WOOD COUNTY FACILITY PLANNING AREAS

Last Updated, 2025

Bloomdale-Bairdstown Facility Planning Area

The Bloomdale-Bairdstown Facility Planning Area (FPA) is a designated region within the Wood County area where wastewater management, including sewage treatment and disposal, is planned and coordinated (Figure 5-31). The Bloomdale-Bairdstown FPA ensures that wastewater infrastructure is adequately planned to meet the needs of the population within these boundaries, considering factors like population growth, environmental impacts, and regulatory requirements. The Bloomdale-Bairdstown FPA is managed by Northwestern Water and Sewer District (NWWSD) which is represented by Designated Management Agencies. The responsibilities of each of these agencies are outlined below:

Designated Management Agency Responsibilities:

- **Northwestern Water and Sewer District:** The Villages of Bloomdale and Bairdstown are members of Northwestern Water and Sewer District. The District is responsible for planning public sewerage systems, which it owns and operates.

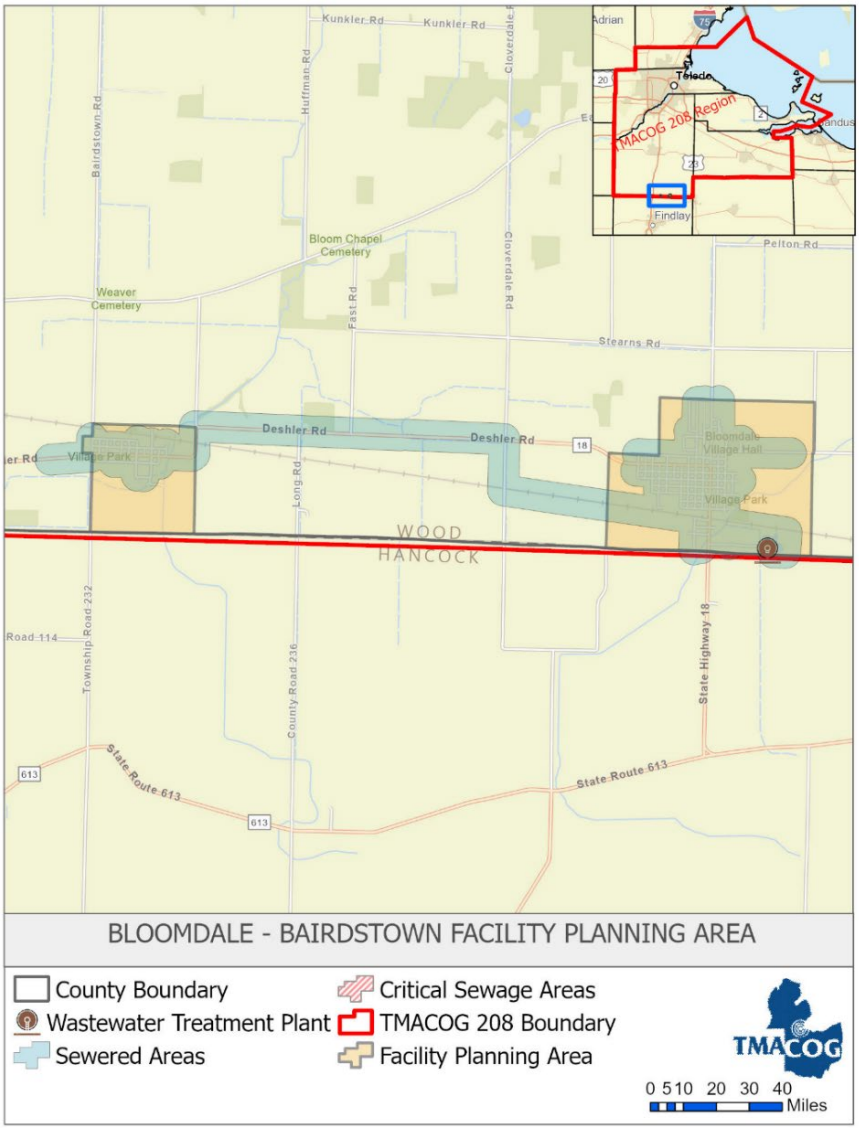

Figure 5 - 31: Bloomdale-Bairdstown Facility Planning Area

Table 5 - 79: Bloomdale-Bairdstown Area Population

Area	Population
Bloomdale, entire jurisdiction	665
Bairdstown, entire jurisdiction	115

Source: the U.S. Census 2020 decennial census

Present Facilities

The 2017 Bloomdale/Bairdstown Wastewater Treatment Plant is an Activated Sludge System which includes an oxidation ditch, final settling tanks, ultraviolet disinfection and aerated sludge treatment and storage. The sludge treatment provides disposal options for both land application and landfill. Average daily design flow is at 0.100 mgd and the peak flow is at 0.300 mgd. The average monthly flow in 2023 to 2024 was 0.085 mgd.

The Bloomdale small diameter gravity sewer collection system was constructed in 1991 and the original wastewater plant, which was also constructed in 1991, has been replaced with the new treatment plant that now includes the Village of Bairdstown.

Northwestern Water and Sewer District constructed a conventional gravity sewer collection system in 2017 to serve the Village of Bairdstown. The gravity sewers flow to a main pump station located on State Route 18, just south of the railroad tracks. A second pump station was constructed to deliver sanitary flow to the Bloomdale sewer collection system. As of March 2017, all of Bairdstown is sewered and lateral hook ups to homes are complete.

The Bairdstown sewer system cost $1,985,438 and the joint WWTP cost $3,020,000. The project was funded by Community Development Block Grant (CDBG) program and U.S. Department of Agriculture (USDA).

New Subdivisions

It is the policy of the Plan that all new residential subdivisions that are required to be plated under Wood County subdivision regulations, septic tanks or individual household sewage treatment systems for plated subdivisions of more than five (5) lots shall not be permitted within the FPA boundary. New plated subdivisions shall connect to public sewers and be served by the Bloomdale-Bairdstown wastewater treatment plant.

Future Needs

- This Areawide Water Quality Management Plan supports grant funding and other financial assistance to achieve the future goals for the Bloomdale-Bairdstown FPA.
- Elimination of wet weather flow through sewer and lateral rehabilitation.

The capital improvement plan for the Bloomdale-Bairdstown FPA is shown in Table 5-80.

Table 5 - 80: Bloomdale-Bairdstown FPA Capital Improvement Schedule

Project	DMA	Total Cost	Annual Capital Improvement Needs						
			2022	2023	2024	2025	2026	2027	Future
Bloomdale Sanitary Sewer I/I Removal	Northwestern Water and Sewer District	**$10,000**							$100,000
		$100,000							

Bowling Green Facility Planning Area

The Bowling Green Facility Planning Area (FPA) is a designated region within the Bowling Green area where wastewater management, including sewage treatment and disposal, is planned and coordinated. The FPA boundaries define the areas that are expected to be serviced by the wastewater treatment facilities in Toledo (Figure 5-32). The Bowling Green FPA ensures that wastewater infrastructure is adequately planned to meet the needs of the population within these boundaries, considering factors like population growth, environmental impacts, and regulatory requirements. This FPA is managed by several communities which are represented by Designated Management Agencies. The responsibilities of each of these agencies are outlined below:

Designated Management Agency Responsibilities:

- **City of Bowling Green**: Owns and operates wastewater treatment facilities, and collection system within the corporate limits.
- **Village of Portage:** Owns the wastewater collection system within the corporate limits; maintenance is conducted by Northwestern Water and Sewer District under contract with the Village.
- **Northwestern Water and Sewer District:** Owns and operates collection systems outside the corporate limits, connecting to the Bowling Green municipal wastewater collection system for treatment services.

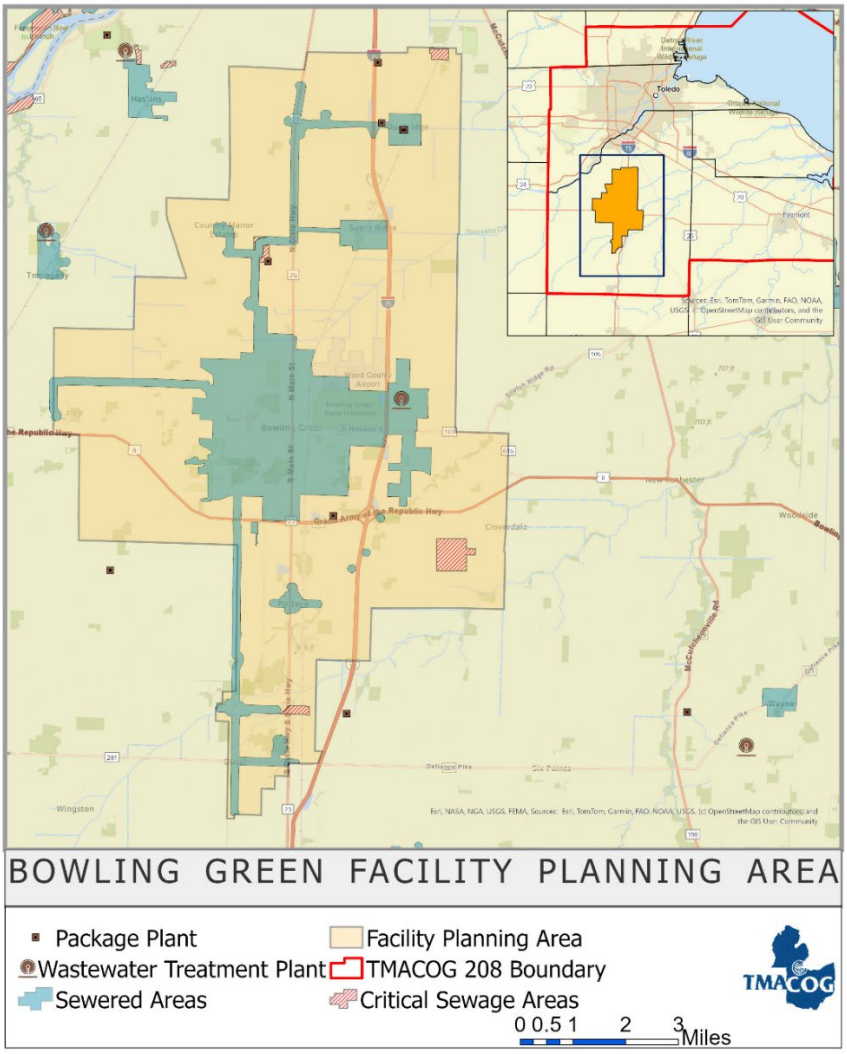

Figure 5 - 32: Bowling Green Facility Planning Area

Table 5 - 81: Bowling Green Area Population

Area	Population
Bowling Green, entire jurisdiction	30,808
Portage, entire jurisdiction	398
Center Township, entire jurisdiction*	1,140
Liberty Township, entire jurisdiction*	1,690
Plain Township, entire jurisdiction*	1,625
Portage Township, entire jurisdiction*	1,558

*only part of this jurisdiction is within the FPA boundary.

Source: U.S. Census 2020 decennial census.

Present Facilities

Bowling Green built its current WWTP in 1982. It is an activated sludge plant facility with tertiary disk filters (2009), auto-thermophilic aerobic digestion (ATAD 2005), ultraviolet disinfection (2010), and a septage receiving station (2005). The City of Bowling Green has developed and implemented an

industrial wastewater pretreatment program since 2006. In 2018, the treatment plant expanded the expanded the grit removal capacity to 30 mgd.

The plant uses a centrifuge to dewater Class A biosolids. Currently, a local landscape contractor creates commercial topsoil using the biosolids. The plant has an average design capacity of 10.0 mgd, with a peak capacity of 20 mgd. In 2009 the tertiary sand filters were replaced with 30 mgd cloth disc filter units; a 30 mgd ultraviolet disinfection system was installed in 2010. Ohio EPA data shows an average flow of 5.856 mgd and a peak flow of 29.881 mgd during the period of 2010-2013.

The Bowling Green system includes combined sewers serving an area of 1,940 acres (out of about 5,400 acres for the whole service area). When the wastewater plant was built, an underground combined sewage overflow retention tank was included. The retention tank substantially reduces but does not completely eliminate overflows. Portage was included in the Bowling Green FPA and was accounted for in sizing the treatment plant. Portage installed sanitary sewers and tapped into the system in 1991.

The east side of the SR 582/SR 25 intersection is served by the Northwestern Water and Sewer District (District) system. It connects to the system via force main following SR 25, Union Hill, and Brim Roads with treatment provided by Bowling Green.

Rudolph, an unincorporated community of about 200 residences in Liberty Township, is served by the District. It connects to the system via force main following Rudolph Rd with treatment provided by Bowling Green. The Rudolph sanitary sewer system was completed in 2003 at a cost of $2,208,270. The project received CDBG and USDA grants totaling $1,188,000; the balance of the capital costs will be paid by residents through rates.

There are several package sewage treatment plants in the Bowling Green FPA, two of which are 20,000 gallons per day or larger. The plant serving the Maurer Trailer Park has been identified as a critical sewage area. A recent court decision did not require the Park to be publicly sewered.

The Wood County Landfill is served by the District via force main along Poe Rd with treatment provided by Bowling Green.

Package plants in the FPA are listed in Table 5-82.

Table 5 - 82: Package Plants in the Bowling Green Facility Planning Area

Package Plant	Map ID	Type	Install or Upgrade Date	NPDES Permit	Capacity, gpd
13611 Klopfenstein Road[A]	WO-105	Private*	1972		1,500
Elmview C.S.A. Apartments (East)[A]	WO-43E	Private*			1,500
Elmview C.S.A. Apartments (West)[A]	WO-43W	Private			1,500
Industrial Services[A]	WO-04	Private*			1,500
Maurer Trailer Park[A]	WO-64	Private	1967, 1969, 2010	2PY00005	30,000
Principle Business Enterprises, Inc.[A]	WO-45	Private*	1976, 1978	No Disch.	1,500

[A]Status is active

*Facility type is assumed

Note: Data are based on current available data as of April 2019

Issues

The FPA covers part of the SR 25 / I-75 corridor. The Wood County Comprehensive Plan identifies this area for employment opportunities and is therefore included in the FPA with a potential for requiring future service. The area is presently rural with no public sewerage facilities in this area, active package plants, or unsewered developed areas.

Combined Sewer Overflows

As noted above in "Present Facilities," the Bowling Green sewerage system includes an overflow retention tank. In 2006, Ohio EPA required Bowling Green to submit a Long-Term Control Plan (LTCP) to reduce overflows further.

In January 2007, the City of Bowling Green filed its CSO LTCP with the Ohio EPA and submitted a revised plan on or about June 1, 2007.

1. Although the LTCP was submitted by the Ohio EPA's deadline, staff wasn't convinced that the plan left no stone unturned in trying to not only eliminate CSOs, but also addressing wet and damp basement issues for local residents and businesses. As a result, staff began an investigation that included soliciting ideas from multiple engineering firms, reviewing technical documents on the subject and seeking solutions other communities have effectively employed.

