



May 28, 2024

Limited Environmental Review and Finding of No Significant Impact

**Scioto Water, Inc. – Scioto County
2022 Rose Hill Transmission Main Replacement
Loan number: FS391407-0023**

The attached Limited Environmental Review (LER) is for a drinking water project in Scioto County 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,

A handwritten signature in black ink, reading "Kathleen Courtright".

Kathleen Courtright, Assistant Chief
Division of Environmental and Financial Assistance

Attachment

LIMITED ENVIRONMENTAL REVIEW

Project Identification

Project: 2022 Rose Hill Transmission Main Replacement

Applicant: Scioto Water, Inc.
PO Box 1001
Franklin Furnace, Ohio 45629

Loan Number: FS391407-0023



Figure 1. Scioto County

Project Summary

Scioto Water, Inc. (SWI), in Scioto County (Figure 1), has requested \$1,698,000 from the Ohio Water Supply Revolving Loan Account (WSRLA) to finance the 2022 Rose Hill Transmission Main Replacement project. The project involves the replacement of aged and deteriorated sections of water main with a history of chronic failures. Due to the nature and location of construction, as well as thoughtful design and proposed protection measures to be implemented, no significant adverse impacts are anticipated, as discussed in the conclusion.

History & Existing Conditions

SWI is a non-profit corporation that provides water service to customers in Scioto, Pike, Jackson, Adams, and Lawrence counties. SWI's service area is comprised of three regions: the Rose Hill System, the West System, and the East System (Figure 2). This project consists of improvements within the Rose Hill System.

The Rose Hill System encompasses areas across the northern portion of Scioto County, generally east from the Scioto River into southeastern portions of Pike County, southwestern Jackson County, and into the northwestern portion of Pike County. Also served are the communities of Wakefield and Stockdale, a single service point to the Village of Oak Hill, and metered sale points to Pike Water, Inc. and Jackson Water Company, Inc. Most connections in the Rose Hill System are with rural residents. SWI's Rose Hill Water Treatment Plant (WTP), located on Fairgrounds Road north of Lucasville, is the main source of water for the Rose Hill System. A metered connection with Scioto County Regional Water District No. 1 (Water 1) serves as an additional source for this system. Rose Hill WTP treats ground water from five wells. Current water production ranges between 1.2 and 1.6 million gallons daily (MGD). Water 1 provides an additional 0.17 MGD.

The Rose Hill WTP pumps finished water through a 4-mile long, 16-inch diameter transmission main to the Rose Hill Storage Tank. This storage tank serves the majority of customers within the Rose Hill System, and the transmission main is the only route of water from the WTP to the tank. The main is composed of 3.2 miles of ductile iron pipe (DIP) and 0.8 miles of polyvinyl chloride (PVC) pipe. Corrosion of the DIP segment has resulted in numerous failures; 16 failures over the past seven years, two of which were within the last six months. Water pressure in the main is generally 295 pounds per square inch. This pressure is relatively high and generally much greater than would be encountered in distribution mains feeding homes. When a small leak occurs, the high pressure leads to a large quantity of lost water and typically increases the opening size of the leak, exacerbating

water loss. Each water main break is estimated to account for 2 million gallons of lost water and cost \$10,000 to repair, taking into account lost water and repair cost. Also, repairs to the transmission main require shutdown of the WTP, limiting production of water.

SWI determined that replacement of failing sections of the transmission main is necessary to provide greater public safety and reliable water service to their customers and to reduce their long-term costs.

