August 19, 2019

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

Village of West Union – Adams County
Improvements and Additions to Sanitary Sewer System – Wastewater Treatment Plant
CS390989-0030

The attached Environmental Assessment (EA) is for a regional wastewater treatment project for the Village of West Union which the Ohio Environmental Protection Agency intends to finance through its Water Pollution Control Loan Fund (WPCLF) 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 WPCLF 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 Village of West Union can then proceed with its application for the WPCLF loan.

Sincerely,

Jerry Rouch, Chief
Division of Environmental & Financial Assistance

Attachment
ENVIRONMENTAL ASSESSMENT

Project Identification

Project: Village of West Union Improvements and Additions to Sanitary Sewer System – Wastewater Treatment Plant

Applicant: Jerry Kirker, Village Administrator
Village of West Union
P.O. Box 395
West Union, Ohio 45693

Loan Number: CS390989-0030

Project Summary

The Village of West Union in Adams County has applied to Ohio EPA, Division of Environmental and Financial Assistance (DEFA) for financial assistance from the Ohio Water Pollution Control Loan Fund (WPCLF) to fund the demolition or decommissioning of most of the Village’s existing wastewater treatment plant (WWTP) and for the construction of a new WWTP on a new site, just south of the existing WWTP. West Union is eligible for principal forgiveness, a loan that does not have to be repaid.

The WPCLF program requires that a comprehensive environmental review be completed prior to the award of financial assistance. This Environmental Assessment (EA) describes the project, the planning and analysis that were performed prior to the design and the potential for adverse environmental impacts during construction. Ohio EPA’s environmental review has concluded that the proposed project will not result in significant adverse environmental impacts. More detail follows in the sections below.

Ohio EPA anticipates awarding a WPCLF loan to the Village of West Union for the Improvements and Additions to Sanitary Sewer System - Wastewater Treatment Plant project in September 2019. Construction of the project will begin soon after loan award and be completed within approximately 24 months. See the figures below for an overall project location map (Figure 1), and a WWTP project location map (Figure 2).

History & Existing Conditions

The Village of West Union is in the south-central part of Adams County. State Routes (SR) 41, 125 and 247 all intersect and run concurrently through the downtown area.

In 1989 and 1991, the Village completed two separate sanitary sewer system evaluations. These evaluations determined that the Village’s sewer system was receiving excess infiltration and inflow (I/I) which caused bypassing at the WWTP, overflows from the Sparks Street lift station, surcharging in some portions of the system, and operations problems at the WWTP resulted in permit violations. A sewer system rehabilitation project was completed in 1993. The project rehabilitated 236 manholes, replaced 148 manholes, repaired or replaced 123 defective service
lines and repaired 35 points where 596 linear feet of sewer was replaced, and 491 linear feet of sewer was lined.

After this work was completed, the Village experienced some sewer system growth. The east side of the Village was sewered along SR 125 and Owens Drive. The East Side Sewer Upgrade project included the installation of gravity sewer, a lift station and force main. In 2008, Phase 1 of the Adams County Wastewater Improvements (ACWWI) project was completed, which extended sewer along SR 125 to the northwest of the Village. Phase 1 of the ACWWI included gravity sewer from the West Union High School down SR 125 to a lift station which pumped sewer to the existing lift station at Columbus Industries. The high school connected to the extended sewers in 2009 with gravity and a lift station. Phase 2 of the ACWWI project subsequently followed in 2013 to connect the neighborhoods near the high school to West Union’s sanitary sewer system.

Figure 1. Project Location Map
Figure 2. Wastewater Treatment Plant Location Map
In 2017, the Village began to investigate options for additional improvements to the sanitary sewer collection system and the wastewater treatment plant. It was determined that work should be divided into three separate phases: Phase 1: upgrading and replacing the Village's existing sewage pump stations/lift stations; Phase 2: upgrading and/or replacing the existing wastewater treatment plant; and Phase 3: installing new sewers to unsewered areas near the Village.

The Village received a $2,326,000 loan from the WPCLF for Phase 1 of the Improvements and Additions to the Sanitary Sewer System – Rehab project to replace or renovate fifteen sanitary sewage lift stations in the Village.