   The result of this investigation was staff's development of the City of Bowling Green Comprehensive Wastewater Strategy. This document details the requirements of the City's 2006 NPDES permit relating to a CSO LTCP and Sanitary Sewer Overflow (SSO) reporting requirements and also lists goals and objectives for a long-term wastewater strategy for the City.

2. On January 24, 2008, City staff met with Northwest District and Central District Ohio EPA staff to solicit the Agency's reaction to and input on the proposed Comprehensive Wastewater Strategy.

   Subsequently to this meeting, the Ohio EPA drafted an NPDES permit modification, effective March 1, 2008, that required upgrades of the clarifiers and the tertiary filters; upgrades of the ultraviolet disinfection system; and reports on characterization of the Wastewater Treatment Plant's increased capacity, characterization of the Storm Water Overflow Holding Basin's capacity, and an evaluation of CSO characteristics including overflow occurrence and volume. These steps were all completed by 2010. The remaining step is an evaluation of the need for additional storage at the Wastewater Treatment Plant to reduce CSO events to four, two, and zero occurrences per year. This evaluation will depend on the effects of the increased flow capacity from the Poe/Mercer Rd pumping station improvements, completed in 2013.

Critical Sewage and Ordered Areas

Several areas in the Bowling Green FPA have been identified as Critical Sewage Areas by the Wood County Health Department and/or Ohio EPA. Additionally, in 2010 Ohio EPA ordered four new areas to receive public sanitary sewers and they should be installed per Ohio EPA schedules.

- Kramer/Huffman Roads Area: an Ohio EPA ordered area with failing septic systems that includes about 28-33 houses. The District studied serving the area either by a sewer extension to Bowling

Green, and on-site treatment solutions. Both were found to be financially infeasible. Funding applications are submitted on a regular basis to help make the project feasible. The existing systems will be managed under Health Department operation and maintenance requirements.

- **Sugar Ridge/Mercer Roads Area:** an unincorporated community with the adjacent Mercer Road including 75 residences in Center and Middleton Townships. It is about 3.0 miles north of Bowling Green between I-75 and SR 25. The original town of Sugar Ridge lies between the railroad crossing at Sugar Ridge Road on the west and I-75 on the east. More recent development has spread west along Sugar Ridge Road and north and south along Mercer Road. Sanitary sewers were constructed in 2023 to address this Ordered Area.

  Maurer Mobile Home Park: a mobile home park designated as a Critical Sewage Area. It is located just north of Bowling Green and is served by a package plant that discharges to a drainage tile on SR 25. In 2004, this wastewater treatment plant was subject to enforcement action by the Ohio Attorney General. Future changes will be per the court settlement on Ohio EPA's enforcement action.

- **Dunbridge:** an unincorporated community, located at Dunbridge Road and SR 582. There are four package plants in or near the town. Individual residences are served by septic systems. OEPA has investigated the area, issued orders to construct sewers. Sewers are under construction and should be completed by the end of 2025. NWWSD is currently completing this project. This area was under order by the Ohio EPA after investigation conducted as result of WCHD referral.

- **Dowling:** an unincorporated community, located at Dowling Road and Conrail tracks between Dunbridge and Carter Roads. Residences are served by septic systems. Dowling is not under orders to construct sewers. The community is split between the Bowling Green and Perrysburg FPAs. Dowling is identified as a Critical Sewage Area

- **Mermill:** There is no existing documentation of sewage problems in Mermill, which has about 30 residences. No stream testing data is available, but septic system failures are very common in Wood County with houses of similar age and size on similar soils. It may be feasible to install sewers and connect to Bowling Green through Rudolph via force main.

208 Policies for New Subdivisions in Bowling Green FPA

It is the policy of the Plan that all new residential subdivisions that are required to be plated under Wood County subdivision regulations, septic tanks or individual household sewage treatment systems for plated subdivisions of more than five (5) lots shall not be permitted within the FPA boundary. New plated subdivisions shall connect to public sewers and be served by the Bowling Green wastewater treatment plant.

Future Needs

This Plan supports financial assistance for Bowling Green's wastewater facility improvements.

- The District completed a General Plan to eliminate unsanitary conditions for the Huffman / Kramer Roads area.. However, the system cost has been found not to be affordable. The residents have failing systems with no viable drainage for NPDES or on site sewage treatment systems. Wood County Health Department is currently working with the Wood County Engineer in Liberty Township, for

replacement of a storm line to service small lots with several failing systems in the Oak St./Williams St./State Rte. 25 area. This would allow functioning sewage treatment systems to be installed.

The capital improvement plan for the Bowling Green FPA is shown in Table 5-83.

Table 5 - 83: Bowling Green FPA Capital Improvement Schedule

Project	DMA	Total Cost	Annual Capital Improvement Needs						
			2025	2026	2027	2028	2029	2030	Future
Huffman / Kramer general plan, sewers	Northwestern Water and Sewer District	$6,000,000							**$6,000,000**
Dunbridge Area Sewer	Northwestern Water and Sewer District	$12,000,000	$12,000,000						**$2,500,000**
		$18,000,000							

Bradner Facility Planning Area

The Bradner Facility Planning Area (FPA) is a designated region within the village of Bradner where wastewater management, including sewage treatment and disposal, is planned and coordinated. The FPA boundaries define the areas that are expected to be serviced by the wastewater treatment facilities in Village of Bradner (Figure 5-33). The Bradner FPA ensures that wastewater infrastructure is adequately planned to meet the needs of the population within these boundaries, considering factors like population growth, environmental impacts, and regulatory requirements. This FPA is managed by several communities which are represented by Designated Management Agencies. The responsibilities of each of these agencies are outlined below:

Designated Management Agency Responsibilities:

- **Village of Bradner**: Owns and operates wastewater treatment facilities, and collection system within the corporate limits.
- **Northwestern Water and Sewer District:** Will own and operate portions of the collection system in unincorporated areas of Wood County, connecting to the Bradner system for treatment services.
- **Sandusky County**: Will own and operate, if and when built, portions of the collection system in unincorporated areas of Sandusky County, connecting to the Bradner system for treatment services.

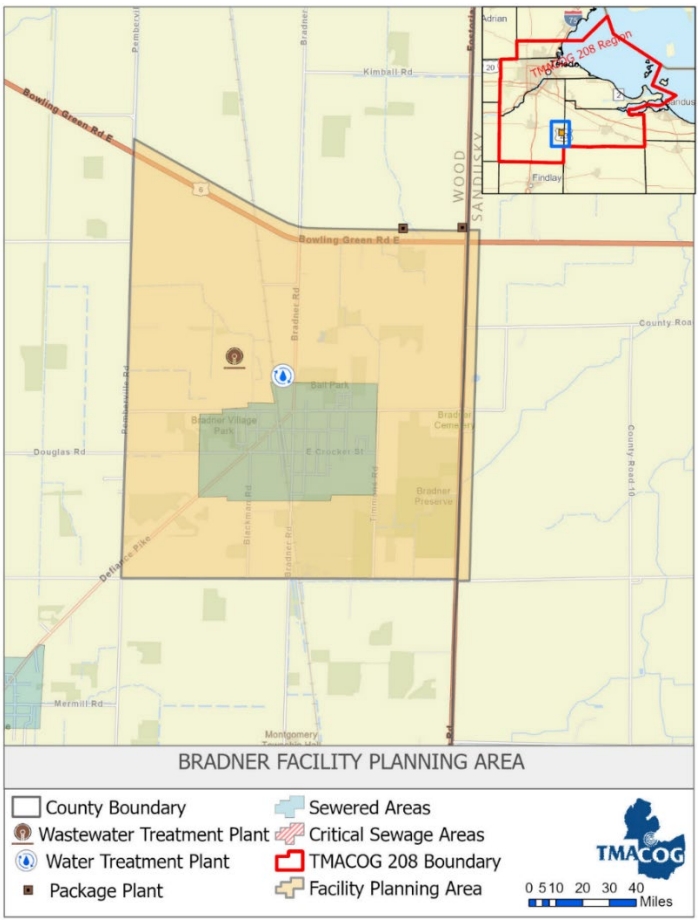

Figure 5 - 33: Bradner Facility Planning Area

Table 5 - 84: Bradner Area Population

Area	Population
Bradner, entire jurisdiction	971
Montgomery Township, entire jurisdiction*	4,157
Madison Township, entire jurisdiction*	3,887
Scott Township, entire jurisdiction*	1,330

*only part of this jurisdiction is within the FPA boundary
Source: U.S. Census 2020 decennial census.

Present Facilities

The Bradner WWTP is a three-cell lagoon facility that was built in 1988. The plant is a controlled discharge lagoon, meaning it does not discharge continuously, nor does it discharge every day. The system uses conventional gravity sewers. The design capacity is 0.13 mgd; Ohio EPA data shows an average flow of 0.238 mgd, and a peak flow of 0.274 mgd on days where discharges occurred during the period of 2004-2009. Daily, the average discharge was 0.71 mgd. In 2009, Bradner received 75% American Recovery and Reinvestment Act (ARRA) funding on a $389,000 upgrade for five lift stations. Package plants located in Bradner the FPA are listed in Table 5-83.

Table 5 - 85: Package Plants in the Bradner Facility Planning Area

Package Plant	Map ID	Type	Install or Upgrade Date	NPDES Permit	Capacity, gpd
Ports Petroleum Fuel Mart #767[A]	WO-103	Private	1987	2PR00190	4,000
Twin Maples MHP[A]	WO-106	Private		2PY00069	5,000
US 6/23 Retail Sales[A]	SA-21	Private	1973	2PR00202	5,000

[A]Status is active

Note: Data are based on current available data as of April 2019

New Subdivisions

It is the policy of the 208 Plan that all new residential subdivisions that are required to be plated under Wood County subdivision regulations, septic tanks or individual household sewage treatment systems for plated subdivisions of more than five (5) lots shall not be permitted within the FPA boundary. New plated subdivisions shall connect to public sewers and be served by the Bradner WWTP.

Future Needs

There is no future need during 2025 update.

Custar/Milton Center Facility Planning Area

The Custar/Milton Facility Planning Area (FPA) is a designated region within the Custar/Milton area where wastewater management, including sewage treatment and disposal, is planned and coordinated. The FPA boundaries define the areas that are expected to be serviced by the wastewater treatment facilities in Village of Custar/Milton (Figure 5-34). The Custar/Milton FPA ensures that wastewater infrastructure is adequately planned to meet the needs of the population within these boundaries, considering factors like population growth, environmental impacts, and regulatory requirements. This FPA is managed by Northwestern Water and Sewer District which is represented by Designated Management Agencies. The responsibilities of each of these agencies are outlined below:

Designated Management Agency Responsibilities:

- **Northwestern Water and Sewer District:** both the Villages of Custar and Milton Center, and Milton Township are members of Northwestern Water and Sewer District. The District is responsible for the planning, ownership and operations of public sewage systems in both incorporated and unincorporated areas.

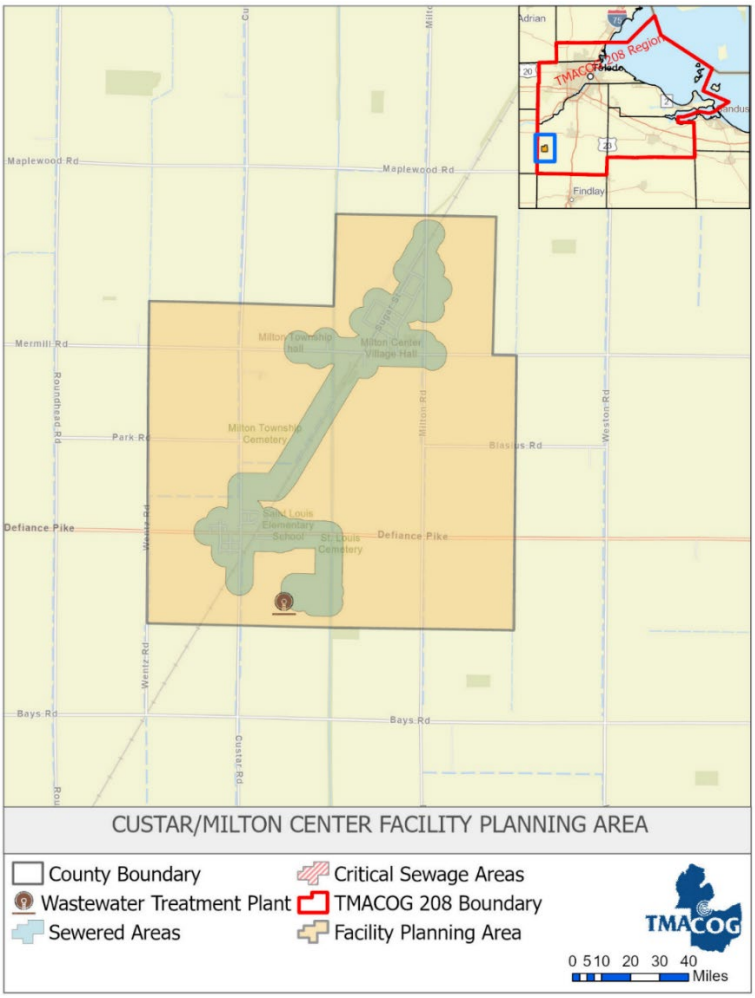

Figure 5 - 34: Custar/Milton Center Facility Planning Area

Table 5 - 86: Custar/Milton Center Area Population

Area	Total Population
Custar, entire jurisdiction	178
Milton Center, entire jurisdiction	137
Milton Township, entire jurisdiction*	929
Estimates within the FPA boundary	

*only part of this jurisdiction is within the FPA boundary

Source: U.S. Census 2020 decennial census.

Present Facilities

A wastewater collection and treatment system consisting of conventional gravity sewers, a pump station, and a non-aerated facultative controlled discharge lagoon was completed in the Village of Custar in 2006. The plant began serving the Villages of Custar in 2007 and Milton Center in 2008. The wastewater lagoon has a design flow of 0.05 mgd. The peak outfall discharge in 2023-2024 period was 0.105 mgd.

New Subdivisions

It is the policy of the Plan that all new residential subdivisions that are required to be plated under Wood County subdivision regulations, septic tanks or individual household sewage treatment systems for plated subdivisions of more than five (5) lots shall not be permitted within the FPA boundary. New plated subdivisions shall connect to public sewers and be served by the Custar wastewater treatment plant.

Future Needs

The current wastewater systems serving both Villages should provide adequate capacity to handle the wastewater demands for the foreseeable future.

Table 5 - 87: Custar/Milton Center FPA Capital Improvement Schedule

Project	DMA	Total Cost	Annual Capital Improvement Needs						
			2025	2026	2027	2028	2029	2030	Future
Lagoon Sludge Removal	NWWSD	$25,000				$25,000			

Cygnet/Jerry City Facility Planning Area

The Cygnet/Jerry Facility Planning Area (FPA) is a designated region within the Cygnet/Jerry area where wastewater management, including sewage treatment and disposal, is planned and coordinated. The FPA boundaries define the areas that are expected to be serviced by the wastewater treatment facilities in Cygnet/Jerry (Figure 5-35). The Cygnet/Jerry FPA ensures that wastewater infrastructure is adequately planned to meet the needs of the population within these boundaries, considering factors like population growth, environmental impacts, and regulatory requirements. This FPA is managed by Northwestern Water and Sewer District which is represented by Designated Management Agencies. The responsibility of this agency is outlined below:

Designated Management Agency Responsibilities:

- **Northwestern Water and Sewer District:** Owns and operates the collection system in the Village of Jerry City, the Village of Cygnet, and unincorporated areas.

