the volume of discharge or loading of pollutants from an existing source or from new facilities to receiving waters because the proposed project's purpose is restricted to addressing areas of Lorain where the main problems are an operational problem at the Red Hill BPS, inadequate (low) water pressure and reliability, a lack of back-up systems, stagnate water and water loss in the distribution system, and water line breaks resulting from the age of the existing water mains.

Will not provide capacity to serve a population substantially greater than the existing population. Based on information provided by the city during planning, Lorain and vicinity have experienced declining populations and are not expected to grow in population over the next twenty years. This is particularly true for the Red Hill pressure zone which is built out. As a result, by replacing the water system components which have come to the end of their useful life, this proposed project is not meant to address future growth, but only maintain the city's distribution system. On this basis, the proposed project and the population it is expected to support should have no effect on environmental attributes that are typically affected by growing populations.

To conclude, the city's proposed project is sufficiently limited in scope and meet all applicable criteria to warrant an LER. The planning activities for the proposed project identified no potentially significant, direct, indirect, or cumulative adverse impacts. The proposed project is expected to have no short- or long-term adverse impacts on the quality of the human environment or on sensitive resources such as ozone levels and air quality, floodplains, wetlands, prime or unique agricultural lands, aquifer recharge zones, archaeologically or historically significant sites, or threatened or endangered species. The City of Lorain's proposed project will enable it to address its responsibilities under the Safe Drinking Water Act. Public health risks associated with potential exposure to lead in the city's distribution system in the project area are also expected to be reduced.

Contact information

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Figure 4. Project area wetland