

# Chapter 7

## *Wastewater Facilities Planning*

*This product was financed through a grant from the Ohio Environmental Protection Agency and the United States Environmental Protection Agency with funds from Section 604B of the Clean Water Act.*

## **Chapter 7: Wastewater Facilities Planning**

### **Federal and State Oversight of Public Wastewater Treatment Plants**

The intent of the Clean Water Act is for our water resources to support a variety of uses—not only the disposal of municipal and industrial waste but also drinking water supply, agriculture, recreation, and aquatic life—by addressing pollution sources. The significance of any pollutant depends on the extent to which it inhibits the ability of a body of water to support a diversity of uses. The level of pollution control required is related to a stream’s assimilative capacity, its ability to purify itself by using dissolved oxygen to decompose organic waste.

After state governments determine the uses a stream should be able to accommodate, they establish water quality standards to enable these uses. Water quality standards are expressed in terms of physical and chemical parameters that are considered minimum requirements, not to be diminished by the impacts of wasteloads, such as the discharge of effluent from treatment plants. Effluent limitations are developed for all wastewater plants in a process called wasteload allocation. Depending on the pollutant in question, an effluent limitation may permit some discharge or no discharge at all. In addition, U.S. EPA requires industries discharging to public treatment plants to pretreat their wastes to reduce or remove elements that cannot be handled by the public plant’s treatment processes.

The Clean Water Act created an oversight system for wastewater dischargers called the National Pollution Discharge Elimination System (NPDES) permit which includes requiring that effluent limitations must be identified and met. In Ohio, the Ohio EPA sets effluent limitations and issues NPDES permits, which must then be renewed every 5 years or whenever significant modifications or expansions are made to the treatment plant.

Ohio EPA also conducts reviews and issues permits for the construction of wastewater facilities whether they involve sewer collection systems, treatment plants, or expansions or improvements to these systems and plants. (Because of federal and state law, the discharge permits and construction permits issued by Ohio EPA cannot be “substantially inconsistent” with the water quality management planning required under Section 208 of the Clean Water Act.) In addition, Ohio EPA provides oversight of system operations and compliance by requiring that treatment facilities submit monthly operating reports that indicate effluent quality and any monitored exceedances of the parameters identified in their NPDES permits.

In general, water quality problems caused by wastewater facilities are related to inadequacies in treatment levels, plant size, or operation and maintenance. By-passing is the water quality problem caused most often by inadequate plant size. If a facility is not large enough to process the flows conveyed to it, untreated wastewater is by-passed into the receiving stream. Poor maintenance or operation of a treatment plant and poor maintenance of sewer collection systems are also causes of water quality problems. Systems with cracked joints and broken pipes allow groundwater infiltration, which may substantially increase the volume of water delivered to a treatment plant. Drains connected to a sewer system from rooftops and foundations contribute to inflow problems. Infiltration and inflow (often referred to as “I/T”) problems can be quite serious in poorly constructed or maintained systems.

## **OKI's Work with Public Wastewater Facilities for "208" Planning**

As described in Chapter 1, the Ohio-Kentucky-Indiana Regional Council of Governments (OKI) is responsible for water quality management planning in the greater Cincinnati region, including Butler, Clermont, Hamilton and Warren Counties. The governor of Ohio designated OKI for this role because of Section 208 of the Clean Water Act. Section 208 requires that areas with substantial water quality problems develop a management plan to control pollution on a regional basis, so these plans are often referred to as "208" plans.

A key aspect of "208" planning is to identify areas in which the feasibility of public wastewater treatment alternatives can be investigated, areas called wastewater facility planning areas or FPAs, and to designate management agencies or DMAs for each FPA. In updating FPAs and DMAs for this "208" plan update, OKI has gathered information and consulted extensively with local wastewater management agencies in Butler, Clermont, Hamilton and Warren Counties, meeting with neighboring agencies to discuss information, issues and alternatives. The FPAs are intended to permit an analysis of alternatives where cost savings, management advantages or environmental gains may result.

In updating FPA boundaries and management agency designations, OKI has considered several factors, including natural drainage; existing wastewater infrastructure and management; the status of local facility planning; municipal, county, and state boundaries; the timing of service in relation to needs to protect and improve water quality; and input received from local governments and the public. Because of existing infrastructure and inter-local agreements, OKI's approach has typically been that while more than one local agency (multiple DMAs) might be designated to provide sewage collection within an FPA, only one local agency or DMA would be designated to provide wastewater treatment within an FPA. This approach helps to avoid duplication of effort and its associated costs.

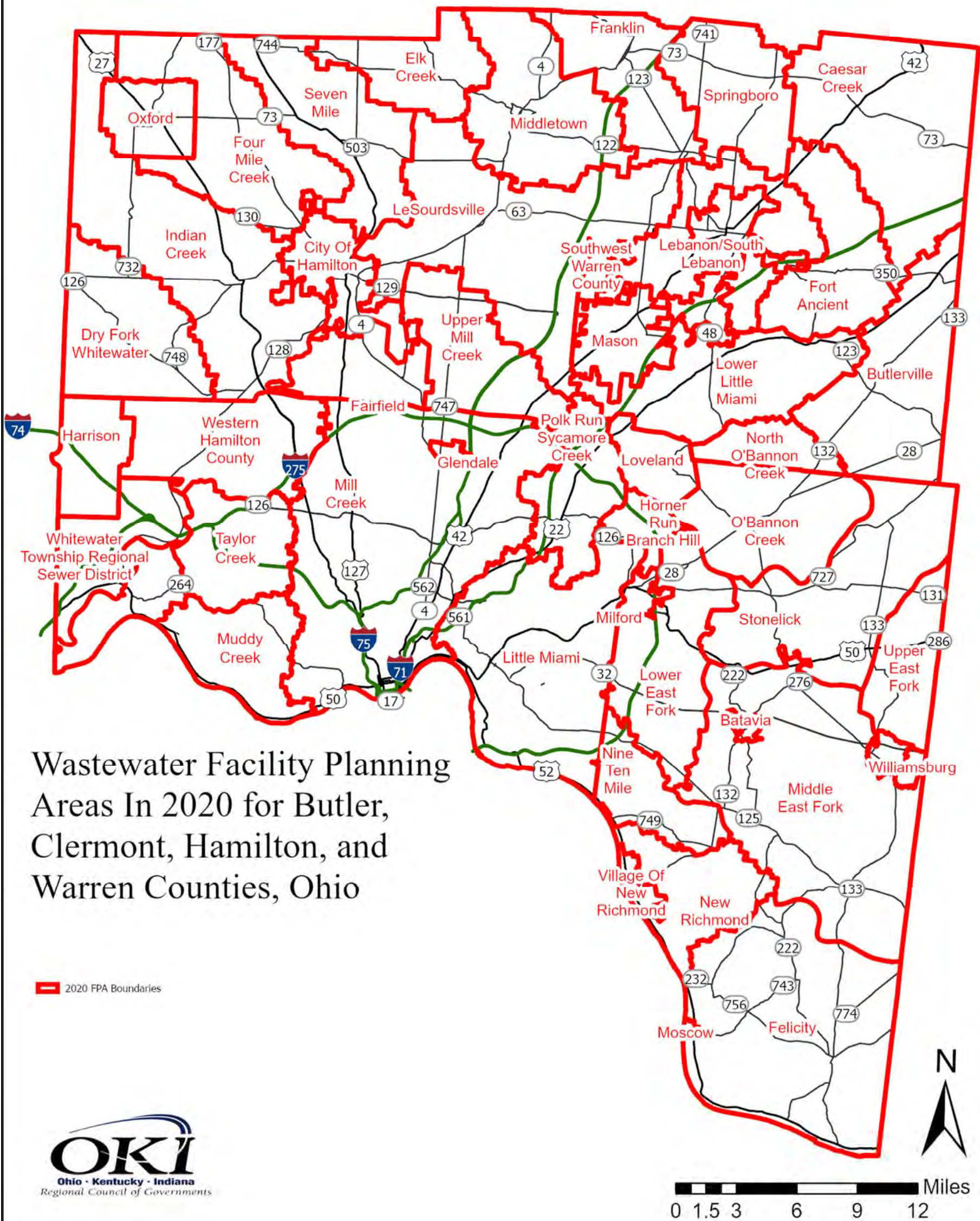
Figure 7-1 shows wastewater facility planning areas for Butler, Clermont, Hamilton and Warren Counties as they existed in 2009 at the beginning of the plan update process, and Figure 7-2 shows recommended wastewater facility planning areas for these counties in 2011. The recommended FPA boundaries are shown either with red solid lines or with black dashed lines. The black dashed lines indicate "overlay FPAs" as the management agencies already serving them have been designated to provide service within their jurisdictional boundaries, which have changed and may change again over time. In addition, while southwest Ohio includes several small wastewater treatment "package" plants that are owned and managed by commercial enterprises or mobile home parks, this plan update focuses on publicly owned wastewater treatment works as shown in Figure 7-3 and in subsequent individual facility planning area maps and summaries.

For each of the recommended facility planning areas, available information is provided about jurisdictions involved; areas of existing sewer service; areas of anticipated sewer service; wastewater treatment facilities; management agencies recommended to address wastewater collection and/or treatment; population and projected population; water quality issues such as clusters of failing onsite wastewater treatment systems; plans for addressing such issues and maintaining or improving appropriate treatment plant operations and capacity; and watersheds and waterways. The FPA summaries incorporate information provided by local wastewater management agencies and all of the summaries were provided to them for review and comment.



Figure 7-1

For the most current version of this map, go to [HERE](#).





**Figure 7-2**

**Wastewater Treatment Facilities and Sewer Service Areas 2020 In Butler, Clermont, Hamilton, and Warren Counties**

Legend:

- Sewer Service Area
- 2020 FPA Boundaries
- Wastewater Treatment Plant (WWTP)

Scale: 0 1.75 3.5 7 10.5 14 Miles

North Arrow

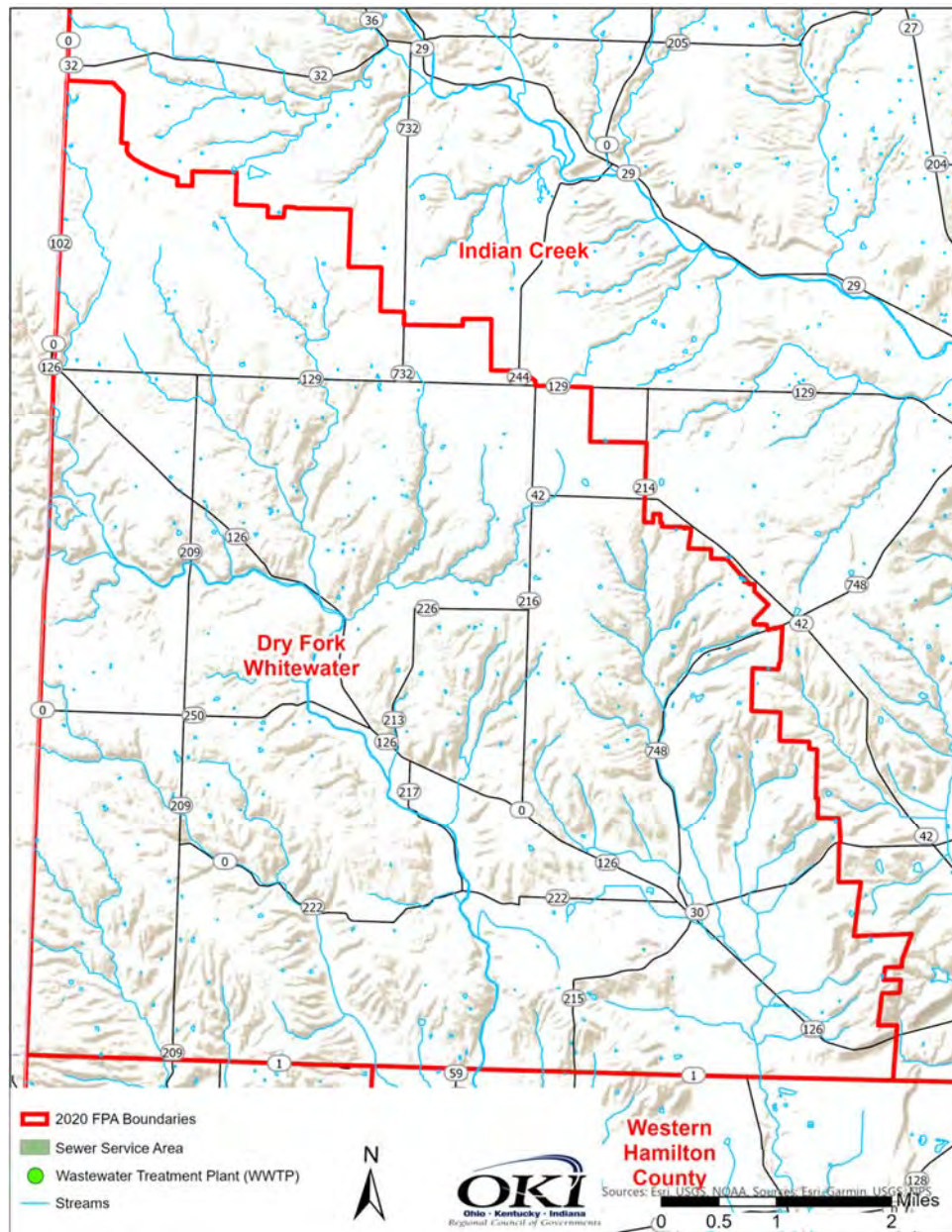
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***Recommended Butler  
County Wastewater  
Facility Planning Areas***