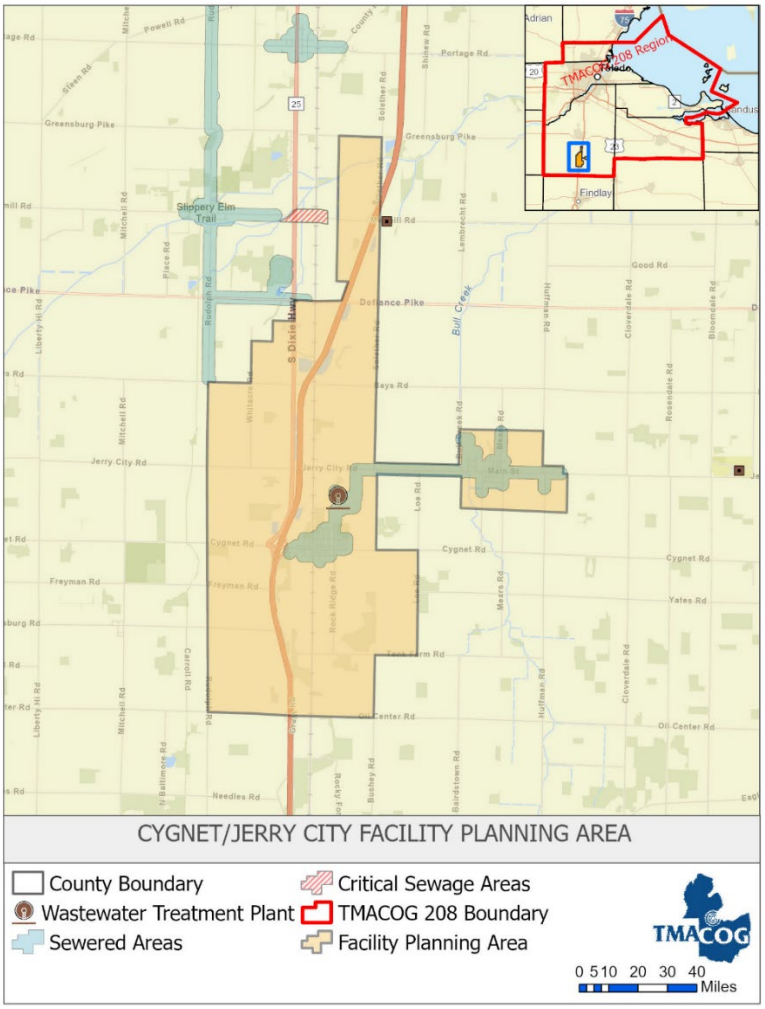

Figure 5 - 35: Cygnet/Jerry City Facility Area

Table 5 - 88: Cygnet/Jerry City Area Population

Area	Total Population
Cygnet, entire jurisdiction	543
Jerry City, entire jurisdiction	454
Bloom Township, entire jurisdiction*	2,513
Henry Township, entire jurisdiction*	4,079
Liberty Township, entire jurisdiction*	1,690
Portage Township, entire jurisdiction*	1,558

*only part of this jurisdiction is within the FPA boundary.

Source: the U.S. Census 2020 decennial census.

Present Facilities

The Cygnet/Jerry City WWTP is a lagoon facility with an average daily capacity of 0.09 mgd. There are 247 customers in Cygnet and 214 in Jerry City. The plant was designed to allow 50% growth in both towns. Ohio EPA data shows an average flow of 1.502 mgd, and a peak flow of 1.700 mgd during the

period of 2004-2007. Peak discharges from the lagoons averaged 0.106 mgd in 2023-2024. The Cygnet sewer system was completed in 1995, and Jerry City's in 1996; both systems are conventional gravity sewer systems. Each Village pumps its sewage to the treatment plant at a main pump station. In 2014, flow meters were added to both main pump stations.

In 2021-2022, the three sewer pump stations in Cygnet were replaced with new submersible stations and a new force main was constructed to make the system operate more efficiently by the elimination of double pumping.

Issues

The Cygnet/Jerry City FPA covers part of the corridor U.S. 25 / I-75. The Wood County Comprehensive Plan identifies this area for employment opportunities and is therefore included in the FPA with a potential for requiring future service. The area is presently rural with no public sewerage facilities available, active package plants, or unsewered developed areas.

New Subdivisions

It is the policy of the Plan that all new residential subdivisions that are required to be platted under Wood County subdivision regulations, septic tanks or individual household sewage treatment systems for platted subdivisions of more than five (5) lots shall not be permitted within the FPA boundary. New platted subdivisions shall connect to public sewers and be served by the Cygnet wastewater treatment plant.

Future Needs

Capital improvement needs include the replacement of each pump station and the addition of flow meters. The capital improvement plan for the Cygnet/Jerry City FPA is shown in Table 5-89. Residents in the Hammansburg area have requested that sanitary sewers be extended to serve their homes. Approximately 50 homes would be impacted by this project. The costs per home are very high and significant grant funding will be required to allow it to proceed.

Table 5 - 89: Cygnet/Jerry City FPA Capital Improvement Schedule

Project	DMA	Total Cost	Annual Capital Improvement Needs						
			2025	2026	2027	2028	2029	2030	Future
Hammansburg Sanitary Sewer System									$2,000,000

Fostoria Facility Planning Area

Fostoria Facility Planning Area (FPA) is a designated region within the Fostoria area where wastewater management, including sewage treatment and disposal, is planned and coordinated. The FPA boundaries

define the areas that are expected to be serviced by the wastewater treatment facilities in Fostoria (Figure 5-38). The Fostoria FPA ensures that wastewater infrastructure is adequately planned to meet the needs of the population within these boundaries, considering factors like population growth, environmental impacts, and regulatory requirements. This FPA is managed by several communities which are represented by Designated Management Agencies. The responsibilities of each of these agencies are outlined below:

Designated Management Agency Responsibilities:

- **City of Fostoria**: Owns and operates wastewater treatment facilities, and collection system within its corporate limits. Own and operates collection system in Hancock County unincorporated areas, connecting to the city system for treatment services.
- **Northwestern Water and Sewer District:** Owns and operates collection system in Wood County unincorporated areas, connecting to the city system for treatment services.
- **Seneca County:** Owns and operates collection system in Seneca County unincorporated areas, connecting to the city system for treatment services.
- **Village of New Riegel:** Seneca County owns and operates the New Riegel collection system, connecting to the Fostoria system for treatment services.

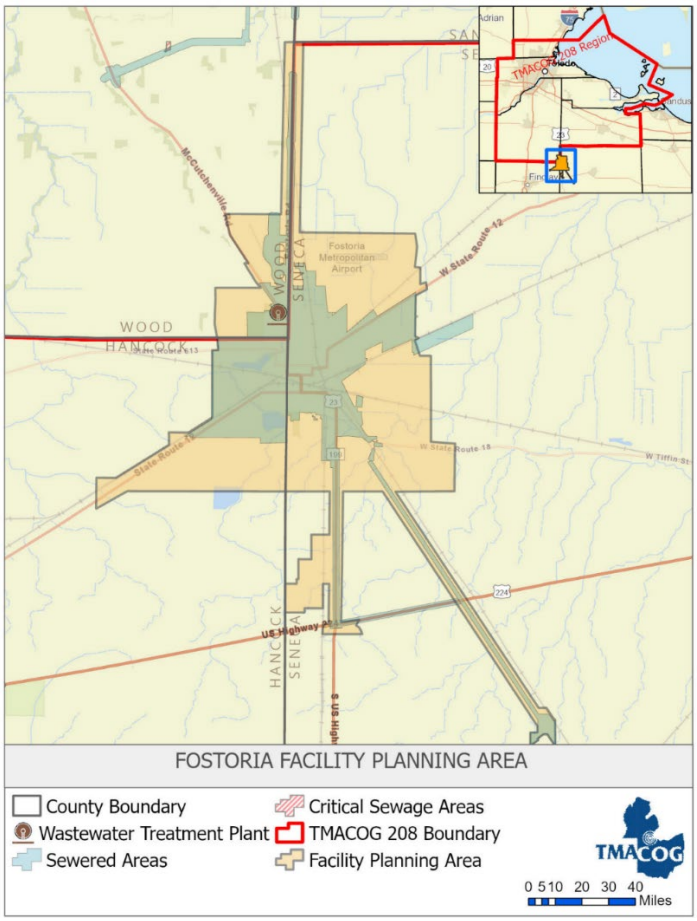

Figure 5 - 36: Fostoria Facility Planning Area

Table 5 - 90: Fostoria Area Population

Area	Population
Fostoria, entire jurisdiction	13,046
Perry Township, entire jurisdiction (Wood County)*	1,568
Washington Township, entire jurisdiction (Hancock County)*	4,353
New Riegel, entire jurisdiction	286
Loudon Township, entire jurisdiction (Seneca County)*	2,246
Jackson Township, entire jurisdiction (Seneca County)*	1,401
Total	**22,900**

*only part of this jurisdiction is within the FPA boundary.
Source: U.S. Census 2020 decennial census.

Present Facilities

The Fostoria WWTP is a primary settling and activated sludge facility that treated an average daily flow of 4.718 mgd in 2024 with a daily maximum flow of 13.179 mgd and a minimum flow of 1.833 mgd. Primary treatment capacity is 12.7 mgd, and secondary treatment capacity is 12.7 mgd. In 2014, the city completed the installation of two new final 100 feet diameter clarifiers. The previous rectangular clarifiers were converted to six additional aeration tanks. Additionally, improvements were made to the flow splitter chamber into the aeration tanks, and the return sludge pump wet well along with the construction of related piping and flow meters. These improvements increased the secondary treatment capacity to 12.7 mgd. Ohio EPA data showed an average flow of 4.500 mgd, and a peak flow of 12.047 mgd during the period of 2011-2015. The plant uses ultraviolet (UV) disinfection of final effluent; sludge is held in an aerated sludge holding tank until it is dewatered by a filter belt press. In 2023, the city completed installation of a new UV treatment system.

In 1994, the City completed a major upgrade and expansion that included increased primary treatment capacity, elimination of the plant bypass, CSO abatement, and construction of a 2.0 mg primary effluent storage lagoon. The total cost for these improvements was $7 million. The lagoon stores primary effluent that the second treatment facilities cannot handle during wet weather. The primary effluent is stored until the plant has the capacity to treat it. The primary effluent storage lagoon was removed as part of the current wastewater treatment plant improvements. In 2020 construction was started on a new raw influent pumping station, a course bar screen, fine bar screens and a 7.5 mg equalization basin. The plant's pumping capacity will be increased to 45 mgd. Of this flow, 12.7 mgd will go through the treatment plant and the balance will be stored in the equalization basin. These improvements are complete. The project cost approximately $15 million.

Sixty-eight percent of Fostoria's sewer system was combined. New sewers are separate. There are 23 CSOs, three of which are discharged to the east branch of the Portage River, and 20 to Caples-Flack Ditch. In 2024, the city had 69 CSO events that discharged 80.32 mg into the East Branch Portage River; there was 46.23" of rainfall recorded that year.

Northwestern Water and Sewer District

The district owns and operates a sanitary sewer force main that serves Charter Steel four miles north of Fostoria on U.S. 23. Additionally, the District serves a subdivision known as "Flechtner Heights" just north of Fostoria's incorporated limits.

Other Outside City Service Areas

Besides the FPA contiguous to the city, Fostoria provides wastewater treatment services to two non-contiguous areas via force main. These areas include:

- South of the City in Loudon Township of Seneca County along U.S. 23
- The Village of New Riegel

Package plants located in the FPA are listed in Table 5-91.

Table 5 - 91: Package Plants in the Fostoria Facility Planning Area

Package Plant	Map ID	Type	Install or Upgrade Date	NPDES Permit	Capacity, gpd
Hammer-Heinsman Subdivision[A]	SE-11	Public		2PG00011	30,000
Poplar Village MHP[A]	SE-10	Public		2PY00032	18,750

[A]Status is active

Note: Data are based on current available data as of April 2019

Issues

Combined Sewer Overflows

Fostoria's NPDES permit was renewed on September 1, 2022 with an expiration date of August 31, 2027. The permit was modified on July 1, 2025 to add 19 CSOs. The permit modification expires on August 31, 2027. In August 2006, the United States of America on behalf of the U.S. EPA and the Ohio EPA, filed a complaint against the City of Fostoria, Ohio seeking injunctive relief and civil penalties, and alleging that the City of Fostoria violated the Clean Water Act and certain terms and conditions of the NPDES permit.

The City of Fostoria is currently working on the items required by the Consent Decree. The city has completed updated modeling of its sewer system and has submitted it to Ohio EPA and USEPA. The approval of the model is nearly complete. Once the approval is complete the typical year model will be submitted and a new Long Term Control plan will be prepared and submitted to Ohio EPA and USEPA along with a modified schedule for completion of the improvements. This was initiated based on the modified performance of the system as a result of the recently completed improvements at WWTP.

Unsewered Areas

Several unsewered portions of the Fostoria FPA are likely to need sewers. These areas include:

- A subdivision in Loudon Township, Seneca County, southeast of the corporate limits. No stream sampling data is available, but septic systems in the area are believed to be failing and discharging into the Wolf Creek drainage basin.
- State Route 18, just west of existing sewers. It is recommended by the Hancock County Health Department as a Critical Sewage Area.
- The triangle between Washington Township Roads 218 and 261. It is recommended by the Hancock County Health Department as a Critical Sewage Area.

New Subdivisions

It is the policy of the Plan that all new residential subdivisions in Wood County that are required to be platted under subdivision regulations: for plated subdivisions of more than five (5) lots, septic tanks or individual household sewage treatment systems shall not be permitted within the FPA boundary. New

plated subdivisions shall connect to public sewers and be served by the Fostoria wastewater treatment plant.

Future Needs

- The City of Fostoria is facing significant improvements to its sewer system and wastewater treatment plant.
- Fostoria will continue implementation of its CSO Abatement Plan and and revision of its Long-Term Control Plan.
- Install sanitary sewers in developed but unsewered areas that have documented sewage problems.
- Construct sewer extensions to eliminate remaining problem areas and provide service to new developments. New package plants and septic systems should not be permitted in areas that may be served by public sewers.

Future collection system and wastewater plant improvements to meet the Long-Term Control Plan requirements in the FPA are provided in Table 5-92. These will be modified once the revised Long Term Control Plan is completed.