This Environmental Assessment includes Phase 2 of the Improvements and Additions to the Sanitary Sewer System – WWTP. The Village's WWTP is located on a very steep hillside along SR 247, south of the Village. It was constructed in 1949 and it underwent an expansion in 1979. The plant is designed to treat 600,000 gallons per day (GPD) but sees peaks of 2.13 million GPD during wet weather events. The vertical drop across the site from the plant influent to the plant discharge is approximately forty feet. The average slope on which most structures are located is seventeen percent. Efforts were made during a 1993 plant improvements project to stabilize the hillside. The improvements project also included the construction of a new generator building, an addition to the existing pump house to incorporate new sludge piping and pumps, and an addition to the administrative building to include a new and larger laboratory and office. However, due to the age of the plant, its equipment and facilities, it requires replacement.

Phase 3 involves installing new sewers to five areas adjacent to the Village. For this work to occur, the Village, in cooperation with Adams County, entered into Memorandums of Understanding (MOU). The new sanitary sewer service areas are referred to as the Northeast Sewer Area, which includes 65 houses and an estimated flow of 26,000 GPD; Southeast Sewer Area which includes 20 houses and an estimated flow of 8,000 GPD; Southwest Sewer Area which includes the Hale subdivision, 20 homes and an estimated flow of 8,000 GPD; Panhandle Area Sewer which includes 78 homes and an approximate flow of 31,200 GPD and the Cherry Fork Sewers which includes 75 homes and approximate flows of 30,000 GPD.

**Population and Flow Projections**

The Village of West Union and Adams County population data was collected from the US Census Bureau and population projections for Adams County were obtained from the Ohio Development Services Agency. The average population increase over the last 20 years was 5.4% for Adams County and 5.5% for West Union. However, the Ohio Development Services Agency predicts an overall 3.13% decline in population for Adams County through 2040. Therefore, to be conservative, it was determined that the overall population of West Union should remain at 3,241 over the design period.

The average number of people per household is 2.33. Based on water and sewer data, 1,003 residential customers and 171 commercial customers are connected to the Village's sanitary sewer system.

**Alternatives**

**WWTP Alternatives**

Three wastewater treatment plant alternatives were evaluated.
Alternative 1 is a no-action alternative. While population and flow projections show that the current plant capacity is enough, the evaluation of the existing plant and collection system components demonstrated the need for the project. The equipment at the facility has reached or exceeded its useful life. Action is needed now to prevent declining performance and increased maintenance efforts. In addition, there are unsewered areas in the county that need treatment service.

Alternative 2 includes the rehabilitation and upgrading of the existing WWTP. Due to aged equipment and facilities, the existing WWTP requires rehabilitation and some facilities require replacement. The existing grit building and equipment would be abandoned as the equipment is outdated and the roof structure would need to be removed to replace the equipment. In addition, the old Imhoff tanks would be removed to allow for a new headworks building. A retaining wall would be installed to stabilize the area surrounding the existing headworks to allow for construction of a new headworks facility. The new headworks facility would consist of rotary drum screens for screening and grit removal. The use of a rotary drum screen will allow for high separation efficiency with low head loss. In addition, as all flow enters the drum screen, no bypassing of flow will occur. To accurately measure flow, the existing undersized Parshall flume will be removed and a properly sized flume will be constructed.

Rehabilitation at the existing primary settling tanks includes replacing the worn-out chain scum system with a new chain scum system. The existing scum piping and weirs would be replaced. The valves at the tanks would also be replaced with new operable valves.

At the trickling filter pump station, the existing pumps and valves would be replaced. For the north and south trickling filters, the major rehabilitation would require replacing the existing distributor system and update the system to include variable frequency drives (VFD). The media in both trickling filters would be replaced in their entirety as the existing media in both filters has failed. In addition, both towers would be repaired to eliminate the current leaks and contain the process flow.

The secondary settling tanks would receive the same upgrades as the primary settling tanks including replacement of the chain scum system, replacement of the scum piping and weirs, and replacement of the valves at the tanks.

The tertiary treatment building would be overhauled. The filter media and underdrains would be replaced with newer technology. The valves and actuators would be replaced, the blowers and valves would be replaced and upgraded to include VFDs. The existing pumps would be replaced and upgraded to include VFDs. The roof on the building would be replaced in its entirety. The UV system would be replaced with newer UV technology.