# Dry Fork Whitewater River Facility Planning Area

The Dry Fork Whitewater River Facility Planning Area (FPA) does not contain any areas of centralized sewer service. Local jurisdictions include parts of Reily Township, Morgan Township, and Ross Township.



## Facilities

There are no centralized wastewater treatment facilities in the FPA.

## Designated Management Agencies

It is recommended that the Butler County Water and Sewer Department continue to be the designated management agency for wastewater collection and treatment in the FPA.

## **Population**

The 2010 population of this FPA was estimated to be 6,271, and the 2040 population is projected to be 6,995.

## **Issues**

Failing onsite treatment systems are located in some areas of eastern Morgan Township.

## **Plans**

It is recommended that the County investigate options to address failing onsite treatment systems in Morgan Township.

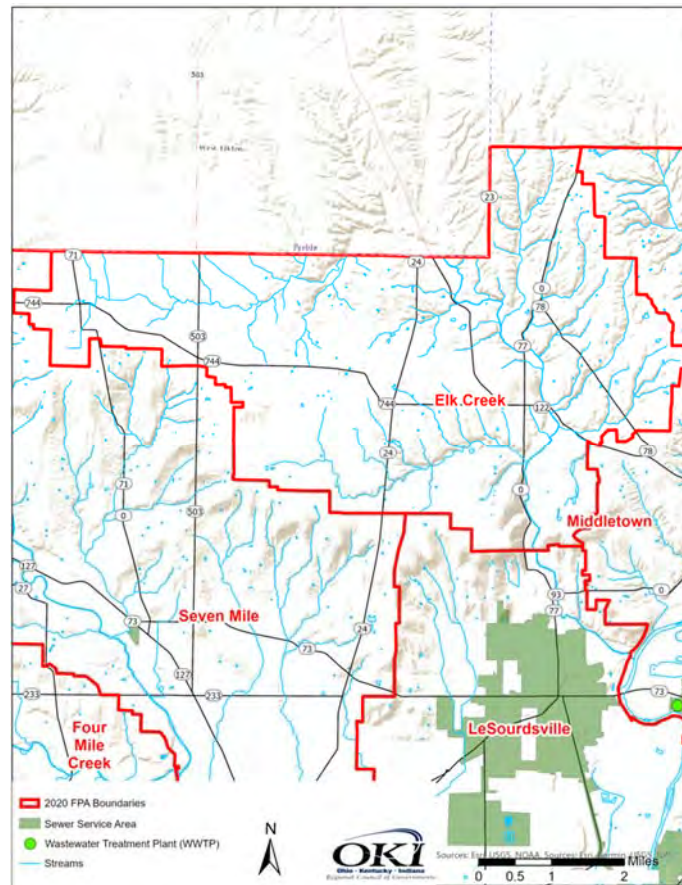
## **Watersheds and Major Waterways**

The FPA contains Whitewater River and Great Miami River tributaries, including Dry Fork Whitewater River, Camp Run, Buck Run, Kiata Creek, Howard Creek, Lee Creek, Sours Run, Sater Run, Philips Creek, and Paddys Run. HUC 12 Watersheds include Headwaters Dry Fork Whitewater River (050800030807), Howard Creek – Dry Fork Whitewater River (050800030808), Paddys Run (050800020903), and Lee Creek – Dry Fork Whitewater River (050800030809).



# Elk Creek Facility Planning Area

The Elk Creek Facility Planning Area (FPA) does not contain any areas of centralized sewer service. Local jurisdictions include the Village of Jacksonburg, and parts of Wayne Township, Milford Township, and Madison Township.



## Facilities

There are no centralized wastewater treatment facilities in the FPA.

## Designated Management Agencies

It is recommended that the Butler County Water and Sewer Department continue to be the designated management agency for wastewater treatment and collection in the FPA.

## Population

The 2010 population of this FPA was estimated to be 4,118, and the 2040 population is projected to be 5,138.

## Issues

Failing onsite treatment systems are located in the central and eastern parts of the FPA.

## **Plans**

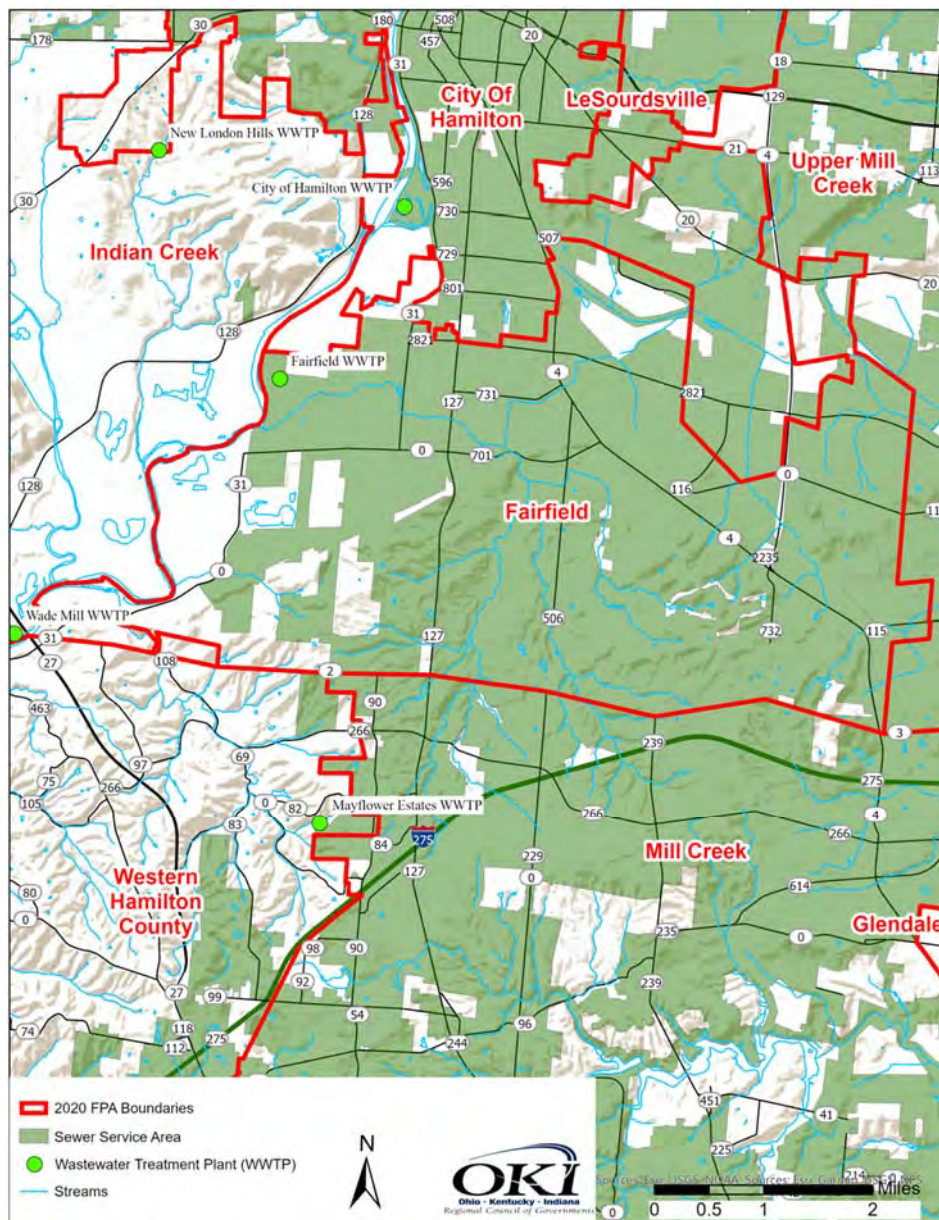
It is recommended that the County investigate options to address failing onsite systems in the FPA.

## **Watersheds and Major Waterways**

The FPA contains streams that drain to the Great Miami River including Elk Creek, Dry Run, and Clear Creek. The HUC 12 watershed is Elk Creek (050800020701).

# Fairfield Facility Planning Area

The Fairfield Facility Planning Area (FPA) contains the Fairfield Sewer Service Area. Local jurisdictions include City of Fairfield, and parts of Fairfield Township and Ross Township.



## Facilities

Facility Name	Avg. Daily Flow*	# 2019 Connections (Actual)
	Daily Capacity*	# 2050 Connections (Projected)
Fairfield WWTP	5,700,000	13,500
	10,000,000	15,000

\* Avg. Daily Flow and Daily Capacity are given in gallons per day.



## **Designated Management Agencies**

It is recommended that the City of Fairfield continue to be the designated management agency for wastewater collection and treatment in the FPA.

## **Population**

The 2010 population of this FPA was estimated to be 42,510, and the 2040 population is projected to be 44,277.

## **Issues**

Fairfield is continuing an ongoing effort to eliminate infiltration and inflow into sewer lines, which has succeeded in reducing the volume of wastewater over a 15-year period by about 13%.