Table 5 - 92: Fostoria FPA Capital Improvement Schedule

Project	DMA	Total Cost	Annual Capital Improvement Needs						
			2025	2026	2027	2028	2029	2030	Future
LTCP: CSO No. 2 & 3 Elimination	Fostoria	$9,510,000		$9,510,000					
LTCP: CSO #5 Elimination & Structure Modification	Fostoria	**TBD**				TBD			
LTCP: WWTP Upgrades Phase II (Completed)	Fostoria	**$15,000,000**							
		$25,165,215							

Grand Rapids Facility Planning Area

The Grand Rapid Facility Planning Area (FPA) is a designated region within Grand Rapid area where wastewater management, including sewage treatment and disposal, is planned and coordinated. The FPA boundaries define the areas that are expected to be serviced by the wastewater treatment facilities in Grand Rapid (Figure 5-37). The Grand Rapid FPA ensures that wastewater infrastructure is adequately planned to meet the needs of the population within these boundaries, considering factors like population growth, environmental impacts, and regulatory requirements. This FPA is managed by several communities which are represented by Designated Management Agencies. The responsibilities of each of these agencies are outlined below:

Designated Management Agency Responsibilities:

- **Village of Grand Rapids**: Owns and operates wastewater treatment facilities, and the collection system within its corporate limits, and connecting the Marina in Henry County to the Village system.
- **Northwestern Water and Sewer District:** Owns and operates collection systems and is responsible for planning and construction of public sanitary sewage systems in unincorporated areas of Wood County. Henry County Regional Water and Sewer was merged with Northwestern Water and Sewer District in 2020

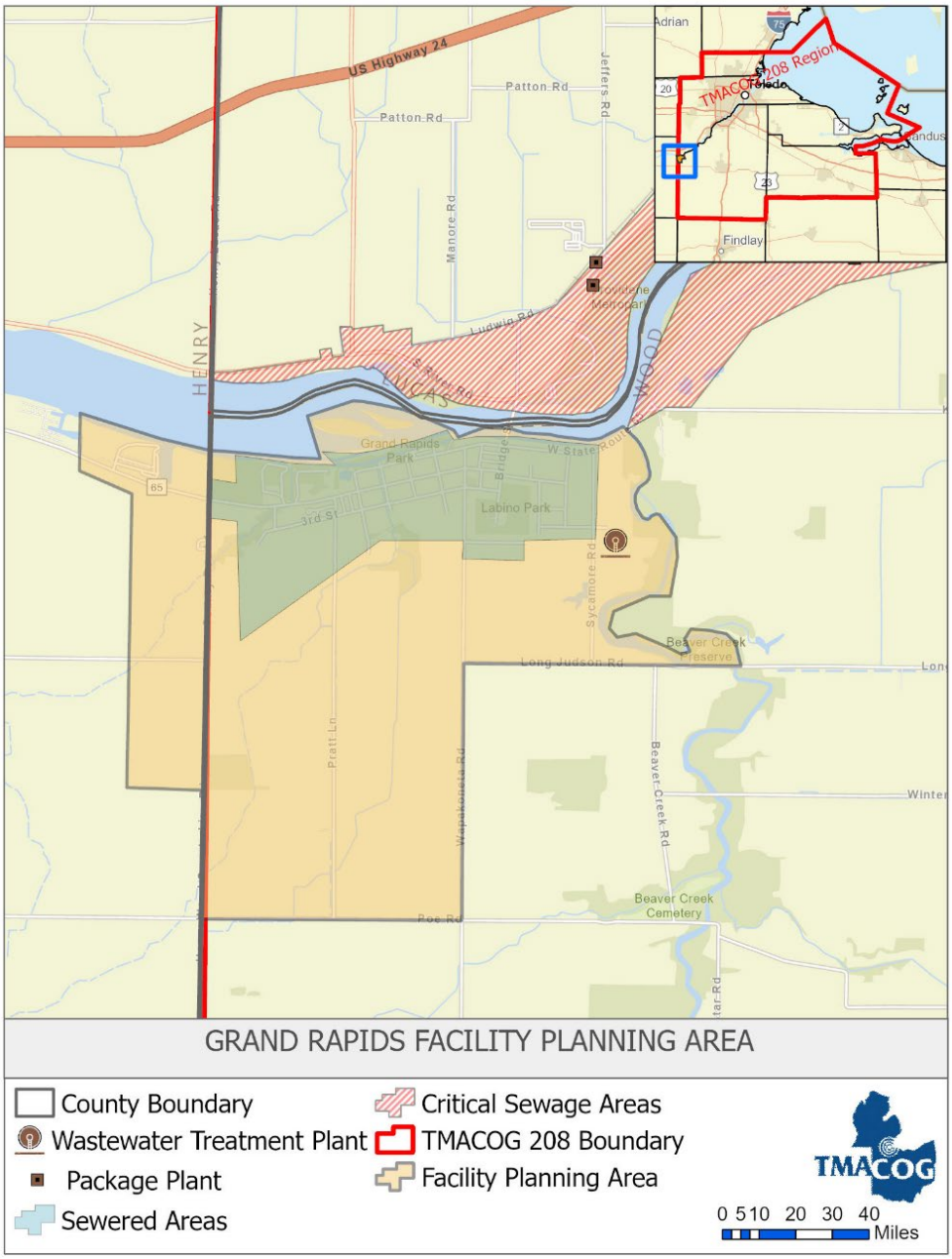

Figure 5 - 37: Grand Rapids Facility Planning Area

Table 5 - 93: Grand Rapids Area Population

Area	Total Population
Grand Rapids, entire jurisdiction	925
Grand Rapids Township, entire jurisdiction*	1,586
Washington Township, entire jurisdiction*	1,864
Damascus Township, entire jurisdiction*	1,783
Total	**6,158**

*only part of this jurisdiction is within the FPA boundary.

Source: The U.S. Census 2020 decennial census.

Present Facilities

The Grand Rapids WWTP was built in 1978; it is an oxidation ditch with an average capacity of 0.180 mgd and a hydraulic capacity of 0.6 mgd. Plant facilities include aerobic sludge digestion, and final chlorination. Sludge is transported to the Bowling Green WWTP for final treatment. Ohio EPA data shows an average flow of 0.063 mgd, and a peak flow of 0.434 mgd during the period of 2014-2018.

New Subdivisions

It is the policy of the Plan that all new residential subdivisions that are required to be platted under Wood County subdivision regulations, septic tanks or individual household sewage treatment systems for platted subdivisions of more than five (5) lots shall not be permitted within the FPA boundary. New platted subdivisions shall connect to public sewers and be served by the Grand Rapids wastewater treatment plant.

Future Needs

There is no future need during 2025 update of this plan.

Haskins Facility Planning Area

The Grand Rapid Facility Planning Area (FPA) is a designated region within Grand Rapid area where wastewater management, including sewage treatment and disposal, is planned and coordinated. The FPA boundaries define the areas that are expected to be serviced by the wastewater treatment facilities in Grand Rapid (Figure 5-38). The Grand Rapid FPA ensures that wastewater infrastructure is adequately planned to meet the needs of the population within these boundaries, considering factors like population growth, environmental impacts, and regulatory requirements. This FPA is managed by several communities which are represented by Designated Management Agencies. The responsibilities of each of these agencies are outlined below:

Designated Management Agency Responsibilities:

- **Village of Haskins**: Owns and operates wastewater treatment facilities, and the collection system within the corporate limits.

- **Northwestern Water and Sewer District:** Will own and operate collection systems outside the corporate limits when built and will convey sewage to Haskins WWTP for treatment. In 2005, the District signed a 40-year agreement with Haskins for the Village to accept average daily flows of 50,000 gpd of sewage; additional flows may be negotiated.

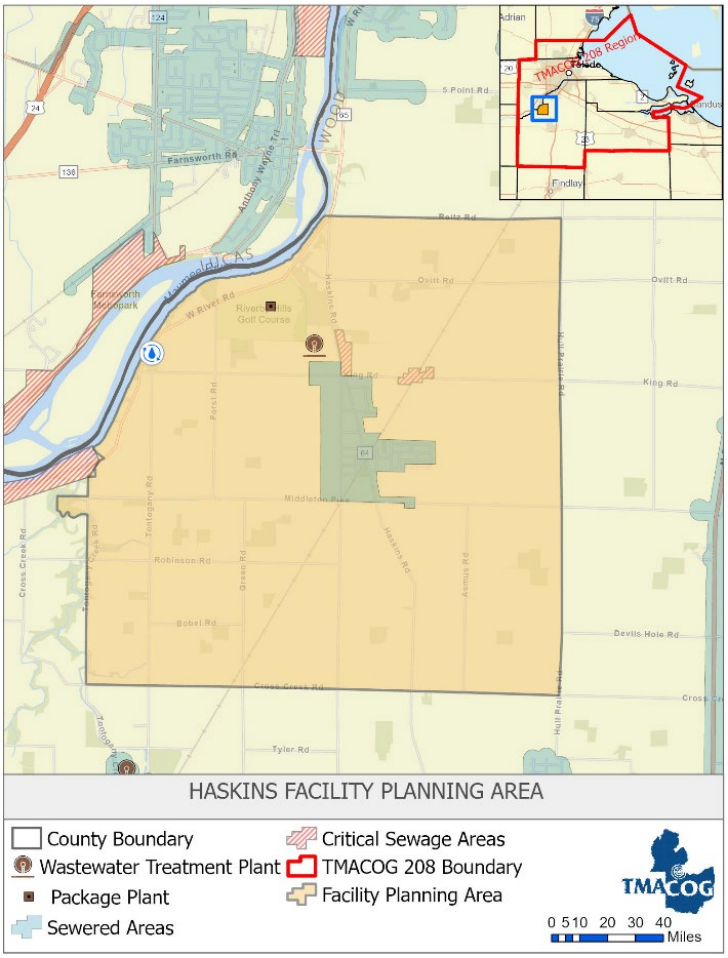

Figure 5 - 38: Haskins Facility Planning Area

Table 5 - 94: Haskins Area Population

Area	Total Population
Haskins, entire jurisdiction	1,245
Middleton Township, entire jurisdiction*	5,611
Washington Township, entire jurisdiction*	1,864
Total	**8,720**

*only part of this jurisdiction is within the FPA boundary.
Source: U.S. Census 2020 decennial census.

Present Facilities

The existing Haskins WWTP was built in 2006. The plant is a 300,000 gpd sequencing batch reactor facility, built at a total cost of $2.76 million. The WWTP site is 40 acres on the west side of SR 64, just on the north end of the Village. The receiving stream is a ditch along SR 64, flowing north into the Maumee

River. Ohio EPA data shows an average flow of 0.176 mgd, and a peak flow of 0.852 mgd during the period of 2014-2018. Liquid sludge is applied to agricultural land.

Package plants located in the FPA are listed in Table -95.

Table 5 - 95: Package Plants in the Haskins Facility Planning Area

Package Plant	Map ID	Type	Install or Upgrade Date	NPDES Permit	Capacity, gpd
Riverby Hills Golf Club[A]	WO-46	Private*			4,000

[A]Status is active
*Facility type is assumed
Note: Data are based on current available data as of April 2019

Issues
Two groups of unsewered houses adjacent to the Village have been identified as Critical Sewage Areas, and need sewer service to eliminate problems from failed on-site systems.

- **State Route 64 north of King Road:** approximately 19 houses are in this area north of town. Bypassing sewage from failed septic systems is present in the roadside ditch. The septic systems for most of these houses are believed to have failed. Therefore, sanitary sewers should be extended to eliminate these septic systems. In 2000, the Wood County Health Department conducted a sanitary survey in this area.
- **King Road / RR:** an unincorporated area on the north side of King Road just east of the railroad tracks. There are 10 houses in this area; a sanitary survey of this area has not been conducted. Sanitary sewers may be needed here in the future.

New Subdivisions
It is platted policy of the Plan that all new residential subdivisions that are required to be platted under Wood County subdivision regulations, septic tanks or individual household sewage treatment systems for platted subdivisions of more than five (5) lots shall not be permitted within the FPA boundary. New plated subdivisions shall connect to public sewers and be served by the Haskins wastewater treatment plant.

Future Needs
Support planning and funding to provide sanitary sewer capabilities to eliminate individual and household septic systems in Critical Sewage Areas.

Hoytville Facility Planning Area

The Hoytville Facility Planning Area (FPA) is a designated region within village of Hoytville area where wastewater management, including sewage treatment and disposal, is planned and coordinated. The FPA boundaries define the areas that are expected to be serviced by the wastewater treatment facilities in Hoytville (Figure 5-39). The Hoytville FPA ensures that wastewater infrastructure is adequately

planned to meet the needs of the population within these boundaries, considering factors like population growth, environmental impacts, and regulatory requirements. This FPA is managed by Northwestern Water and Sewer District which is represented by Designated Management Agencies. The responsibilities of this agency are outlined below:

Designated Management Agency Responsibilities:

- **Northwestern Water and Sewer District:** Owns and operates wastewater treatment facilities and collection system.

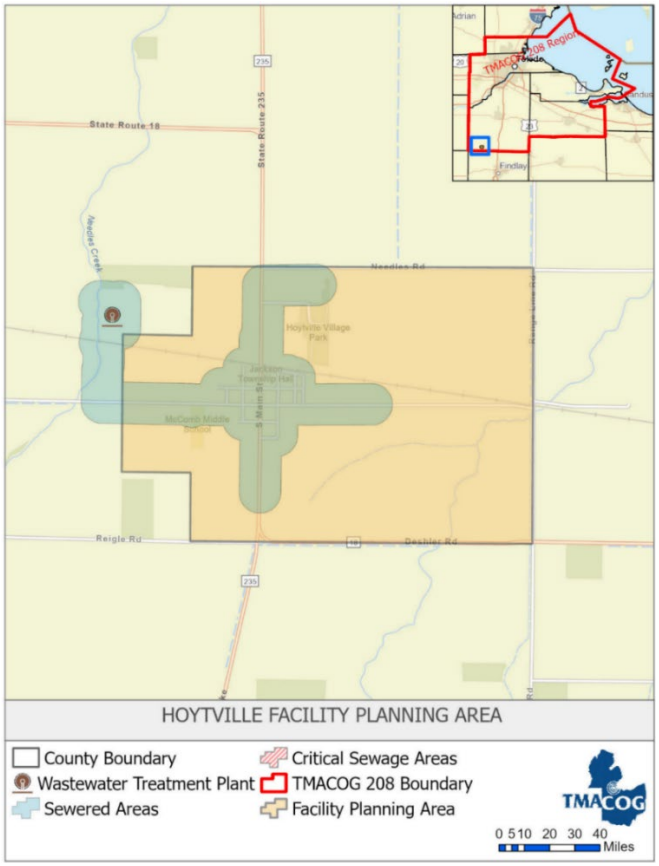

Figure 5 - 39: Hoytville Facility Planning Area

Table 5 - 96: Hoytville Area Population

Area	Population
Hoytville, entire jurisdiction	220
Jackson Township, entire jurisdiction*	702
Total	**922**

*only part of this jurisdiction is within the FPA boundary.
Source: U.S. Census 2020 decennial census.

Present Facilities

Hoytville WWTP was built in 1990 with an average daily design flow of 0.036 mgd. A peak outflow of 0.056 mgd was noted during the period of 2023-2024. The plant is a three-cell controlled discharge lagoon system that discharges to the Needles Creek only during high flow. The collection is via a Septic

Tank Effluent Gravity (STEG) system with small diameter gravity pipes and on-lot septic tanks to capture solids. The Northwestern Water and Sewer District (District) is responsible for pumping the septic tanks and septage handling.

