



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

December 15, 2022

Limited Environmental Review and Finding of No Significant Impact

**City of Zanesville – Muskingum County
Pioneer Water Reservoir Replacement
Loan number: FS391026-0026**

The attached Limited Environmental Review (LER) is for a drinking water storage project in Zanesville 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 cursive script that reads "Kathleen Courtright".

Kathleen Courtright, Assistant Chief
Division of Environmental and Financial Assistance

Attachment

LIMITED ENVIRONMENTAL REVIEW

Project Identification

Project: Pioneer Water Reservoir Replacement

Applicant: City of Zanesville
401 Market Street
Zanesville, Ohio 43701

Loan Number: FS391026-0026

Project Summary

The City of Zanesville has applied for financing from the Ohio Water Supply Revolving Loan Account (WSRLA) to fund the Pioneer Water Reservoir Replacement project. This project is necessary to replace the aged and deteriorated Pioneer Water Reservoir, and will include the installation of a new water storage tank. The estimated loan amount for this project is \$3,437,319, with construction scheduled to begin March 2023 and last approximately 12 months.

History & Existing Conditions

The City of Zanesville, located in Muskingum County (see Figure 1), owns, operates, and maintains the potable water system that serves approximately 14,544 customers, and a population of approximately 25,400. The system includes a 10-million-gallon per day (MGD) ground water-sourced drinking water treatment plant (WTP), wellfield, pump stations, 210 miles of 2- through 24-inch transmission lines, fire hydrants, and six ground storage tanks and elevated water tanks.

Zanesville has many components of its infrastructure that are due for major repair or replacement, including existing water storage tanks. The city consistently repairs and replaces valves, hydrants, and other infrastructure to maintain their system.

The Pioneer water storage reservoir, built in 1878, is a 2.5-million-gallon in-ground reservoir. Inspections have found the reservoir to have multiple, and long-standing, sanitation, safety, and security issues, and noted these issues to be of high risk and needing immediate attention. Furthermore, the reservoir has been subjected to multiple trespassing and tampering incidents that necessitated the reservoir be taken off-line and evaluated to determine if the water quality was compromised. Due to the extensive and on-going maintenance and improvements needed to ensure the facility's proper security and operation, the Pioneer water storage reservoir was determined to have exceeded its useful life and is in need of replacement.

Population and Flow Projections

The city's existing service area covers a large portion of Muskingum County and serves a population of approximately 25,400, with water usage being approximately 92 percent residential and 8 percent commercial. The city produces an average of 3.6 MGD of finished water, with a peak daily demand of 4.5 MGD. The city WTP has a 10 MGD design capacity, and the average increase in water demand is

expected to be 1-2 percent each year. Therefore, the proposed water storage improvements are not expected to have impacts on the existing water demands. Given the low to moderate projected growth in demand and the large water supply, Zanesville can provide water to the expected 20-year service population without expanding the infrastructure.

Selected Alternative

The proposed project (see Figure 2) will construct a new 50-foot tall by 84-foot diameter, 2,000,000 gallon water tank in the area of the two existing Mitchell water tanks off of North River Road. The project also includes 165 linear feet of 16-inch waterline connections, access drive, security fencing, valves, hydrants, and restoration activities. This project will provide an alternative source of water storage and pressure for fire prevention and existing customers, and replace an aged and unsafe water storage facility that is beyond its useful life.

Implementation

The total estimated construction cost of the project is \$3,437,319. Zanesville proposes to borrow the entire project amount from the WSRLA. The project service area qualifies for the standard long-term WSRLA below-market interest rate on 30-year loans, which in December is 3.16 percent. The standard rate is changed monthly to reflect bond rates and may be slightly different in January 2023, the anticipated month of loan award. Borrowing at 3.16 percent will save Zanesville approximately \$923,000 over the life of the loan compared to the current market rate of 4.46 percent.

Construction of the proposed project is estimated to begin March 2023 and last approximately 12 months.

Public Participation

This project has been discussed in various city council meetings that were open to the public and covered in local media. Given the limited potential environmental impact of the project and the lack of a rate increase or property assessments, this is considered adequate public participation.

The following agencies reviewed the planning information for this project:

Ohio Environmental Protection Agency
Ohio Department of Natural Resources
Ohio History Connection
U.S. Fish and Wildlife Service

Thus, there have been adequate opportunities for information dissemination and public participation.

Environmental Impacts

The project has the potential to affect the following features, but the effects will be reduced or mitigated to acceptable levels as explained below.

Surface Water and Ground Water: Construction will not have significant adverse long-term impacts on surface water resources as there will be no in-water work and no wetlands are present in the project area. Minor, short-term impacts from open-cut construction could occur. Excavation of the

project area could be prone to erosion and deposition if construction mitigation is not followed. A general construction stormwater plan, which describes the measures that will be taken to prevent pollution caused by runoff into surface waters, is part of this project. Dewatering of ground water to enable work below grade may be necessary, but engineering controls are part of the specifications to minimize the impacts of discharging pumped ground water to a river or stream. No impacts to ground water resources are expected as all properties are connected to public water. The project area is located outside of the 100-year Muskingum River floodplain.

Based on the above, the proposed project will not result in significant adverse impacts to surface waters.

