Ohio Environmental Protection Agency

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

August 2, 2018

Notice of Issuance of a Limited Environmental Review and Final Finding of No Significant Impact to All Interested Citizens, Organizations, and Government Agencies

City of Alliance, Athens County, Ohio
PAC Systems Improvements HAB
WSRLA Loan # FS390099-0003

The purpose of this notice is to advise the public that Ohio EPA has reviewed the referenced project and finds that neither an Environmental Assessment (EA) nor a Supplemental Study (SS) is required to complete the environmental review of the project. Instead, the proposed project meets the criteria for a Limited Environmental Review (LER). These criteria are summarized below in this document and in the attached LER.

The Ohio EPA Drinking Water Assistance Fund's (DWAF) Water Supply Revolving Loan Account (WSRLA) program requires the inclusion of environmental factors in the decision-making process for project approval. Ohio EPA has done this by incorporating a detailed analysis of the environmental effects of the proposed action in its project planning review and approval process. A subsequent review by this Agency has found that the proposed action does not require the preparation of either an EA or an SS.

Our environmental review concluded that because the proposed project is limited in scope and meets all applicable criteria, an LER is warranted. Specifically, the proposed project includes replacement and upgrading the existing PAC system including hopper storage, dual volumetric feeders, dual slurry tanks, and a slurry feed system. The project is necessary to address taste and odor issues.

Furthermore, the proposed project:

- has no potential for associated significant adverse environmental impacts;
- will not require extensive impact mitigation unique to the assistance proposal;
- will have no effect on high value environmental resources;
- is cost-effective and is not the subject of significant public interest;
- will not create a new, or relocate an existing, discharge to surface or ground waters, or cause pollution of surface or ground waters;
- will not create a new source of water withdrawals from either surface or ground waters, or significantly increase the amount of water withdrawn from an existing water source;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.

A map depicting the location of the proposed project is included as part of the LER. The LER presents additional information on the proposed project, its costs, and the basis for our decision. Further information can be obtained by calling or writing the contact person named at the end of the LER.

The LER was completed for the proposed project as it will not individually, cumulatively over time, or in conjunction with other Federal, State, local, or private actions have a significant adverse effect on the quality of the human environment. Consequently, a Finding of No Significant Impact (FNSI) now can be issued for the proposed project.

Upon issuance of this FNSI determination, award of funds may proceed without being subject to further environmental review or public comment, unless information is provided which determines that environmental conditions on the proposed project have changed significantly.

Sincerely,

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

JR/TH

Attachment

DIVISION OF ENVIRONMENTAL AND FINANCIAL ASSISTANCE
OFFICE OF FINANCIAL ASSISTANCE
WATER SUPPLY REVOLVING LOAN ACCOUNT

LIMITED ENVIRONMENTAL REVIEW

A. Project Identification

Name: City of Alliance
PAC System Improvements HAB

Project Contact: Michael Dreger
Director of Safety and Public Service
City of Alliance
504 E. Main Street
Alliance, Ohio 44061

WSRLA No.: FS390099-0003

B. Project Summary

The City of Alliance has applied to Ohio EPA's Water Supply Revolving Loan Account (WSRLA) for a $994,791 loan to finance a new powdered activated carbon (PAC) feed system at its water treatment plant (WTP). The PAC system is required to minimize periodic taste and odor issues due to naturally occurring compounds that can appear in the reservoir water supply and to reduce to a safe level the toxin microcystin resulting from harmful algal blooms (HAB). The current PAC system was installed in 1992 has reached the end of its design life and provides inadequate chemical feed rate. The proposed replacement PAC system includes hopper storage, dual volumetric feeders, dual slurry tanks, and a slurry feed system. Construction is anticipated to begin during August 2018 and last until approximately July 2019. Upgrading the PAC system is estimated to cost $994,791. Alliance is eligible for a zero percent interest rate loan for a 20-year term. By using the WSRLA, Alliance will save an estimated $375,729 in interest payments compared to a traditional 20-year market-rate loan currently at 3.33%.

C. Project Background and Description

The City of Alliance operates a WTP located at 12251 Rockhill Avenue north of town. The plant obtains it raw water from two reservoirs located on Deer Creek. Treatment consists of taste and odor control via potassium permanganate and PAC in two pre-treatment basins, pH adjustments through the addition of sodium hydroxide, coagulation through alum addition in rapid mix basins, flocculation and sedimentation, and ultraviolet light (UV) and peroxide oxidation for disinfection. The WTP has an average demand of 3.5 million gallons per day (MGD) and a maximum daily demand of 6.98 MDG. The WTP serves a population of 22,232 people through 10,170 service connections.

