



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

February 22, 2016

Mr. Franklin Christman, Village Administrator
Village of Ashville
P.O. Box 195
200 East Station Street
Ashville, Ohio 43103

**Re: Village of Ashville – New Water Resource Recovery Facility NRD
Final Finding of No Significant Impact
WPCLF Loan No.: CS390122-0010**

Dear Mr. Christman:

On January 22, 2016, the Ohio EPA issued an Environmental Assessment for the Village of Ashville, New Water Resource Recovery Facility NRD project, Water Pollution Control Loan Fund (WPCLF) number CS390122-0010. The conclusions contained in the Environmental Assessment are 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This final Finding of No Significant Impact may be revised or rescinded at a future date based upon either changes to the proposed project, the presentation of information which significantly alters earlier conclusions, or failure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 impact mitigation prescribed in the Environmental Assessment.

Sincerely,

A handwritten signature in blue ink that reads "Jerry Rouch" followed by a flourish.

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

Cc: Judy Mentzer, Ohio EPA, DEFA-PCU
Ryan Laake, Ohio EPA, DEFA-ES
Ken Heigel, OWDA
File

ENVIRONMENTAL ASSESSMENT

Project: Ashville
New Water Resource Recovery Facility HAB
WPCLF Loan No.: CS3901224-0010

Applicant: Mr. Franklin Christman, Village Administrator
Village of Ashville
200 East Station Street
Ashville, Ohio 43103

A. Proposed Project

1. Summary

The Village of Ashville in Harrison Township, Pickaway County, Ohio has applied to Ohio EPA for financial assistance from the Water Pollution Control Loan Fund (WPCLF) to fund the construction of a new 0.8 million gallons per day (MGD) (3.2 MGD peak capacity) oxidation ditch wastewater treatment plant (WWTP), a new force main and a new effluent sewer. The project also includes the demolition of the existing Ashville wastewater treatment plant and construction of a new pump station at its location. The project will be constructed in two phases: Part A and Part B. Part A, the first phase, includes the new water resource recovery facility (WRRF). Part B, the second phase, includes the force main and outfall sewer alignments.

The project area for Part A is located on the south side of State Route 752 (approximate address is 3200 State Route 752).

Ohio EPA anticipates awarding a WPCLF loan to the Village of Ashville for Part A of the WRRF project in January, 2016, with construction to begin in the spring of 2016 and be completed within approximately 24 months. See the figures below for a Village of Ashville location map (Figure 1), a project location map (Figure 2), and a project plan map (Figure 3).

The WPCLF program requires that a comprehensive environmental review be completed prior to the award of financial assistance. This Environmental Assessment (EA) describes the Village of Ashville's WRRF 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 detailed information follows in the sections below.