In 2018, the District completed an upgrade to the controlled discharge lagoon system. The project included a new access road, addition of rip rap, replacement of valves and control structures, along with fence repair and replacement. The project was funded by the District with the assistance of a Ohio Water Pollution Control Loan Fund (WPCLF) in the amount of $380,000.

New Subdivisions

It is the policy of the Plan that all new residential subdivisions that are required to be platted under Wood County subdivision regulations, septic tanks or individual household sewage treatment systems for platted subdivisions of more than five (5) lots shall not be permitted within the FPA boundary. New platted subdivisions shall connect to public sewers and be served by the Hoytville wastewater treatment plant.

Issues

Ohio EPA found excess infiltration and inflow (I/I) is a problem for the collection system. The small-diameter gravity sewer system was not designed to carry storm flows or groundwater. The District evaluated I/I issues, completed the Sanitary Sewer Evaluation Survey (SSES), and has submitted the final report to Ohio EPA. The following details some of the results and actions:

- Some I/I was found in manholes; therefore, manhole lining was completed in early 2011.
- Installation of a flow meter at the main pump station into the lagoon demonstrated that even though I/I remains, its severity was not as great as previously thought.
- Several manholes were replaced in 2023.

Future Needs

The existing pump station will require replacement within the next five years.

Table 5 - 97: Hoytville FPA Capital Improvement Schedule

Project	DMA	Total Cost	Annual Capital Improvement Needs						
			2025	2026	2027	2028	2029	2030	Future
Septic tank repair/replacement	NWWSD	$200,000					$200,000		

Luckey Facility Planning Area

The Luckey Facility Planning Area (FPA) is a designated region within village of Luckey area where wastewater management, including sewage treatment and disposal, is planned and coordinated. The FPA boundaries define the areas that are expected to be serviced by the wastewater treatment facilities in Luckey (Figure 5-40). The Luckey FPA ensures that wastewater infrastructure is adequately planned to meet the needs of the population within these boundaries, considering factors like population growth, environmental impacts, and regulatory requirements. This FPA is managed by communities which are represented by Designated Management Agencies. The responsibilities of this agency are outlined

below:

Designated Management Agency Responsibilities:

- **Village of Luckey**: Owns wastewater treatment facilities and the collection system within its corporate limits; however, these systems are operated by the Northwestern Water and Sewer District.
- **Northwestern Water and Sewer District:** Owns and operates collection system in unincorporated areas. The District operates the Luckey WWTP under contract with the Village. In 2006, the District entered a 40-year agreement with the Village of Luckey to accept average daily flows of 4,000 gpd of sewage; additional flows may be negotiated.

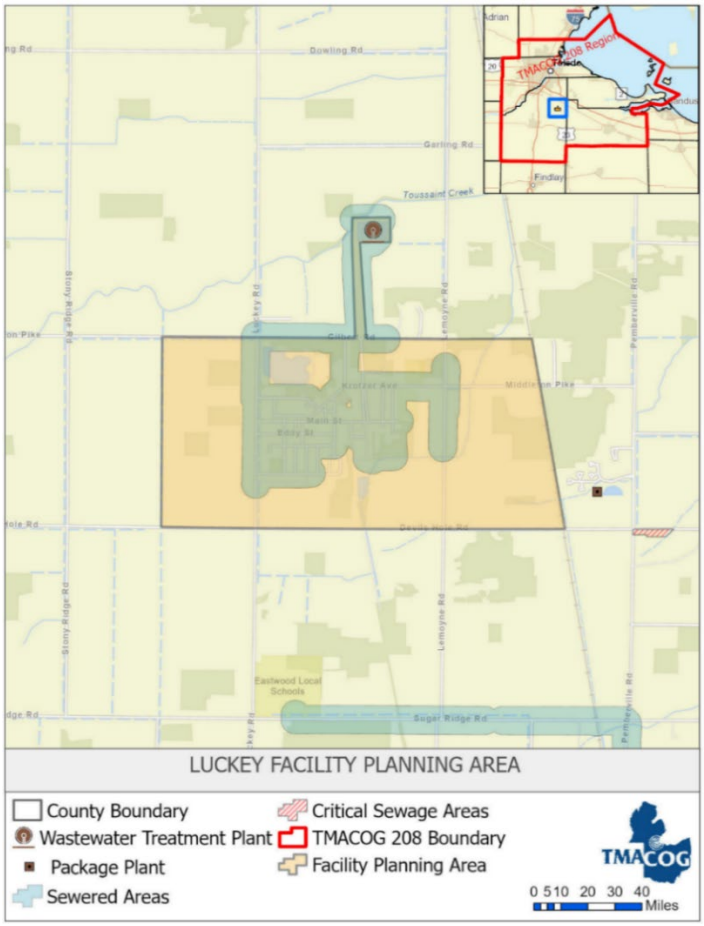

Figure 5 - 40: Luckey Facility Planning Area

Table 5 - 98: Luckey Area Population

Area	Total Population
Luckey, entire jurisdiction	1,009
Troy Township, entire jurisdiction*	4,097
Webster Township, entire jurisdiction*	1,230
Total	**6,336**

*only part of this jurisdiction is within the FPA boundary.

Source: U.S. Census 2020 decennial census.

Present Facilities

The Luckey WWTP was built in 1988 and is a 0.10 mgd controlled discharge lagoon facility. Hydraulic capacity of the system is 0.36 mgd. The peak discharge effluent flow in 2023-2024 was 0.070 mgd. Effluent is discharged to Toussaint Creek only during high flow.

Prior to construction of the WWTP, failed septic systems discharged to the Village storm sewer system. Pump stations were built to convey the septic tank effluent to the treatment plant. Existing septic tanks were originally left in place, with the Village responsible for pumping them out and disposing of the septage. In late 2007, sewer separation was completed, eliminating combined sewer overflows (CSOs) and septic tanks. The total project cost was $4.8 million, financed with $1.7 million in grants from U.S. EPA/STAG and USDA/Rural Development, and the balance in loans from USDA.

New Subdivisions

It is the policy of the Plan that all new residential subdivisions that are required to be platted under Wood County subdivision regulations, septic tanks or individual household sewage treatment systems for platted subdivisions of more than five (5) lots shall not be permitted within the FPA boundary. New platted subdivisions shall connect to public sewers and be served by the Luckey wastewater treatment plant.

Future Needs

There are no projects planned for the Luckey FPA at present.

North Baltimore Facility Planning Area

The North Baltimore Facility Planning Area (FPA) is a designated region within village of North Baltimore area where wastewater management, including sewage treatment and disposal, is planned and coordinated. The FPA boundaries define the areas that are expected to be serviced by the wastewater treatment facilities in North Baltimore (Figure 5-41). The North Baltimore FPA ensures that wastewater infrastructure is adequately planned to meet the needs of the population within these boundaries, considering factors like population growth, environmental impacts, and regulatory requirements. This FPA is managed by communities which are represented by Designated Management Agencies. The responsibilities of this agency are outlined below:

Designated Management Agency Responsibilities:

- **Village of North Baltimore**: Owns and operates the wastewater plant and sewers within its corporate limits.
- **Northwestern Water and Sewer District:** Owns and operates sewers in unincorporated areas of Wood County with treatment services provided by the North Baltimore WWTP.
- **Hancock County:** Owns and operates sewers in unincorporated areas of Hancock County with treatment services provided by the North Baltimore WWTP.

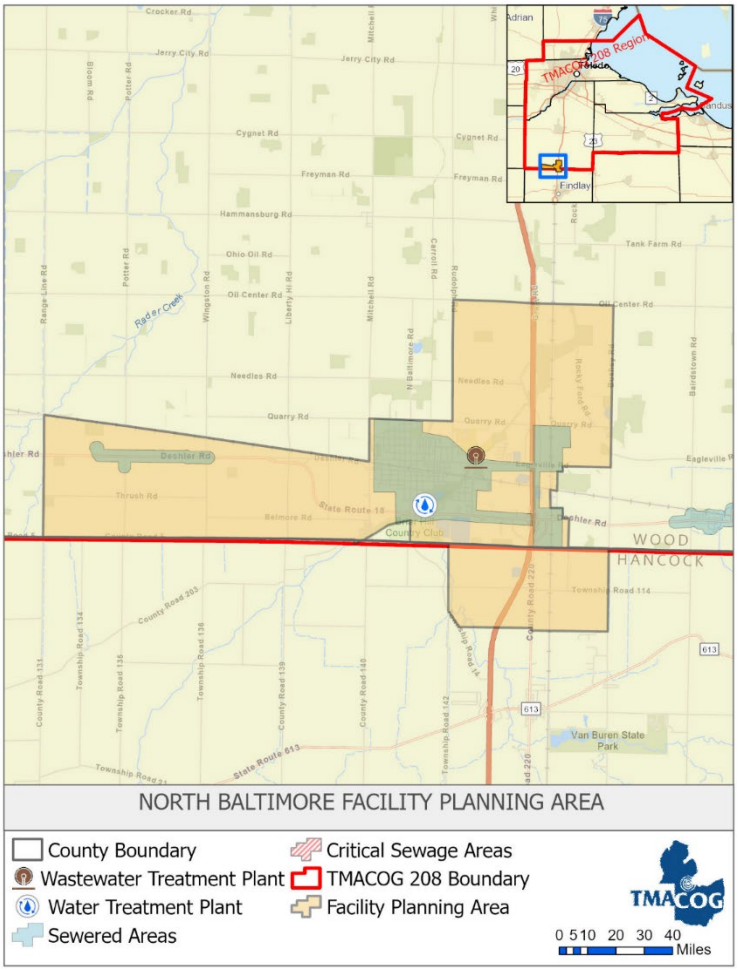

Figure 5 - 41: North Baltimore Facility Planning Area

Table 5 - 99: North Baltimore Area Population

Area	Population
Bloom Township, entire jurisdiction*	2,513
Henry Township, entire jurisdiction*	4,079
Jackson Township, entire jurisdiction*	702
Allen Township, entire jurisdiction*	2,754
Total	**10, 048**

*only part of this jurisdiction is within the FPA boundary.

Source: U.S. Census 2020 decennial census.

Present Facilities

The North Baltimore WWTP is a 0.8 mgd trickling filter plant. Ohio EPA data shows an average flow of 0.718 mgd, and a peak flow of 1.589 mgd during the period of 2015 - 2018. I/I was a serious problem contributing to combined sewer overflow (CSO) events. In 1997, in-house improvements to two overflow structures reduced CSO discharges by 60% during a rain event. In 2000, North Baltimore

constructed a 200,000-gallon sludge holding tank to provide 180-day storage capacity at a cost of $300,000. The Village constructed new sludge dewatering facility in 2009 at a cost of $780,000.

The Notice to Proceed for the Phase I Sewer Separation Project was completed in May 2012. CSO #1 on Water Street was eliminated in April 2012. Funding for the project was provided by Ohio Water Development Authority (OWDA), U.S. EPA State and Tribal Assistance Grant (STAG), and Ohio Public Works Commission (OPWC) during construction and final long-term financing was provided by U.S. Department of Agriculture and Rural Development (USDA-RD). After completion of the Phase 1 sewer separation project, 32 septic tanks have been abandoned and the properties connected to the new sanitary sewer system.

The Village issued the Notice to Proceed to the contractor for the Phase II Sewer Separation Project in January 2013. The project was completed in 2014 at an estimated cost of $9,700,000. Completion of this project will satisfy the Ohio EPA's requirement for the Village to separate all sewers by 2017. Funds were provided by the Community Development Block Grant program (CDBG) in the amount of $600,000 and by OPWC in the amount of $449,999. The remaining funds are being provided by USDA-RD.

With completion of the sewer separation projects, the wastewater treatment plant is experiencing significant reductions to its flow. In 2016, improvements were completed for the wastewater treatment headworks. The equipment in the headworks (comminatory/screening and raw sewage pumping) area of the wastewater treatment plant were becoming problematic for the plant operators. The electrical gear that services the headworks was also becoming a maintenance/reliability issue. Problems have also been noted in matching the lower flows the plant has been seeing since the completion of the sewer separation projects. These improvements were completed in October 2016 at a total cost of $1.3 million with funding from the USDA-RD.

In 2018, the Village implemented improvements to the Quadland sanitary lift station that serves the commercial area on the east side of the Interstate 75/State Road 18 interchange.

In 2010, sewers in Henry and Jackson Townships were built to serve the CSX intermodal facility. Initially wastewater treatment was provided by a 5,000 gpd extended aeration package plant. It faced operational challenges of being too large for the actual flow. Another difficulty was finding an acceptable receiving stream for its treated effluent. The CSX plant was abandoned and removed in 2016, in favor of a connection to North Baltimore for treatment services. Future sewer extensions will be needed to accommodate economic development. The FPA boundary follows the service contract area agreed to between CSX and Northwestern Water and Sewer District (District).

Issues

Ohio EPA approved the renewal of North Baltimore's Long-Term Control Plan (LTCP) for combined sewer overflows in 2020. North Baltimore is required to report on the status of LTCP implementation annually. The Village's NPDES permit required total separation of the collection system in 2017. The permit also required post construction monitoring of the system to determine if the CSO goals have been met and submission of a written report in January 2019 on the results of the post construction monitoring. Per Ohio EPA, the Village needs to complete post construction compliance monitoring on the last CSO. There were four overflows reported between 4/1/15 and 7/1/17; no overflows have been reported since July

2017.

In 2020, the Village completed a "smoke test" of the complete sanitary sewer system as part of the CSO compliance requirements. Specific project improvement recommendations are being prepared in conjunction with assistance from the Great Lakes Community Action Partnership.

The NPDES permit indicates a written status report on the plant's compliance with their copper final effluent limits. If they are not able to meet the copper effluent limits the status report shall indicate how the Village intends to meet this limit and if additional construction will be required. The Village sent a status report prior to June 2015 stating that they would be able to meet the limits; their data shows no limit violations.

The NPDES permit also indicates the Village shall evaluate its ability to meet *Escherichia coli* limits with its existing facilities. The Village has evaluated its ability to meet the *E. coli* limits with the existing facilities, which they are still using for disinfection.

The wastewater treatment plant is reporting age/condition related issues at the wastewater treatment plant headworks. Improvements to the facility are planned to maintain the Village's ability to comply with permit conditions.

The FPA covers part of the corridor US 25 / I-75. The Wood County Comprehensive Plan identifies this area for employment opportunities and is therefore included in the FPA with a potential for requiring future service. The area is presently rural with no public sewerage facilities in this area, active package plants, or unsewered developed areas.

Northwestern Water and Sewer District

In 2018, the Northwestern Water and Sewer District (NWWSD) and the Village executed a contract for sewer service to the CSX facility and surrounding area. This area is located to the west of the Village on State Route 18 and Liberty Hi Roads. Significant development is expected in the area and a 12" sanitary sewer and pump station have been constructed for future extension as the area develops.

New Subdivisions

It is the policy of the Plan that all new residential subdivisions that are required to be platted under Wood County subdivision regulations, septic tanks or individual household sewage treatment systems for platted subdivisions of more than five (5) lots shall not be permitted within the FPA boundary. New platted subdivisions shall connect to public sewers and be served by the North Baltimore wastewater treatment plant.

