



John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

March 26, 2014

FINDING OF NO SIGNIFICANT IMPACT
TO ALL INTERESTED CITIZENS, ORGANIZATIONS,
AND GOVERNMENT AGENCIES

Village of Cadiz
Harrison County
Old Steubenville Pike Area Water Line Replacement
Loan No. FS390214-0011

The purpose of this notice is to seek public input and comments on the Ohio EPA's preliminary decision that a Supplemental Environmental Study is not required to implement the recommendations discussed in the attached Environmental Assessment of the water line replacement project submitted by the municipality mentioned above.

How were environmental issues considered?

The Water Supply Revolving Loan Account program requires the inclusion of environmental factors in the decision-making process. Ohio EPA has done this by incorporating a detailed analysis of the environmental effects of the proposed alternatives in its review and approval process. Environmental information was developed as part of the facility plan and associated documents, as well as through the facility plan review process and during site inspections. The Agency's preliminary Environmental Assessment found that the project does not require the preparation of a Supplemental Environmental Study.

Why is a Supplemental Environmental Study not required?

Our environmental review concluded that significant environmental impacts will not result from the action. Any adverse impacts have either been eliminated by changes in the facilities plan or have been reduced by the implementation of the mitigative measures discussed in the attached Assessment.

How do I get more information?

A map depicting the location of the project is included as part of the Environmental Assessment. The Environmental Assessment presents additional information on the project, alternatives that were considered, impacts of the action and the basis for our decision. Further information can be obtained by calling or writing the contact person listed in the back of the Environmental Assessment.

How do I submit comments?

Any comments supporting or disagreeing with this preliminary decision should be submitted to me at the letterhead address. We will not take any action on this facilities plan for 30 calendar days from the date of this notice in order to receive and consider any comments.

What happens next?

In the absence of substantive comments during this period, our preliminary decision will become final. The municipality will then be eligible to receive loan assistance from this agency.

Please bring any information that you feel should be considered to our attention. We appreciate your interest in the environmental review process.

Sincerely,



Alauddin A. Alauddin, Chief
Division of Environmental &
Financial Assistance

AAA/JB/jb

Attachment

**Environmental Assessment
For
Village of Cadiz
Old Steubenville Pike Area Waterline Replacement
WSRLA Loan Number: FS390214-0011**

**Applicant: The Honorable Kenneth Zitko, Mayor
Village of Cadiz
128 Court Street
P. O. Box 153
Cadiz, OH 43907**

Project Summary

Cadiz is a village of approximately 3,353 located in Harrison County at the intersection of US Route (US) 250, US 22 and State Route (SR) 9. To address health risks from water main breaks and accommodate planned industrial development, Cadiz proposes to install new water line along US 22, SR 9, and Old Steubenville Pike (Figure 2). The capital cost of the project will be approximately \$911,850. Most of that amount will be borrowed from the Water Supply Revolving Loan Account (WSRLA)¹. Construction is scheduled to begin in May, 2014, and be substantially complete in 6 months.



Figure 1 General Location of Cadiz

Existing Conditions

Cadiz owns and operates a community water system that consists of a raw water intake on Tappan Lake, a lime softening water treatment plant (WTP), and a distribution system that serves the village of Cadiz. Cadiz also sells water to the Harrison County Water District and the Unionvale-Kenwood Community System north of Cadiz. The village has a well-developed mixed residential and commercial core. Beyond the core, the land is either vacant or farmed, with widely-spaced single family homes and unincorporated hamlets.

The existing WTP and intake resulted from the implementation of a 1992 *Preliminary Design Report for Water Supply and Treatment Improvements* (the 1992 PDR). The 1992 PDR has not been updated. The capacity recommendations of the 1992 PDR based on anticipated residential, commercial and industrial growth were an average

¹ The WSRLA is the state revolving fund in Ohio that is authorized to provide low-interest financial assistance to qualifying drinking water supply projects under the Safe Drinking Water Act.

daily flow capacity of 0.67 million gallons per day (MGD) and a peak capacity of 1.0 MGD, which capacity the WTP now has.