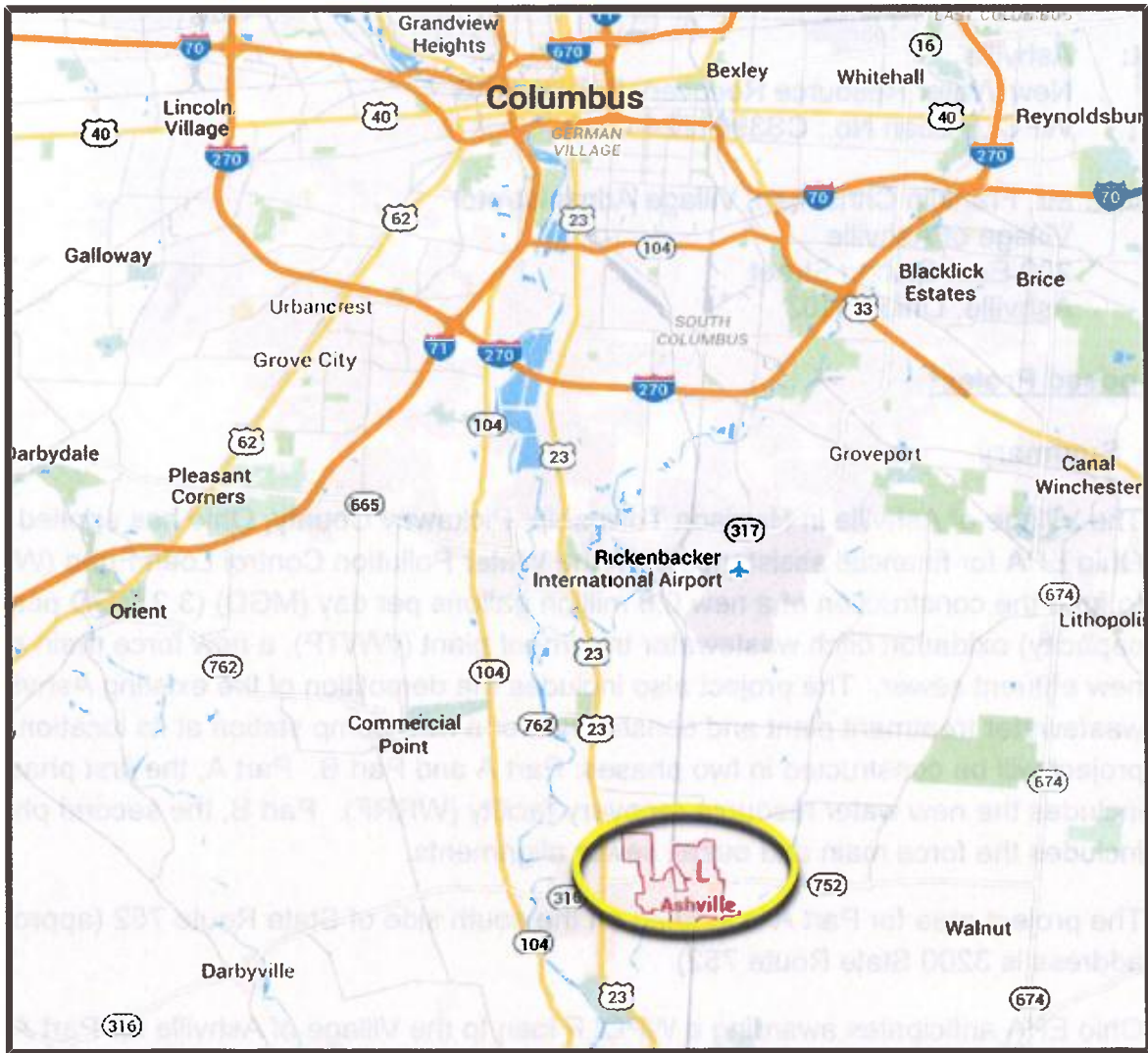


Figure 1: Village of Ashville location map

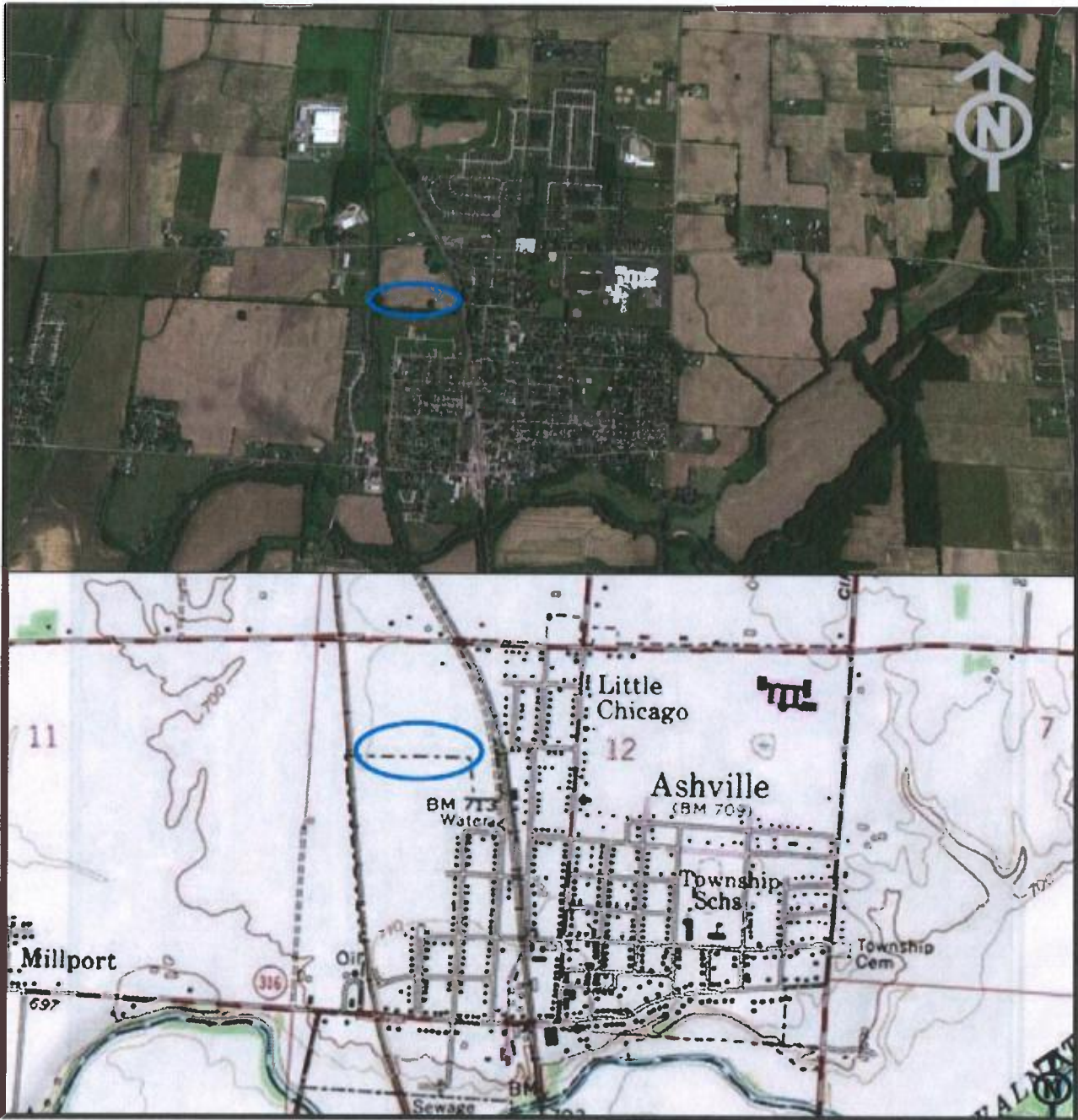


Figure 2: Ashville New Water Resource Recovery Facility Project Location Map

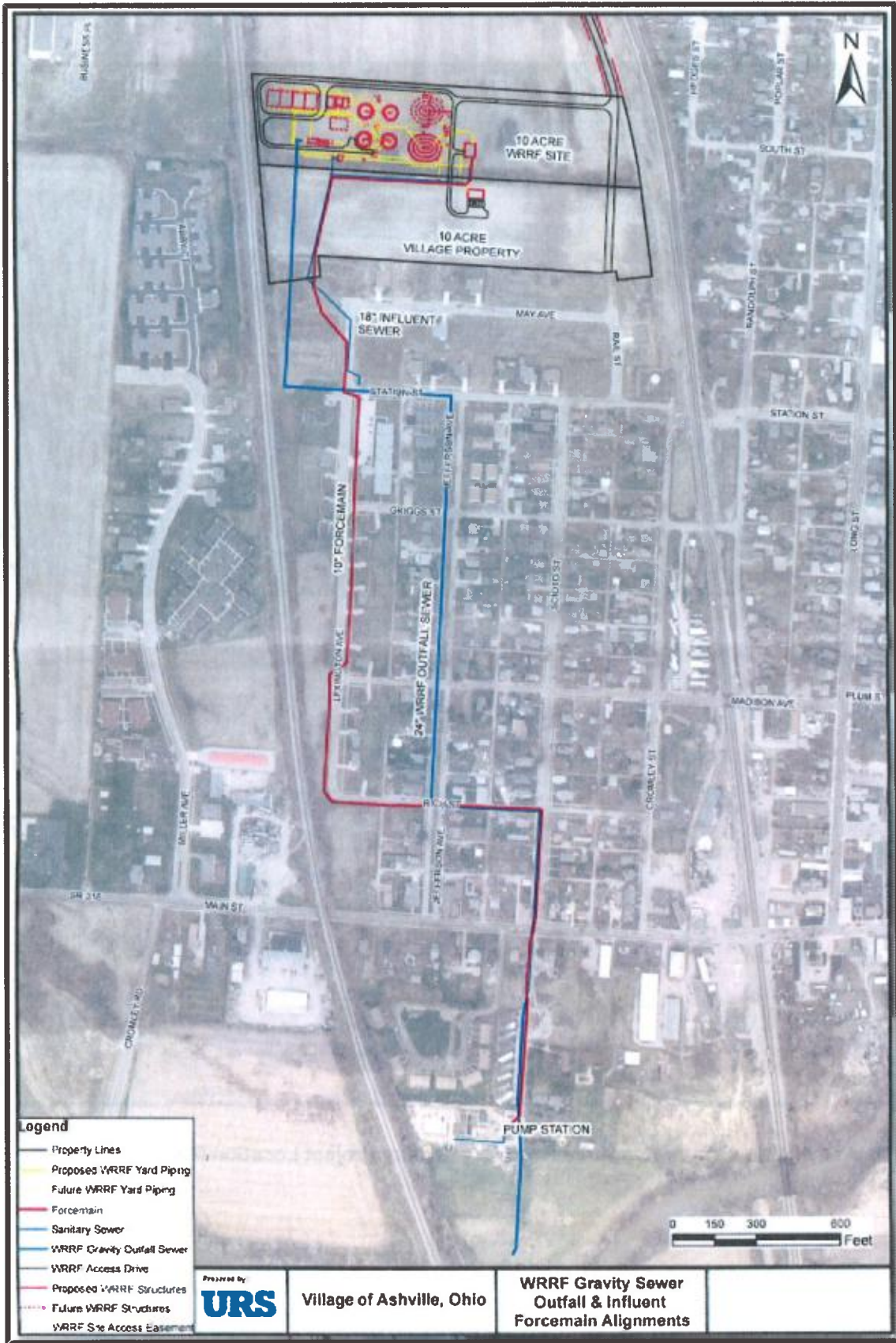


Figure 3: Ashville New Water Resource Recovery Facility HAB Project Plan Map

2. Background and Existing Conditions

The Village of Ashville currently owns and operates a WWTP located at 67 South Scioto Street that discharges to Walnut Creek. The WWTP was built in 1934, was designed to treat 0.6 million gallons per day (MGD) and consisted of a bar screen, an Imhoff tank and sludge drying beds. In 1962, secondary treatment was added and the WWTP was expanded to include two aeration tanks, two rectangular final tanks, a metering manhole and a control building. In 1993, 1995 and 2004, additional improvements were made to the WWTP.

The Village of Ashville sanitary sewer system consists of gravity sewers ranging in size from 8-inch to 18-inch in diameter. The sewer system generally drains to the south to the Ashville WWTP located south of Main Street on South Scioto Street. A 12-inch sanitary sewer and an 18-inch sanitary sewer enter the WWTP site from the east and west, respectively.

There are three wastewater pump stations located within the Village corporate limits. These pump stations include the Ashton Crossing, Ashton Village and Columbus Industries pump stations.

The WWTP has had problems with sanitary sewer overflows. The plant has experienced occurrences of bypasses that have led to the release of untreated wastewater into Walnut Creek. These overflows have led to Walnut Creek being designated in nonattainment for recreational uses. The Village was issued Ohio EPA Director's Final Findings and Orders on June 16, 2014 for past and current pollution violations of their National Pollutant Discharge Elimination System (NPDES) permit.

The sewer service area boundary closely matches the corporate limits of the Village and includes approximately 1,415 acres. However, the actual area y served by sewers in the Village is 662 acres.

