Ohio Environmental Protection Agency

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

April 11, 2017
Preliminary Finding of No Significant Impact
Crooksville – Water System Improvements
Perry County
WSRLA # FS390292-0002

The attached Environmental Assessment (EA) is for a water supply project in your area 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 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.

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. More information can be obtained by contacting the person named at the end of the 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 order to receive and consider comments. In the absence of substantive comments during this period, our preliminary decision will become final. After that, Crooksville can then proceed with its application for the WSRLA loan.

Sincerely,

Jerry Rouch

Jerry Rouch, Assistant Chief
Division of Environmental & Financial Assistance
Office of Financial Assistance

JR/DH

attachment

ENVIRONMENTAL ASSESSMENT

A. **Project Identification**

Name: Crooksville – Water System Improvements

Address: Frederick P. Redfern, Mayor
Village of Crooksville
98 South Buckeye Street
Crooksville, OH 43731

WSRLA #: FS390292-0002

B. **Proposed Project**

1. Summary

The Village of Crooksville in Perry County, Ohio has requested $3,748,000 from the Ohio Water Supply Revolving Loan Account (WSRLA) to supplement other funding for construction of improvements to its water storage and distribution system.

Proposed construction includes replacement of water mains throughout the village, fire hydrants, service connections and appurtenances, and replacement of a storage tank. Because most work is replacement in and adjacent to streets, construction impacts will be minor and temporary. One new span of pipe crossing an undisturbed area and Moxahala Creek will be constructed by horizontal directional drilling to avoid direct stream impacts.

With significant grant funding and below-market rate financing, this project requires no additional water rate increase beyond the 2016 increase enacted to ensure adequate funding for this project and ongoing operations.

2. Project Background

a. History, Existing Conditions, and Project Need.

Crooksville owns and operates approximately 26 miles of 1” diameter – 20” diameter water mains, valves, and hydrants, five booster stations, and four water storage tanks. Since 2010, Crooksville has purchased and distributes water from the Burr Oak Regional Water District (District). The District treats ground water from the Hocking River Buried Valley Aquifer in Athens County and distributes it across a multi-county area. Crooksville previously operated its own water treatment plant using surface water, and experienced periodic violations of Safe Drinking Water Act standards due to excessive disinfection byproducts.

Much of the cast-iron distribution system dates to the 1920s and experiences frequent breaks and leaks, some requiring temporary “boil orders.” Unaccounted-for water loss ranges from 30-35% of water entering the system, far above the 15% threshold of acceptable water loss. Crooksville pays for the water that is not delivered to and paid for by customers, straining the water system budget.

The system’s 1” diameter water lines serving residences and 4” diameter pipes with fire hydrants are undersized for current standards. Current minimums are 3” diameter without fire hydrants and greater than 6” diameter for fire hydrants to ensure adequate pressure and flow volumes.

b. Population and Water Demand Projections

The Crooksville water system serves the population of the village (2,534) and an area northwest of the village limits (totaling 1,609 accounts). Perry County’s population trends project a modest increase for the foreseeable future. Crooksville’s population is expected to show no significant change. The village purchases an average of 10.6 million gallons of water per month from the District. Assuming the proposed project will eliminate a significant portion of the unaccounted-for water, the amount purchased may decrease correspondingly and provide a buffer for future growth needs.

3. Discussion of Feasible Alternatives

Because the water distribution system is aged and deteriorating, with undersized pipes, frequent breaks, and excessive unaccounted-for water, doing nothing (the no-action alternative) is not feasible. Doing nothing would only allow further deterioration, increase each of the system’s problems, and unnecessarily increase the risk of catastrophic losses due to inadequate fire-fighting pressure in the system.

Repairing the system also is not feasible. The aged pipes have exceeded their useful life.

The sole feasible alternative is replacement of the old, failing cast iron pipe with new pipe and appurtenances.

4. Selected Alternative

To address its identified water system problems, Crooksville proposes replacing approximately 60,000 linear feet of existing aged, deteriorating, and undersized 1” diameter – 8” diameter pipe with appropriately-sized new polyvinyl chloride plastic water main, service lines, main valves and boxes, service connection valves and boxes, new fire hydrants, and leak detection meters; replacement of the 600,000 gallon East Hill tank with a new, above-ground tank adjacent to the existing tank; and post construction restoration of paved and landscaped surfaces (Figure 1). Replacement water mains will be constructed approximately 4 feet deep. The majority of the alignment is in / beneath

existing road surfaces or adjacent mown lawn; approximately 4,500 linear feet is cross-country and requires vegetation removal. The useful life of the project components, properly installed and maintained, is greater than 40 years.

