



Mike DeWine, Governor
Jon Husted, Lt. Governor
Laurie A. Stevenson, Director

June 28, 2020

Limited Environmental Review and Finding of No Significant Impact

**Greene County Sanitary Engineering Department - Greene County
Advanced Metering Infrastructure (AMI) Meter Replacement
Loan number: FS390029-0025**

The attached Limited Environmental Review (LER) is for an AMI water meter replacement project in Greene County which the Ohio Environmental Protection Agency intends to finance through its Water Supply Revolving Loan Fund (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: Advanced Metering Infrastructure (AMI) Meter Replacement

Applicant: Greene County Sanitary Engineering Department
35 Greene Street
Xenia, Ohio 45385

Loan Number: FS390029-0025

Project Summary

Greene County has applied to the Water Supply Revolving Loan Account (WSRLA) for \$10,627,837 to replace Greene County Sanitary Engineering Department (GCSED) water meters and associated integrated information systems in the county water distribution system. Small excavations for replacement water meters and pole installations will cause very minimal impact because this project will occur within developed areas. Water rates will not need to be raised for this project.

History & Existing Conditions

Greene County, located in southwest Ohio (See Figure 1), has a water distribution system that is divided into eight districts: Northwest Regional, Southwest Regional, Eastern Regional, Cloy, Dayton, Fairborn, Kittridge, and Swigart (See Figure 2). There are approximately 22,000 water meters in this service area, and the average age of existing water meters is 14.6 years old.

The county implemented a new billing system in 2017 and uses electronic billing for payment and customer invoicing. Staff have reported difficulties with the current billing system and there are continual issues that negatively impact the system's ability to reliably and accurately read meters for billing.

Project Description

Greene County will replace all GCSED-owned meters, which amounts to approximately 17,049 customer water meters. The replacement will involve a system-wide upgrade to Advanced Metering Infrastructure (AMI) technology, which will improve efficiency and accuracy of metering and billing.

An AMI system is comprised of water meters, meter interface units (MIU), and data collector units (DCU) (Figure 3). The data collected is integrated into software systems that customers use to deliver the expected benefits of the AMI system. The MIU translate data collected at the meter and transmit this information by radio frequency to AMI data collectors. Most meter registers are programmed at the factory level and cannot be changed. DCUs receive information from the MIU and are typically mounted on top of structures to receive better signal. They use antennas to communicate with MIUs and the AMI's system and are designed for overlapping coverage. The MIU and the data collector can transmit and receive information in a two-way mode. This improves reliability and allows for remote

control commands such as shut-off of valves, updating firmware, and on-demand water meter reading.

In some cases, small excavations will be required to relocate the water meters. If meters need to be relocated to pits, these will be located in public rights-of-way and no easements are anticipated. There may also be excavations related to setting poles for data collectors. There will be no structural changes to buildings.

Implementation

Greene County will borrow \$10,627,837 from the WSRLA at the standard interest rate of 0.66%. During the 20-year loan period, Greene County will save approximately \$1,474,000 by using WSRLA dollars at this rate, compared to the market rate of 1.91%.

A typical residential water customer in Greene County pays \$32.26 per month for water. The last water rate increase was in 2015, and rates will not need to be raised for this project. According to the 2014-2018 American Community Survey, the estimated median household income (MHI) for a resident of Greene County is \$65,032. The average yearly water utility bill costs \$387, which is 0.60% of the MHI and compares favorably to the Ohio average bill, \$639.

Anticipating loan award in July 2021, implementing the meter replacements and proposed changes will be complete by the end of 2022.

Public Participation

Greene County has made good efforts to educate the public about water system improvements and provide an annual consumer confidence report for each water district in Greene County on their website. Some preliminary notification was provided to customers in the county's spring 2021 newsletter. Information will also be posted to the county website and customers will be sent letters to notify them of their upcoming meter replacement.

The contractor will need to enter homes when the meter is located inside, and homeowners will be contacted prior to that to schedule an appointment.

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 distribute it to interested parties. Information supporting the LER is available from the project contact named below.