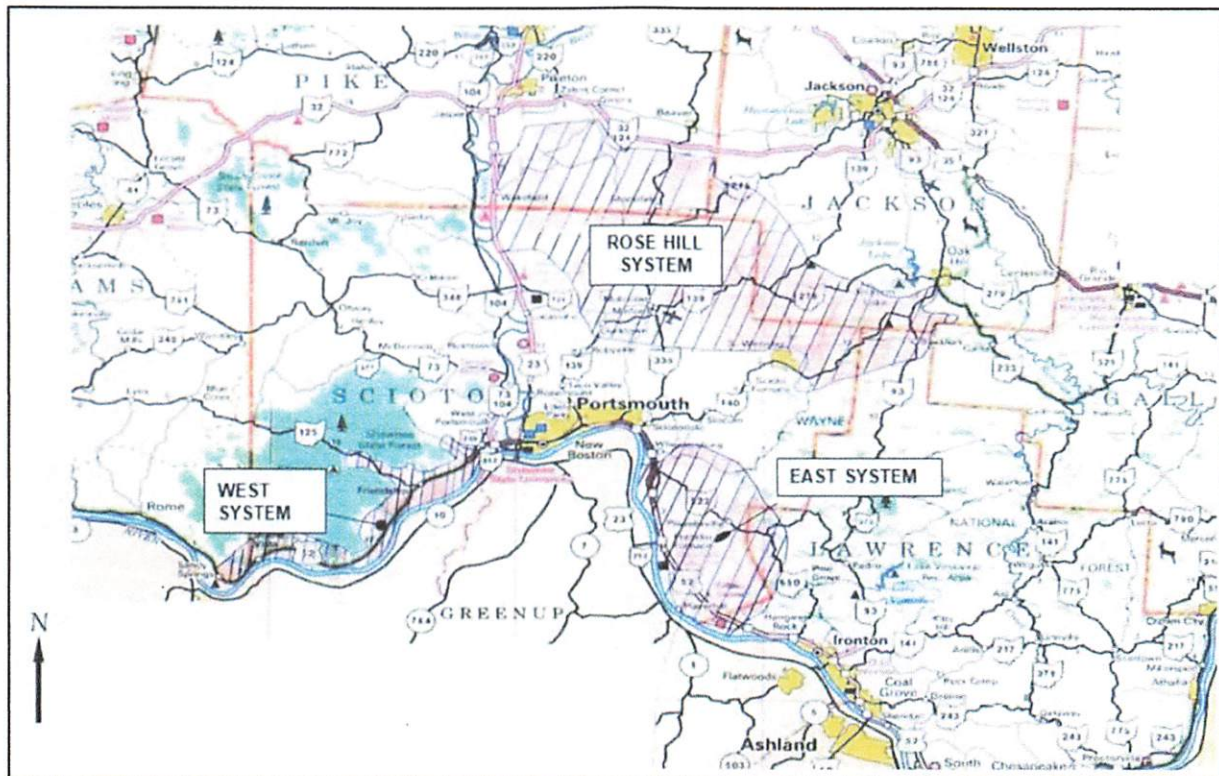


Figure 2. SWI service areas

Project Description

SWI intends to replace three sections of deteriorated 16-inch DIP with 7,100 linear feet of 16-inch vinyl-wrapped DIP along the existing water main alignment (Figure 3). Other items to be installed include hydrants, valves, fittings, and other associated appurtenances. Water mains will be installed using traditional trenching. Existing water mains will remain in service until the new mains have been completed to maintain service to customers during construction. Short outages will be necessary when connecting the new mains to the system. The contractor will be required to notify property owners of work that may affect them or their property and shall coordinate and schedule work to minimize impact to water service provided by SWI. Additionally, the contractor will be responsible for implementing standard construction best management practices for the control of erosion and sediment, traffic disruptions, noise and dust, and like factors throughout the duration of the project. All disturbed surfaces will be restored to preconstruction conditions or better.

The three sections of water main to be replaced include five stream crossings; two crossings of Millers Run and three crossings of Hockenberry Hollow. Existing water mains at each crossing of Millers Run were installed on top of the stream bed and encased in concrete. See figures 4 and 5 for pictures of the concrete encasements. The concrete encasements act like shallow dams in the stream and artificially modify natural water flow. New water mains will be constructed below the level of the stream bed, and the existing water mains and concrete encasements removed. In doing so, water flow and stream bed elevations at these two locations along Millers Run will be restored to prior conditions like before construction of the existing water main crossings.

Implementation

SWI proposes to borrow \$1,698,000 from the Ohio WSRLA at the small-community rate of 2.38% to cover the cost of the project. Interest rates are set monthly and may change for the requested June award date. Borrowing this amount in WSRLA monies could save SWI roughly \$610,000 over the 30-year loan term compared to the current market rate of 4.18%.

The debt associated with the project will be recovered from monthly user charges. SWI is a non-profit water association and makes rate adjustments as necessary to produce sufficient revenue to cover increases in operation and maintenance costs. SWI reviews budget costs on an annual basis and may adjust rates to cover expense changes based on this and other future projects. SWI anticipates a 20% rate increase in 2025. Based on a monthly usage of 4,000 gallons, the average annual residential water bill for customers served by SWI is \$830. This represents 1.92% of the median household income for Scioto County (MHI; \$43,266) and is greater than the Ohio average annual water bill of \$477.