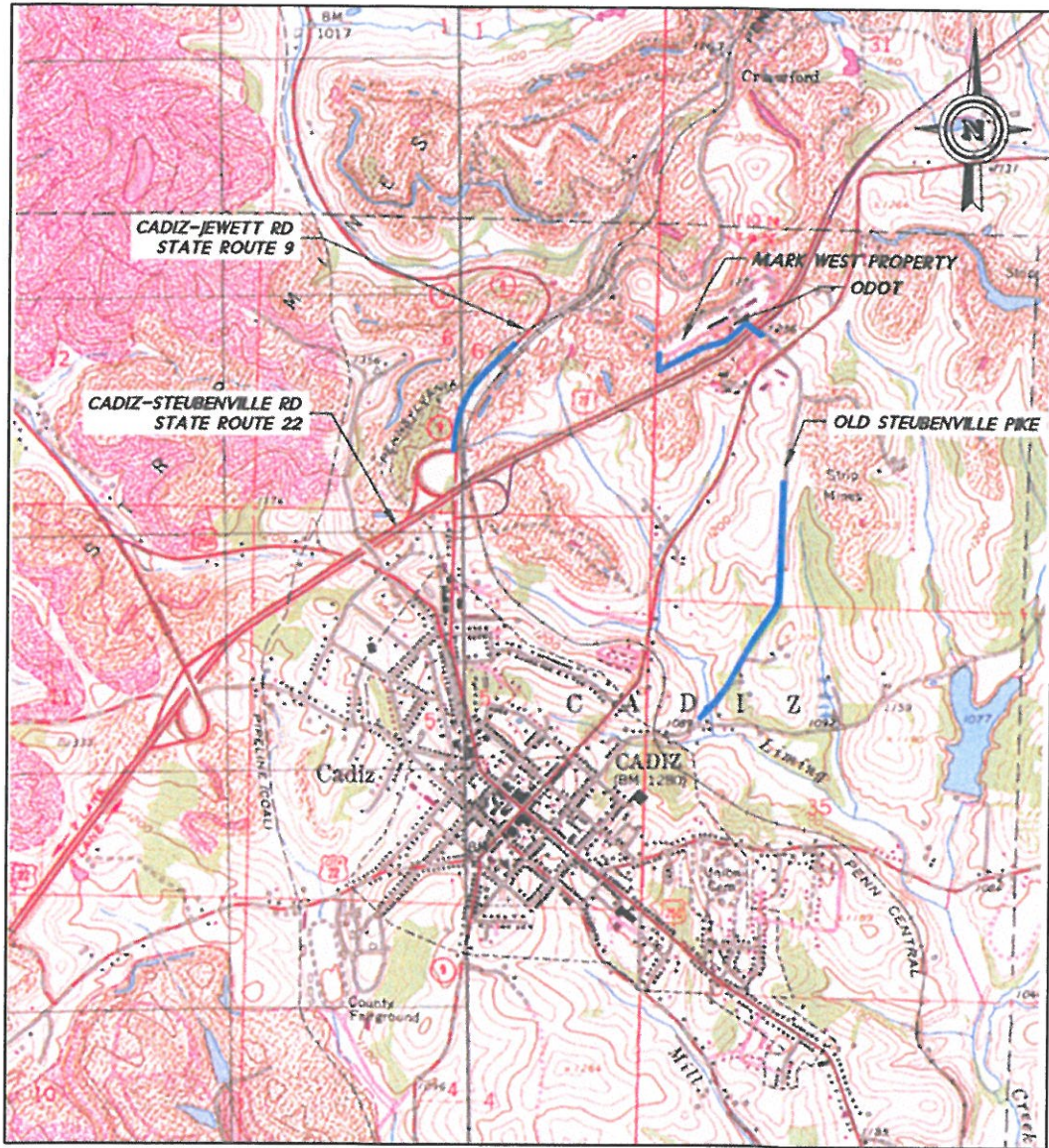


Figure 2 Location of New and Replacement Lines

The distribution system was built in phases starting in 1900. It now has two water storage tanks and approximately 48,219 feet of 2-inch to 12-inch diameter water pipe of various ages and materials, including cast iron, ductile iron, steel, high-density polyethylene and polyvinyl chloride (PVC). Water losses range from 9 percent to 18 percent.

While the distribution system is generally sound, the old iron lines and most of the old hydrants scattered throughout the village remain problems. Cast iron pipe is prone to breakage, which interrupts service and can introduce harmful bacteria to the water that reaches the taps. Cast-iron lines are also prone to rust, which discolors and reduces the

usefulness of the water in the home. Cadiz is undertaking the replacement of the old water lines that are affected by breakage and rust, and the replacement of old hydrants that provide unreliable fire protection.