The WTP uses a multi-barrier approach to remove microcystins produced by cyanobacteria (HAB). These include PAC, coagulation/sedimentation/filtration using granular activated carbon, UV/peroxide, and contact time with free chlorine. The PAC system consists of two bag feeders that require manual loading of 50-pound

bags of PAC, two volumetric feeders, and two slurry tanks with dipper feed mechanisms that feed carbon slurry to the selected feed points. During October and November 2016, microcystin concentrations greater than 1.6 micrograms /liter (the federal Health Advisory level) were measured. . It was determined that the feeding rate of the existing PAC system is inadequate and that higher feed rates are needed for effective microcystin treatment.

Alliance evaluated three alternatives to replace the existing PAC system. These alternatives were described in Alliance's June 26, 2017 *PAC Systems Improvements Preliminary Project Planning Information* document:

1. A packaged metal silo for storage with integral feeders, dust collection and slurry cones. Water piping and as well as electrical and instrumentation connections will be required. Drive access will be needed so that delivery trucks may reach the unit to feed the PAC into the silo. Although this would be a stand-alone unit and self-contained, WTP sensing and controls would need to be modified.

2. Add a new PAC solution storage and feed facility consisting of two solution tanks complete with water supply, PAC eductor system and a separate structure to contain the feed pumps, mixers with the associated piping, electrical, instrumentation and controls, climate controls, dust collectors. The new system could be constructed adjacent to the existing WTP building.

3. Upgrade and modify the existing PAC system to integrate a storage silo with air eductor transfer systems and update the existing feed equipment and dust collector to accommodate the proposed feed rates.

Table 1. Preliminary Alternatives Cost Summary

Alternative	Probably Construction Cost - 2017	Engineering	Total Project Cost
New Packaged Silo System	$791,300	$197,800	$989,100
PAC Solution Storage and Feed System	$1,373,800	$343,500	$1,717,300
Upgrade and Modify the Existing PAC system	$1,600,000	$400,000	$2,000,000

Based on the analysis of alternatives, the most cost-effective alternative is the replacement of the PAC feed system by constructing a silo feed system that includes dual volumetric feeders of appropriate size and capacity along with its associated components. This alternative will ensure an effective long-term barrier to algae compounds including HAB microcystin.

D. Estimated Project Costs

Replacing the existing PAC system and related components is estimated to cost $994,791. Alliance is eligible for a zero percent loan for a 20-year term. By financing the project though the WSRLA, Alliance will realize an estimated saving of $375,729 in interest payments compared to a traditional 20-year market-rate loan currently at 3.33%.

Alliance operates its WTP and distribution system with fees collected through a user charge system. A typical residential household currently pays a user fee of $34.55/month, or $414.55/year. This amount is 1.3% of Alliance's annual median household income (MHI), $32,058. Water bills less than 1.8% of MHI are generally considered affordable.

E. Project Schedule

The PAC system replacement project will be implemented in accordance with the following schedule:

Advertise for bids:	May 2018
Open bids:	June 2015
WSRLA Award:	August 2018
Begin construction:	Fall 2018
Substantial Completion:	July 2019

F. Public Notification

As part of the public involvement process, an ordinance authorizing the City to enter into the WSRLA program to finance the project was discussed during the June 5, 2017 and October 2, 2017 city council meetings. Authorization to advertise for bids and enter into a contract was approved during the March 5, 2018 meeting. Additionally, the project was discussed during the Alliance Water Sewer Advisory Board meeting conducted on June 5, 2017, September 11, 2017 and April 6, 2018.

As part of its State Environmental Review Process, Ohio EPA's Division of Environmental and Financial Assistance (DEFA) will post this Limited Environmental Review (LER) and Finding of No Significant Impact to its web page located at: (http://epa.ohio.gov/defa/EnvironmentalandFinancialAssistance.aspx). Ohio EPA is unaware of any public opposition to this project.

G. Planning Information

The planning information for the proposed project was reviewed in terms of potential direct, indirect and cumulative short- and long-term environmental impacts, with input from the following agencies:

State Historic Preservation Office
Ohio Environmental Protection Agency
Ohio Department of Natural Resources

No opposition to the project was received from any of these entities.

