July 19, 2019

Mayor Dale Kinect
Village of West Salem
27 South Main Street
P.O Box 256
West Salem, Ohio 44287

Re: Village of West Salem
Wastewater Treatment Plant Expansion
Loan Number: CS390998-0006
Finding of No Significant Impact

Dear Mayor Kinect:

On July 19, 2019 Ohio EPA issued a draft Finding of No Significant Impact (FNSI) for the Village of West Salem – Wastewater Treatment Plant Expansion project for public review and comment. The thirty-day period for comments has passed and no comments have been received. Therefore, the conclusions contained in that draft FNSI become the basis for this final Finding of No Significant Impact for the above referenced project.

This final Finding of No Significant Impact may be revised or rescinded at a future date based upon either changes to the proposed project, the presentation of information which significantly alters earlier conclusions, or failure of the applicant to perform the environmental mitigation prescribed in the draft Environmental Assessment.

Sincerely,

[Signature]
Jonathan Bernstein, Assistant Chief
Division of Environmental and Financial Assistance
ENVIRONMENTAL ASSESSMENT

Project Identification

Project: Village of West Salem WWTP Expansion

Applicant: Mayor Dale Kinect
Village of West Salem
27 South Main Street
P.O Box 256
West Salem, Ohio 44287

Loan Number: CS390988-0006

Project Summary

The Village of West Salem is requesting a $4,319,700 low-interest loan from the Water Pollution Control Loan Fund (WPCLF) to finance the construction of a new, expanded wastewater treatment plant (WWTP) which is operating at near capacity. The expansion will address anticipated future expansion and regionalization with nearby Cinnamon Lake to maintain compliance with NPDES permit effluent limits. Regionalization of WWTPs is a priority for Ohio EPA.

History & Existing Conditions

The West Salem WWTP is located at 388 Greely Street in northwest Wayne County, approximately 16 miles northwest of Wooster. The plant was originally constructed in 1964. In 1988, the capacity of the plant was increased from 152,000 gallons per day (gpd) to 204,000 gpd. In 1999, the rotors providing aeration and mixing in the oxidation ditches were replaced. In 2015, the disinfection was changed from chlorination to ultraviolet light treatment.

The plant includes preliminary treatment, flow equalization, oxidation ditch type secondary treatment with secondary clarifiers and disinfection with discharge to the Muddy Fork of the Mohican River. Muddy Fork is a Warmwater Habitat stream. Sludge treatment includes aerobic digestion with liquid sludge disposal by either land application or hauling to another wastewater treatment plant.

Operational problems have occurred with the influent sewage grinder, oxidation ditches, secondary clarifiers, flow equalization and sludge pumps, and the motor control center.

The inadequate capacity to handle existing customers must be rectified. This project is intended to maintain compliance with NPDES permit requirements as the community continues to grow by providing adequate treatment capacity. It will allow the elimination of the Cinnamon Lake wastewater treatment plant which is being eliminated by the Lorain County Rural Wastewater District. Initially the wastewater contribution of Cinnamon Lake will be 82,000 gallons per day, increasing to 150,000 gallons per day.
Population and Flow Projections

The user population of the existing plant is 1,647. The current WWTP has a capacity of 204,000 gpd. The treated wastewater generated from the water treatment plant is 45,500 gallons per day.

When the Cinnamon Lake WWTP is closed by the Lorain County Rural Wastewater District, an estimated 150,000 gpd will be directed to the West Salem WWTP.

Additionally, Dragway 42 may also contribute 40,000 gallons per day during the summer months. Dragway 42 is a local racetrack that experiences seasonal crowds. In addition, a new building planned for the area may add wastewater to the West Salem plant.

Alternatives

The “no action” alternative is not acceptable because the plant will continue to be in violation of NPDES discharge permit limits. The poor condition of the existing plant cannot handle additional input, so there regionalization will not be a possibility without expansion.

The existing plant is beyond rehabilitation, so a new facility with the ability to handle increased flows is the preferred alternative.

Selected Alternative

The Village of West Salem is constructing a new wastewater treatment plant on the existing plant (see Figure 4) site with a larger capacity to accommodate existing customers and new customers from Cinnamon Lake. The new WWTP will have a capacity of 554,000 gpd and the ability to meet NPDES discharge limits.

The existing preliminary treatment will be replaced with a new mechanically cleaned fine screen that will be located in the control building. The existing digesters will be converted to an additional flow equalization basin capacity of 185,000 gallons. Two deteriorated oxidation ditches, four clarifiers, and a submersible sludge lift station will be replaced with extended aeration tanks, final clarifiers and return sludge pumps. Three new reinforced concrete aeration tanks having a capacity...
of 156,500 gallons each along with two new reinforced concrete circular clarifiers will be constructed. The two open-channel ultraviolet light disinfection banks having a capacity of 840,000 gpd each will be supplemented by one additional modular bank, increasing the capacity to a total of 980,000 gpd. The ultraviolet light disinfection units will be relocated to the treatment room in the control building. Two new concrete reinforced aerobic digesters having a capacity of approximately 77,700 gallons each will be built. A new control building will be constructed (Figure 5). The new WWTP is being constructed in the same location as the existing WWTP. The existing oxidation ditches will be demolished first, then the new aeration tanks and control building will be constructed.