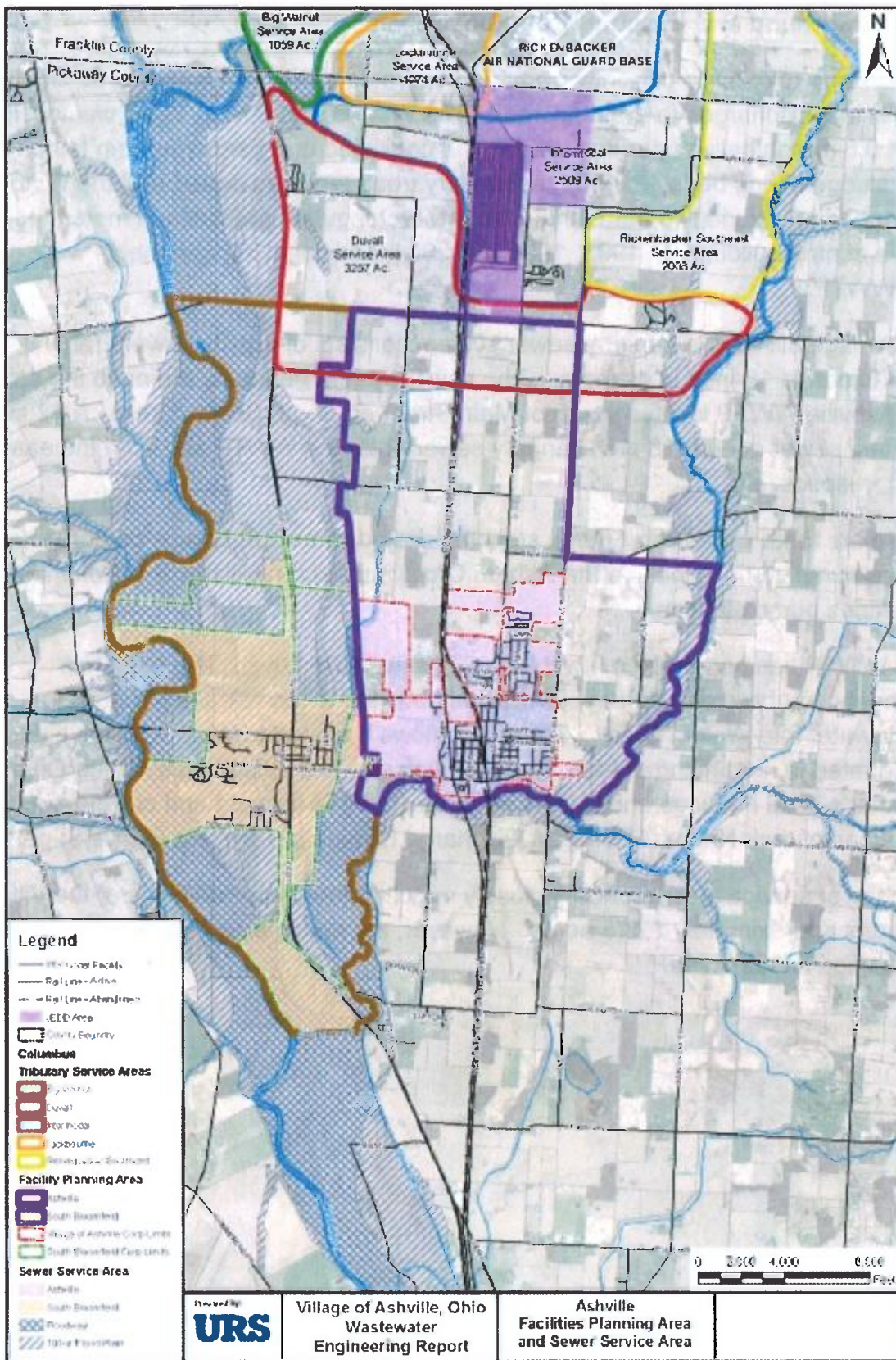


Figure 4: Ashville Facilities Planning Area and Sewer Service Area

a. Population Projections and Average Daily Wastewater Flow Needs

The current estimate for the Village of Ashville population is 4,097 and the population in the county of Pickaway is 55,698. According to estimates from the Ohio Development Services Agency, the population of the Village of Ashville and of Pickaway County is expected to continue to grow at a steady rate, with Ashville's population reaching 6,924 by 2030. Based on this design population estimate and on estimates of average groundwater infiltration rates, the design average daily wastewater flow for the year 2030 is approximately 0.80 MGD.

b. Wet Weather Treatment Needs

Ashville's sewer system is subject to excessive infiltration and inflow (I/I), which is clear water that enters sanitary sewers through pipe defects and direct connections to downspouts and area drains and other surface runoff sources. I/I hydraulically overwhelms the WWTP, leading not only to sanitary sewer overflows but to process bypasses at the WWTP, basement flooding and violations of the discharge limits for most of the regulated pollutants. Over the years the village has undertaken efforts such as sewer rehabilitation to curtail I/I, but this has not resulted in a significant improvement in plant performance during wet weather. Until rehabilitative efforts in the sewer system can reduce I/I, which is not expected for many years, the peak capacity of the WWTP will need to be expanded to accommodate wet weather flows to a point where overflows can be reduced acceptably. This peak capacity has been determined to be 3.2 MGD.

3. Discussion of Alternatives

Ashville considered various alternatives for meeting the abovementioned flow criteria and for providing adequate treatment during wet weather. Wastewater treatment alternatives were evaluated for use at the existing Ashville WWTP and for use at a new WRRF site. Additionally, two regional approaches were investigated. The alternatives for the existing plant included adding new treatment processes and removing or converting existing treatment processes. The new WRRF site alternatives included an investigation of the same four treatment processes that were identified for the existing WWTP. The two regional alternatives involved the Village of South Bloomfield.

a. The wastewater treatment alternatives for the existing WWTP include:

1. Integrated Fixed-Film Activated Sludge Process

This process combines activated sludge and fixed film in a compact biological treatment system that requires a low power input. Some of the advantages of using this process include a simple, flow-through operation without automatic valves, no blowers or diffusers are required and its low-maintenance. The disadvantages are that it is a newer process and clarifiers are required.

2. Sequencing Batch Reactor Process (SBR)

This system incorporates a true batch reactor process technology with advanced decanting and flexible process control. This process has five basic phases of

operation. This alternative includes a new influent pump station, a new headworks building with mechanical fine screens and grit removal system, new SBR tanks and equipment, a new UV disinfection system in a converted chlorine contact tank, a sludge cake storage/sludge press building, a new administration building and a new standby generator.

Some advantages of this alternative include a small footprint and smallest number of treatment units in the floodplain, it is simple to upgrade or expand, and it eliminates the final clarifiers and return sludge pumping. Disadvantages include a high degree of automation and valve controls which could potentially fail, it is more complex to operate compared to other alternatives, it requires blowers and diffusers for aeration, there's a lack of operator familiarity with the process and there will be an increased power cost with blowers and diffusers.

3. Oxidation Ditch Process

The oxidation ditch is a group of tanks or "channels" in a series in the shape of a racetrack. In this system, the flow continuously recirculates around the channels while the influent sewage enters at one end. The alternative includes a new influent pump station, a new headworks building with mechanical fine screens and grit removal system, new oxidation ditch tank and equipment, two new clarifiers a new return activated sludge pump station, a new UV disinfection system in a converted chlorine contact tank, a sludge cake storage/sludge press building, a new administration building and a new standby generator. The existing oxidation ditch, primary settling and final clarifier tanks at the existing WWTP would be converted into an aerobic digester, sludge thickener, and sludge storage tanks, respectively.