Future Needs

The following improvements are planned:

- New screening and grinding system for the raw sewage pump station.
- New variable speed lift pumps for the raw sewage lift station.
- New electrical switchgear to replace the existing switchgear that serves the raw sewage pumps and screening area.
- New PLC control system to replace the failed annunciator panel and run the raw sewage pumps.

- New lab facility to house the lab that is currently located above the raw sewage pumping station.
- Sewer service area expansions in Henry and Jackson Townships are likely to be needed to facilitate economic development of the CSX intermodal facility and associated.

Based on current plant performance, no capital projects are anticipated to be required for copper or *E. coli* limit compliance. There are no other projects planned at present.

Otsego Facility Planning Area

The Otsego Facility Planning Area (FPA) is a designated region within village of Otsego area where wastewater management, including sewage treatment and disposal, is planned and coordinated. The FPA boundaries define the areas that are expected to be serviced by the wastewater treatment facilities in North Otsego (Figure 5-42). The Otsego FPA ensures that wastewater infrastructure is adequately planned to meet the needs of the population within these boundaries, considering factors like population growth, environmental impacts, and regulatory requirements. This FPA is managed by Northwestern Water and Sewer District which is represented by Designated Management Agencies. The responsibility of this agency is outlined below:

Designated Management Agency Responsibilities:

- **Northwestern Water and Sewer District:** Responsible for planning public sewerage system; the District owns and operates the collection system and wastewater treatment plant.

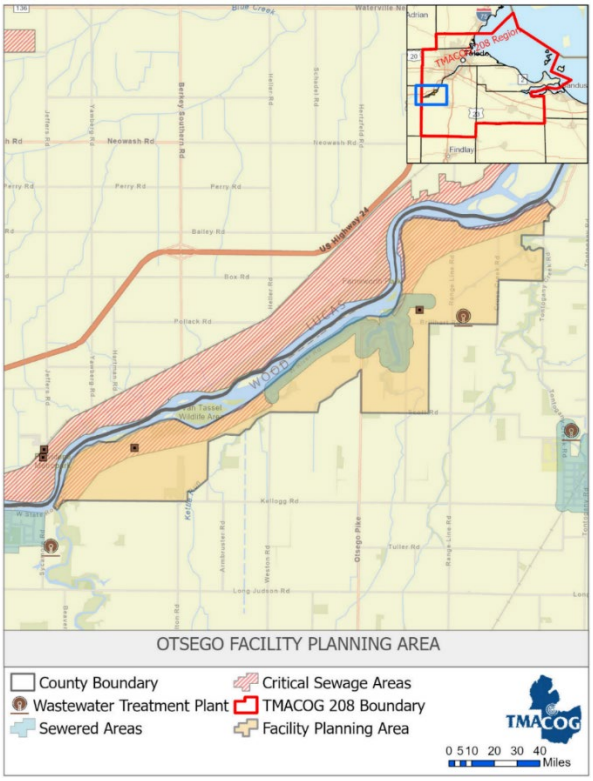

Figure 5 - 42: Otsego Facility Planning Area

Table 5 - 100: Otsego Area Population

Area	Total Population
Grand Rapids Township, entire jurisdiction*	1,586
Washington Township, entire jurisdiction*	1,864
Total	**3,450**

*only part of this jurisdiction is within the FPA boundary.
Source: U.S. Census 2020 decennial census.

Present Facilities

Most of the Otsego area is not served by a public sewage system. The one public facility is a package plant owned and operated by the Northwestern Water and Sewer District (the District) that serves the Williamsburg-on-the-River subdivision in Washington Township and West River Road, Otsego Road to Weston Road including Nazareth Hall. This WWTP was built in 2009 and is a 50,000 gpd extended aeration plant that can be expanded. Ohio EPA data shows an average flow of 0.026 mgd 2020-2021. The District took the original Williamsburg WWTP, built in 1972, out of service in 2009. The new treatment plant was designed to provide service to the entire Otsego FPA. The new WWTP, pump station, and force main from the old WWTP, outfall sewer to the Maumee River, and removal of the old WWTP cost $1,311,235. The project was funded with a $536,634 American Recovery and Reinvestment Act (ARRA) principle-forgiveness loan and the balance financed over a period of 40 years. The average monthly effluent flow in 2023-2024 was 0.25 mgd.

Some houses along SR 65, outside the Williamsburg subdivision, are being added to this WWTP's service area. Liquid sludge is transported to the City of Bowling Green WWTP for processing to Class A sludge. Package plants located in the FPA are listed in Table 5-101.

Table 5 - 101: Package Plants in the Otsego Facility Planning Area

Package Plant	Map ID	Type	Install or Upgrade Date	NPDES Permit	Capacity, gpd
Riverview Manor Trailer Park[A]	WO-11	Private		2PY00061	3,500
Williamsburg-on-the River WWTP[A]	WO-84	Public	2009	PG00097	50,000

[A]Status is active

Note: Data are based on current available data as of April 2019

Issues

Unsewered Areas

The entire riverfront between Grand Rapids and Haskins is a potential growth area. Public water is available and additional development is very likely to proceed. Many of the houses in this planning area are located between River Road (SR 65) and the Maumee River. The bank of the river is steep, the lots are small, and there is no room for an acceptable leaching field. On the other side of River Road, new housing will need to meet the present lot size requirements for sewage disposal.

Williamsburg-on-the-River WWTP

An aggressive I & I removal program, which included sanitary sewer grouting and lining was completed in 2018. Private I/I efforts are currently underway in the Williamsburg subdivision.

Future Needs

There was no future need during 2025 update.

Pemberville Facility Planning Area

The Pemberville Facility Planning Area (FPA) is a designated region within village of Pemberville area where wastewater management, including sewage treatment and disposal, is planned and coordinated. The FPA boundaries define the areas that are expected to be serviced by the wastewater treatment facilities in Pemberville (Figure 5-43). The Pemberville FPA ensures that wastewater infrastructure is adequately planned to meet the needs of the population within these boundaries, considering factors like population growth, environmental impacts, and regulatory requirements. This FPA is managed by communities which are represented by Designated Management Agencies. The responsibilities of each of these agencies are outlined below:

Designated Management Agency Responsibilities:

- **Village of Pemberville**: Owns and operates wastewater treatment facilities, and collection system within its corporate limits.
- **Northwestern Water and Sewer District:** Owns capacity in the Pemberville WWTP and will own and operate collection system in unincorporated areas, if and when built, connecting to the Village for treatment services. The District entered into an agreement with Pemberville for the Village to accept average daily flows of 50,000 gpd of sewage; additional flows may be negotiated.

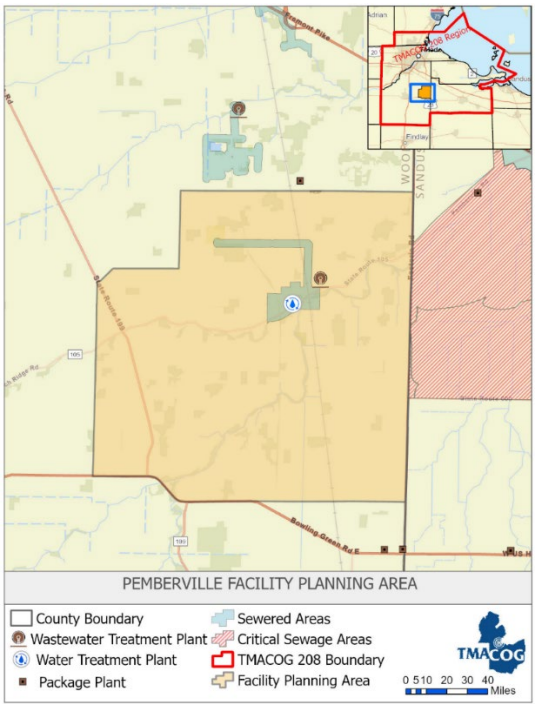

Figure 5 - 43: Pemberville Facility Planning Area

Table 5 - 102: Pemberville Area Population

Area	Total Population
Pemberville, entire jurisdiction	1,3626
Freedom Township, entire jurisdiction*	2,649
Troy Township, entire jurisdiction*	4,097
Webster Township, entire jurisdiction*	1,230
Total	**21,602**

*only part of this jurisdiction is within the FPA boundary.
Source: U.S. Census 2020 decennial census.

Present Facilities

The Pemberville WWTP is a sequencing batch reactor facility built in 2011. The plant was designed for 0.4 mgd average daily flow, 1.0 mgd peak dry weather flow, and 1.3 mgd peak wet weather flow. Ohio EPA data shows an average flow of 0.242 mgd and a peak flow of 0.746 mgd during the period of 2014-2018. The plant was designed to treat greater wet weather flows, and provide service to portions of Freedom and Troy Townships surrounding the Village. The plant cost $2.5 million to build, and replaced the previous plant, which included an oxidation ditch, a polishing pond, and aerated sludge digesters. The plant is equipped with ultraviolet effluent disinfection. Liquid sludge is applied to agricultural land.

1. The sewers were originally combined, with four overflow points. Pemberville completed its Combined Sewer Overflow (CSO) Abatement Plan by separating the entire system. The Plan, prepared in 1994, called for five phases. It was completed in 1999 at a cost of $2,037,618, financed through Ohio EPA over a 20-year period. Pemberville spent $546,730 on additional sewer system improvements to exclude I/I between 2001 and 2009.

There are no package plants located in the FPA. The Eastwood High School package plant has been eliminated as part of an Eastwood school consolidation project. The School District requested Northwestern Water and Sewer District to construct a pump station and force the main to send the sanitary sewer flows to the Pemberville WWTP.

New Subdivisions

It is the policy of this Plan that all new residential subdivisions that are required to be platted under Wood County subdivision regulations, septic tanks or individual household sewage treatment systems for platted subdivisions of more than five (5) lots shall not be permitted within the FPA boundary. New platted subdivisions shall connect to public sewers and be served by the Pemberville wastewater treatment plant.

Future Needs

The NPDES permit issued in 2019 indicates that the Village shall evaluate the ability of its existing treatment facilities to meet the final effluent limit (1.0 mg/L) for phosphorus.

Perrysburg Facility Planning Area

The Perrysburg Facility Planning Area (FPA) is a designated region within village of Perrysburg area where wastewater management, including sewage treatment and disposal, is planned and coordinated. The FPA boundaries define the areas that are expected to be serviced by the wastewater treatment facilities in Perrysburg (Figure 5-44). The Perrysburg FPA ensures that wastewater infrastructure is adequately planned to meet the needs of the population within these boundaries, considering factors like population growth, environmental impacts, and regulatory requirements. This FPA is managed by communities which are represented by Designated Management Agencies. The responsibility of each of these agencies are outlined below:

Designated Management Agency Responsibilities:

- **City of Perrysburg**: Owns and operates wastewater treatment facilities and portions of the collection system.
- **Northwestern Water and Sewer District:** Owns and operates portions of the collection system, connecting to Perrysburg system for treatment services.
- **City of Rossford:** Northwestern Water and Sewer District own and operates the collection system within Rossford, connecting a small portion of the collection system to Perrysburg system for treatment services.

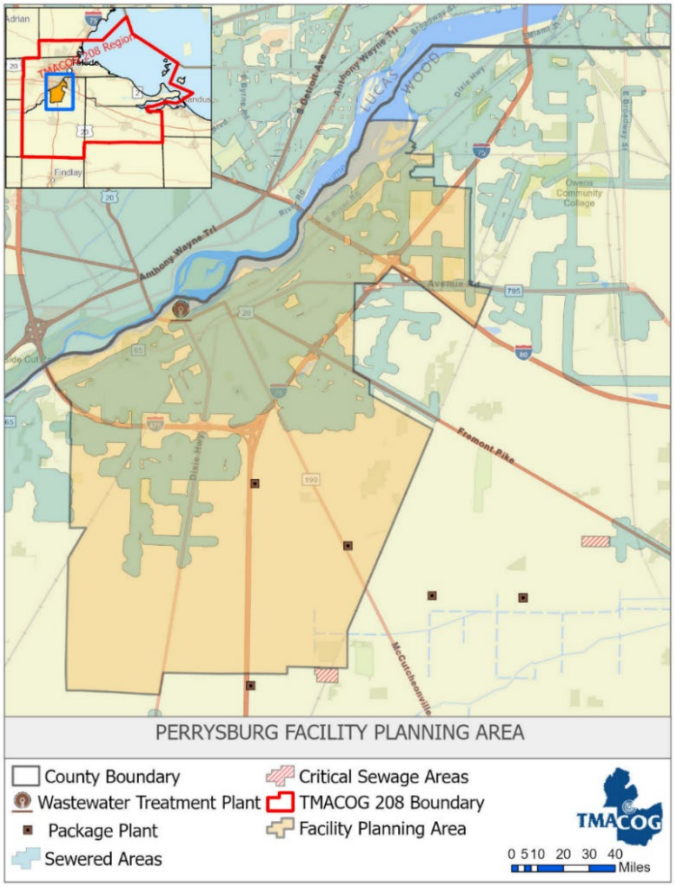

Figure 5 - 44: Perrysburg Facility Planning Area

Table 5 - 103: Perrysburg Area Population

Area	Population
Perrysburg, entire jurisdiction*	25,041
Rossford, entire jurisdiction*	6,299
Middleton Township, entire jurisdiction*	5,611
Perrysburg Township, entire jurisdiction*	13,571
Total	**50,522**

*only part of this jurisdiction is within the FPA boundary.
Source: U.S. Census 2020 decennial census.

Present Facilities

The City of Perrysburg WWTP has an average design capacity of 8.0 mgd, with a peak capacity of 24.0 mgd. Data from 2025 showed an average flow of 5.45 mgd. The plant was originally built in 1958 with expansions in 1972, 1986, and 1991 with recent upgrades in 2008, 2009, 2011, 2014, 2015, and 2021. . Capacity upgrades were needed because of growth in the service area, new stricter discharge limitations, and treatment of wet weather flows. The Perrysburg WWTP is an activated sludge facility with ultraviolet final effluent disinfection, post aeration, anaerobic sludge digestion, and one biosolids belt filter press and one volute dewatering press. Currently all biosolids are trucked to local landfills.

Issues

Sanitary Sewer Overflow (SSO) Elimination

About 600 acres of the older part of Perrysburg had a combined sewer system, with four wet-weather overflows. Perrysburg submitted a combined sewer overflow (CSO) Long Term Control Plan (LTCP) in 1996. This plan called for annual sewer separation projects over a 20-year period. The separation of sewers in this area was completed in 2017 at a final cost of over $29 million.

The CSO area was split into assessment districts for the Cherry and Elm Street regulator areas. The Elm Street CSO district covered one-half block west of Louisiana Avenue to East Boundary Avenue from the Maumee River to Grassy Creek. Separation of sewers in this area was divided into 13 districts. The Cherry Street CSO district covered west of Louisiana Avenue to West Boundary Street.