## **Plans**

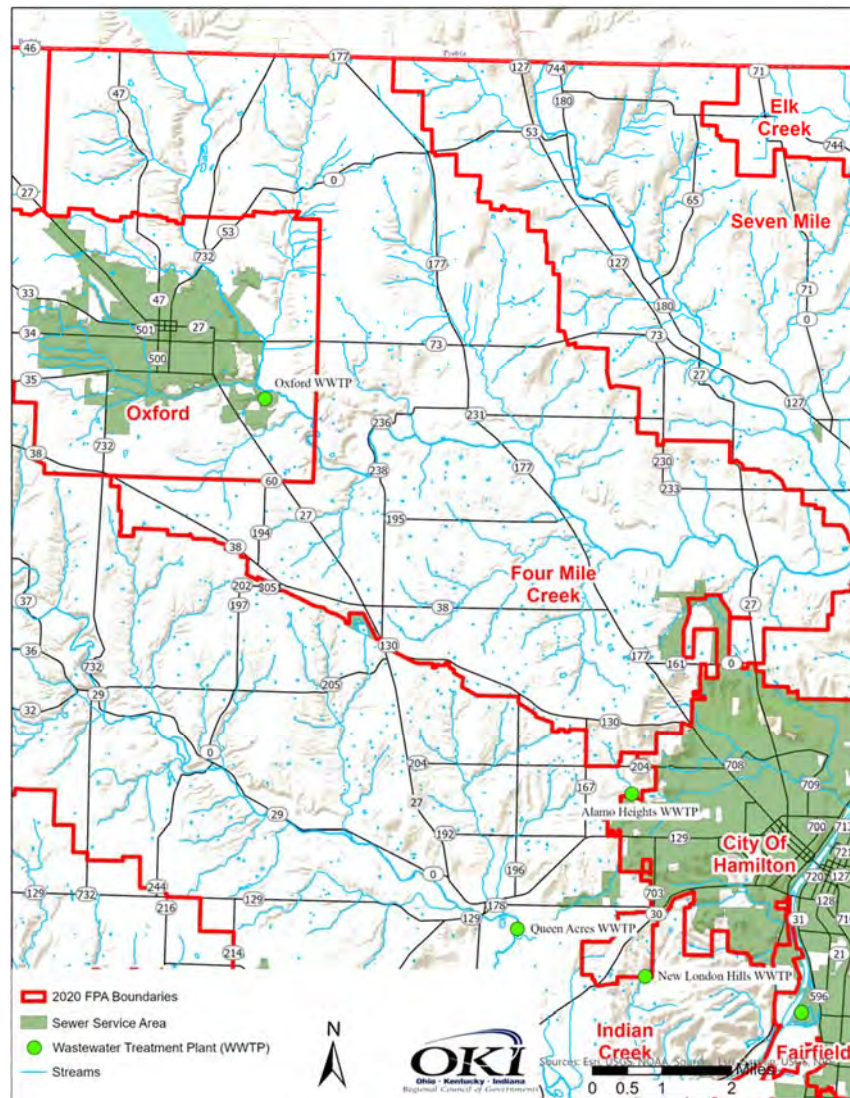
The Fairfield Public Utilities Department plans to expand sewer service in a southwestern portion of the FPA known as the John Gray Road Corridor; given the Fairfield plant's excess capacity, it is not anticipated that capacity improvements will be needed to accommodate development in the FPA.

## **Watersheds and Major Waterways**

The FPA contains Pleasant Run, and has the Great Miami River shaping most of its western border. HUC 12 watersheds include East Fork Mill Creek – Mill Creek (050902030101), Pleasant Run (050800020901), Banklick Creek – Great Miami River (050800020902), and Dry Run – Great Miami River (050800020904).

# Four Mile Creek Facility Planning Area

The Four Mile Creek Facility Planning Area (FPA) does not contain any areas of centralized sewer service. Local jurisdictions include parts of Oxford Township, Milford Township, Hanover Township, Reily Township, Wayne Township, and St. Clair Township.



## Facilities

There are no centralized wastewater treatment facilities in the FPA.

## Designated Management Agencies

It is recommended that the Butler County Water and Sewer Department continue to be the Designated Management Agency for wastewater collection and treatment in the FPA.

## Population

The 2010 population of this FPA was estimated to be 6,864, and the 2040 population is projected to be 7,525.

## **Issues**

Failing onsite treatment systems are located in the central, southeastern and southwestern portions of the FPA.

## **Plans**

It is recommended that the County investigate options to address failing onsite systems in the FPA.

## **Watersheds and Major Waterways**

The FPA contains Four Mile Creek and several of its tributaries including Harkers Run, Darrs Run, Scotts Run, Tucky Run, Curlane Run, Coullers Run, Stony Run, Brenners Run, and Becketts Run. HUC 12 watersheds include Banklick Creek – Great Miami River (050800020902), Cotton Run-Four Mile Creek (050800020605), Acton Lake Dam-Four Mile Creek (050800020604), Little Four Mile Creek (050800020602), Brandywine Creek-Indian Creek (050800020802), and Beals Run-Indian Creek (050800020803).



The City of Hamilton Facility Planning Area (FPA) contains the Hamilton and New London Hills Sewer Service Areas. Local jurisdictions include City of Hamilton and some small isolated sections of Hanover Township, Fairfield Township, and Ross Township.



## Facilities

Facility Name	Avg. Daily Flow*	# 2019 Connections (Actual)
	Daily Capacity*	# 2050 Connections (Projected)
City of Hamilton WRF	8,200,000	22,325
	32,000,000	23,500
New London Hills WWTP	11,000	38
	20,000	40

\* Avg. Daily Flow and Daily Capacity are given in gallons per day.

## Designated Management Agencies

It is recommended that the City of Hamilton continue to be the designated management agency for wastewater collection and treatment in the FPA. This includes operation of the City of Hamilton WRF and New London Hills WWTP.

## Population

The 2010 population of this FPA was estimated to be 62,447, and the 2040 population is projected to be 64,351.

## Issues

The City of Hamilton is mitigating several sanitary sewer overflows in the FPA.

## Plans

The City's treatment plant has sufficient capacity for the growth anticipated during the planning period; it is recommended that the City continue work to mitigate sanitary sewer overflows.

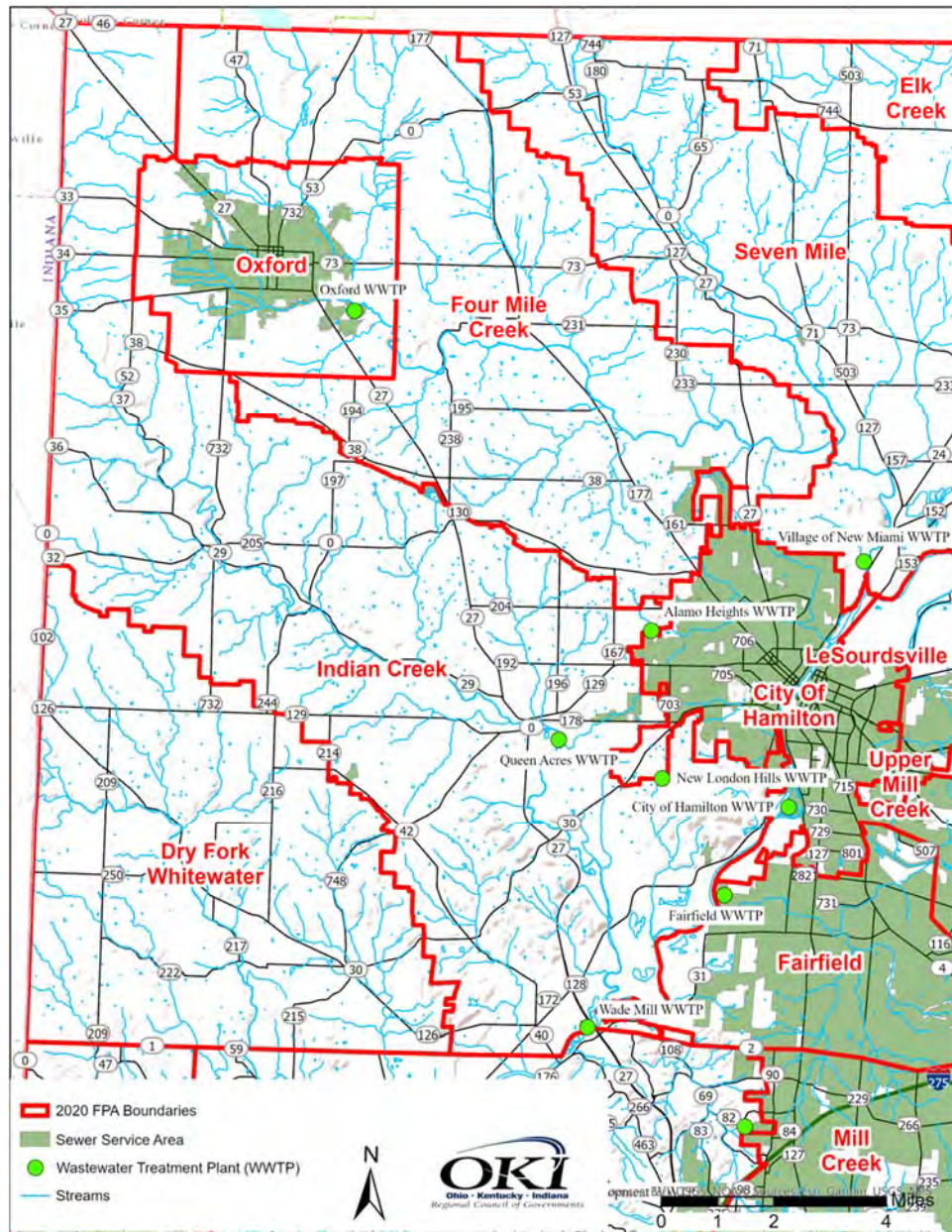
## Watersheds and Major Waterways

The FPA contains a section of the Great Miami River, and one of its tributaries, Two Mile Creek. HUC 12 watersheds include Banklick Creek – Great Miami River (050800020902), Cotton Run – Four Mile Creek (050800020605), East Fork Mill Creek – Mill Creek (050902030101), Pleasant Run (050800020901), and Beals Run – Indian Creek (050800020803).



# Indian Creek Facility Planning Area

The Indian Creek Facility Planning Area (FPA) contains the Queen Acres, Alamo Heights and Wade Mill Sewer Service Areas. Local jurisdictions include the Village of Millville and parts of the Village of College Corner, Oxford Township, Reily Township, Hanover Township, Morgan Township, Ross Township, St. Clair Township, and Fairfield Township.





## Facilities

Facility Name	Avg. Daily Flow*	# 2019 Connections (Actual)
	Daily Capacity*	# 2050 Connections (Projected)
Queen Acres WWTP	363000	1021
	600,000	2,500
Alamo Heights WWTP	79000	271
	130,000	350
Wade Mill WWTP	148000	724
	500,000	1,700

\* Avg. Daily Flow and Daily Capacity are given in gallons per day.

## Designated Management Agencies

It is recommended that the Butler County Water and Sewer Department continue to be the designated management agency for wastewater collection and treatment in the FPA.

## Population

The 2010 population of this FPA was estimated to be 15,631, and the 2040 population is projected to be 21,852.

## Issues

Failing onsite treatment systems are located in the southern and central portions of the FPA.