Some of the advantages of this alternative are that it has a simple, flow-through operation with no automatic valves, there are no blowers, it is low-maintenance, it would be easy to expand by adding a fourth channel on the outside of the existing ditch, operators are familiar with the process, and it provides significant hydraulic capacity for wet weather flows. Disadvantages are that it requires separate clarifiers and a return sludge pump station and it requires the largest footprint in the floodplain.

4. Vertical Loop Reactor Process

This process is similar to an oxidation ditch system that has been flipped on its side. There is an upper and lower compartment separated by a horizontal baffle running the length of the tank. The process uses both surface mounted discs and blowers to provide mixing and to deliver oxygen.

This alternative includes a new influent pump station, a new headworks building with mechanical fine screen sand grit removal system, new VLR tanks and equipment, two new clarifiers, a new return activated sludge pump station, a new UV disinfection system in a converted chlorine contact tank, a sludge cake storage/sludge press building, a new administration building and a new standby generator. The existing oxidation ditch, primary settling and final clarifier tanks at

the existing WWTP would be converted into an aerobic digester, sludge thickener and sludge storage tanks, respectively.

Some of the advantages of this alternative are that it is a simple, flow-through operation with no automatic valves; it requires low maintenance; and the footprint is small and therefore, less land area is required. Some disadvantages are that it requires separate clarifiers, a return sludge pump station, blowers and coarse bubble diffusers; there is only one manufacturer/supplier; and the construction cost is higher than other alternatives.

b. The wastewater treatment alternatives for the new WRRF include:

Alternatives considered for the new WRRF site are the same processes analyzed for Alternatives a. 1-4, but have been adapted to a new site. Although a new WRRF site has the disadvantage of requiring pumping of wastewater from the existing WWTP, a new influent pump station (at the existing WWTP), and all new equipment and structures and would require the need to purchase land, a new site could provide for an area outside the floodplain and away from residences. Other advantages of a new site include ample room for future expansion(s), reduced flood protection requirements and costs, and reduced impacts on residences due to odor issues. As far as the oxidation ditch process, some of the advantages that were mentioned above are that it has a simple, flow-through operation with no automatic valves and no blowers; it is low-maintenance; operators are familiar with the process; and it provides significant hydraulic capacity for wet weather flows.

c. The wastewater treatment alternatives for a regional alternative include:

Regional alternatives were investigated between the Village of Ashville and the Village of South Bloomfield. South Bloomfield's existing WWTP was constructed in 2006 and has a design average daily capacity of 0.5 million gallons per day (MGD) and peak hour flow of 1.0 MGD plus an 180,000 equalization tank. Bloomfield's sewer system was installed in 1995 and has no infiltration and inflow problems. However, the regional alternative is not recommended due to its high present worth cost (due to operation and maintenance costs and treatment costs at South Bloomfield).

A sludge hauling alternative was also considered that would involve the both Villages. However, this alternative was also determined to be cost prohibitive.

4. Description of the Selected Alternative

The selected alternative includes the construction of a new 0.8 MGD WRRF to be located west of the intersection of Ohio Route 752 and Ohio Route 316, on approximately 20-acres of undeveloped farmland, which was purchased by the village for this purpose. The proposed construction site supports no natural resources other

than a fence row of small trees and brush. The new plant will consist of an influent pump station, a headworks building with mechanical fine screens and grit removal system, a new three channel extended aeration oxidation ditch, two final clarifiers, an activated sludge pump station, an ultraviolet disinfection system, a sludge press building, a new administration building and a new standby generator. Space will be maintained for an additional oxidation ditch and two clarifiers, if needed in the future. Approximately one third of the influent will tie into the new plant via gravity sewer. The rest of the influent will be pumped through a new 10-inch diameter force main via a new pump station - to be located at the existing WWTP site. The new force main will run north along Scioto Street, west along Rich Street and north along Lexington Street. The existing WWTP will be demolished.

A new 24-inch diameter outfall sewer will convey treated wastewater east along Station Street, south in the alley west of Jefferson Avenue, east along Rich Street and south along Scioto Street and discharge to an existing outfall to Little Walnut Creek.

5. Implementation Costs of the Proposed Project

The cost of Part A of the project is estimated to be \$13,415,000. The Village of Ashville has applied to the WPCLF for financing of the total cost and has applied for the nutrient reduction discount. Depending on the eligibility of the project components for the nutrient reduction discount, the discount may reduce the overall interest rate, which is currently 1.73 percent for a 30-year loan (January 2016). Compared to the market interest rate for a 30-year loan which is 3.46 percent in January 2016, Ashville will save close to \$4.5 million in interest payments through the WPCLF.