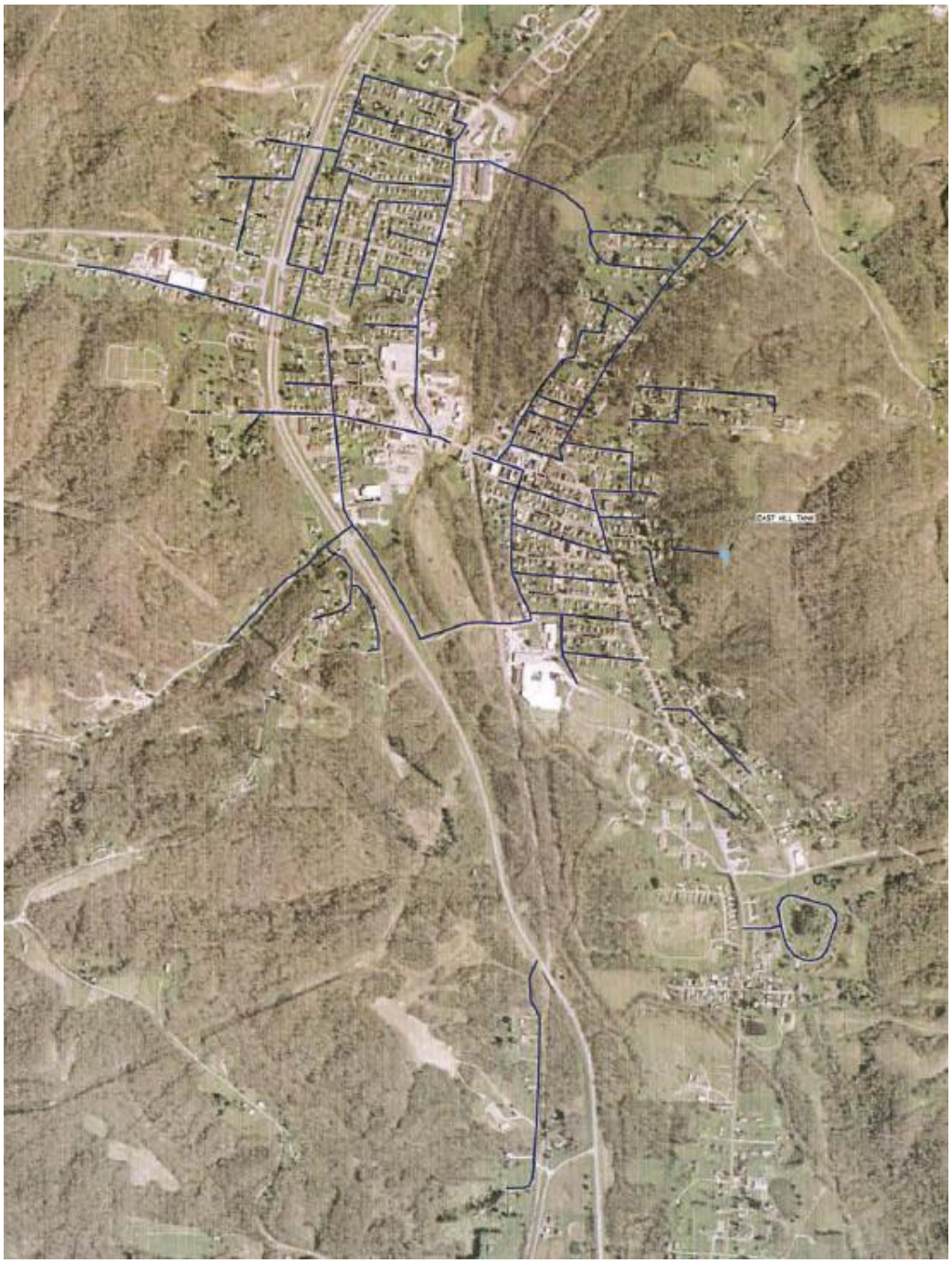

Figure 1 – Project Location and Construction Alignments

5. Project Implementation

Crooksville will combine approximately $3,748,000 from the WSRLA with a $2,000,000 grant from the U.S. Army Corps of Engineers 594 program, $600,000 from the Community Development Block Grant (CDBG) program, and $250,000 from the Appalachian Regional Commission to finance this project. The WSRLA loan will be at the "Tier II" principal forgiveness category, up to 30% of the loan amount awarded in principal forgiveness (loan amount that does not require repayment), with the remainder at 2.0% interest or the "Small Systems" interest rate, whichever is less, during the month of loan award. During the 30-year loan period, Crooksville will save approximately $3,178,000 by using WSRLA dollars at this rate, compared to the market rate of 3.68%.

C. **Environmental Impacts of the Proposed Project**

Potential direct environmental impacts due to this project are here described. Secondary or indirect effects are unlikely because the proposed improvements to Crooksville's water distribution and storage system do not expand the service area or alter the village's water supply.