## Plans

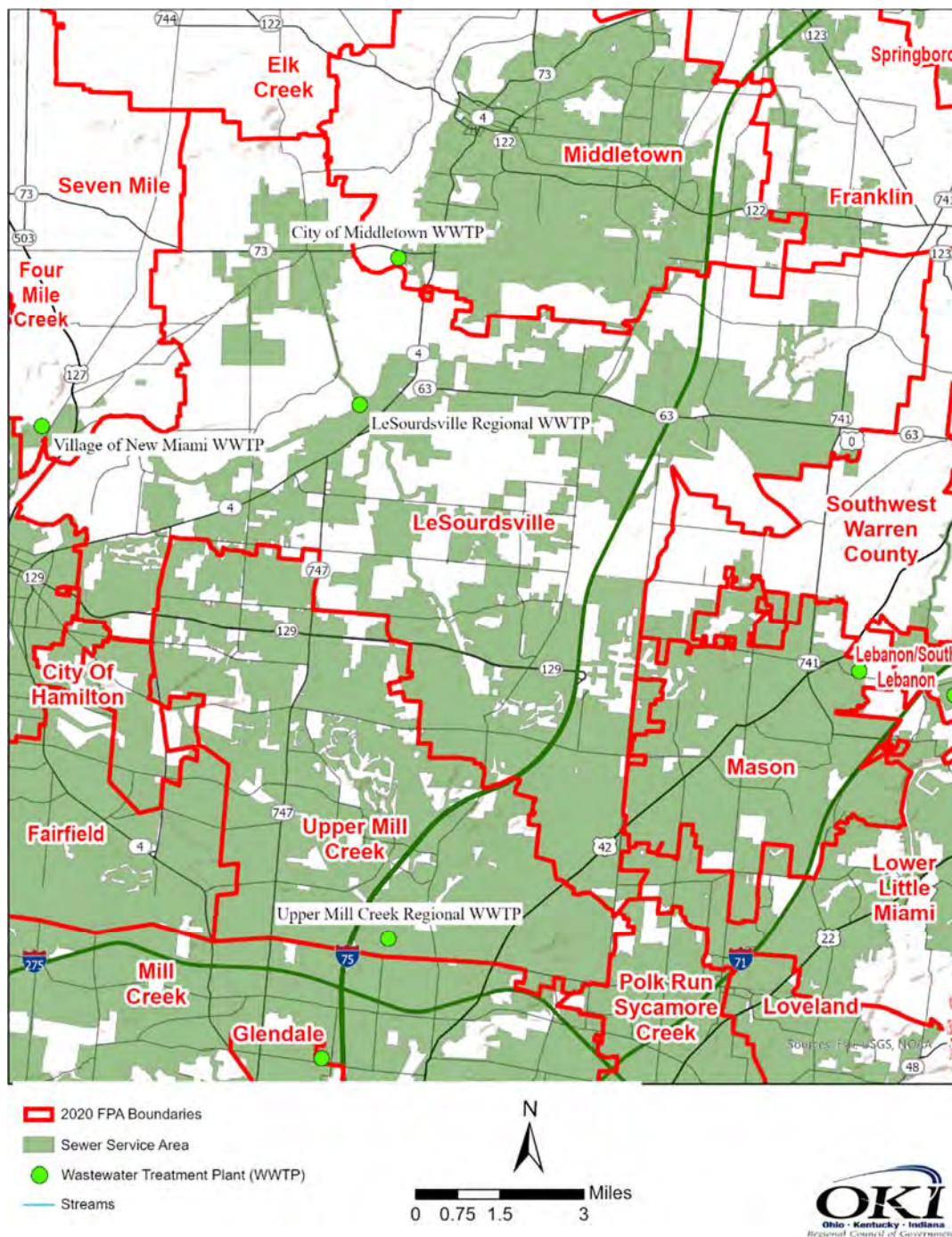
It is recommended that the County investigate options for addressing failing onsite systems in the FPA. Also, the Alamo Heights WWTP was recently eliminated and now pumps to Queen Acres.

## Watersheds and Major Waterways

The FPA contains Indian Creek and several of its tributaries including College Creek, Little Indian Creek, Reserve Run, Salmon Run, Beals Run, Lick Run, and Dry Run. HUC 12 watersheds include Brandywine Creek – Indian Creek (050800020802), Beals Run – Indian Creek (050800020803), and Banklick Creek – Great Miami River (050800020902).

## LeSourdsville Facility Planning Area

The LeSourdsville Facility Planning Area (FPA) contains the LeSourdsville Sewer Service Area. Local jurisdictions include City of Trenton, City of Monroe, and parts of Wayne Township, St. Clair Township, Madison Township, Lemon Township, Fairfield Township, Liberty Township, Turtle Creek Township, and West Chester Township. The far south eastern corner of the FPA South of Barret Road is serviced by the North Pisgah lift station. This lift station is currently in the LeSourdsville FPA but can pump to either/or both the LeSourdsville and/or Upper Mill Creek WWTPs based on the needs of the Butler Water & Sewer Department.



## Facilities

Facility Name	Avg. Daily Flow*	# 2019 Connections (Actual)
	Daily Capacity*	# 2050 Connections (Projected)
LeSourdsville Regional WWTP	10,258,000	26000
	15,000,000	53,000

\* Avg. Daily Flow and Daily Capacity are given in gallons per day.

## Designated Management Agencies

It is recommended that the Butler County Water and Sewer Department continue to be the designated management agency for wastewater collection and treatment in the FPA.

## Population

The 2010 population of this FPA was estimated to be 80,162, and the 2040 population is projected to be 109,225.

## Issues

Failing onsite treatment systems are located in the eastern and northern portions of the FPA. Problems with inflow and infiltration are being addressed with improvements to the collection system and treatment plant.

## Plans

In anticipation of continued growth in this FPA, the County increased the capacity of the LeSourdsville plant from 12 million gallons per day (MGD) to 15MGD. The County also anticipates expanding the service area to accept flows from approximately 30,500 new connections during the planning period. It is recommended that the County continue to evaluate the adequacy of treatment capacity as growth occurs. A Sanitary Sewer Master Plan is expected in 2019.

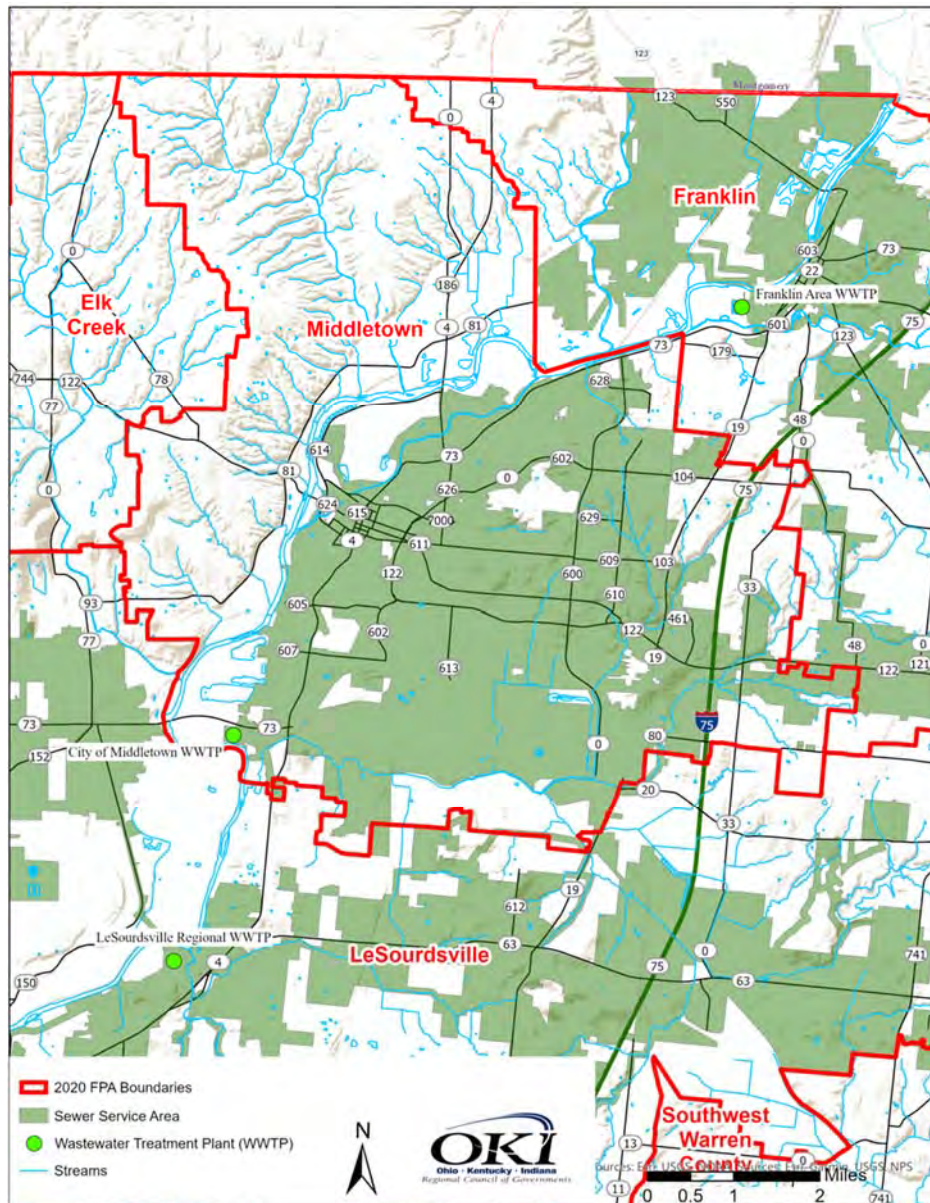
## Watersheds and Major Waterways

The FPA contains a segment of the Great Miami River and several tributaries including Gregory Creek, Coldwater Creek, Panther Run, Stony Run, Hunts Creek, Millers Creek, Ausbergers Creek, Clarks Run, Harmon Run, and Shaker Creek. HUC 12 watersheds include Banklick Creek – Great Miami River (050800020902), Town of New Miami – Great Miami River (050800020706), Gregory Creek (050800020705), Dicks Creek (050800020704), Shaker Creek (050800020703), and Little Muddy Creek (050902020802).



# Middletown Facility Planning Area

The Middletown Facility Planning Area (FPA) contains the Middletown Sewer Service Area. Local jurisdictions include City of Middletown and portions of Turtle Creek Township, Lemon Township, Franklin Township, and Madison Township.



## Facilities

Facility Name	Avg. Daily Flow*	# 2019 Connections (Actual)
	Daily Capacity*	# 2050 Connections (Projected)
City of Middletown WWTP	16,000,000	19,550
	26,000,000	21,052

\* Avg. Daily Flow and Daily Capacity are given in gallons per day.

## **Designated Management Agencies**

It is recommended that the City of Middletown continue to be the designated management agency for wastewater collection and treatment in the FPA.

## **Population**

The 2010 population of this FPA was estimated to be 56,386, and the 2040 population is projected to be 62,222.

## **Issues**

Failing onsite treatment systems are located in the western and northern portions of the FPA.

## **Plans**

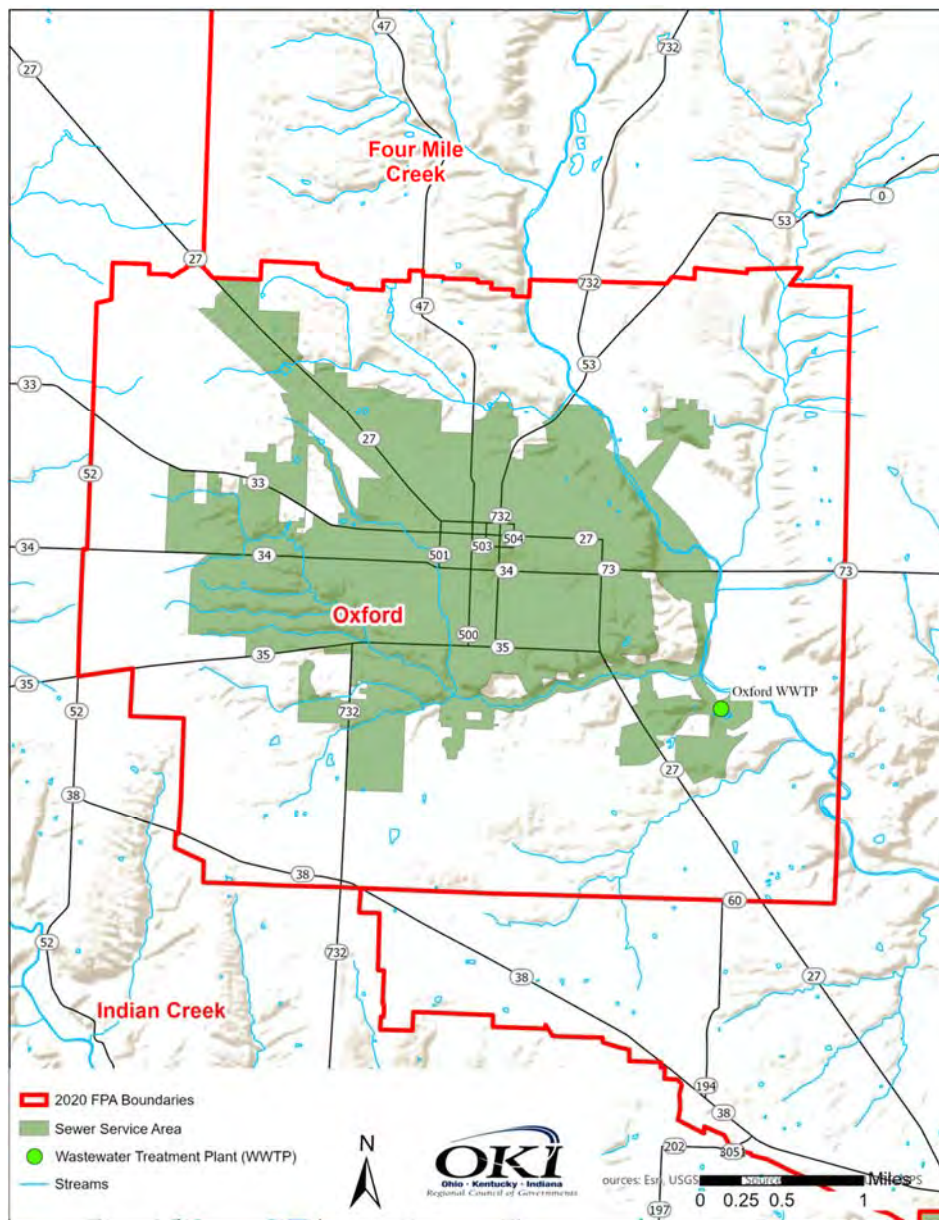
Treatment capacity at the Middletown plant is estimated to be sufficient for the growth anticipated in the FPA during the planning period. It is recommended that the City investigate options to address failing onsite treatment systems in the FPA.