**Implementation**

The Village is requesting $4,319,700 from WPCLF for the construction of a new and expanded WWTP. The loan will be repaid by revenue from sewer rates over 20 years. The Village’s revenue will increase due to the eventual addition of Cinnamon Lake sewer fees. In addition, rates will increase by 67%. The current annual sewer rate for residential properties in West Salem is $449. An increase of 67% would increase annual sewer rates to $749 which is slightly higher than the Ohio average annual sewer rate of $677. The median household income (MHI) for the Village of 1,647 is $37,270 and the sewer rate represents 2% of the MHI.

The proposed new service population is approximately 5,540.

During the 20-year loan period, the Village of West Salem will save approximately $1,519,556 by using WPCLF dollars at 0% interest rate, compared to the current market rate of 3.12%. Additional funds will be provided by CDBG and OPWC. Bids will be opened in June 2019 and the loan awarded in August. Construction will be completed by November 2019.

**Public Participation**

A June 28, 2018 public hearing discussed the wastewater treatment plant improvements project.

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

**Environmental Impacts**

**Air Quality**

Wayne County meets standards for the six regulated air pollutants (carbon monoxide, sulfur dioxide, nitrogen oxide, lead, particulate matter, and ozone). Impacts to residents from dust and vehicle exhaust during construction will be insignificant because of the limited scope of this project. Short-term, insignificant increases in dust and local air pollution from construction vehicle exhaust are expected during construction. For these reasons, the project should have no significant adverse short-term or long-term impacts on local air quality.

**Safe Drinking Water**

This project will not adversely impact drinking water intakes. The discharge point of this WWTP will not change and the plant will be designed to properly address the NPDES discharge limits which are protective of downstream aquatic life uses.
Archaeological and Historical Resources

The land for the new WWTP has been previously disturbed as the new facility will be constructed on existing WWTP property. The plant was constructed in 1964 which does not make this structure historically significant based on age. Therefore, it is unlikely that there will be impacts to archaeological and historic resources.

In the event of archaeological finds during construction, Ohio Revised Code Section 149.53 requires contractors and subcontractors to notify the State 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 when appropriate. 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.

Aquatic Habitat, Coastal Zones, Floodplains, Surface Water Resources, Wetlands, Wild and Scenic Rivers, Ground Water Resources

The Village of West Salem is generally drained by the Muddy Fork of the Mohican river which flows south from the village and ultimately into the Walhonding River in the Muskingum River Basin. There are no aquatic habitat resources including surface waters, wetlands, nor Wild Scenic Rivers at the WWTP site. The WWTP site is not located in a Coastal Zone nor a floodplain. Groundwaters will not be intercepted or impacted by the construction of this new plant on the existing WWTP site. There will be an improvement in the discharge from this expanded wastewater plant, so Muddy Creek water quality should be improved.

Fish and Wildlife and Endangered Species

There will be two trees removed at the northeast side of the property because they will interfere with the plant’s new sewer main. The trees will be removed between October 1 and March 31 to avoid any potential impacts to endangered bats. Because of the disturbed nature of the existing WWTP site where the new plant will be constructed, it is not anticipated there will be impacts to endangered species.

Farmland Protection, Terrestrial Habitat

This project will not result in farmland losses or terrestrial habitat impacts because the site has been previously disturbed and utilized as a WWTP.

Safety Noise/Traffic/Aesthetics

Construction will be restricted to daytime hours to minimize impacts. Traffic will be controlled in accordance with standard procedures that include ensuring passage of emergency vehicles and maintaining one lane of travel. Equipment will be fitted with intake silences and mufflers to minimize noise pollution. Erosion and sedimentation controls will be installed prior to construction.
**Energy**

This project will provide regionalization of WWTP services which is more energy efficient, especially with the incorporation of modernized equipment. For example, new blowers and pumps will have the ability to allow adjustment to reduce power when it is not needed.

**Conclusion**

Based on its review of this project’s general plans and other information, 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 largely because these features do not exist in the project area.

Ohio EPA expects the economic impact of the project on the average user to be minimal. The sewer rates are projected to be affordable and the village will benefit from the WPCLF zero-interest loan to address this necessary project.

The project will improve water quality by addressing NPDES discharge limits and regionalizing with Cinnamon Lake.

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*Figure 3 Location of West Salem WWTP*
Figure 4. Existing plant layout
Figure 5. Proposed new plant layout