Conclusion

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

Will have no significant environmental effect and no effect on high-value environmental resources, and therefore requires no extensive specific impact mitigation – This project will only be replacing existing water meters, transmitters, receivers, and associated systems with

updated remotely transmittable and readable meters, transmitters, receivers, and associated remote support systems and requires no major excavations, or changes to building structures. No trees will be cut down, and no important, unique, or valuable environmental resources will be impacted as a result of this project.

Is cost-effective and not a controversial action - By replacing old meters with updated AMI technology, meter readings will be more accurate, leaks identified faster and more accurately, and water usage data will be more available to customers. Greene County has determined that no rate increase is needed for the project. Ohio EPA is unaware of opposition to the project.

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; nor will it provide capacity to serve a population substantially greater than the existing population - The project is only replacing existing water meters, associated hardware, communication systems, and data programs and creates no change to water treatment, use, disposal, or withdrawal.

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 (floodplains, wetlands, prime or unique agricultural lands, aquifer recharge zones, archaeologically or historically significant sites, or threatened or endangered species) because no land disturbance is involved.

This project will result in more accurate and efficient water metering and billing to Greene County customers, help identify leaks earlier, minimize unaccounted-for water loss, and manage data in a more efficient and organized manner.

Contact information

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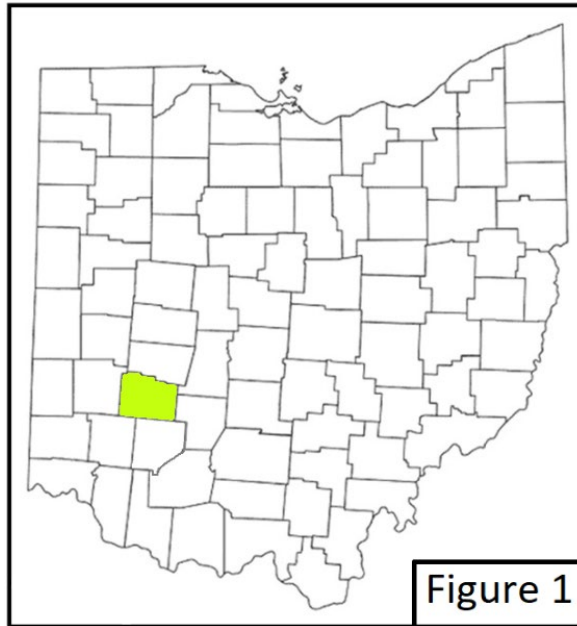