Because all work except the new water tank adjacent to the existing tank will be underground with the land surface restored to pre-construction contours, the project will have no significant impact on major land forms, agriculture, or land use.
A portion of replacement water main will be bored beneath Moxahala Creek and constructed beneath the defined 100-year floodplain. Boring will significantly minimize potential construction-related impacts to Moxahala Creek and its Limited Resource Water Aquatic Life Use designation (aquatic habitat). The Crooksville Floodplain Administrator determined the proposed water main installation would have no adverse effect on the floodplain, its flood carrying capacity, or public safety. Besides Moxahala Creek, which will be unaffected by the proposed boring, potentially regulated wetlands in the vicinity of the project alignment in the floodplain are the subject of coordination with the U.S. Army Corps of Engineers to determine whether a permit would be required for construction. Permitting, if necessary, will be completed before construction in that area.

The proposed water main replacement requires no deep excavation that could affect ground water quality or quantity or otherwise adversely affect local or regional ground water resources.

Approximately 4,500 linear feet of water main alignment is off-road and requires vegetation removal, including trees. The U.S. Fish and Wildlife Service lists three important animal species that may be present in the greater project area: Indiana bat, northern-long-eared bat, and American burying beetle. The construction contract specifies tree clearing after September 30 and before April 1, typical "seasonal clearing" that avoids adverse effects to both bat species. The project area is distant from known

records of the beetle. For these reasons, the project is unlikely to adversely affect important terrestrial habitat or important threatened/endangered species.

Local and regional air quality will be unaffected by this project that adds no source of air pollution. Construction vehicle exhaust will be similar to that of traffic regularly transiting area roads, and minimized by contract requirements that all vehicles be properly maintained. Fugitive dust from excavated areas will be controlled with water spray or other benign dust suppressant material. Similarly, the project adds no energy consuming equipment and will have no effect on local or regional energy supplies.

Construction vehicle noise similar to that of motorized traffic in the greater project area will be audible in the vicinity of active work and will be controlled by contract requirements that all vehicles be properly maintained. Work will be limited to daylight hours to reduce impacts to residents. Construction in roads will require use of standard construction traffic management controls (barrels, barricades, signs, flaggers) to minimize impacts to residents. Besides traffic control, public safety will be ensured by covering or filling all trenches at the end of each work day and / or fencing other potentially dangerous areas. Local aesthetics will be unchanged after post-construction restoration is completed and the existing water tank is removed upon completion of the adjacent new tank.

The Ohio Historic Preservation Office concurred with the findings of Crooksville's archaeological consultant that the project will not cause a significant adverse effect to properties listed or eligible for listing in the National Register of Historic Places (cultural resources).

In the event of archaeological finds during construction, Ohio Revised Code Section 149.53 requires contractors and subcontractors to notify the Ohio Historic Preservation Office of any archaeological discoveries in the project area, and to cooperate with the Office in archaeological and historic surveys and salvage efforts. Work will not resume until a survey of the find and a determination of its value and effect has been made, and Ohio EPA authorizes work to continue.

The projected typical annual residential water bill in Crooksville is $720, which is approximately 2.3% of local median household income (MHI; $31,818). This is above the Ohio average of 1.2%. Crooksville successfully pooled multiple grants with principal forgiveness financing from the WSRLA to minimize project debt and the economic impact on its residents and the local economy.

D. **Public Participation**

Public meetings about the project and CDBG funding were held in Crooksville in September and October 2015. Crooksville posted on its web page a notice about the WSRLA funding and environmental review. Ohio EPA is unaware of controversy about or opposition to this project.

Ohio EPA will make a copy of this document available to the public on its web page (http://epa.ohio.gov/defa/ofa.aspx WSRLA Documents for Review and Comment) and will provide it to interested parties upon request.

The following agencies reviewed this project's planning information:

Ohio Environmental Protection Agency
Ohio Historic Preservation Office
U.S. Army Corps of Engineers
U.S. Fish and Wildlife Service

None of the review agencies opposes the project.

E. **Reasons for a Preliminary Finding of No Significant Impact**

Based on its review of the planning information, detail plans, and other information collected about this project, Ohio EPA concludes that no significant short-term or long-term adverse direct environmental impacts will result from the project as related to the environmental features discussed in this Environmental Assessment. This is because either these features do not exist in the project area, the features exist but will not be adversely affected, or the impacts of construction will be temporary and mitigated.

This project equally serves the entire Crooksville community, so no particular segment of the community will be faced with additional adverse impacts or be deprived of environmental benefits, compared to any other segment.

For these reasons, and because the project is not designed to facilitate substantial future growth, this project, alone or in combination with other projects, is not expected to result in any significant indirect or cumulative short-term or long-term adverse environmental impacts.

Ohio EPA expects the economic impact of the project on the average user to be acceptable because there is no known opposition to the project and Crooksville has minimized the project cost and debt by combining multiple grants and loans.

The project is expected to ensure reliable and safe delivery of water in Crooksville for the indefinite future by eliminating aged and deteriorated pipes that cause significant water loss and installing pipes meeting current size and design requirements.

For more information, please contact:

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