Construction is anticipated to begin following loan award and be completed by August 2025.

Public Participation

SWI holds board meetings the third Thursday of each month and holds an annual meeting the third Thursday of March. The time and location of these meetings is made available in SWI's *Member Policy and Procedure*, which is available on their website. Discussions regarding the need for the 2022 Rose Hill Transmission Main Replacement project began in 2021 and have continued to this day.

Ohio EPA is unaware of significant controversy about or opposition to the project. Ohio EPA will make a copy of this document available to the public on the following webpage and will provide it upon request:

<https://epa.ohio.gov/divisions-and-offices/environmental-financial-assistance/announcements>.

Conclusion

The proposed project meets the criteria for an LER; namely, it is an action within a PWS, which involves the replacement of water mains. Furthermore, the project meets the other qualifying criteria for an LER; specifically, the proposed project:

Will have no significant environmental effect, will have no effect on high-value environmental resources, and will require no specific impact mitigation.

Surface Water Resources, Aquatic Habitat, and Endangered Species

Water main installations involve two crossings of Millers Run and three crossings of Hockenberry Hollow. Water mains at these crossings will be installed through traditional trenching. Trenchless methods, such as directional drilling, are not viable because vinyl wrapped DIP cannot be installed through trenchless methods without being damaged. Other pipe materials, such as PVC, which can be installed through trenchless methods, are not viable due to high pressures in the transmission main exceeding the rating of PVC and similar materials. Neither stream is listed in the Ohio Mussel Survey Protocol; however, Millers Run meets the criteria for unlisted streams, which may contain mussels native to Ohio but is not expected to contain federally listed threatened and endangered mussel species. Hockenberry Hollow does not meet the criteria and does not require a mussel survey prior to construction. Ohio EPA coordinated review of the Millers Run crossings with Ohio Department of Natural Resources (ODNR). Ohio EPA, in consultation with ODNR, determined that the substrate at each crossing is not suitable for mussel species, and therefore, no mussel survey is necessary prior to construction.

Work within Millers Run and Hockenberry Hollow are authorized under Nationwide Permit (NWP) No. 58. Nationwide permits are a type of general permit designed to authorize certain activities that have no more than minimal individual and cumulative adverse environmental effects. Construction of the stream crossings has been designed to comply with conditions outlined in the nationwide permit and minimize disturbance to the least extent possible. Requirements include erosion and sediment control, management of water flows, protection of endangered species and aquatic life movements, and like measures. In-water work will be conducted during periods of low or no water flow and following extended dry weather. Work at all stream crossings is designed to require the minimal amount of time to complete possible. It is estimated that each crossing of Millers Run will take two days to complete construction, and each crossing of Hockenberry Hollow one day to complete construction. All disturbed stream areas will be restored to preconstruction conditions or better. Conditions at both Millers Run crossings will be improved and restored to their original conditions prior to installation of the original water main following construction completion, as described earlier in the project description.

New water mains will be installed following the path of previous clearing for the existing mains. The water main route along Fairground Road and Millers Run-Fallen Timber Road contains cleared roadside and agricultural field, with the exception of the easternmost crossing of Millers Run. Some tree removal may be necessary adjacent to this crossing. This area was recently disturbed during repair of the two latest water main breaks. The segment of water main generally following Millers Run-Back Run Road follows existing water main easements and extends through wooded areas and a semi-maintained field. These areas contain herbaceous undergrowth with some woody vegetation, but generally no mature trees. The project is within the range of several state and federally listed threatened and endangered bat species (Indiana bat, northern long-eared bat, tricolored bat, and little brown bat). During summer months these species roost in trees with loose and exfoliating bark, crevices and cavities, and within leaf clusters. Installation of water mains may require tree removal. SWI will conduct tree removal between October 1 and March 31, as recommended by the U.S. Fish and Wildlife Service and ODNR, to protect these species.

In summary, there are no anticipated short-term or long-term adverse impacts to environmental resources or the human environment, based on locations at which most construction will occur and because adequate protection measures will be implemented throughout the duration of the project.

Is cost effective. SWI determined that replacement of chronically failing sections of the transmission main is more cost effective than continuing to expend time and money on emergency repairs and is necessary to provide a greater level of reliability and safety to water customers.