Terrestrial Habitat, Wildlife, and Endangered Species: The U.S. Fish and Wildlife Service (USFWS) indicates that the project is within the range of the endangered Indiana bat and threatened northern long-eared bat. Trees within the project area were cleared by the city prior to the project to avoid active bat season. Other mature trees are located outside of the work area and would provide alternative habitat. If any additional tree removal is necessary, it will only be permitted to occur October 1 to March 31 or in coordination with USFWS, and tree removal is limited to only those trees necessary for completion of the project (e.g., trees within the excavation location or within the path of heavy equipment). These tree clearing restrictions will further ensure that any potential impacts to Indiana bats or northern long-eared bats are avoided.

Several aquatic state or federally threatened species, endangered species, or species of concern can be found in Muskingum County, including the following:

Federally Endangered

Fanshell mussel
Sheepnose mussel
Snuffbox mussel

State Endangered

Long-solid mussel
Ohio pigtoe mussel
Sharp-ridged pocketbook mussel
Wartyback mussel
Northern madtom fish

Federally Threatened

Rabbitsfoot mussel

State Threatened

Black sandshell mussel
Fawnsfoot mussel
Threehorn wartyback mussel
American eel
Blue sucker fish
Channel darter fish
Mountain madtom fish
Paddlefish

Federal Species of Concern

Eastern hellbender salamander

Several terrestrial state threatened or endangered species can be found in Muskingum County, including the following:

State Endangered

Eastern spadefoot toad

Black tern (bird)

Northern harrier (bird)

State threatened

Sandhill crane (bird)

Trumpeter swan

However, the project does not include any in-water work to affect aquatic species, the project will include adherence to a Surface Water Pollution Protection Plan, and the project does not include habitat conducive to the terrestrial species. Therefore, no impacts to these species are anticipated.

Based on this information, the project will have no significant short-term or long-term adverse effect on terrestrial habitat, wildlife, or endangered species.

Air Quality, Dust, Noise, and Odors: Muskingum County air quality meets standards for the six regulated air pollutants (carbon monoxide, sulfur dioxide, nitrogen oxide, lead, particulate matter, and ozone). The project will add no permanent sources of air pollution, although short-term, insignificant increases in dust and local air pollution from construction vehicle exhaust are expected during construction and will be controlled by standard construction best management practices. For these reasons, the project should have no significant adverse short-term or long-term impacts on local air quality.

Effects from dust, noise, and odors will be unavoidable but temporary. Construction noise and vibrations will be controlled using strict specifications included in the construction documents to manage these effects. Work will be restricted to daytime Monday through Saturday unless special approval is granted. Work areas will be cleaned to minimize airborne dust and dust suppressant will be used as needed. Emissions controls on motorized construction equipment will reduce diesel odors. Once the project is complete, the drinking water storage and distribution system will operate with no excessive noise, dust, or odors beyond that of a typical water storage and distribution system.

Therefore, the project will neither have significant adverse short-term or long-term impacts to air quality, nor will there be short-term or long-term significant adverse long-term impacts from noise, dust, and odors.

Safety and Traffic: Construction in road rights-of-way will cause temporary traffic disruption and potential threats to public safety. Contract documents require contractors to implement standard traffic controls to minimize traffic disruption and public safety risks. With these precautions, the project is unlikely to create significant traffic disturbance or threats to public safety. The project will not permanently alter traffic patterns. Therefore, the project will have no long-term change or adverse impacts on safety and traffic.

Land Use: The installation and operation of this water storage and distribution project will have limited indirect, development-related impacts. This is because the current and expected levels of population growth are low in the project areas as a whole.

Archaeological and Historical Resources: Based on the extensive pre-design review and historic structure avoidance that went into the design of the project, and the results of a limited Phase I Cultural Resource Management survey, Ohio EPA and Zanesville have concluded that no features listed on, or eligible for listing on, the National Register of Historic Places will be adversely impacted by the proposed project.

Based on this information, Ohio EPA believes that due to the extent of disturbance in the project area, unrecorded archaeological sites or properties eligible for or listed on the National Register of Historic Places are not likely to be present. The Ohio State Historic Preservation Office has agreed with this conclusion.

In the event that archaeological properties are found during construction, contractors and subcontractors are required under Ohio Revised Code Section 149.53 to notify the Ohio State Historic Preservation Office and Ohio EPA and to cooperate with those entities in archaeological and historic surveys and salvage efforts when appropriate.

Local Economy: Debt for this project will be repaid from monthly water fees. Water rates were raised in 2022 to include debt service for the various water infrastructure projects but weren't raised specifically to pay for this project. The current average residential water bill in Zanesville, based on water usage of 500 cubic feet per month, is \$29.70 per month, or \$356.40 per year. This is 1.07 percent of the median household income of \$33,158, as compared to the state average of 1.2 percent.

Unaffected Environmental Features: The project is not located in the Lake Erie coastal zone. No sole source aquifers are present under the project.

Conclusion

Based on the planning documentation, associated correspondence, public participation and the comments from interested agencies, the proposed project as designed will have no adverse long-term effect on farmland, coastal zones, surface water, ground water, floodplains, wetlands, aquatic or terrestrial habitat, endangered species, state or federal wildlife areas, state-designated scenic or recreational rivers, cultural properties, air quality, or the local economy. It will have no long-term adverse effects with respect to noise, dust and odors. It will have long-term benefits associated with the provision of a safe and adequate supply of potable water that is maintained according to the standards of the Safe Drinking Water Act and is capable of providing adequate and reliable water pressure to support the needs of residential customers and businesses throughout the project areas.

Contact information

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Figure 1: General Project Area



Figure 2: Proposed tank location (in red), and fencing (in yellow)