## **Watersheds and Major Waterways**

The FPA includes a segment of the Great Miami River and several tributaries including Browns Run, Dicks Creek, Hendricksons Run, Millers Creek, and Eberharts Run. HUC 12 watersheds include Browns Run – Great Miami River (050800020702), Dicks Creek (050800020704), Dry Run – Great Miami River (050800020404), Shaker Creek (050800020703), and Town of New Miami – Great Miami River (050800020706).

# Oxford Facility Planning Area

The Oxford Facility Planning Area (FPA) contains the Oxford Sewer Service Area. Local jurisdictions include the City of Oxford and a portion of Oxford Township.



## Facilities

Facility Name	Avg. Daily Flow*	# 2019 Connections (Actual)
	Daily Capacity*	# 2050 Connections (Projected)
Oxford WWTP	2,500,000	4240
	4,200,000	4,850

\* Avg. Daily Flow and Daily Capacity are given in gallons per day.



## **Designated Management Agencies**

It is recommended that the City of Oxford continue to be the designated management agency for wastewater collection and treatment in the FPA.

The 2010 population of this FPA was estimated to be 21,626, and the 2040 population is projected to be 22,275.

## **Population**

### **Issues**

There are a few failing onsite treatment systems located in the FPA.

### **Plans**

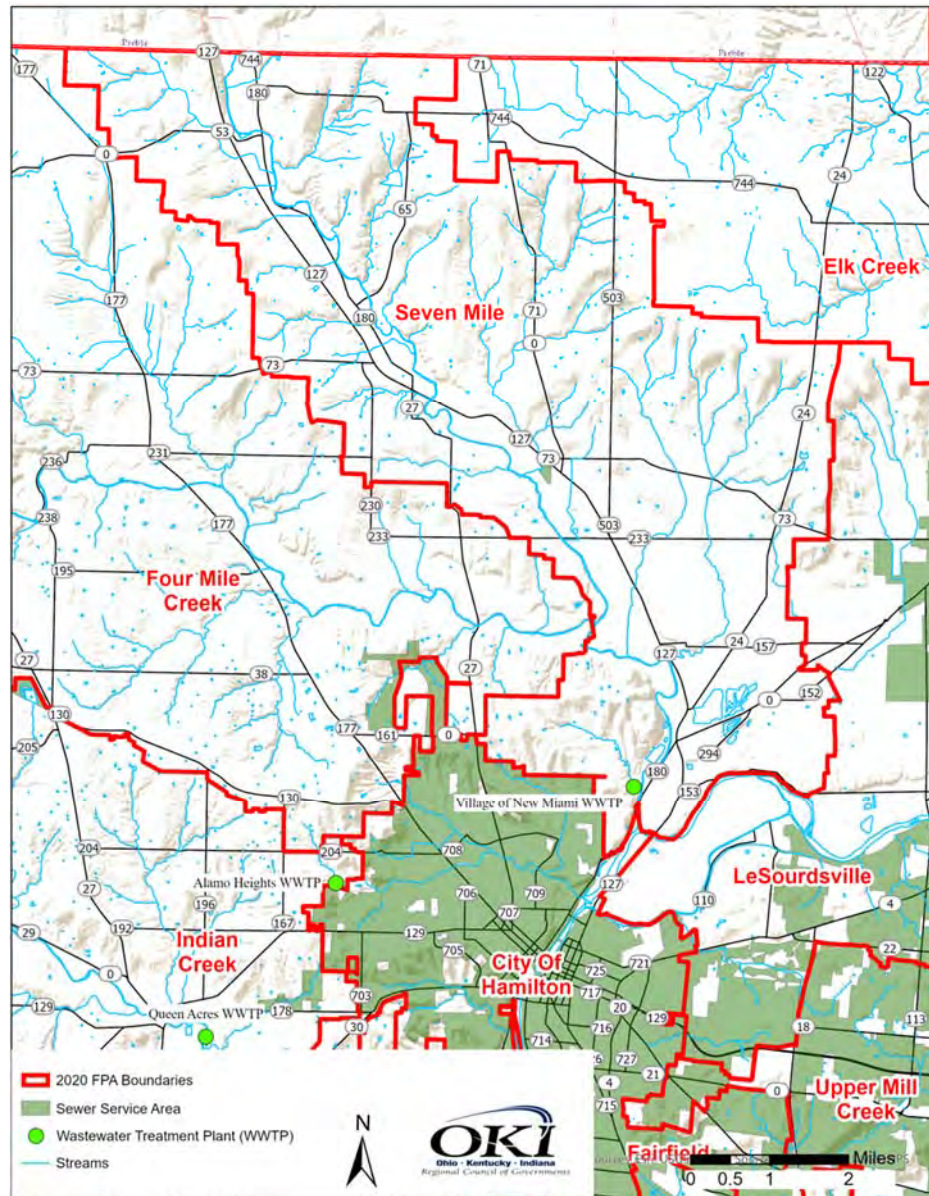
The City of Oxford plans to expand some parts of its service area based on gradual population growth. The treatment plant's excess capacity is anticipated to be more than adequate for the approximately 700 new collection system connections that are expected by the year 2040.

## **Watersheds and Major Waterways**

The FPA contains the Four Mile Creek headwaters including Bull Run, Harkers Run, Collins Creek, and Lick Run. HUC 12 watersheds include Acton Lake Dam – Four Mile Creek (050800020604), Brandywine Creek – Indian Creek (050800020802), and Beals Run – Indian Creek (050800020803).

# Seven Mile Facility Planning Area

The Seven Mile Facility Planning Area (FPA) contains the Village of New Miami Sewer Service Area. Local jurisdictions include the Village of Somerville, Village of Seven Mile, Village of New Miami, and parts of Milford Township, Wayne Township, and St. Clair Township.



## Facilities

Facility Name	Avg. Daily Flow*	# 2019 Connections (Actual)
	Daily Capacity*	# 2050 Connections (Projected)
Village of New Miami WWTP (owned by Butler County)	171,000	932
	800,000	3,500

\* Avg. Daily Flow and Daily Capacity are given in gallons per day.

## **Designated Management Agencies**

It is recommended that the Butler County Water and Sewer Department continue to be the designated management agency for wastewater collection and treatment in the FPA.

## **Population**

The 2010 population of this FPA was estimated to be 9,634, and the 2040 population is projected to be 12,084.

## **Issues**

Failing onsite treatment systems are located in the southern and northern portions of the FPA.

## **Plans**

The Butler County Water and Sewer Department plans to expand the Village of New Miami collection system to include more than 2,600 new connections by the year 2040, which will address many of the failing onsite systems that currently exist in the FPA. If the build-out of the collection system occurs as anticipated, capacity improvements may need to be investigated for the treatment plant. Sewer service has been extended to Williamsdale, with an estimate of 116 connections currently.

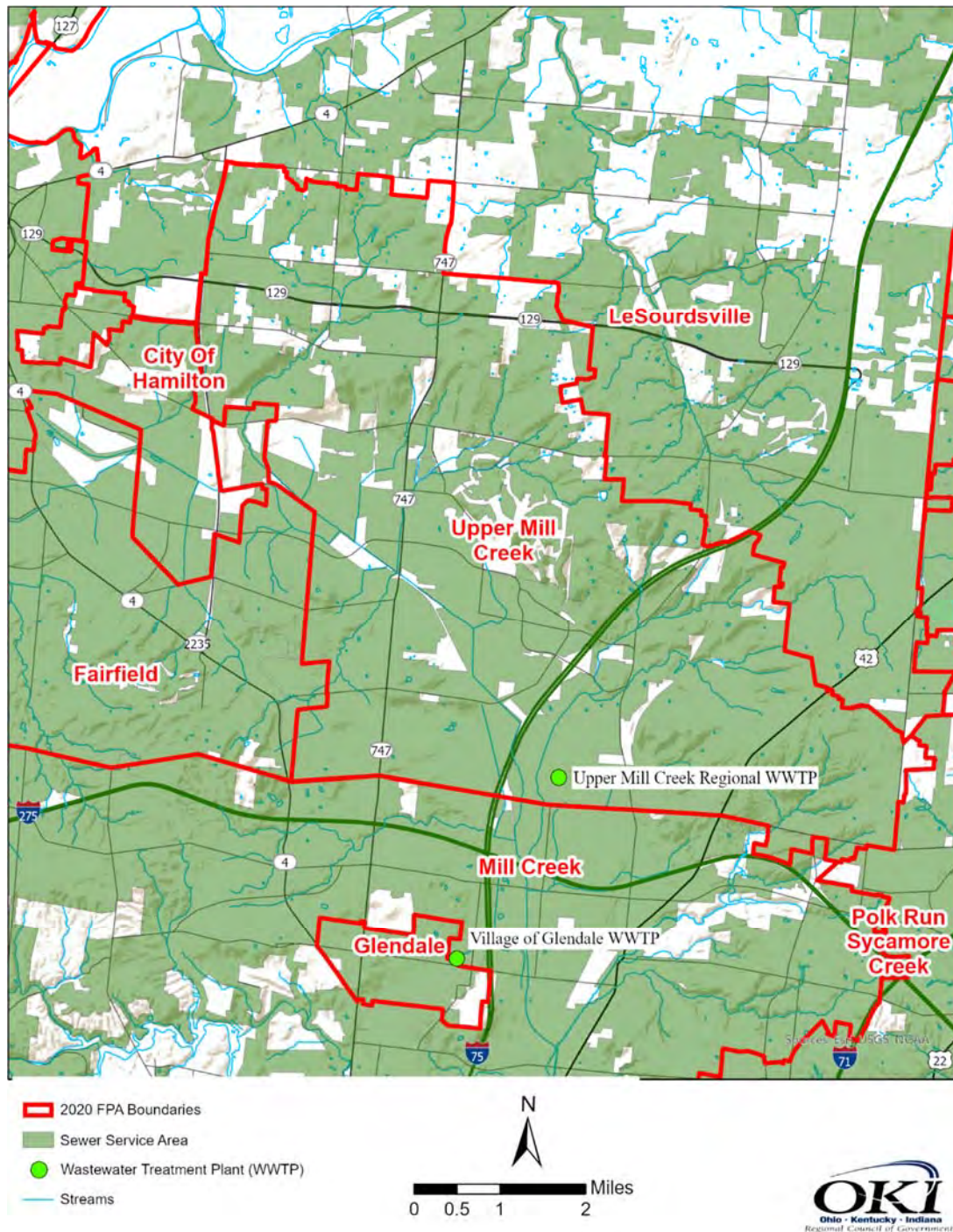
## **Watersheds and Major Waterways**

The FPA contains most of Seven Mile Creek and several tributaries including Big Cave Run, Ninemile Creek, Mutton Run, and Cotton Run. HUC 12 watersheds include Rush Run-Sevenmile Creek (050800020504), Ninemile Creek-Sevenmile Creek (050800020505), Cotton Run-Four Mile Creek (050800020605), Town of New Miami-Great Miami River (050800020706), and Banklick Creek-Great Miami River (050800020902).