Breakage is severe in the lines that serve areas around US 22 at its interchanges with SR 9 and Old Steubenville Pike. Also limiting the reliability of service in this area is the presence of a dead-end line on Old Steubenville Pike.

Future Needs

Cadiz' population has remained steady since 2010 at about 3,353. Cadiz believes the lack of growth will continue, and has identified its present population of 3,353 as the twenty-year design population for water infrastructure. However, industrial and commercial growth is occurring around US 22, US 250 and SR 9 in response to strong regional oil and gas activity. The 1992 PDR had identified these as potential industrial growth areas and had factored in capacity for industrial water service to them.

These new developments will be in the service area of the deteriorated and break-prone water mains mentioned above. In addition to improving the reliability and safety of the water from these lines for residential use, there is also a need to assure reliable water service to the new developments.

Feasible Alternatives

Taking no action to correct the problems with the hydrants in town and the mains around US 22/SR 9/Old Steubenville Pike would address none of the health and safety issues associated with the breaking mains and inoperable hydrants. Taking no action has a significant cost associated with it for continual repairs and spot replacement of broken pipe.

The village determined that the best corrective action is to replace entire lengths of deteriorated pipe as opposed to spot repairs. After evaluating alternative materials, Cadiz chose C-900 pipe as being more affordable than other options.

Selected Alternative and Project Description

Cadiz proposes to replace approximately 30 hydrants throughout the village. In the area around US 22, SR 9 and Old Steubenville Pike, it proposes to install new line in three places:

- approximately 1,900 feet of 12-inch diameter water line in the pavement of SR 9 northward from its interchange with US 22:
- approximately 2,256 feet of 12-inch diameter water line along a private drive that branches off from Township Road 189, parallels the north right-of-way of US 22, then goes under US 22 to a connection point on the south side of the road; and

- approximately 3,600 feet of 8-inch diameter water line in the right-of-way of Old Steubenville Pike from North Main Street, northward to a connection point with an existing line in Old Steubenville Pike to form a loop.

Construction will be done by conventional open-cut methods. The pipe will be jacked and bored in a casing under US 22.

Implementation

The total estimated project cost is \$911,580, including both the portion that will be bid by Cadiz and Harrison County's portion. Harrison County proposes to install the loop in Old Steubenville Pike to North Main Street at no cost to the village. The remainder, approximately \$734,000, will be competitively bid.

Cadiz proposes to borrow the entire competitively bid amount from the WSRLA. Cadiz qualifies for financial assistance as a WSRLA Tier II Disadvantaged Community. This means that up to 30 percent of a loan will be awarded as principal forgiveness, which does not need to be repaid. The balance will be awarded with a two percent interest rate over terms as long as 30 years.

Debt for the project will be repaid from Cadiz' water charges. The most recent rate increase went into effect in March, 2014. The average bimonthly residential water usage is about 1,500 cubic feet. Under current rates, this quantity usage would cost the average water user \$79.07 per billing, or \$474.00 annually. Rate projections indicate that repayment of this loan can be covered from the 2014 rate increase and that further increases specifically for this project are not required.

Environmental Impacts and Mitigation

The project will not affect the following features for the reasons given. No state-designated scenic rivers, recreational rivers, federal wildlife areas or state wildlife areas are located in or near the project area. The project will have no above-grade structures in floodplains or floodways, so it will not affect the flood-discharge capacity of Liming Creek. Ohio EPA and the Ohio Historic Preservation Office concur that the ground in the project area is too disturbed to contain historic or archaeological properties that are eligible for listing on the National Register of Historic Places. The project involves no discharge of fill into wetlands. The main purpose of the project is to upgrade existing water mains for greater reliability of delivery to current service areas in Cadiz and Harrison County rather than to extend service into new undeveloped areas. Therefore, secondary (development-related) environmental impacts from the proposed industrial developments are not a significant issue for this review. Any future developers in these areas will need to obtain whatever environmental permits are required (e.g., 404/401 permits) prior to construction.

The project has the potential to adversely affect the following natural features, but the effects have been reduced or mitigated to acceptable levels as explained.