The pump house roof also requires replacement as the existing roof is leaking. With most of the existing fans/heaters inoperable, the heating, ventilation and cooling (HVAC) system would be upgraded. The digested sludge pumps and valves along with the secondary sludge pumps and valves would all be replaced with new operable valves. The existing generator and motor control center would be replaced. Both the existing generator and the existing motor control center are outdated, and parts are no longer available. The existing generator and building would be abandoned as the generator does not meet emissions requirements. A self-contained package unit would be installed in lieu of overhauling the building.
The digester building roof also needs to be replaced because it leaks. The blowers and valves would be replaced, and the motors upgraded to include VFDs. The primary sludge pumps and valves would be replaced with new operable valves. The diffusers in the digester would be replaced with more effective and efficient diffusers.

The sludge drying beds would be upgraded with new plug valves, a new polymer unit and new filter media panels to allow for more effective drying of the treated sludge.

Alternative 3 involves the construction of a new wastewater treatment plant. Due to the age of the existing plant and its site constraints, construction of a new WWTP would allow the Village to take advantage of the latest treatment technologies. The type of treatment process to be used at the new WWTP was further evaluated. Regardless of the type of treatment used, a new WWTP would include a new headworks facility with rotary drum filter, mechanical dewatering of sewage sludge by screw press and tanker trucks would be used as backup for the mechanical dewatering system.

**WWTP Process Alternatives**

As part of alternative 3 (new WWTP), several process alternatives were considered.

The first treatment process alternative is an oxidation ditch. An oxidation ditch is a modified activated sludge process. A typical oxidation ditch system consists of a channel configuration in a ring or oval shape. Aerators provide circulation, oxygen transfer, and aeration in the ditch. Oxidation ditches are proven to achieve removal objectives with low operation and maintenance costs. In addition, the configuration of an oxidation ditch minimizes the impact of surges on the plant. An oxidation ditch, however, requires a larger land area than other treatment technologies.

Since nutrient removal is expected in the future, the Xylem Bioloop and Evoqua Orbal were considered for the Village of West Union plant. The Bioloop combines Sanitaire diffused aeration and Flygt submersible mixing in the overall ditch process to provide reliable treatment, including nitrogen and phosphorus removal. The Orbal contains simultaneous nitrification-denitrification (SND) processes by incorporating a concentric loop configuration and discs to accomplish the aeration of the wastewater.

Advantages of the oxidation ditch alternative include the ability to achieve removal performance objectives with low operational requirements, and low operation and maintenance costs; the flexibility of operation for biological nutrient removal and reliable treatment to advanced wastewater treatment standards for reuse and surface water discharge with tertiary filtration; long hydraulic retention time and complete mixing, minimizing the impact of shock load or hydraulic surge; less sludge production than other biological treatment processes; energy efficient operations resulting in reduced energy costs compared with other biological treatment processes; little or no chemical expense and one stream train that is easily shut down for maintenance.

Disadvantages of an oxidation ditch include noisy mixer/aeration equipment that tends to produce odors when not operated correctly; the requirement of a larger land area, which also leads to higher capital costs; relatively high effluent suspended solids concentrations; the need for sophisticated timing units and controls; and the need for knowledgeable operators with a higher degree of training.

The second treatment process alternative that was considered is the Aeromod SEQUOX biological nutrient removal process. SEQUOX is a proprietary treatment process that is similar to an activated sludge system. The process is a one tank system; however, it utilizes plug flow through a sequence
of channels to achieve treatment. SEQUOX is capable of handling varying flows, including up to four
times the average flows while still meeting effluent requirements.

Advantages of the Aeromod SEQOX system include a compact footprint with common wall
construction resulting in less tankage, with a system that is easy to expand, reduced site work and
reduced yard piping requirements; improved biological treatment; first and second stage aeration
basins that can be adjusted to provide aerobic, anaerobic and anoxic conditions to provide
biological nutrient removal; reduced power consumption; and easier cleaning and maintenance of
diffuser assemblies.

Disadvantages of the Aeromod SEQOX system include that it is a proprietary process; it requires a
sophisticated level of timing units and controls and knowledgeable and more highly trained
operator; there is no redundancy in the selector tank, making it very difficult to take it out of service
for maintenance; and there is less competition when future expansion is required due to the
proprietary nature of the process.

The third treatment process that was considered is the Sanitaire Intermittent Cycle Extend Aeration
System (ICEAS). The ICEAS is a treatment system that allows influent wastewater flows into the
reactor on a continuous basis. The ICEAS is not a conventional batch reactor, but still utilizes one
tank for treatment of the wastewater. Aeration occurs through diffusers along the bottom of the
tank. The ICEAS removes nitrogen and phosphorus through a biological nutrient removal process.
While designed to allow for continuous flow, the ICEAS system is designed to handle six times
average daily flow while meeting effluent limits. An adjustable weir at the end of the treatment
tank can be lowered for low flow conditions or raised as the plant receives higher flows.

