



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

August 11, 2017
Limited Environmental Review and Finding of No Significant Impact
City of Columbus – Dublin Road Water Plant UV Disinfection
Franklin County
WSRLA No. FS390274-0265

The attached Limited Environmental Review (LER) 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 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 document.

Loan award will 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 blue ink, appearing to read "Jerry Rouch".

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

JR/JS

attachment

LIMITED ENVIRONMENTAL REVIEW

A. PROJECT IDENTIFICATION

Project Name: Columbus – Dublin Road Water Plant UV Disinfection, CIP No. 690535-100000

WSRLA No.: FS390274-0265

Project Contact Tracie Davies, Director
Columbus Department of Public Utilities
910 Dublin Road, 4th Floor
Columbus, Ohio 43215

B. HISTORY and EXISTING CONDITIONS

The City of Columbus Division of Water operates three water treatment plants to provide residents of the City of Columbus and a large part of Franklin County with a reliable supply of water for potable use and fire protection needs. Two of these plants, the Dublin Road Water Plant (DRWP) (see Figures 1 and 2) and the Hap Cremean Water Plant (HCWP), obtain their raw water from surface water sources which can contain microbial contaminants such as *Cryptosporidium*. The source water for the DRWP is the Scioto River. The existing DRWP is a conventional treatment and lime softening plant with a rated capacity of 80 million gallons per day (MGD).

Disinfection and maintaining a chlorine residual in the distribution system are required parts of Ohio's drinking water treatment process. The DRWP uses sodium hypochlorite and the HCWP uses chlorine gas for disinfection and residual. Both plants currently meet or exceed all finished water quality regulatory requirements. Although not currently required, the City proposes to install ultraviolet (UV) disinfection at both plants in order to provide additional treatment for *Cryptosporidium* and other potential microbial contaminants.

The City has requested \$20.5 million from the Ohio Water Supply Revolving Loan Account (WSRLA) to help pay for the \$23.9 million project at the DRWP. Local funds will supply the balance.

C. PROJECT DESCRIPTION

The project at the DRWP will construct a UV treatment facility at the southwest corner of the 1975 Clearwell, which is beside the filter building (see Figure 2). During construction, this clearwell will be bypassed and the southwest corner will be demolished to construct and connect the UV facility. The UV facility is proposed to be a two-level structure sized for five UV units, leaving space for future expansion. The UV units will be located below grade, with the power and electrical controls above grade. Flow through the existing clearwell system will be unchanged and balanced between UV units.

All work will occur entirely within the DRWP property, previously disturbed, developed areas lacking important environmental features, and requiring no new easements for construction.

The UV process uses ultraviolet light to inactivate a range of microorganisms. By upgrading the plant with UV disinfection, the City will significantly enhance public health protection and position itself to meet future regulatory requirements and/or changes in water quality.