# Upper Mill Creek Facility Planning Area

The Upper Mill Creek Facility Planning Area (FPA) contains the Upper Mill Creek Sewer Service Area. Local jurisdictions include parts of the City of Sharonville, Sycamore Township, West Chester Township, Liberty Township, and Fairfield Township. The far south eastern corner of the LeSourdsville FPA south of Barret Road is serviced by the North Pisgah lift station. This lift station is currently in the LeSourdsville FPA but can pump to either/or both the LeSourdsville and/or Upper Mill Creek WWTPs based on the needs of the Butler Water & Sewer Department.



## Facilities

Facility Name	Avg. Daily Flow*	# 2019 Connections (Actual)
	Daily Capacity*	# 2050 Connections (Projected)
Upper Mill Creek Regional WWTP	9,823,000	24,000
	16,000,000	38,000

\* Avg. Daily Flow and Daily Capacity are given in gallons per day.

## Designated Management Agencies

It is recommended that the Butler County Water and Sewer Department continue to be the designated management agency for wastewater collection and treatment in the FPA.

## Population

The 2010 population of this FPA was estimated to be 74,412, and the 2040 population is projected to be 85,443.

## Issues

The Butler County Water and Sewer Department is addressing inflow and infiltration problems with improvements to the Upper Mill Creek collection system and plant.

## Plans

The Butler County Water and Sewer Department anticipates adding about 15,000 connections by the year 2040, which will require significant expansion and up-sizing of its collection system. Sanitary sewer master plan planned for 2019.

## Watersheds and Major Waterways

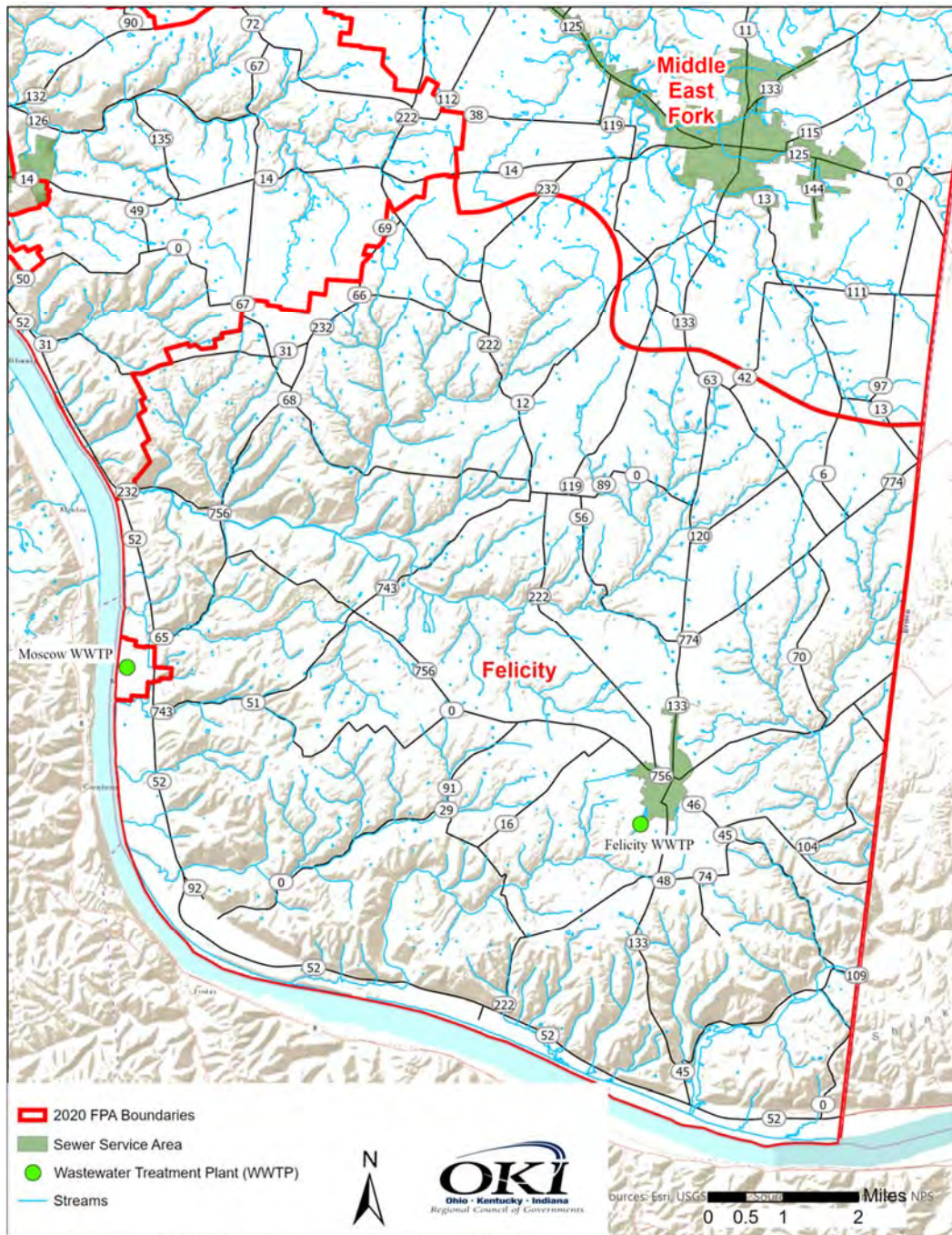
The FPA contains the headwaters of both the Mill Creek and East Fork Mill Creek. HUC 12 watersheds include East Fork Mill Creek – Mill Creek (050902030101), Banklick Creek – Great Miami River (050800020902), Gregory Creek (050800020705), and Sharon Creek – Mill Creek (050902030103).

***Recommended Clermont  
County Wastewater  
Facility Planning Areas***



# Felicity Facility Planning Area

The Felicity Facility Planning Area (FPA) contains the Felicity and Moscow Sewer Service Areas. Local jurisdictions include Village of Felicity, Village of Moscow, Village of Neville, Village of Chilo, Washington Township, Franklin Township, and parts of Monroe Township and Tate Township.



## Facilities

Facility Name	Avg. Daily Flow*	# 2019 Connections (Actual)
	Daily Capacity*	# 2050 Connections (Projected)
Felicity Regional WWTP	231,000	386
	250,000	475
Moscow WWTP	12,500	85
	26,000	92

\* Avg. Daily Flow and Daily Capacity are given in gallons per day.

## Designated Management Agencies

It is recommended that the Clermont County Water Resource Department continue to be the designated management agency for wastewater collection and treatment in the FPA. The Village of Moscow is responsible for its own plant and sewer system within its corporate boundaries.

## Population

The 2010 population of the Felicity FPA was estimated to be 9,822, and the 2040 population is projected to be 10,421. The Village of Moscow 2010 population was 185, and the 2040 population is projected to be 218.

## Issues

Failing onsite treatment systems are located in the northwestern portion of the FPA.

## Plans

Treatment capacity at both the Felicity plant and the Moscow plant are anticipated to be sufficient for the modest growth projected to occur in the planning period. It is recommended that the County investigate options for serving the area with failing onsite systems in the northwestern portion of the FPA.

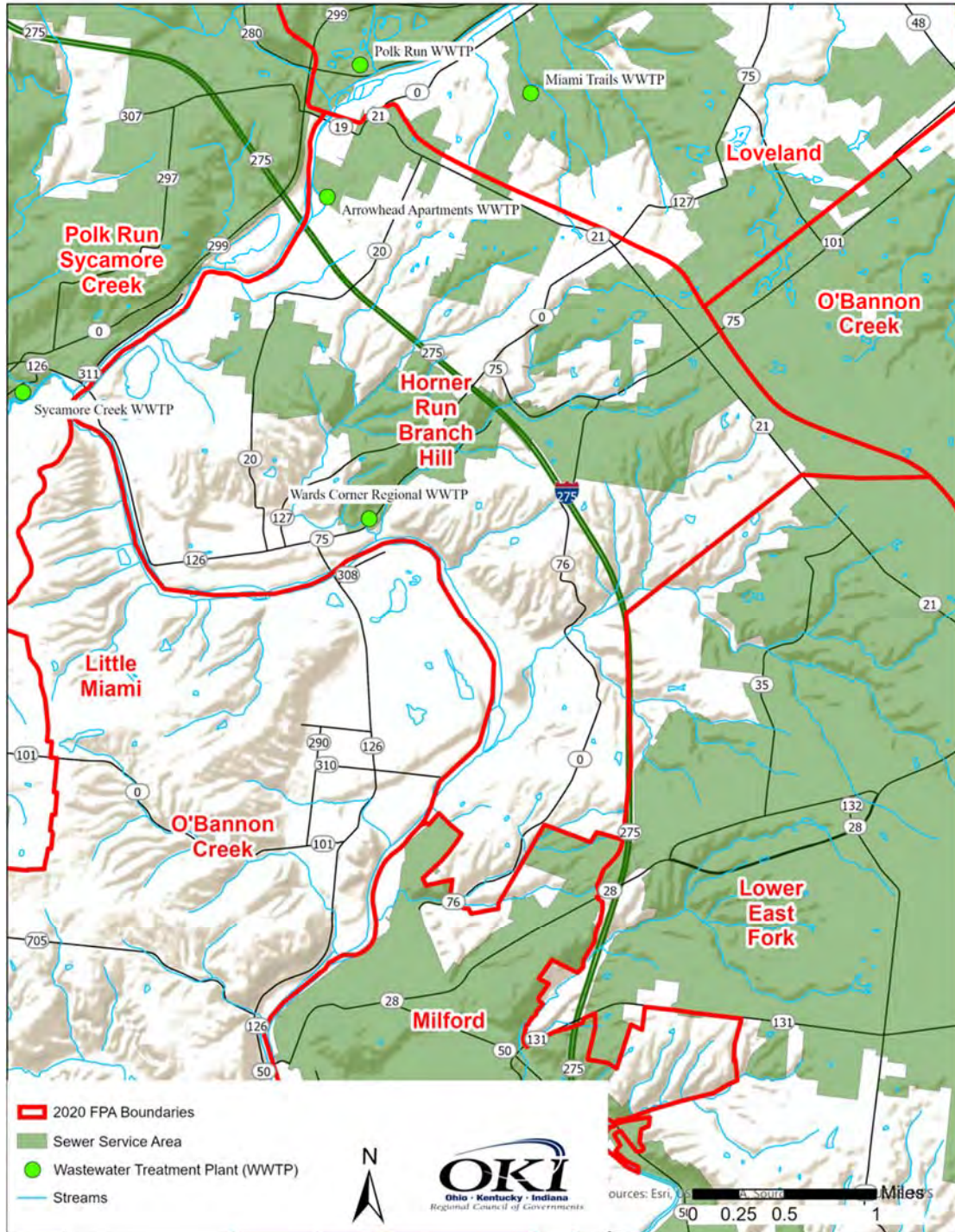
## Watersheds and Major Waterways

The Felicity FPA contains several minor tributaries to the Ohio River including Big Indian Creek, Little Indian Creek, Maple Creek, Little Maple Creek, Bear Creek, Patterson Run, Ryan Run, and Big Run. HUC 12 watersheds include North Fork Indian Creek – Big Indian Creek (050902011202), Headwaters Big Indian Creek (050902011201), Little Indian Creek – Ohio River (050902011107), Bear Creek – Ohio River (050902011106), Turtle Creek – Ohio River, Bullskin Creek (050902011102), and West Branch Bullskin Creek (050902011103).