Is not a controversial action. The nature of the project is such that there will be no significant adverse impacts to residents or the environment, and no opposition to the project has been reported. Rather, completion of the project will reduce the frequency of water main breaks that have adversely impacted customer's water service.

Does not create a new or relocate an existing discharge to surface or ground waters, 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, does not substantially increase the volume of discharge or loading of pollutants from an existing source or from new facilities to receiving waters, and will not provide capacity to serve a population substantially greater than the existing population. The project merely involves in-kind replacement of water mains that serve existing customers and will have no impact on SWI's PWS (e.g., source, withdrawal, treatment, storage, distribution, usage).

To conclude, SWI's proposed project is sufficiently limited in scope and meets all applicable criteria to warrant an LER. The planning review of the project identified no potentially short-term or long-term adverse impacts on the quality of the human environment or on sensitive resources (surface waters, coastal zones, floodplains, wetlands, state-designated scenic and recreational rivers, prime and unique agricultural lands, aquifer recharge zones, archaeological and historically significant sites, threatened and endangered species, and state and federal wildlife area).

Completion of the project will have long-term benefits associated with the provision of safe and adequate water supply to support the demands of SWI's customers.

Contact Information

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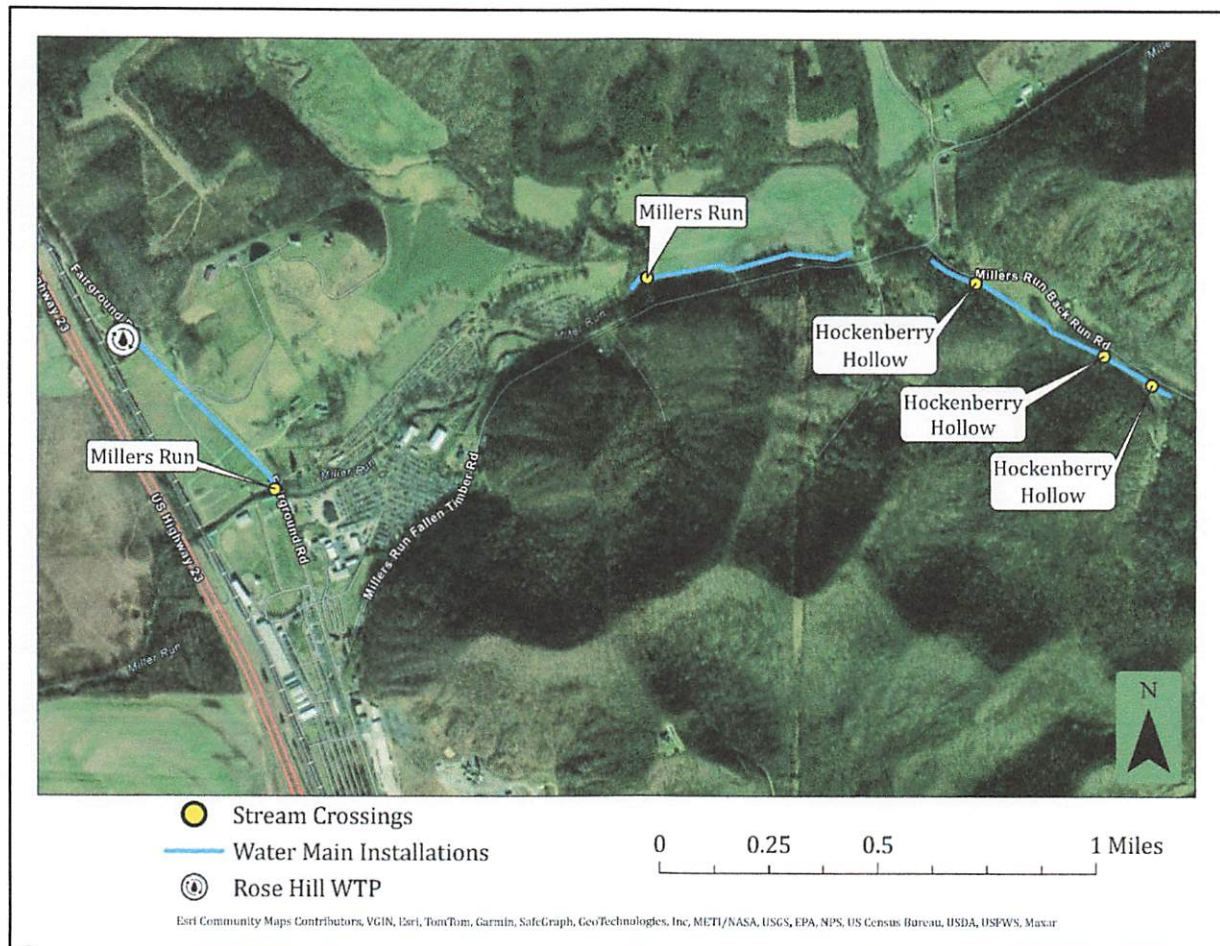


