October 10, 2019

Preliminary Finding of No Significant Impact
To All Interested Citizens, Organizations, and Government Agencies

Muskingum County
North Moose Eye and Maple Brook Roads Water Main Extension
Loan Number: FS390060-0035

The attached Environmental Assessment (EA) is for a waterline extension project in Muskingum County which the Ohio Environmental Protection Agency intends to finance through its Water Supply Revolving Loan Fund (WSRLF) below-market interest rate revolving loan program. The EA describes the project, its costs, and expected environmental benefits. We would appreciate receiving any comments you may have on the project. Making available this EA and seeking your comments fulfills Ohio EPA’s environmental review and public notice requirements for this loan program, as stated in the Ohio Administrative Code (OAC) 3745-150-06.

Ohio EPA analyzes environmental effects of proposed projects as part of its WSRLF program review and approval process. We have concluded that the proposed project should not result in significant adverse environmental impacts. More information can be obtained by contacting the person named at the end of the attached EA.

Any comments on our preliminary determination should be sent to me at the letterhead address. We will not act on this project for 30 calendar days from the date of this notice. In the absence of substantive comments during this period, our preliminary decision will become final. After that, the Muskingum County can then proceed with its application for the WSRLF loan.

Sincerely,

Jonathan Bernstein, Assistant Chief
Division of Environmental & Financial Assistance

Attachment
ENVIRONMENTAL ASSESSMENT

Project Identification

Project: Muskingum County North Moose Eye and Maple Brook Roads Water Main Extension

Applicant: Don Madden, Projects Director
Muskingum County
401 Main Street
Zanesville, Ohio 43701

Loan Number: FS390060-0035

Project Summary

Muskingum County has applied for financing from the Ohio Water Supply Revolving Loan Account (WSRLA) to fund the North Moose Eye and Maple Brook Roads Water Main Extension project, here forward referred to as the North Moose Eye project. This project is necessary to supply public water to areas with limited and, in some cases, unsafe sources of water, and to provide an emergency water interconnection for the Village of New Concord which operates its own water treatment plant and distribution system. The estimated loan amount for this project is $1,788,000, with construction scheduled to begin in early 2020 and last approximately 9 months.

History & Existing Conditions

The Muskingum County Water Department (MCWD) owns and operates the water distribution system that serves more than 8,000 homes and businesses over large portions of Muskingum County, through a network of more than 300 miles of waterlines, 13 water storage tanks, and 9 pump stations that surround the city of Zanesville. The county’s water system, whose source water is from county wells, is able to provide up to 4 million gallons per day (MGD); the water plant currently operates at about half capacity on an average day.

The proposed North Moose Eye project (see Figures 1 and 2) would provide safe drinking water to residents primarily along portions of North Moose Eye Road, Lodge Road, Maple Brook Road, Nel Da Mar Drive, Tammy Circle, McKinley Drive, and Tavenner Boulevard, east of Zanesville. Residents in the project area currently draw water from private wells and cisterns. Problems with the private water supplies in this area include low-producing wells, acid mine waste contamination, iron staining, and wells contaminated with coliform bacteria. As a result, the residents sometimes rely on unsafe sources such as springs and ponds, or they must pay for hauled water. Many of these residents have petitioned MCWD to resolve these problems by providing them with public water.

The village of New Concord currently is supplied by its own drinking water treatment plant (WTP), located at 220 West Main Street, which draws its source water from two surface water reservoirs fed by Fox Creek. In times of drought the WTP has experienced lower than necessary water levels to serve the community’s needs. Therefore, New Concord requested an interconnection with Muskingum County Water Department’s distribution system as part of this construction project.
Alternatives

1) No-Action

Due to the above-described existing conditions for drinking water services within the project area, the No-Action alternative of continuing with the current situation would leave citizens with unsafe, limited, or expensive water sources, which is not a viable, long-term option.

2) Connection to the Muskingum County Water Department

The MCWD’s 4 MGD water plant and distribution system has more than enough capacity to serve the project area and interconnection, has nearby water transmission lines, will result in minimal environmental impact, and will be a cost-effective solution.