H. Conclusion

The proposed project meets the project type criteria for a LER; namely, it involves repair or functional replacement of existing drinking water facilities. Furthermore, the project meets the other qualifying criteria for a LER; specifically, the proposed project:

- **will have no significant adverse environmental effect**, as sensitive resources such as floodplains, wetlands, riparian areas, prime or unique agricultural lands, aquifer recharge zones, archaeological or historically significant sites, or threatened or endangered species are not present in the project area;

- **does not require extensive specific impact mitigation**, as the proposed project involves the replacement of the PAC system that will be located within the boundaries of the existing WTP that is already disturbed by treatment facilities, concrete driveways and lots, and maintained as lawn. Standard construction best management practices, including appropriate erosion and sediment control, will be implemented during construction;

- **will have no adverse effect on high value environmental resources**, as no high value environmental resources are present within the project area;

- is **not a controversial action**, since the project will address HAB toxicity, odor, and taste issues. Ohio EPA is unaware of any public opposition to the project;

- is **cost-effective,** as replacement of an out of date PAC system will addressHAB toxicity, odor, and taste issues while costing less than other alternatives considered;

- **does not create new, or relocate existing, discharges to surface or ground waters; and 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,** since the proposed project does not involve a point source discharge or the treatment of wastewater flows;

- **will not create new sources of water withdrawals from either surface or ground waters, or significantly increase the amount of water withdrawn from an existing source; nor will it provide capacity to serve a population substantially greater than the existing population**, as the project scope is limited to replacing an out of date PAC system.

The planning activities for the project have identified no potentially significant short-term or long-term adverse impacts on the quality of the human environment or on sensitive resources. Implementation of appropriate construction mitigation measures is required by the contract specifications, and construction activity will be limited to the existing, previously-disturbed areas within the boundaries of the current WTP. The project will benefit Alliance by addressing HAB toxicity, taste, and odor problems and increase operational efficiencies at the WTP.

I. Contact Person

For further information, please contact:

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Figure 1. Project Location

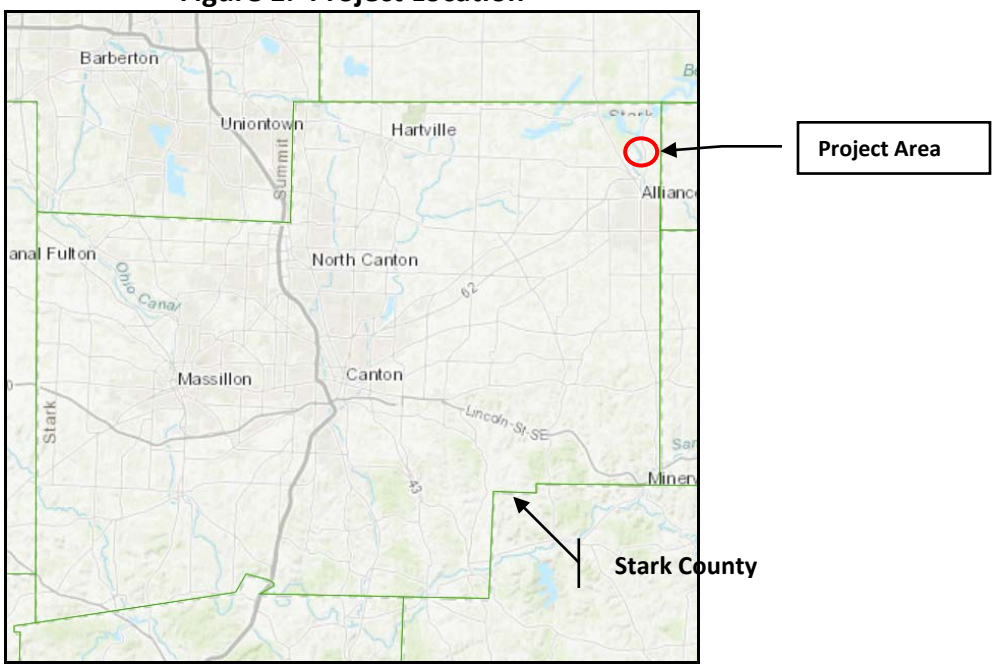

Figure 2: Project Area Close Up