Figure 3. Water main replacements

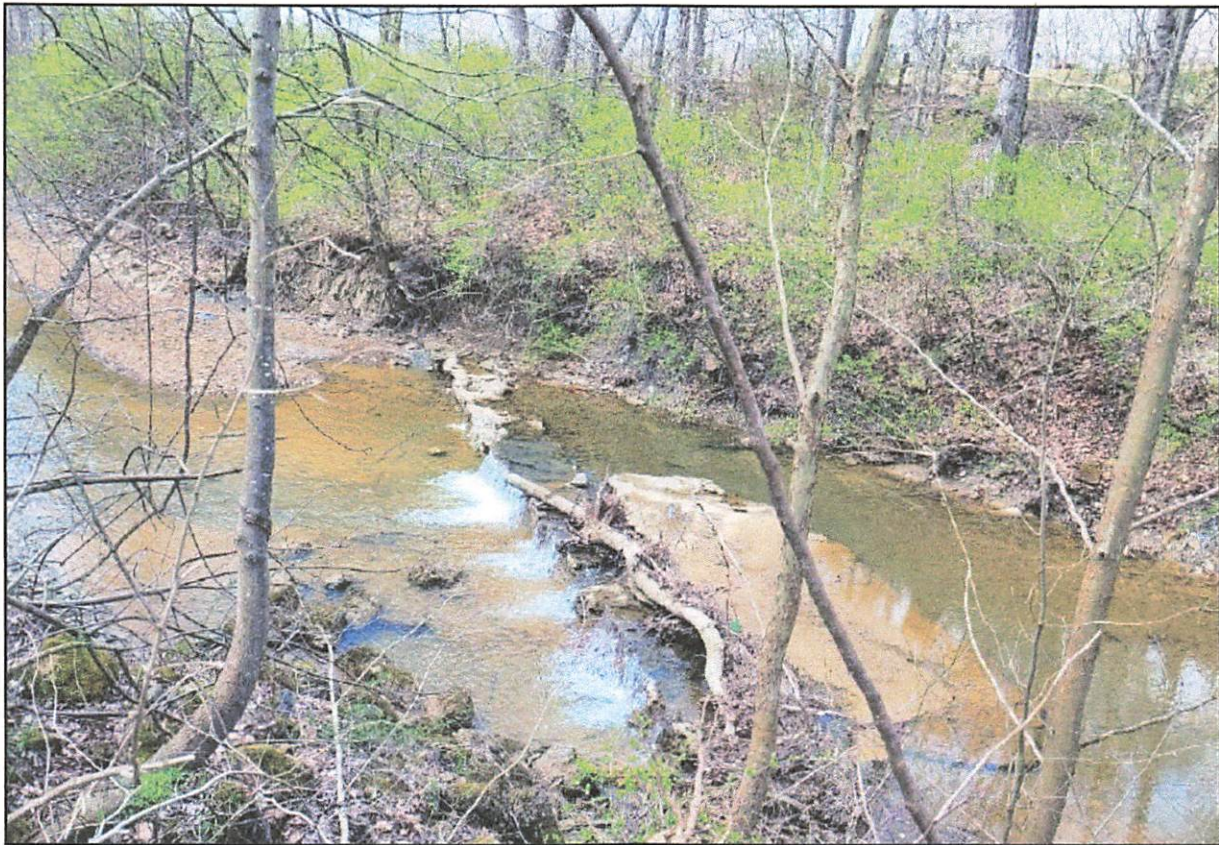


Figure 4. Concrete encasement at water main crossing of Millers Run along Millers Run-Fallen Timber Road



Figure 5. Concrete encasement at water main crossing of Millers Run along Fairground Road