Figure 1

Figure 1. Map of Greene County Ohio

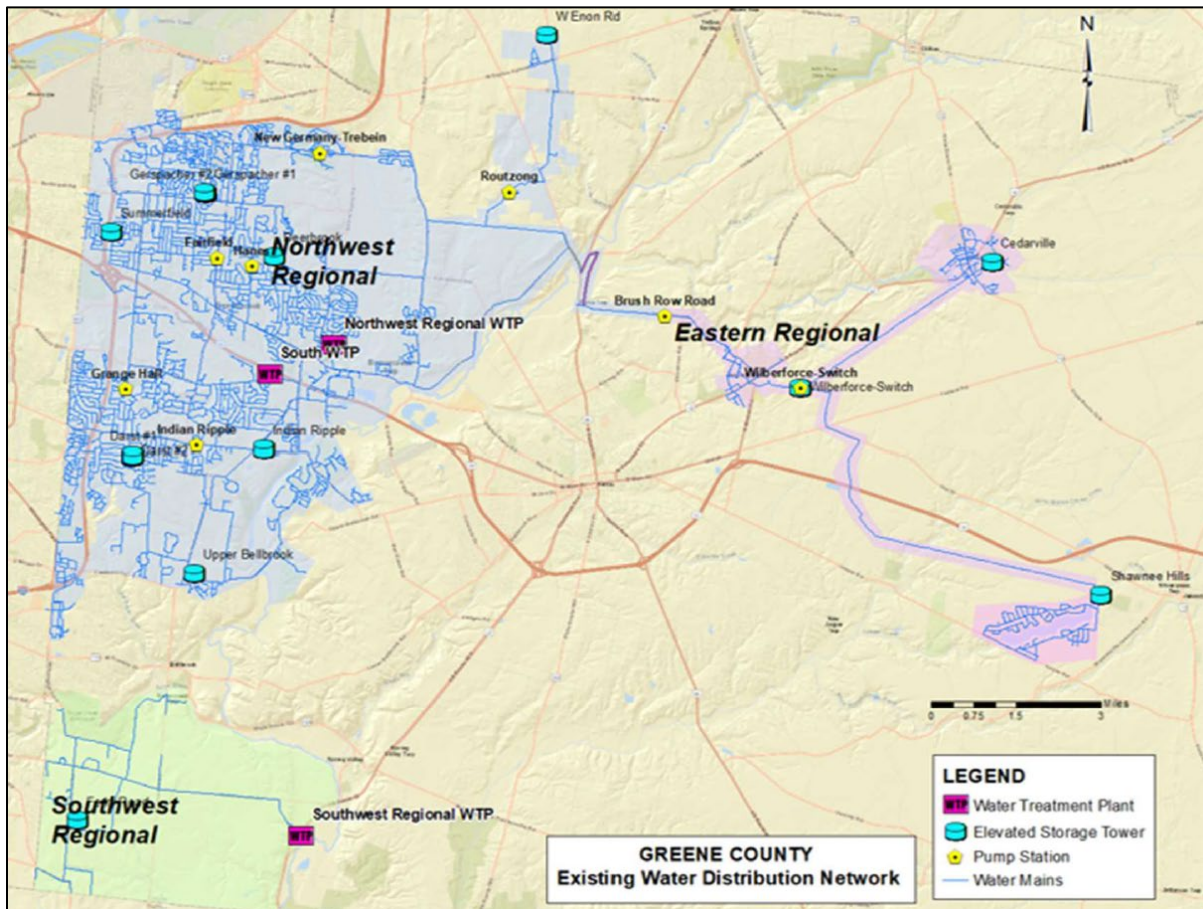


Figure 2. Map of Greene County Sanitary Engineering water service districts

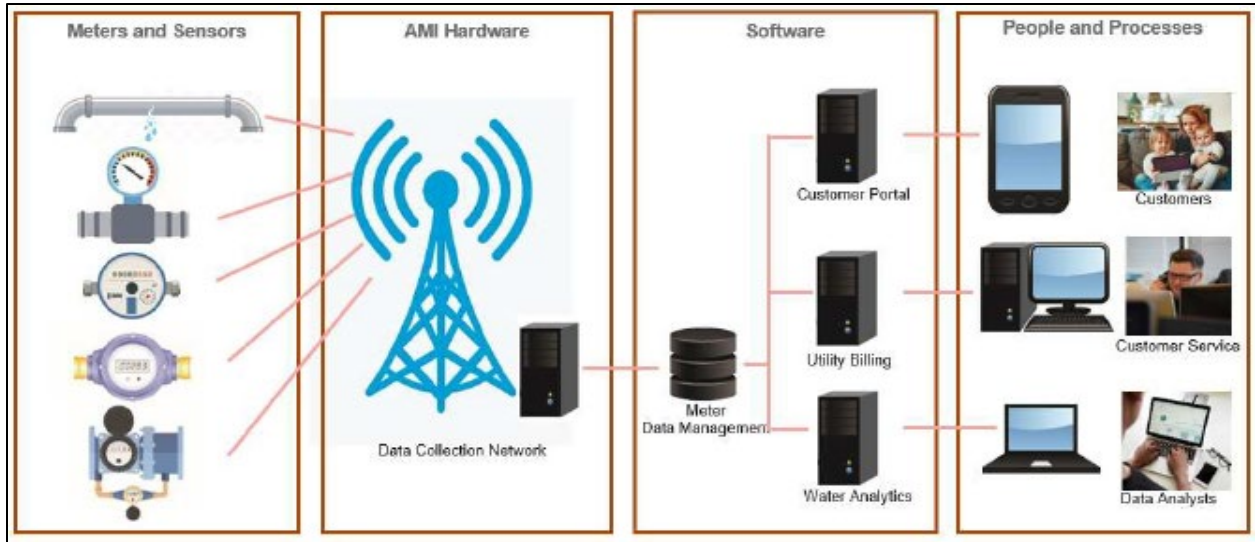