# Horner Run Branch Hill Facility Planning Area

The Horner Run Branch Hill Facility Planning Area (FPA) contains the Wards Corner Sewer Service Area, Arrowhead Apartments Sewer Service Area, and portions of the O'Bannon Creek and Miami Trails Sewer Service Areas. The FPA is completely located within Miami Township in Clermont County.





## Facilities

Facility Name	Avg. Daily Flow*	# 2019 Connections (Actual)
	Daily Capacity*	# 2050 Connections (Projected)
Wards Corner WWTP	155,000	332
	2,000,000	1,230
Arrowhead Park WWTP	38,000	23
	140,000	30

\* Avg. Daily Flow and Daily Capacity are given in gallons per day.

## Designated Management Agencies

It is recommended that the Clermont County Water Resource Department continue to be the designated management agency for wastewater collection and treatment in the FPA.

## Population

The 2010 population of this FPA was estimated to be 7,117, and the 2040 population is projected to be 7,873.

## Issues

A high concentration of failing onsite treatment systems is located within the FPA.

## Plans

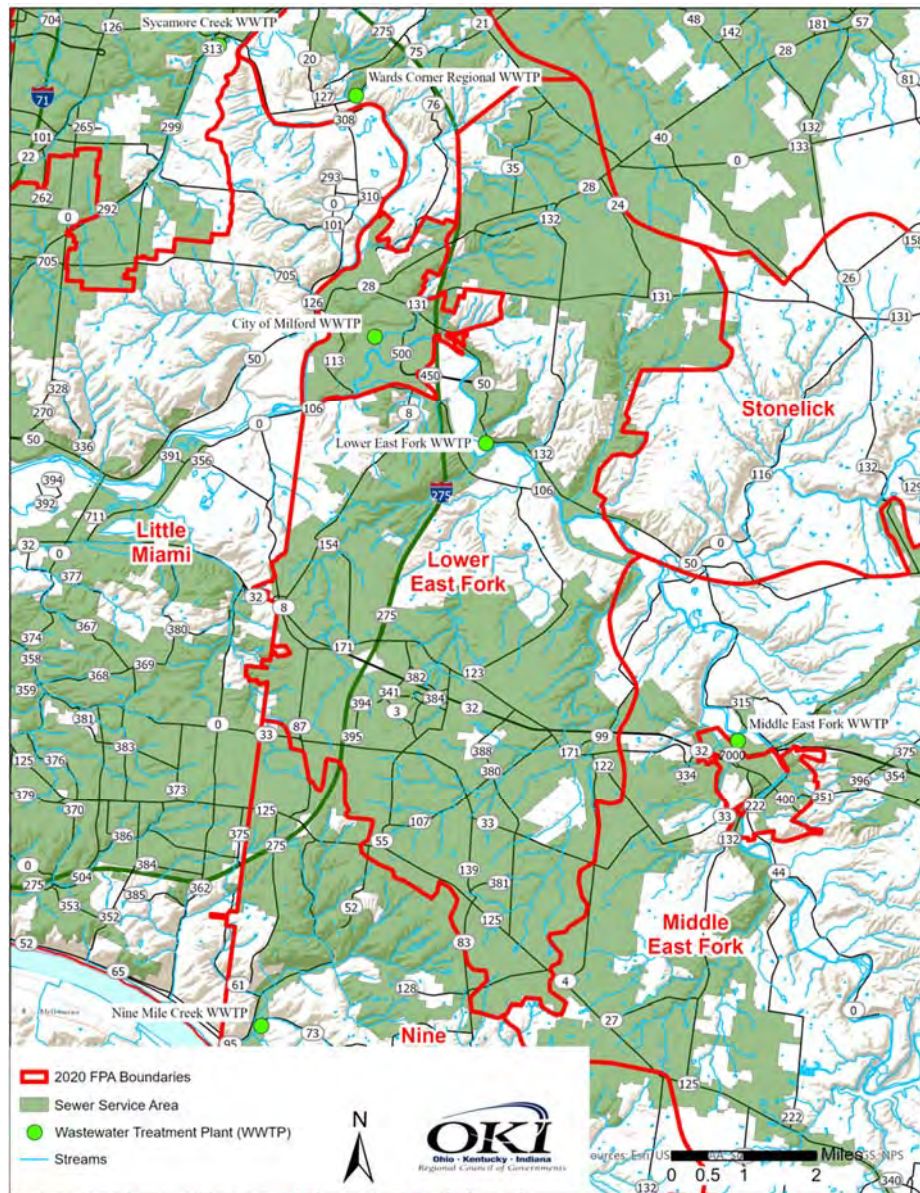
The County plans to decommission the Arrowhead Park plant as soon as practical, at the earliest by 2016, by conveying flows to the Wards Corner Regional Wastewater Treatment Plant, which has significant excess capacity. It is recommended that the County investigate options to address failing onsite systems in the FPA.

## Watersheds and Major Waterways

The Little Miami River follows the western border of the FPA. Several Little Miami River tributaries are present including Horner Run. HUC 12 Watersheds include parts of Horner Run – Little Miami River (050902021403) and Polk Run – Little Miami River (050902021402).

# Lower East Fork Facility Planning Area

The Lower East Fork Facility Planning Area (FPA) contains the Lower East Fork Sewer Service Area and a portion of the Middle East Fork Sewer Service Area. Local jurisdictions include parts of Miami Township, Union Township, Pierce Township, and Batavia Township.



## Facilities

Facility Name	Avg. Daily Flow*	# 2019 Connections (Actual)
	Daily Capacity*	# 2050 Connections (Projected)
Lower East Fork WWTP	8,100,000	17,323
	9,000,000	20,326

\* Avg. Daily Flow and Daily Capacity are given in gallons per day.

## **Designated Management Agencies**

It is recommended that the Clermont County Water Resources Department continue to be the Designated Management Agency for wastewater collection and treatment in the FPA.

## **Population**

The 2010 population of this FPA was estimated to be 60,688, and the 2040 population is projected to be 65,045.

## **Issues**

Failing onsite treatment systems are located in the northern and eastern portions of the FPA. Peak wet weather flows have resulted in some sewer system overflows and/or backups in the Lower East Fork collection system.

## **Plans**

The Lower East Fork Wastewater Treatment Plant is currently constructing improvements to effectively manage the treatment of peak flows. If population growth warrants, plans are under consideration to expand its treatment capacity from 9 million gallons per day to 14 million gallons per day.

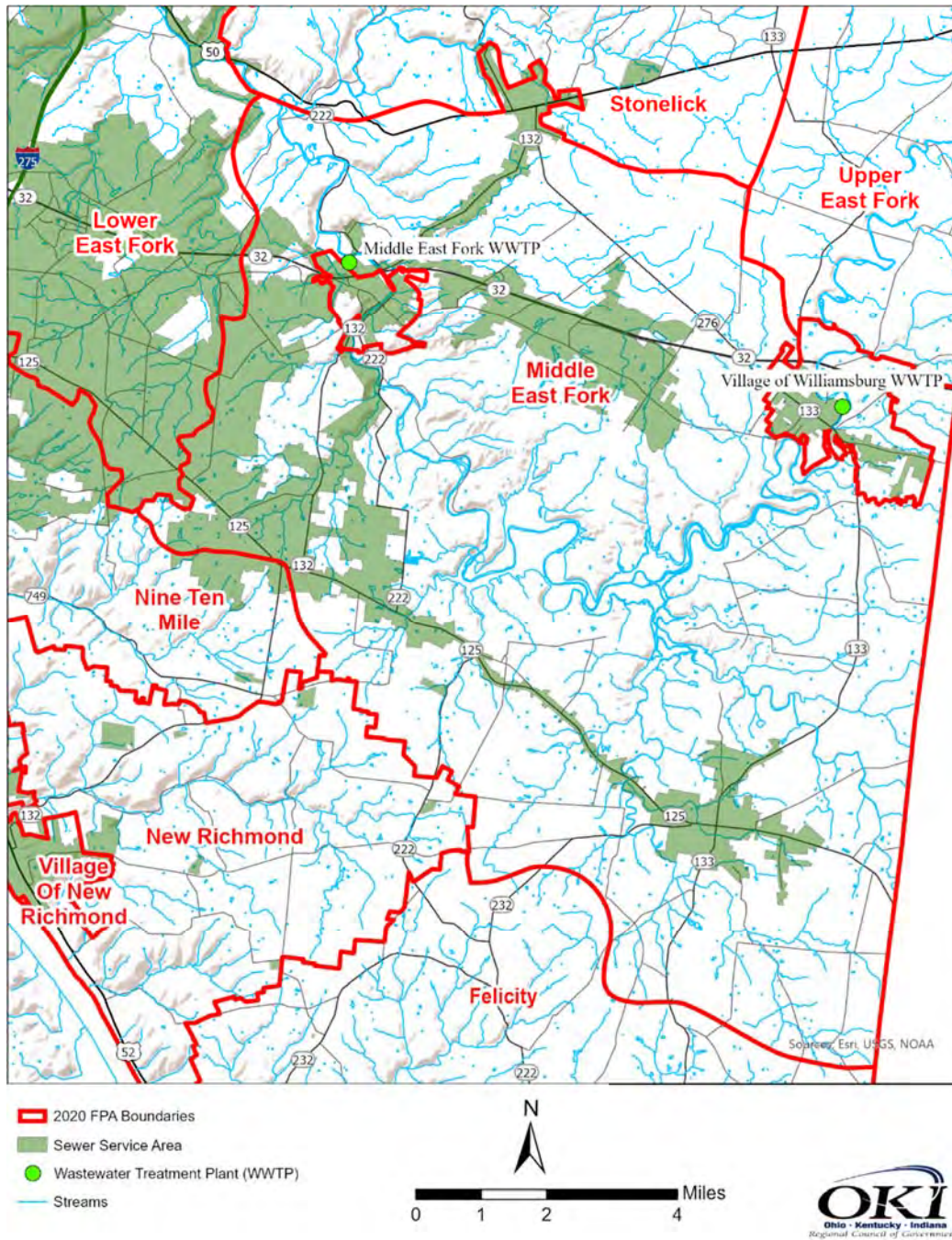
## **Watersheds and Major Waterways**

The FPA contains the lower portion of the East Fork Little Miami River, and borders the confluence of the East Fork Little Miami River and Little Miami River. Also present are several East Fork tributaries including Hall Run, Salt Run, Wolfpen Run, Sugarcamp Run, Dry Run, and Shayler Run. HUC 12 watersheds include Salt Run – East Fork Little Miami River (050902021305) and small portions of Horner Run – Little Miami River (050902021403), Dry Run – Little Miami River (050902021405), Tenmile Creek (050902011206), Lick Fork – Stonelick Creek (050902021304), and O'Bannon Creek (050902020902).



# Middle East Fork Facility Planning Area

The Middle East Fork Facility Planning Area (FPA) contains most of the Middle East Fork Sewer Service Area and the Village of Batavia Sewer Service Area. Local jurisdictions include Village of Batavia, Village of Bethel, Village of Owensville, and parts of Village of Amelia, Batavia Township, Pierce Township, Monroe Township, Tate Township, Williamsburg Township, Ohio Township, Jackson Township, Union Township, and Stonelick Township.



## Facilities

Facility Name	Avg. Daily Flow*	# 2019 Connections (Actual)
	Daily Capacity*	# 2050 Connections (Projected)
Middle East Fork Regional WWTP	5,270,000	9523
	7,200,000	12,472

\* Avg. Daily Flow and Daily Capacity are given in gallons per day.