The Village of Ashville passed an ordinance on June 15, 2015, authorizing an increase in sewer rates to repay debt associated with this project. Residential rates will increase as a result.

6. Proposed Project Schedule

WPCLF Loan Award.....	February 2016
Start Construction.....	Late Winter 2016
Complete Construction.....	Late Winter 2018

B. Environmental Impacts of the Proposed Project

The following environmental features will not be adversely impacted because they are absent from the project areas: legally designated wild, scenic or recreational rivers, federal wilderness areas, wildlife refuges, designated critical habitat for endangered species, 100-year floodplains. The project is too limited in scope to alter the dominant land form, which consists of gently undulating topography of glacial origin.

1. Land Use and Secondary Impacts of New Development

The Village of Ashville recently purchased the 20-acre site where the new WRRF will be located. Ten acres on the southern half of this 20-acre site is zoned residential and was a part of a planned subdivision before being purchased by the Village. These ten acres have been farmed in the past and will continue to be farmed until the Village determines its future use. The northern ten acres is proposed for use as the new WRRF. These ten acres are currently used for farming and are planted with soybeans. The Village proposes to construct the WRRF on the western part (7.5 acres) of the site. The remaining 2.5 acres of the site are farmable land that will continue to be used for agricultural production until needed by the Village.

The new WRRF will be sized to serve 20-year population growth within the village boundaries. A large percentage of the acreage within the village boundaries is farmland, some of which could be developed as wastewater treatment capacity becomes available. Without environmental protection measures in a land use plan and/or regulations, new development in undeveloped areas can encroach on and impair natural resources such as streams, floodplains, and wetlands. Ashville is included in a regional land use plan that covers a large portion of northern Pickaway County. The land use plan was developed by the North Gate Alliance Cooperative Economic Development Agreement, a partnership of Ashville, South Bloomfield, Harrison County and Pickaway County whose purpose is to facilitate economic growth and direct it in ways that minimize adverse environmental impacts. The plan's key recommendation for the villages is to approve building on vacant land within the municipal boundaries when required to accommodate population growth as opposed to annexing and developing land outside the village boundaries. This will preserve farmland from potentially unnecessary development and will preserve natural features such as streams or wetlands that can be associated with farmed areas.

Based on the foregoing, the project as designed will have no significant adverse secondary environmental impacts such as farmland conversion.

The property is bordered by SR 752 to the north; a rail road track to the east and residential housing beyond that; to the south is more residential housing and to the west is a tree line and railroad tracks.

Local Economy

Currently, the average Village of Ashville household (using approximately 7,756 gallons of water per month) is charged for wastewater treatment at a monthly rate of \$75.19. Annually, a typical household pays \$901.87

According to the 2007-2011 American Community Survey, the median household income (MHI) for the Village of Ashville is \$49,203. Therefore, the average annual sewer service charge represents about 1.8% of the MHI for the area. This amount of household income spent on sewer service is slightly above the Ohio average of 1.14%.

Based on this, no significant adverse impact to the local economy is expected from implementation of the project.

2. Air Quality

Pickaway County is currently in attainment of national ambient air quality standards for the federally regulated air pollutants (carbon monoxide, lead, nitrogen dioxide, particulate matter, ozone and sulfur dioxide). 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.

3. Archaeological and Historical Resources

The Ashville WRRF project was submitted to the Ohio Historic Preservation Office (OHPO) for review. Archaeological surveys have been conducted on adjacent parcels. None of these surveys resulted in the discovery of artifacts.

A June 1, 2006 Phase I Cultural Resource Management Survey for the Proposed 3.2 acres Ashville Senior Apartments in Harrison Township, Pickaway County, Ohio by Weller & Associates, Inc., did not result in the identification of any cultural remains. The investigated area was located on the western edge of Ashville at the northern terminus of Miller Avenue. Much of the area was found to be severely disturbed from the extension of Miller Avenue.

The September 15, 1992 Phase I and Phase II Archaeological and Historical Survey of the Ashville Commons Project Area, Harrison Township, Pickaway County, Ohio by James L. Murphy, was conducted on approximately 22 acres at the northwestern edge of the Village of Ashville. The surveys presented information about the location of twelve archaeological sites within 3 km of the Ashville Commons project area. This information noted that eleven of the sites occur on the floodplain of Walnut Creek or on the terrace edge. None of the sites occur more than 200 meters away from the river bank or terrace edge.