Selected Alternative

The North Moose Eye project will extend approximately 51,000 linear feet (LF) of 8-, 6-, and 3-inch diameter water lines to connect residences and businesses to MCWD’s existing water mains. The majority of the water main will be open trenched, with various sections being directionally bored. The vast majority of the project will take place in previously disturbed road rights-of-way. The project includes directional bores of streams, roads, and culverts, and open cut excavation and directional bores within easements on private properties. The project will also include 192 individual water service connections, gate valves, hydrants, and an emergency interconnection to the village of New Concord water distribution system.

Implementation

The total estimated cost for the North Moose Eye project is $2,038,000. MCWD is scheduled to receive a grant from the Appalachian Regional Commission in the amount of $250,000, leaving a balance of $1,788,000. MCWD proposes to borrow this amount from the WSRLA, and qualifies for a 30-year, zero-percent interest rate for this project to address human health issues present in the project area. MCWD will save approximately $754,000 by utilizing WPCLF funds compared to the current market rate of 2.47 percent.

Construction of the proposed project is estimated to begin in early 2020 and is expected to be completed in nine months. The new water lines will be owned and maintained by MCWD. Those connecting to the system will receive a metered water bill from MCWD. Residents of New Concord will continue to receive their water bills from the village of New Concord which, in turn, will be purchasing water from MCWD.

Public Participation

MCWD has been petitioned to provide public water by many of the residents of the project area that are currently served by private water systems. As a result, the Board of Muskingum County Commissioners gave notice of its intent to file an application for financial assistance in multiple public meetings, and multiple letters have been sent to property owners within the project area regarding the proposed project. A public notice announcing the availability of this Environmental Assessment will be posted on Muskingum County and Ohio EPA – Division of Environmental and Financial
Assistance websites. The public notice for the Environmental Assessment will be open for a 30-day public comment period. Thus, there have been adequate opportunities for information dissemination and public participation.

**Environmental Impacts**

**Unaffected Environmental Features:** The installation and operation of the North Moose Eye project will have few indirect, development-related impacts. This is because the current and expected levels of population growth are low in the region as a whole, and because of geographic limitations to development within the project area (e.g., a significant portion of the available land in the project area lies on steep grades, and the entire project area lacks a public sewer system). No state-designated scenic rivers or state-designated or federally-designated wildlife areas are present in or near the work sites. The project is not located in the Lake Erie coastal zone. No sole source aquifers are present under the project.

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:** The North Moose Eye project will not have significant adverse long-term impacts on surface water resources, as there will be no in-water work, and the majority of work will be performed within road rights-of-way and limited easements on private properties, in which the predominant cover is pavement, gravel, and lawn grass. The project has multiple stream crossings; all of which will be performed by directional bore.

Minor, short-term impacts from the open-cut construction and directional boring could occur. Excavation of the trenches and pits could be prone to erosion and deposition if construction mitigation is not followed. Dewatering of ground water or surface water to enable work below grade may be necessary, but engineering controls are part of the specifications to minimize the impacts of discharging pumped water to a river or stream.

A Stormwater Pollution Prevention Plan (SWPPP), which describes the measures that will be taken to prevent pollution caused by runoff into surface waters, is required, as is a frac-out contingency plan for horizontal drilling, which describes how inadvertent escapes of drilling slurry to the surface (known as “frac-outs”) will be managed.

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

**Terrestrial Habitat 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 are primarily small to large-sized street trees and scrubby roadside brush. Tree clearing and trimming will be limited to those that are necessary for the project. Other mature trees are located outside of the work area and would provide alternative habitat. Tree removal will only be permitted to occur October 1 - 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, etc.). These tree clearing restrictions will further ensure that any potential impacts to Indiana bats or northern long-eared bats are avoided.
The project is within the range of the sheepnose, fanshell, and snuffbox, all federally endangered mussels; rabbitsfoot, a federally threatened mussel; Ohio pigtoe, wartyback, long-solid, and sharp-ridged pocketbook, all state endangered mussels; fawnsfoot, black sandshell, and threehorn wartyback, all state threatened mussels; northern madtom, a state endangered fish; paddlefish, mountain madtom and channel darter, all state threatened fish; and eastern hellbender, a state endangered and federal species of concern salamander. While multiple stream and drainage crossings are present within the project area, no in-water work will take place as part of this project. All crossings will utilize directional drilling methods to install the water line, adhering to the SWPPP and frac-out contingency plan to minimize potential impacts to these aquatic species.