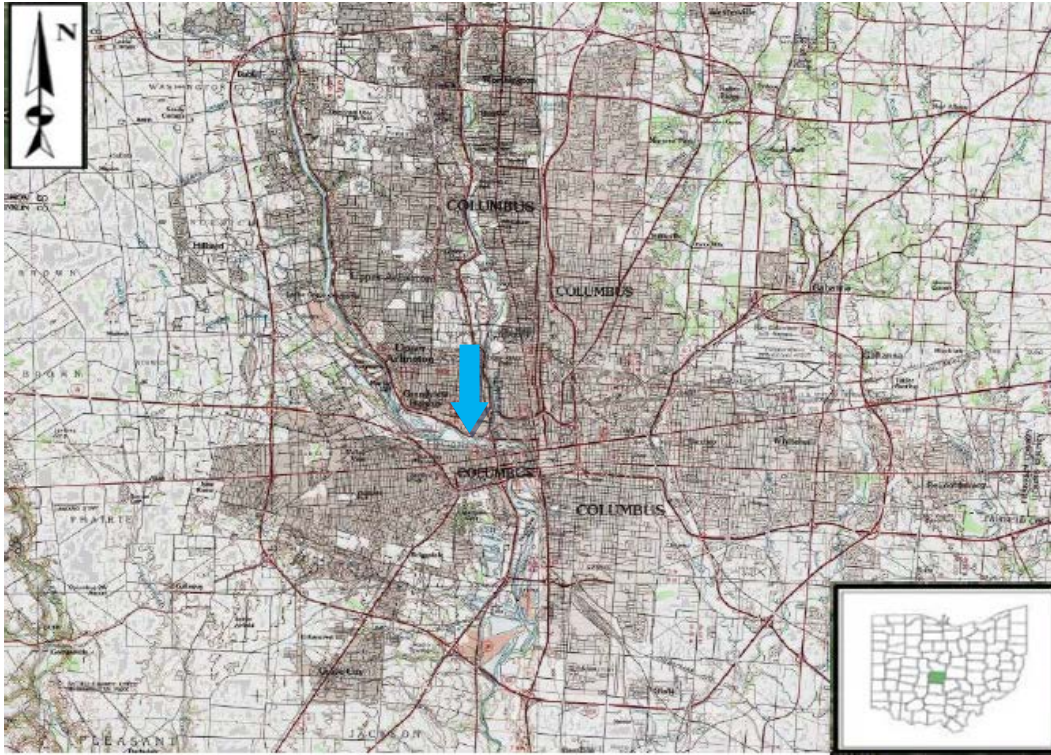


Figure 1. Project location map



Figure 2. UV Facility location

D. ESTIMATED PROJECT COSTS

The City of Columbus will borrow approximately \$20.5 million from the WSRLA at the Standard interest rate (now 1.89%; the rate is set monthly and may change before loan award). During the 20-year loan period, the City will save approximately \$5,125,000 by using WSRLA dollars at this rate, compared to the market rate of 3.14%.

E. PROJECT SCHEDULE

The anticipated loan award will occur in October 2017, and the work is estimated to be completed in 2020.

F. PUBLIC NOTIFICATION

This project is included in the city's capital improvement plan, which is accessible to the public. The design phase funding went through the city's legislation process, which provides public notice of the project and funding amounts. Based on the limited environmental and economic impacts, this is considered an appropriate level of public participation.

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. Information supporting the LER is available from the project contact named below.

G. PLANNING INFORMATION

The proposed project was reviewed by the Ohio EPA Division of Drinking and Ground Waters and Division of Environmental and Financial Assistance. No review agency opposes the project.

H. CONCLUSION

The proposed installation of UV disinfection is a minor upgrading of an existing public water system that qualifies for an LER and meets the following additional LER criteria:

It has no significant environmental effect, no effect on high value environmental resources, and does not require extensive specific impact mitigation. The project consists of constructing a UV treatment facility at the southwest corner of the 1975 Clearwell, within the confines of the DRWP, an area lacking important environmental features. The type of construction involved (i.e., excavating previously-disturbed areas and constructing new ancillary facilities adjacent or appurtenant to or existing facilities) is typical for such work and creates relatively few impacts. Standard construction best management practices will minimize noise, dust and storm water runoff.

It is cost effective and not controversial. The proposed addition of UV disinfection strengthens Columbus's ability to provide a safe, reliable supply of water to customers. A typical Columbus household's average annual water bill is approximately \$440, which is 0.98% of local median household income (MHI = \$44,744). These numbers compare favorably to the Ohio average water bill of \$592 and 1.2% of Ohio MHI. Water bills below 1.8% of MHI are generally considered affordable. Ohio EPA is unaware of controversy about or opposition to this project.

This project does not create a new, or relocate an existing discharge to surface or ground waters; will not create a new source of water withdrawals from either surface or ground waters; will not significantly increase the amount of water withdrawn from an existing water source; will not result in substantial increases in the volume of discharge or the loading of pollutants from an existing source or from new facilities to receiving waters; and, will not provide capacity to serve a population substantially greater than the existing population. This project involves constructing a UV treatment facility at the southwest corner of the 1975 Clearwell, adding another barrier to remove contaminants from the City's drinking water, and does not otherwise alter Columbus's public water system (withdrawal, treatment, distribution or usage of potable water).

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 (surface waters, coastal zones, floodplains, wetlands, state-designated scenic or recreational rivers, prime or unique agricultural lands, aquifer recharge zones, archaeologically or historically significant sites, threatened or endangered species, or state and federal wildlife areas). The project will help Columbus to improve the overall reliability of its public drinking water system.

I. CONTACT PERSON

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