Using this information, and after reviewing OHPO's online mapping website, Ohio EPA determined that the proposed project will have no effect on properties eligible for or listed on the National Register of Historic Places. However, in the event of archaeological finds during construction, contractors and subcontractors are required under Ohio Revised Code Section 149.53 to notify OHPO of any archaeological discoveries in the project area, and to cooperate with that entity (and with Ohio EPA) in archaeological and historic surveys and salvage efforts when appropriate.

4. Drinking and Ground Water

Open-cut excavations are anticipated for the installation of WRRF structures. According to the Preliminary Subsurface Investigation Report, groundwater was observed at a depth of 22 feet. The subsurface exploration consultant recommended the water table be lowered a minimum of two feet below the excavation bottoms where excavation is planned in excess of 22 feet. The below-grade walls should be adequately water-proofed to prevent seepage and dewatering systems should be installed where the water table is not lowered below the excavation limits.

Ashville utilizes ground water from municipal wells in the Teays Valley sand and gravel aquifer at Circleville Avenue and East Main Street near Walnut Creek. The Teays Valley aquifer is not a designated sole source aquifer, meaning that it does not supply more than 50 percent of the drinking water in a region and there are reasonably available drinking water sources should the aquifer become contaminated. Given the lack of a sole source aquifer designation and given the location of the project area across town from the well location, small, incidental spills of hazardous wastes such as concrete washout, fuels, paints, etc. can be prevented from contaminating the aquifer by following a hazardous waste spill prevention and cleanup plan in the Storm Water Pollution Prevention Plan for the project.

With these measures in place, construction of the project should not have significant adverse long-term impacts on drinking water or ground water resources. Dewatering of ground water to enable below grade work may be necessary, but is not expected to create significant adverse impacts.

5. Surface Water Resources and Aquatic Habitat

The primary surface water resource in the project area is Walnut Creek, which has an aquatic life use designation of warmwater¹ habitat. The Walnut Creek watershed is located in Central Ohio between the cities of Columbus and Lancaster. This 286 square mile watershed area is home to more than 65,000 people and encompasses all or part of 15 municipalities in Fairfield, Franklin Licking, Perry, and Pickaway counties.

The existing Ashville WWTP discharge location to Walnut Creek will remain the discharge point for the new WRRF. Since the project will not include a new discharge or increase flow rate or loading, the project will not result in an increase in pollutant loadings discharged to the waters of the State of Ohio. The new plant's discharge will be conveyed by gravity to the current discharge point. Based on this, the project is not subject to antidegradation review by Ohio EPA.

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

The selected contractor will be required to provide a spoil material disposal plan to the Village and Ohio EPA for review and approval prior to disposal. No disposal of spoil material will be permitted in wetlands, in or along streams, or at other environmentally-sensitive locations.

Based on the foregoing, no significant adverse impacts to surface water and aquatic habitat are expected from the proposed project as a result of the construction and operation of the project.

6. Terrestrial Habitat and Agriculture

With regards to the two federally-endangered/threatened species that could inhabit the area, the Indiana bat and northern long-eared bat, the USFWS recommends that trees exhibiting suitable bat habitat characteristics, along with any other wooded areas or tree lined corridors, be saved wherever possible. However, if tree removal cannot be avoided, the USFWS recommends that trees should only be cut from October 1 through March 31. Due to the project type, size and location, the USFWS does not anticipate potential adverse effects to any other federally endangered, threatened, proposed or candidate species. State-listed endangered species in Pickaway County include numerous fish and freshwater mussels. With no in-water work proposed, the project will not affect these species.

Based on all the foregoing, the project will have no short term or long-term adverse impact to endangered species or their habitat.

The Ohio Department of Natural Resources noted 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.

C. Public Participation

This project is required as part of the Director's Findings and Orders issued to Ashville. This project has been ongoing since 2009 and has been covered in numerous Ashville council meetings. There have been several presentations about the project and many project documents and details are available on the Village's website:

www.ashvilleohio.gov. Additionally, the project is regularly communicated to the public through monthly utility newsletters and has been the topic of several newspaper articles.

The following agencies have commented on the project: the US Fish and Wildlife Service, the Ohio Department of Natural Resources, the State Historic Preservation Office, and the Ohio EPA.

D. Conclusion

Based upon Ohio EPA's review of the planning information and the materials presented in this Environmental Assessment, it is concluded that there will be no significant adverse impacts from the project as it relates to the environmental features discussed previously. Through the use of standard construction mitigative measures, any adverse impacts from construction should generally be short-term and insignificant.

The completion of the Ashville WRRF project is an important investment in critical water pollution control infrastructure and is necessary to meet the current and future needs of the Village and comply with Ohio EPA requirements.

E. Questions or Comments

For further information or to provide comments regarding this document or the project discussed herein, please contact:

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