Advantages of the Sanitaire ICEAS include lower capital construction costs; a smaller footprint that
is easy to expand by adding tanks; and reaction cycles that can be adjusted to provide aerobic,
aerobic and anoxic conditions to provide biological nutrient removal.

Disadvantages of the Sanitaire ICEAS include the requirement to use blowers which produce noise
and use more energy; higher operation and maintenance costs than other plants of equal capacity;
operation that is dependent on computer actuated controls to operate pumps and to close and open
valves when computer-operated controls go down, the plant must be manually operated, which is
difficult and requires around-the-clock attention; and sludge that must be disposed of frequently.

**WWTP Site Alternatives**

Three different site alternatives were evaluated and considered for the construction of a new
WWTP.

The first site considered was a ten-acre parcel immediately south/downstream of the existing
WWTP. This site became available while the project was undergoing development, and because the
site allowed the Village to continue to discharge to the same receiving stream, Beasley Fork, and for
a number of other beneficial reasons, it became the selected alternative. The site would require a
balance of fill to provide a more level site for the plant. To accomplish construction of the plant, a
new access road would cross the existing waterway. The site would easily connect to the existing
sewer infrastructure as all the collection system currently converges at the existing WWTP to the
north of the SR 247 site. A gravity or pumped extension of these sewers would flow directly to the
new facility.
The second site considered was a little further downstream from the existing WWTP. This site also became available while the project was undergoing development; however, this site, while having a less challenging topography was 83.2 acres, which is much larger than the Village would need for the new plant. This site would also allow for the new treatment plant to continue to discharge to Beasley Fork. The existing sewer infrastructure would need to be extended over 2,000 feet through the parcel to the north along the creek to this site. Regardless, this parcel was purchased in 2018 and removed from consideration.

The third site considered is part of the Adams County Community Improvement Corporation (CIC). The property is located west of SR 41 near the Village’s commercial district and is immediately across SR 41 from the Village’s water and sewer department. The property backs up to the Ohio Department of Transportation (ODOT) garage. This site is the most level property under consideration, which lends itself toward easier construction; however, the site is in a more prevalent area of the Village and could generate odor complaints from the nearby homes and commercial properties. In addition, utilizing the CIC site would eliminate approximately 10 acres from development.

The CIC site would discharge to the East Fork Eagle Creek. East Fork Eagle Creek is a state resource water and an exceptional warmwater habitat stream. As a state resource water, the East Fork Eagle Creek is designated a high-quality waterway. The new discharge to a new stream would require an antidegradation process during review.

The CIC site is in a more developed area of West Union surrounded by commercial and light industrial businesses. The potential for “not in my backyard” exists with the businesses in the area. Concerns over treatment odors, especially on the windward side of both business and residences were another disadvantage of the site. Further, the land is currently owned by the Adams County CIC and would need to be acquired. The CIC was established to promote the industrial, economic, commercial, and civic development of Adams County.

Selected Alternative

**WWTP**

A decision-making matrix was used to evaluate the alternatives and aid in decision-making. This allowed the Village to factor in items such as total present-worth cost, ease of operation and maintenance, ability to meet discharge permit limits, constructability, and ease of future expansion. Using this matrix, the Village selected treatment process alternative 2 – the Aeromod SEQUOX system for the following reasons: it was the only extended aeration plant to submit qualifications; maintenance is easier with the slide rail diffuser access system; the treatment process is designed to address any potential future nutrient limitations; it is designed with a sustained peaking factor nearly six times the average daily flow for wet weather events; and it can handle lower average daily flows when necessary.

**WWTP Site**

The selected site, the first alternative, was purchased prior to loan award. By keeping the WWTP in the same vicinity as the existing treatment plant, the stigma of a new wastewater plant near new neighbors would be eliminated. The disadvantages associated with the CIC site were enough to discourage Council from proceeding with land acquisition. As a result, the Village purchased the 10-acre site to the south of the treatment plant.
Implementation

The total cost of the Village of West Union’s WWTP project is estimated to be $6,820,000. The Village is eligible for $3,446,526 in principal forgiveness and 0% for the remainder for a regionalization project. Compared to the market interest rate (2.6% in August 2019), West Union will save approximately $5,415,972 in interest payments over the life of the 20-year loan, by utilizing WPCLF funding.