New storm sewers were installed in both Cherry and Elm Street CSO districts. New and existing catch basins were connected to the new storm sewers. Separation of the Elm Street CSO district was completed in 2001 at a cost of approximately $9.3 million. Separation of the Cherry Street CSO district was completed in November 2017 at a cost of approximately $20.1 million.

In December of 2023, the Ohio Environmental Protection Agency issued Director's Final Findings and Orders (DFFO). In these orders, the four CSOs were reclassified as Sanitary Sewer Overflows (SSOs) and therefore must be eliminated. The DFFO also required the elimination of an Emergency Response Sanitary Sewer Overflow (ER_SSO) located near the crossing of Maple Street over Grassy Creek. This was accomplished by lining the Grassy Creek Interceptor Sewer in 2024 at a cost of approximately $1.5 million.

Sewer separation projects since 1991 focused on removing stormwater collected from the right-of-way (i.e., streets). Some property owners have separated their private stormwater discharge from the sanitary sewer to the new sewers with financial assistance from City grants. The City increased available funding for private property separation grants in 2022 to encourage participation.

Unsewered Areas

There are two package plants located in this FPA, shown in Table 5-104. When public sewers become available, these plants will be abandoned and replaced by a tap to the public sewer.

Table 5 - 104: Package Plants in the Perrysburg Facility Planning Area

Package Plant	Map ID	Status	Install or Upgrade Date	NPDES Permit	Capacity, gpd
Islamic Center of Greater Toledo	WO-102	Active	1991		8,300
Five Point MHP	WO-120	Active		2PY00073	6,600

Note: Data are based on current available data as of April 2019

Dowling: An unincorporated community, located at Dowling Road and Conrail tracks between Dunbridge and Carter Roads. Residences are served by septic systems. Dowling is not under orders to construct sewers. The community is split between the Bowling Green and Perrysburg FPAs. Dowling is identified as a Critical Sewage Area, which is under the jurisdiction of the Northwestern Water and Sewer District (District).

Shelton Gardens: A portion of Middleton Township in Wood County along Five Point Road from the CSX railroad tracks west to the Maumee River is also known as Shelton Gardens. In 2007, Ohio EPA ordered sanitary sewers for this area. Most of the area was in the Lucas County FPA, but the portion between Hull Prairie Road and the railroad tracks was in the Perrysburg FPA. Sanitary sewers were constructed on Five Point and River Roads in 2014 to partially address the unsanitary conditions due to failing septic systems. Orders are still in place for additional Five Points Road frontage to the rail east of Hull Prairie Road.

The portion of Shelton Gardens then in the Perrysburg FPA was moved to the Lucas County FPA subject to the following provisos of TMACOG Resolution 2007-26:

> *THAT the area along Five Point Road between Hull Prairie and the CSX tracks shall remain in the Lucas County FPA until a sewer connected to the Perrysburg system becomes available; and*
>
> *THAT when a Perrysburg sewer becomes available, the area may revert back to the Perrysburg FPA; sanitary sewer services may be disconnected from the Lucas County system and connected to the Perrysburg system at the City of Perrysburg's discretion; and*
>
> *THAT the City of Perrysburg and Northwestern Water and Sewer District agree that notwithstanding availability of a Perrysburg sewer, the Hull Prairie-CSX triangle shall remain in the Lucas County FPA and not be moved back to the Perrysburg FPA before January 1, 2028.*

New Subdivisions

It is the policy of the Plan that for all new residential subdivisions that are required to be platted under Wood County subdivision regulations, septic tanks or individual household sewage treatment systems for platted subdivisions of more than five (5) lots shall not be permitted within the FPA boundary. New

platted subdivisions shall connect to public sewers and be served by the Perrysburg wastewater treatment plant.

Recent Projects

- WWTP upgrades completed from 2005 to 2021 included the following: headworks improvements, new primary clarifier, primary thickener, biosolids storage area, new grit removal equipment, screening equipment, biosolids handling equipment, phosphorous removal improvements, office and staff facilities improvements, ultraviolet disinfection and plant SCADA system improvements.
- A digestor improvement project is currently under construction and estimated to be completed in 2026. This project includes a new methane flare, new boilers, new heat exchangers, new piping processes, and replacement of roof systems of all four digestors. One of these roofs will be a dual membrane system that will allow for the capture of approximately 77,000 cubic feet of biogas that will be used to heat the new boilers.
- Perrysburg is working with the Wood County Health District to identify and classify residential properties inside City limits which have no record of sanitary sewer connection. If a sanitary sewer is deemed available, connection will be enforced, and where any discharging Household Sewage Treatment System (HSTS) remains, the properties will be notified to seek individual National Pollutant Discharge Elimination System (NPDES) permit coverage.
- The City currently has a Primary Settling Tank Improvement project in the preliminary design stage. This project will evaluate the cost of adding an additional 66-foot diameter primary settling tank along with modeling treatment processes and influent flow modifications.
    - In 2022, the NWWSD completed a lining and rehabilitation project of sanitary sewers located on West Boundary. This sanitary sewer receives flows from the Ford Road Pumping Station.IN 2023, the NWWSD completed rehabilitation and expansion of the Ford Road Pumping Station. Capital Project investment $7.5 million.

Future Needs

- In June 2026, the City will submit an SSO Elimination Plan to OEPA. This plan will establish improvements in the City's sanitary sewer collection system and WWTP for an as yet to be determined period. It is anticipated that projects will include sanitary sewer main and lateral lining and manhole rehabilitation to reduce I/I.
- Build sewer extensions to eliminate package plants and to provide service to new development. New package plants and septic systems are not to be permitted in areas where public sewers are available.
- The SR 25 Trunk Sewer, from Five Point Road to King Road has been designed. Construction will occur as necessitated by future development needs.
- The District anticipates performing extensive I&I reduction projects through main line lining, grouting, manhole rehabilitation and private lateral replacement within the Perrysburg FPA.

The capital improvement plan for the Perrysburg FPA is shown in Table 4-105.

Table 5 - 105: Perrysburg FPA Capital Improvement Schedule

Project	DMA	Total Cost						
			2024	2025	2026	2027	2028	Future
Rt 25 Sewer: King to Five Point	Perrysburg	**$4,300,000**						4,300,000
Sewer Rehabilitation	Perrysburg	**$8,000,000**			1,000,000	1,000,000	1,000,000	5,000,000
ER-SSO Elimination	Perrysburg	**$1,500,000**	1,500,000					
WWTP Upgrades	Perrysburg	**$21,000,000**			8,0000,000		15,000,000	
SS300 Area Sewer Replacement and Rehabilitation	Northwestern Water and Sewer District	**$5,000,000**						$5,000,000
		$39,80,000						

Risingsun Facility Planning Area

The Risingsun Facility Planning Area (FPA) is a designated region within village of Risingsun area where wastewater management, including sewage treatment and disposal, is planned and coordinated. The FPA boundaries define the areas that are expected to be serviced by the wastewater treatment facilities in Risingsun (Figure 5-45). The Risingsun FPA ensures that wastewater infrastructure is adequately planned to meet the needs of the population within these boundaries, considering factors like population growth, environmental impacts, and regulatory requirements. This FPA is managed by Northwestern Water and Sewer District which is represented by Designated Management Agencies. The responsibility of this agency is outlined below:

Designated Management Agency Responsibilities:

- **Northwestern Water and Sewer District:** The Village of Risingsun, the Village of West Millgrove, Montgomery Township, and Scott Township are members of Northwestern Water and Sewer District (District). The District is responsible for public sewerage systems in both incorporated and unincorporated areas.

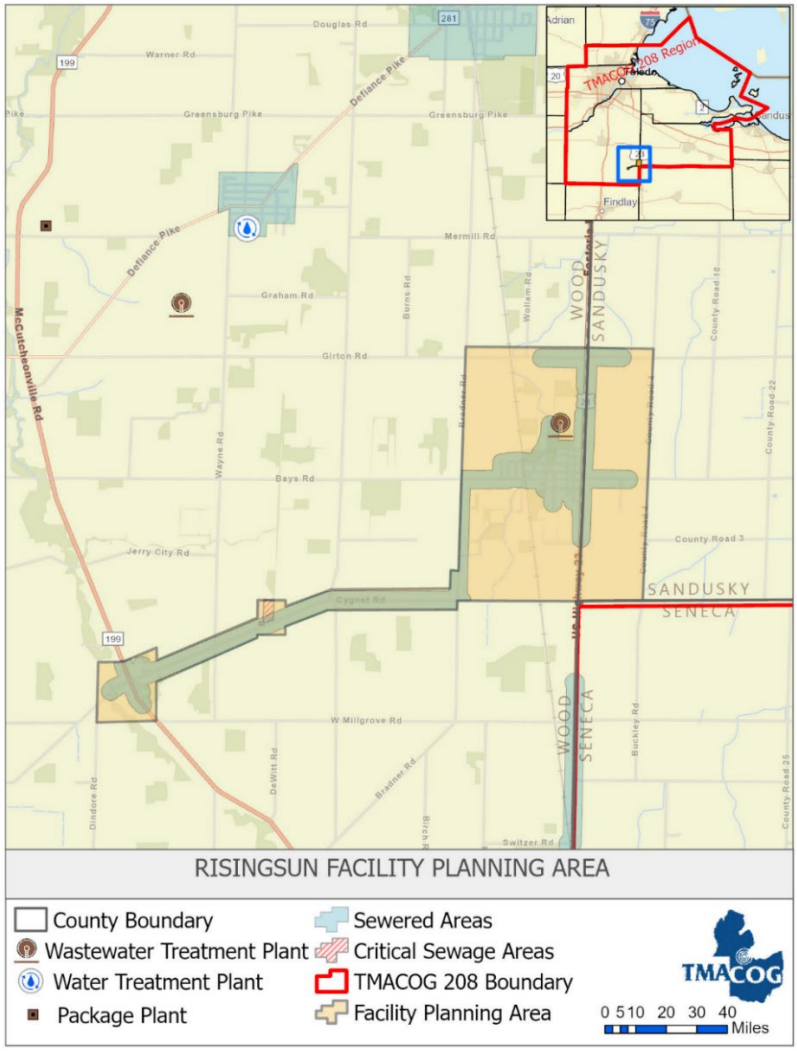

Figure 5 - 45: Risingsun Facility Planning Area

Table 5 - 106: Risingsun Area Population

Area	Population
Risingsun, entire jurisdiction (Wood County)	541
West Millgrove, entire jurisdiction	131
Montgomery Township, entire jurisdiction (Wood County)*	4,157
Scott Township, entire jurisdiction (Sandusky County)*	1,333
Perry Township, entire jurisdiction (Wood County*	15,668
Total	**21,830**

*only part of this jurisdiction is within the FPA boundary.

Source: U.S. Census 2020 decennial census.

Present Facilities

The Northwestern Water and Sewer District (the District) completed a conventional gravity/force main sewer system and WWTP in 2008 at a total cost was $4,799,434. Of that cost, $2,468,300 came from grants and local funds. The treatment plant is an extended aeration plant with an average daily design flow of 95,000 gpd; peak hydraulic capacity is 475,200 gpd (330 gpm). Its Class B sludge is disposed of

by discharge to a larger POTW with sludge handling facilities. Ohio EPA data showed an average monthly flow of 0.033 mgd during 2023-2024.

- In 2012, sewers were installed to serve to Village of West Millgrove, and the critical sewage area at Bays and Bradner Roads. West Millgrove was connected to the Risingsun system via force main; the force main is available for service, and properties to which it is accessible were ordered to tap. These included buildings in the critical sewage area of Hatton that abut Cygnet Road, but most of the unincorporated town, about 17 residents, have no public sewerage system. Sewage treatment is handled by individual septic systems.
- A new headworks project was being completed by the District at the WWTP. The project included replacing the existing trash trap with a new precast dual channel vault to house a new augur monster and grinder, a bypass channel with a standard bar screen, and all necessary electrical, mechanical, and structural work.

Issues

Hatton is identified as a Critical Sewage Area (see **Chapter 6**) due to failing septic systems identified through sanitary surveys and inspections. New or replacement on-site sewage treatment systems and replacements are not practical or possible in many cases. Many of the suspected or failing systems are on small lots that do not have room for replacement leaching fields or soil conditions are poor due to shallow bedrock, tight silt/clay soils, and/or seasonally high ground water.

New Subdivisions

It is the policy of the Plan that all new residential subdivisions that are required to be platted under Wood County subdivision regulations, septic tanks or individual household sewage treatment systems for platted subdivisions of more than five (5) lots shall not be permitted within the FPA boundary. New platted subdivisions shall connect to public sewers and be served by the Risingsun wastewater treatment plant.

Future Needs

- The town of Hatton remains as a Critical Sewage Area. The town's approximately 17 residences are close but not accessible to the District's sanitary sewer. Existing septic systems are believed to be inadequate; a sanitary survey is needed to determine and document their status. It is likely that sanitary sewers will be needed, and financial assistance to make the project feasible.

This Plan supports financial assistance to install sewers and provide treatment for unsewered areas.

Tontogany Facility Planning Area

The Tontogany Facility Planning Area (FPA) is a designated region within village of village of Tontogany area where wastewater management, including sewage treatment and disposal, is planned and coordinated. The FPA boundaries define the areas that are expected to be serviced by the wastewater treatment facilities in Tontogany (Figure 5-46). The Tontogany FPA ensures that wastewater infrastructure is adequately planned to meet the needs of the population within these boundaries, considering factors like population growth, environmental impacts, and regulatory requirements. This FPA is managed by Northwestern Water and Sewer District which is represented by Designated Management Agencies. The responsibility of this agency is outlined below:

Designated Management Agency Responsibilities:

- **Northwestern Water and Sewer District:** Owns and operates wastewater treatment facilities and the collection system.

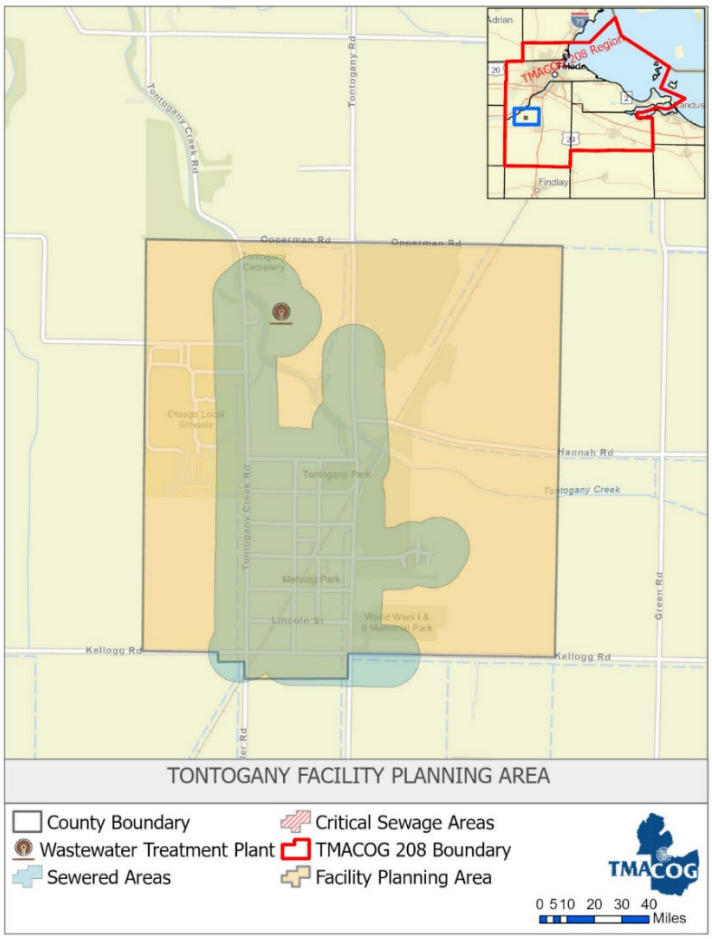

Figure 5 - 46: Tontogany Facility Planning Area

Table 5 - 107: Tontogany Area Population

Area	Total Population
Tontogany, entire jurisdiction	387
Washington Township, entire jurisdiction*	1,864
Total	**2,251**

*only part of this jurisdiction is within the FPA boundary.