The project is within the range of the eastern spadefoot toad and the northern harrier, both state endangered species. However, due to the location of the project and the lack of appropriate habitat present, these species are not likely to be impacted.

The project is within the range of the black bear, a state endangered species. Due to the mobility of the black bear, this project is not likely to impact this species.

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

**Air Quality:** Muskingum County air quality meets standards for the six regulated air pollutants (carbon monoxide, sulfur dioxide, nitrogen oxide, lead, particulate matter, and ozone). During construction, dust and vehicle exhaust will be insignificant sources of local air pollution. Dust due to excavation in dry weather will be controlled by good housekeeping measures (minimizing the area of disturbed soil, road sweeping, dust suppression with water or other benign dust suppressant). Because of its temporary nature and the use of emissions controls on motorized equipment, construction vehicle exhaust will be an insignificant pollution source compared to background sources of motorized vehicle exhaust in the greater project area.

Based on this information, the project should have no significant adverse short-term or long-term impacts on local air quality.

**Dust, Noise and Odors:** Motorized equipment will be used for the majority of project work, generating noise, dust and odors that will be unavoidable but temporary. Noise will be controlled by using equipment that does not generate excessive noise or vibration. Work will be restricted to weekdays from 7:00 AM to 6:00 PM. Work areas will be left clean enough to minimize the generation of 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 waterline extensions will operate with no noise, dust or odors.

Based on this, the project will have no short-term or long-term significant adverse effects 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. For example, contractors are required to cover or close trenches overnight, to maintain access for emergency vehicles at all times, and utilize traffic direction devices such as flaggers, cones, and barricades. With these precautions, the project is unlikely to create significant traffic disturbance or threats to public safety.
Once construction is complete, the project areas will be restored and returned to pre-construction conditions. The project will not permanently alter traffic patterns. Therefore, the project will have no long-term change or adverse impacts on safety and traffic.

Archaeological and Historical Resources: Ohio EPA has concluded, based on the extensive pre-design review and historic structure avoidance that went into the routing of the waterline project, combined with proposed waterline installation occurring primarily in previously-disturbed areas, and through the completion of a limited Phase I Cultural Resource Management survey, "Phase I Cultural Resource Management Survey for the Proposed US 22/40, North Moose Eye, Lodge, and Maple Brook Roads, Nel Da Mar Drive, Tammy Circle, Norwich Drive, McKinley Drive and Tavenner Boulevard Water Main Extensions in Highland and Union Townships, Muskingum County, Ohio," 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, Muskingum County and Ohio EPA believe 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.

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 Muskingum County’s Water Fund without rate increases based on this project. The median household income (MHI) of the project area is $42,464. Under the water rates that are effective in 2019, the average residential water bill is expected to be $30 per month, or $360 per year, based on 4,500 gallons per month usage. This annual water bill represents 0.85% of the MHI, which is considered affordable.

Residents will be responsible for paying for the connection fees, per household, of $500 if paid prior to the start of project construction, $600 if paid during project construction, and $1,000 if paid after project construction is completed, and are also responsible for constructing their own service laterals, which has an estimated cost of $2,000. Residents will also be responsible for paying $65 for Zanesville-Muskingum County Health Department water inspections of their connections. Residents of this project area are neither required to connect to this public drinking water supply nor to abandon private wells if they connect to public water.

MCWD will sell water to the village of New Concord which, in turn, will continue to bill its existing customers based on individual usage. The rate at which New Concord will purchase water from MCWD is $4.00 per 1,000 gallons.

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 result in adequate and reliable water pressure to support the needs of residential customers and businesses throughout the project area.

**Contact info**

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General project area (in red)
Project areas (in yellow)