The Village of West Union operates its WWTP with user fees collected through a user charge system. The current average monthly user rate is $30.78, and the annual rate is $369.36. As of December 2017, the Village passed an ordinance authorizing incremental increases in sewer rates to allow for the Sewer Operating Fund to pay for necessary improvements. Following the project’s completion, the projected monthly residential user rate will be $38.09 and $457.08 annually.

According to the American Community Survey, the median household income (MHI) for the Village of West Union is $23,715. Therefore, the average annual sewer service charge represents about 1.9% of the MHI for the Village. This amount of household income spent on sewer service charges is above the Ohio average of 1.14%. However, no significant adverse impact to the local economy is expected from implementation of the WWTP project.

WPCLF loan award: September 2019
Construction: October 2019 – September 2021

Public Participation

The Village discussed the sewer projects at village council meetings. These meetings are open to the public. The sewer improvements were reviewed at numerous council meetings, starting in February 2017 and going through June 2018. The projects were also advertised in two local newspapers ten different times. The sewer rates were discussed at four council meetings. And the City will continue to involve the public in the process of the project.

Environmental Impacts

A number of environmental resources could potentially be impacted by the construction of the WWTP; therefore, Ohio EPA conducted an environmental review of the proposed project in order to help determine its conformance with WPCLF requirements. This review examined both known and anticipated environmental impacts associated with the completion of the proposed project, including secondary (indirect) impacts. Since the project service area is already developed, and since only limited additional growth is anticipated at this time, the project should not result in any significant secondary impacts that might adversely affect any of the area's existing natural resources. The project will have no effect on coastal resources, farmland, ground water resources, safe drinking water, wetlands or wild and scenic rivers. More detailed information regarding potential impacts follows.

Air Quality

Adams County is currently in attainment of the six regulated air pollutants (carbon monoxide, sulfur dioxide, nitrogen oxide, lead, particulate matter, and ozone). During construction, the proposed project will result in a temporary increase of dust and fumes from construction activities. This will be mitigated using standard construction best management practices (BMPs), such as dust suppressants and properly operated equipment in good working order. With these mitigation
measures, any effects on air quality will be short-term, ending when construction is complete. Future operation of the proposed WWTP project will have minimal impact on air quality as the site is distant from residences. Therefore, no significant adverse impact to air quality will result from the project.

Archaeological and Historical Resources
An archaeological assessment was conducted for the proposed project site. The proposed plant area is in a wooded and sloping parcel that is within the Beasley Run stream valley. The project was reviewed by the Ohio Historic Preservation Office with respect to potential impacts on historical or archaeological resources. Ohio EPA has concluded, and the State Historic Preservation Office has concurred that that project will not affect historic properties or archaeological resources. Therefore, construction of the project should not have any short- or long-term adverse environmental impacts on archaeological or historical resources in the project area. In the event of archaeological finds during construction, contractors are required to notify the State Historic Preservation Office.

Aquatic Habitat
There are two streams located in the West Union area, the East Fork Eagle Creek and Beasley Fork Creek. They are known to support significant aquatic fauna, including various snails, amphibian and fish species. The WWTP site is along Beasley Fork, which has an aquatic life use designation of warmwater habitat.

The project is within the range of the following state endangered fish: the shovelnose sturgeon, the popeye shiner, and the shortnose gar. The project is also within the range of the following state threatened fish species: the channel darter, the American eel, and the river darter. Therefore, the Department of Natural Resources recommended that no in-water work occur in Beasley Fork between April 15 and June 30 to reduce impacts to these indigenous aquatic species and their habitat. Due to the location of the project, and the fact that no in-water work is proposed in a perennial stream of sufficient size, this project is not likely to impact the following mussel species: the club shell, the rayed bean, the sheepnose, the fanshell, the pink mucket, the snuffbox, the yellow sandshell, the washboard, the butterfly, the long-solid, the ebonyshell, the wartyback, the threehorn wartyback, the fawnsfoot, and the black sandshell.

A new access road will be constructed from SR 247 to the new WWTP. The access road must cross Beasley Fork and will require the construction of a 296-foot box culvert. Additionally, the Village is investigating whether to extend the WWTP pad to allow for a truck turn-around area. This additional area could impact approximately 175 linear feet of a small headwater stream. The Village is currently coordinating with the United States Army Corps of Engineers and the Ohio EPA Division of Surface water regarding a Clean Water Act Section 404 Nationwide permit and a Section 401 Water Quality Certification for this construction work.