Source: U.S. Census 2020 decennial census.

Present Facilities

The Tontogany WWTP is a four-cell aerated lagoon facility with ultraviolet disinfection. The facility was built in 1985 and has an average design capacity of 0.10 mgd and a hydraulic capacity of 0.33 mgd. Ohio EPA data showed an average monthly flow of 0.054 mgd during the period of 2023-2024. The conventional gravity sewer system was also built in 1985.

In 2006, Northwestern Water and Sewer District (District) bought approximately 14 acres for potential future expansion of WWTP. In 2016, rehabilitation work was completed for the existing wastewater pumping station located at North Street.

There are no package sewage treatment plants located in the FPA.

Issues

The Tontogany WWTP has had some recent difficulty in maintaining the ammonia limits listed in the current NPDES permit. The District performed a study to determine possible alternatives to improve the ammonia removal process and is reviewing the results. Additionally, during the study process it was determined that the WWTP requires the lagoons to be drained and the sludge removed. In 2020, the sludge was removed and with upgraded aeration equipment, it is anticipated that the lagoons will meet the permit limits.

The Ohio EPA, upon review of the existing permit, determined that the winter ammonia limits could be removed and that the summer ammonia limit could be raised. This has allowed the plant effluent to comply, excepting during brief periods in late winter. The District is planning to install floating hexagonal covers in 2025 in the cells to resolve these issues.

Future Needs

The District plans to continue its evaluation of the plant to determine the best. The capital improvement plan for the Tontogany FPA is shown in Table 5-108.

Table 5 - 108: Tontogany FPA Capital Improvement Schedule

Project	DMA	Total Cost							
			2025	2026	2027	2028	2029	2030	Future
Tontogany WWTP Improvements	Northwestern Water and Sewer District	**$600,000**	$100,000						$500,000

Wayne Facility Planning Area

The Wayne Facility Planning Area (FPA) is a designated region within the village of Wayne area where wastewater management, including sewage treatment and disposal, is planned and coordinated. The FPA boundaries define the areas that are expected to be serviced by the wastewater treatment facilities in Wayne (Figure 5-79). Wayne FPA ensures that wastewater infrastructure is adequately planned to meet the needs of the population within these boundaries, considering factors like population growth, environmental impacts, and regulatory requirements. This FPA is managed by Village of Wayne Northwestern Water and Sewer District which is represented by Designated Management Agencies. The responsibility of these agencies are outlined below:

Designated Management Agency Responsibilities:

- **Village of Wayne**: Owns and operates wastewater treatment facilities, and the collection system

within the corporate limits.

- **Northwestern Water and Sewer District:** Plans, and will own and operate collection system in unincorporated areas, if and when built, connecting to the Village for treatment services.

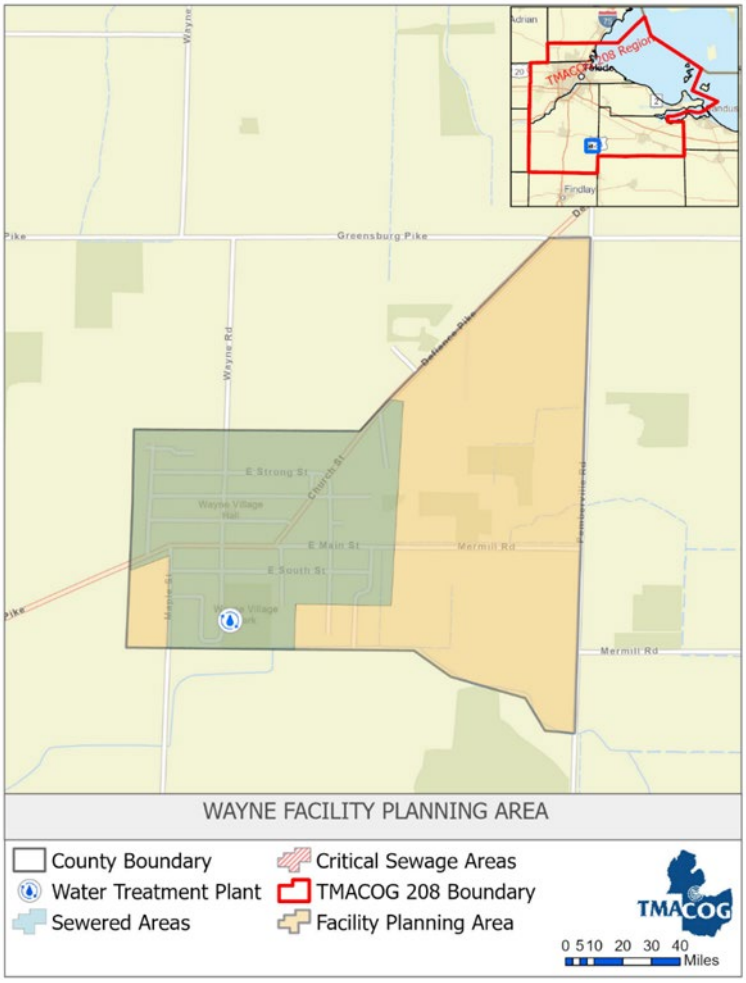

Figure 5 - 47: Wayne Facility Planning Area

Table 5 - 109: Wayne Area Population

Area	Total Population
Wayne, entire jurisdiction	841
Montgomery Township, entire jurisdiction*	4,157
Total	**4, 998**

*only part of this jurisdiction is within the FPA boundary.
Source: U.S. Census 2020 decennial census.

Present Facilities

The Wayne WWTP is a controlled discharge lagoon facility, built in 1997. The system uses conventional gravity sewers. The design capacity is 0.092 mgd. Ohio EPA data showed an average flow of 0.562 mgd when discharging, average flow of 0.020 mgd daily, and a peak flow of 1.361 mgd during the period of 2014-2018. Total discharge over the five-year period was 37.082 mg, with 66 discharge days.

New Subdivisions

It is the policy of the Plan that all new residential subdivisions that are required to be platted under Wood County subdivision regulations, septic tanks or individual household sewage treatment systems for platted subdivisions of more than five (5) lots shall not be permitted within the FPA boundary. New platted subdivisions shall connect to public sewers and be served by the Wayne wastewater treatment plant.

Future Needs

There are no projects planned for the Wayne FPA at the present.

Weston Facility Planning Area

The Weston Facility Planning Area (FPA) is a designated region within the village of Weston area where wastewater management, including sewage treatment and disposal, is planned and coordinated. The FPA boundaries define the areas that are expected to be serviced by the wastewater treatment facilities in Weston (Figure 5-48). Weston FPA ensures that wastewater infrastructure is adequately planned to meet the needs of the population within these boundaries, considering factors like population growth, environmental impacts, and regulatory requirements. This FPA is managed by Northwestern Water and Sewer District which is represented by Designated Management Agencies. The responsibility of this agency is outlined below:

Designated Management Agency Responsibilities:

- **Northwestern Water and Sewer District:** Owns and operates wastewater treatment facilities, and collection system.

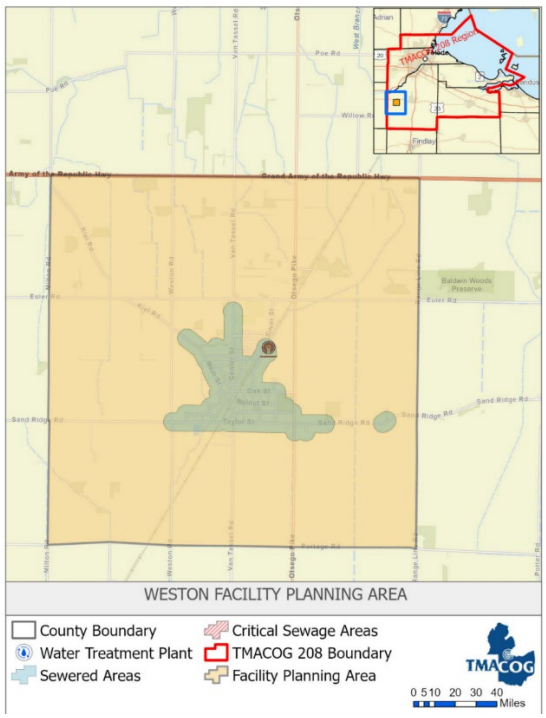

Figure 5 - 48: Weston Facility Planning Area

Table 5 - 110: Weston Area Population

Area	Total Population
Weston, entire jurisdiction	1,455
Weston Township, entire jurisdiction*	2,124
Estimates within the FPA boundary	**3,579**

*only part of this jurisdiction is within the FPA boundary.

Source: U.S. Census 2020 decennial census.

Present Facilities

Weston WWTP is an extended aeration facility with aerobic sludge digestion, effluent chlorination/dechlorination which was converted to ultraviolet in 2006, and aerated flow equalization ponds. The plant has sludge drying beds, but current practice is not to use them, and liquid sludge is transported to the City of Bowling Green WWTP for processing to Class A sludge. The plant was built in 1967, with expansion in 1983. The 1983 improvements included separating the sewer system. Average design capacity was 0.21 mgd and hydraulic capacity was 0.70 mgd. in 2004-2005, the average design flow was increased to 0.28 mgd and peak flow to 0.85 mgd. Implementation of a General Plan led to further improvements for the plant to operate effectively and meet permit requirements. The improvements, completed in 2011 at a cost of $1.3 million, included headworks design, optimized raw wastewater flow to secondary treatment, fine-bubble diffusers, and other secondary process improvements.

Ohio EPA data shows an average flow of 0.24 mgd during the period of 2023-2024. The Northwestern Water & Sewer District (District) is in the process of removing I & I by enforcing I & I elimination based on the previous studies and televising the sewers during heavy rains. In 2018, the District completed a rehabilitation project on two pump stations

Issues

Inflow and infiltration continue to be an issue and the District has to rehabilitate a significant portion of the sewer collection system. In 2021, The District completed a $1.3 million sanitary sewer rehab project. The majority of this project is trenchless, targeting I/I issues, with a small portion of open cut on Ohio Street. Private inflow and infiltration issues will be addressed over the next several years through the private grant program for stormwater removal. The WWTP currently has a peak capacity of 500,000 gpd, however in wet weather the plant experiences flow rates greater than the capacity of the plant. Currently the plant has flow equalization basin capacity of between 1.1 MG and 1.6 MG depending upon the amount of freeboard used within the two existing ponds. The District has recently completed a project aimed at reducing inflow and infiltration within the sanitary sewers in the Weston WWTP collection system. This project was completed in April 2022.

NPDES Permit issued on July 1, 2024 Compliance Schedule

PART I, C. - SCHEDULE OF COMPLIANCE

Milestone Summary Report

- Discharge Prevention Plan 15099 12 months after the permit effective date
- No Feasible Alternative Analysis Status Report 95999 24 months after the permit effective date
- No Feasible Alternative Analysis Status Report 95999 36 months after the permit effective date

1. Bypassing: No Feasible Alternatives Analysis and Schedule

The Weston WWTP includes a bypass which re-routes a portion of wastewater flow to two-551,000-gallon lagoons during storm events. When the capacity of the lagoons is exceeded, the lagoons will discharge through outfall 002. Bypassed flow does not receive the following treatment: activated sludge aeration, secondary clarification and disinfection. Excessive influent flow rates are caused by inflow, and infiltration which results in plant bypasses. These treatment plant bypasses are not authorized by this permit, including Part I.C., Schedule of Compliance. The permittee shall undertake the following actions:

a. The permittee shall conduct a comprehensive analysis of all feasible alternatives necessary to eliminate the bypass at the treatment plant and any overflows in the collection system. This analysis shall address and evaluate the following:

i. Inflow/infiltration reduction within the collection system.

ii. Additional wastewater storage and flow equalization.

iii. Providing additional secondary treatment capacity which includes an analysis of constructing additional secondary capacity as well as an analysis of process changes to enhance secondary treatment capacity.

iv. The analysis shall also evaluate methods that will enhance the treatment of any bypassed flow.

v. Costs associated with the respective alternatives.

vi. A proposed schedule for implementation of recommended improvements (if required) in the collection system and/or the treatment plant.

b. The permittee shall submit a report containing the comprehensive analysis required in Item 1.a as soon as possible, but no later than 12 months from the effective date of this NPDES permit. 12 months after the permit effective date

c. Ohio EPA will review the report submitted under Item 1.b above and provide any necessary comments

to the permittee. The permittee shall respond to any deficiencies in the analysis as noted by Ohio EPA within 30 days of receiving Ohio EPA comments.

d. Within 30 days of notification of review and acceptance by Ohio EPA, the permittee shall initiate

implementation of the recommendations of the report, including any revisions necessary to address Ohio EPA comments.

e. The permittee shall submit annual status reports towards implementation of the evaluation required

under Schedule of Compliance Item 1.d. in accordance with the following schedule:

i. No later than 24 months after the effective date of the permit; and 24 months after the permit effective date

ii. No later than 36 months after the effective date of the permit. 36 months after the permit effective date

iii. All work necessary to comply with the implementation schedule of the selected alternative under this Schedule of Compliance Item 1. shall be fully completed by the expiration date of this permit.

New Subdivisions

It is the policy of the Plan that all new residential subdivisions that are required to be platted under Wood County subdivision regulations, septic tanks or individual household sewage treatment systems for platted subdivisions of more than five (5) lots shall not be permitted within the FPA boundary. New platted subdivisions shall connect to public sewers and be served by the Weston wastewater treatment plant.

Future Needs

The District has hired a consultant to perform the evaluation of options for addressing the Compliance Schedule shown above. This effort is underway and includes:

- Collection of the background data regarding the treatment works including reports and technical information.
- Reviewing the performance of the WWTP in terms of capacity of the plant as a whole and each individual treatment process.

The capital improvement plan for the Weston FPA is shown in Table 5-111.

Table 5 - 111: Weston FPA Capital Improvement Schedule

Project	DMA	Total Cost	Annual Capital Improvement Needs						
			2025	2026	2027	2028	2029	2030	Future
WWTP Improvements	NWWSD	$2,200,000		$200,000	$1,000,000	$1,000,000			
Sanitary Sewer and Lateral Rehabilitation	NWWSD	$500,000			$500,000				
		$2,700,000							