Surface Water: Liming Creek is the main surface water in the project area. A replacement water line will be installed under Liming Creek at one point along Old Steubenville Pike by open trenching. Liming Creek is a small warmwater habitat stream that is impacted by acid mine drainage. Crossing it for this project will involve the discharge of fill into a small enough area to be under the threshold for permitting through the US Army Corps of Engineers. Provided that Harrison County and the village's contractor utilize construction best management practices to prevent the discharge of sediment to surface waters either directly or via catch basins (i.e., properly installed sediment filters, making the trench cut perpendicular to the creek, excavating at low flow if possible, closing and restoring the cut immediately), the project will have no significant adverse impacts. A Storm Water Pollution Prevention Plan (SWPPP) will be developed for both the direct footprint of construction as well as the spoil disposal area.

Based on this, the project as designed will have no adverse impacts to surface water.

Ground Water: Due to the shallow, small trenches involved in construction and the location of the aquifer in deep bedrock, the project has a low potential to contaminate ground water. Furthermore, local residents and businesses tend to utilize municipal water from surface reservoirs rather than well water. Even though the likelihood and adverse effects of accidental ground water contamination from construction-related chemicals such as fuels are low, the SWPPP will include a plan for the proper handling of chemicals and the removal of underground storage tanks or drums if they are encountered.

Based on this, the project will have no short-term or long-term adverse impact to ground water.

Habitat and Endangered Species: The project is in the range of the black bear, a state-endangered species, and the Indiana bat, a federal endangered species. Due to the mobility of the black bear, the project is unlikely to affect this species. The Indiana bat favors upland forested areas and small stream corridors with well-developed upland woods, numerous roosting crevices (such as dead snags and trees with naturally exfoliating bark), clear flyways, and an eastern sun exposure. The work areas along SR 9 and US 22 are unforested. Both sides of Old Steubenville Pike are thickly forested, but not with the habitat type described above, being thickly-grown and shaded. The pipe installation will be in the roadway, reducing the need for tree removal along the roadside even though any cutting will be done during maternal roosting season. Based on this, the project as designed is unlikely to have an adverse impact to the Indiana bat.

Many freshwater mussel species are on endangered species lists, and are found in streams of all sizes in Ohio. Surveys are now recommended for projects that impact streams if the point of impact has a watershed of ten square miles or more. The point of impact for the crossing of Liming Creek has a watershed of one square mile, placing it below the threshold for requiring a mussel survey.

Based on the foregoing, the project will have no adverse impact to endangered species or their habitat.

Air Quality: Harrison County is in attainment of the national ambient air quality standards for regulated pollutants. During construction, mechanized equipment will emit volatile organic compounds and oxides of nitrogen, which are ozone precursors. Emission controls will be used on construction equipment to lessen this impact. Construction will not last long enough to place the county out of attainment of the air quality standards.

Based on this, the project will have no significant long-lasting adverse impacts to air quality.

Traffic: SR 9 and Steubenville Pike have the fast, light traffic patterns that are typical of rural roads and highways. Traffic on these thoroughfares will be managed during construction with methods such as signs, cones, barrels, barricades and flaggers. Traffic on US 22 will not be directly affected by construction. The project will not result in permanent alterations of local traffic patterns.

Based on the foregoing, the project will have no significant short-term or long-term adverse impacts to traffic.

Noise, Dust and Odors: The work areas are sparsely populated, which makes these effects less of a concern than in more densely-developed settings. Nevertheless, noise and odors related to the operation of motorized construction equipment will be controlled by the use of mufflers and emission control equipment, while dust will be controlled by street sweeping, water spraying, and similar best management practices.

Local Economy: The average annual residential water bill of \$474 under the 2014 rates will be 1.5 percent of Cadiz' median household income of \$31,047. This is considered affordable.

Public and Governmental Oversight

This project has been discussed at numerous meetings of the village council and the Board of Public Affairs. These meetings were open to the public and newspaper reporters were present at the meetings. No objections to the proposed project have been noted. Given the lack of a rate increase and the relative physical isolation of the work areas, this is considered sufficient public participation.

Conclusion

Based on the planning information provided in the 1992 Preliminary Design Report for Cadiz water system, more recent information provided by the village about the problems with aging water lines, and comments by appropriate agencies, we find that the

construction and operation of the water line replacements and the new water line loop on Old Steubenville Pike as described here will have no significant adverse short-term or long-term impact on surface waters, wetlands, floodplains, ground water, aquatic and terrestrial habitat, cultural properties, air quality, traffic or the local economy. It will not have adverse long-term effects with respect to noise, dust and odors.

The project will provide a safer, more reliable source of drinking water to users in the northern portion of Cadiz.

For further information, please contact:

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