Figure 3. Flow chart showing the architecture of AMI system integration

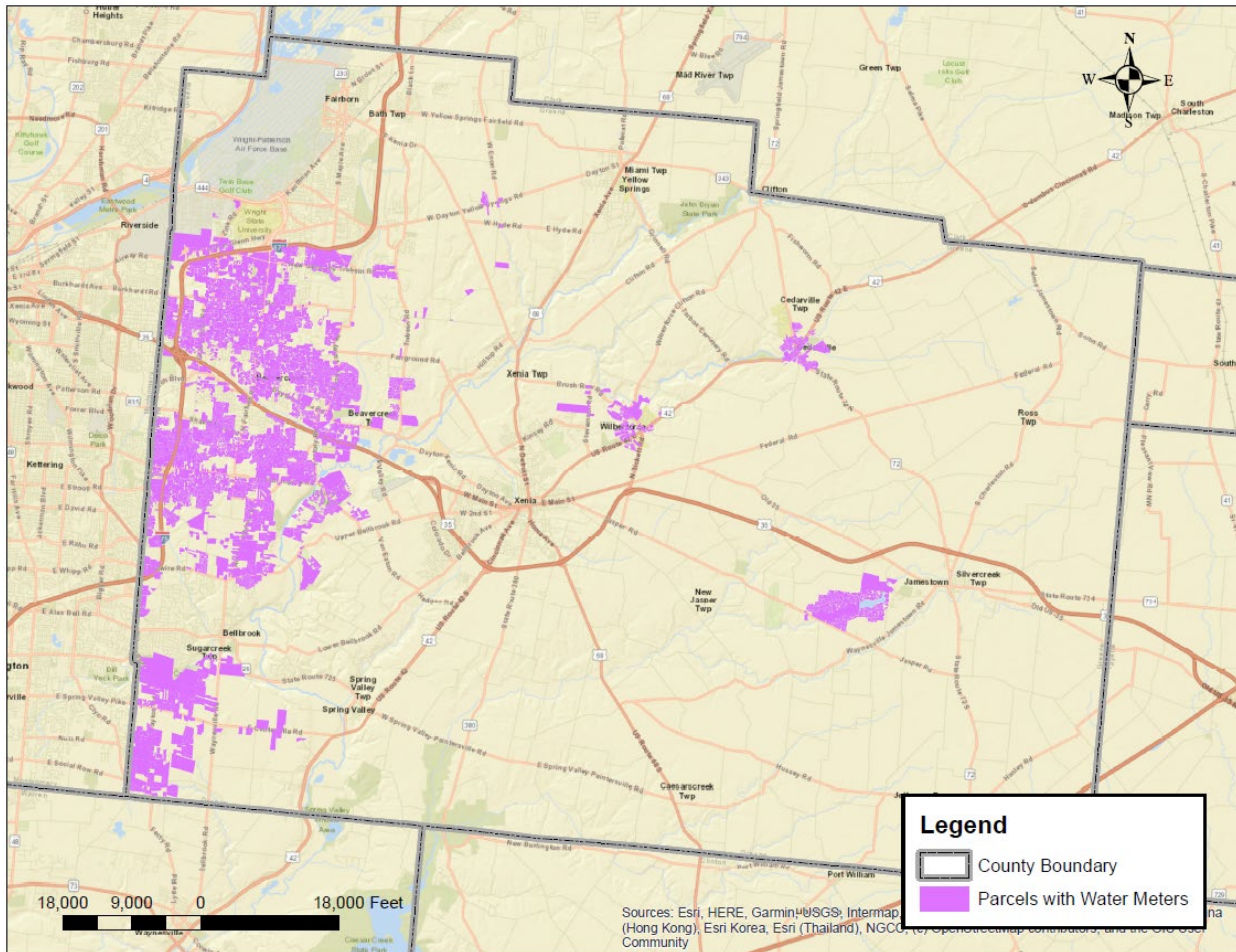


Figure 4. Map of Greene County water meters within the service areas