Endangered Species
The project involved tree clearing that was coordinated with the U.S. Fish and Wildlife Service and has already been completed to avoid adverse effects to Indiana bats and northern long-eared bats. The project is also within the range of the timber rattlesnake, a state endangered species and federal species of concern; the green salamander, a state endangered species; the cave salamander, a state threatened species, and the Allegheny woodrat, a state endangered species; however, due to the location, the type of habitat present at the project site, and the type of work proposed, this project is not likely to impact these species.

Safety
The contractor is responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the project work. The contractor shall comply with all applicable laws and regulations relating to the safety or to the protection of persons or property from damage, injury or loss. The existing plant site is partially fenced, and the contractors shall provide fencing capable of preventing public access to all work areas.

**Surface Water Resources**

The Village of West Union’s existing WWTP currently discharges its treated wastewater to Beasley Fork, which is part of the larger Ohio River tributary watersheds: South that includes the following smaller watersheds: Ohio Brush Creek, Pine and Ice Creeks, Little Scioto River, White Oak Creek, and southwest Ohio River tributaries. The southern Ohio River tributary watershed drains a total of 640 square miles. Beasley Fork drains a total of 18.22 square miles and is part of the Ohio Brush Creek watershed that flows into the Ohio River in Adams County. Beasley Fork has an aquatic life use designation of warmwater habitat.²

The proposed project will relocate West Union’s existing WWTP discharge approximately 300 feet from the Village of West Union’s existing outfall. The new WWTP is being designed to address the additional flow from five unsewered areas in general proximity of the Village’s sewer system.

The project’s contract documents require that the Village’s contractors properly install and maintain all appropriate erosion and sedimentation controls in accordance with all applicable storm water pollution prevention and erosion control plans. Additionally, the selected contractor will be required to work with Ohio EPA to ensure that the placement of any spoil material generated by the project receives approval prior to disposal. No disposal of spoil material will be permitted in wetlands, in or along streams, or in other environmentally sensitive locations. As a result of these provisions, Ohio EPA anticipates that no significant, adverse, direct impacts on surface water features will result from the Village’s proposed project.

**Terrestrial Habitat**

The topography around the Village of West Union varies from relatively level to gently rolling hills to steep valleys. The WWTP site is proposed on a steep hillside, just south of the existing WWTP. The United States Fish and Wildlife Service has confirmed there are no federal wilderness areas, wildlife refuges or designated critical habitat within the vicinity of the project area. And the Ohio Department of Natural Resources confirmed that there are no unique ecological sites; geologic features; animal assemblages; scenic rivers; state wildlife areas, nature preserves, parks or forests; national wildlife refuges, parks or forests; or other protected natural areas within a one-mile radius of the project area.

**Land use**

The existing land distribution in the planning area is approximately 14.5 percent urban area, 52.3 percent agricultural, 7.7 percent shrub area, 25.4 percent wooded area. Open water, wetlands and barren areas each comprise less than 0.1 percent of the land use.

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¹ Warmwater habitat (WWH) – warmwater habitats are capable of supporting and maintaining a balanced, integrated, adaptive community of warmwater aquatic organisms.

Noise/traffic/aesthetics
The project is located on the south side of the Village of West Union along SR 247. At least one lane of traffic will be maintained along the travel route to the project site and access will always be maintained for emergency vehicles. Prior to closing off any clear access to any public alley, street, road, avenue or boulevard, the contractor will coordinate with and have the consent of the local officials and the engineer. Construction will be limited to daytime hours and construction equipment will have intake silencers, mufflers and proper emission control equipment. Construction of the project will result in increased noise and traffic in the vicinity. These impacts will be mitigated by limiting the hours of work. Although construction activity is generally considered aesthetically displeasing, once construction is complete, most of the project areas will be restored. And since the new WWTP is to be located in a site that is generally inaccessible to the public, local aesthetics will be mostly unchanged.

Conclusion

It is concluded that there will be no significant short-term or long-term adverse direct environmental impacts resulting from the project as related to the environmental features discussed in this Environmental Assessment. This is because 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 Village of West Union and 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, this project is not expected to result in any significant indirect or cumulative short-term or long-term adverse environmental impacts.

The project is cost-effective and is not a controversial action. No significant secondary development impacts are expected, as most of the service area is already developed, and the proposed system is sized primarily to serve these existing properties, plus some additional unsewered areas.

Contact information

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