## Designated Management Agencies

It is recommended that the Clermont County Water Resources Department continue to be the designated management agency for wastewater collection and treatment in the FPA. The Village of Batavia is responsible for wastewater collection within its corporate boundary and plans to make several improvements to the collection system. Contingent on those improvements, the Village ultimately plans to transfer ownership of the collection system to Clermont County.

## Population

The 2010 population of the Middle East Fork FPA was estimated to be 34,335, and the 2040 population is projected to be 39,911. The 2010 population of Village of Batavia was 1,509, and the 2040 population is projected to be 1,775.

## Issues

Failing onsite treatment systems are located in the southwestern and western portions of the FPA. The Village of Batavia is addressing infiltration and inflow problems and eliminating two lift stations.

## Plans

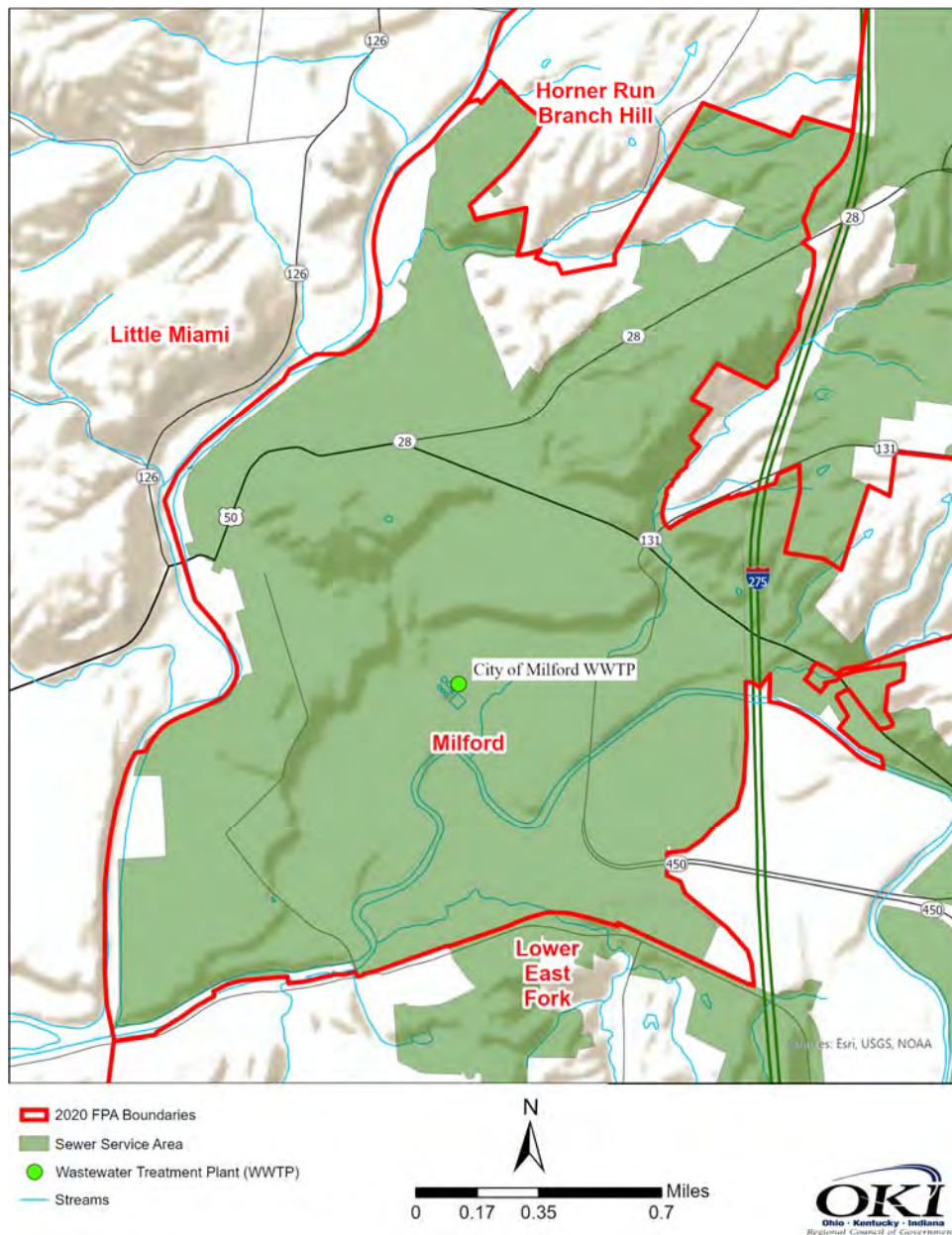
Although most of the FPA is already developed, additional small areas in northwestern and southern Batavia could be developed. The Middle East Fork Wastewater Treatment Plant is expected to have more than adequate capacity to handle additional flows from such development.

## Watersheds and Major Waterways

The FPA contains the middle portion of the East Fork Little Miami River including Harsha Lake (sometimes referred to as East Fork Lake). East Fork Tributaries include Lucy Run, Backbone Creek, Fourmile Run, Back Run, Ulrey Run, Sugartree Creek, Guest Run, Town Run, Poplar Creek, Light Run, Trimble Run, Barnes Run, Cabin Run, Todd Run, Slabcamp Run, and Kain Run. HUC 12 watersheds include Lucy Run – East Fork Little Miami River (050902021203), Backbone Creek – East Fork Little Miami River (050902021204), Todd Run – East Fork Little Miami River (050902021103), and Poplar Creek (050902021201) along with parts of Cloverlick Creek (050902021202), Twelvemile Creek (050902011206), Salt Run – East Fork Little Miami River (050902021305), Lick Fork – Stonelick Creek (050902021304), Brushy Fork (050902021302), and Fivemile Creek – East Fork Little Miami River.

# Milford Facility Planning Area

The Milford Facility Planning Area (FPA) encompasses the Milford Sewer Service Area, most of the City of Milford, and small portions of Miami Township.



## Facilities

Facility Name	Avg. Daily Flow*	# 2019 Connections (Actual)
	Daily Capacity*	# 2050 Connections (Projected)
City of Milford WWTP	725,000	2,025
	1,200,000	2,187

\* Avg. Daily Flow and Daily Capacity are given in gallons per day.



## **Designated Management Agencies**

It is recommended that the City of Milford continue to be the designated management agency for wastewater collection and treatment in the FPA.

## **Population**

The 2017 population of this FPA was estimated to be 6,887, and the 2040 population is projected to be 7,087.

## **Issues**

Failing onsite treatment systems are located in the northeastern portion of the FPA.

## **Plans**

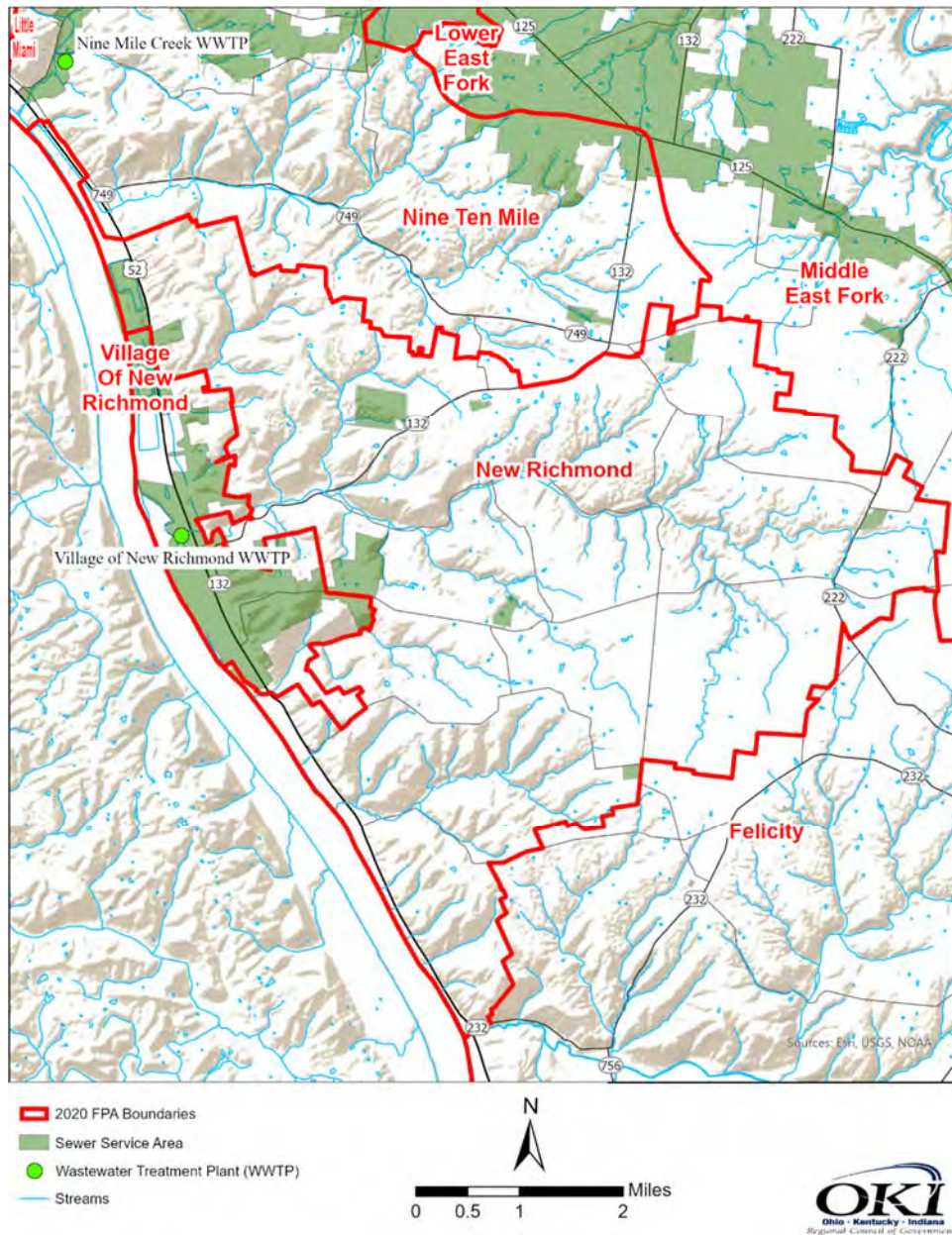
It is recommended that Milford investigate options for serving the area with failing onsite treatment systems in the northeastern portion of the FPA.

## **Watersheds and Major Waterways**

The southwest corner of the Milford FPA is located at the confluence of the East Fork Little Miami River and the Little Miami River. HUC 12 watersheds include Salt Run (050902021305) and Horner Run (050902021403).

# New Richmond Facility Planning Area

The New Richmond Facility Planning Area (FPA) contains the New Richmond Sewer Service Area. Local jurisdictions include the Village of New Richmond and parts of Monroe, Ohio and Pierce townships.



## Facilities

Facility Name	Avg. Daily Flow*	# 2019 Connections (Actual)
	Daily Capacity*	# 2050 Connections (Projected)
Village of New Richmond WWTP	290,000	802
	550,000	1,457

\* Avg. Daily Flow and Daily Capacity are given in gallons per day.

## **Designated Management Agencies**

It is recommended that the Clermont County Water Resources Department continue to be the designated management agency for wastewater collection and treatment in the FPA. The Village of New Richmond is responsible for collection and treatment within its own corporate boundaries.

## **Population**

The 2010 population of the New Richmond FPA was estimated to be 5,947, and the 2040 population is projected to be 6,858. The 2010 population of the Village of New Richmond was 2,582, and the 2040 population is projected to be 2,995.

## **Issues**

Failing onsite septic systems are located in the northern, eastern and central portions of the FPA, and just south of the Village of New Richmond. The Village of New Richmond is addressing infiltration and inflow problems in its collection system.

## **Plans**

The Village of New Richmond is expanding its service area to include the Indian Ridge subdivision, which will also make the Vineyard Property developable. Land east of the village is becoming more developable due to sewer availability. It is recommended that the County investigate options to address failing onsite systems in the FPA.

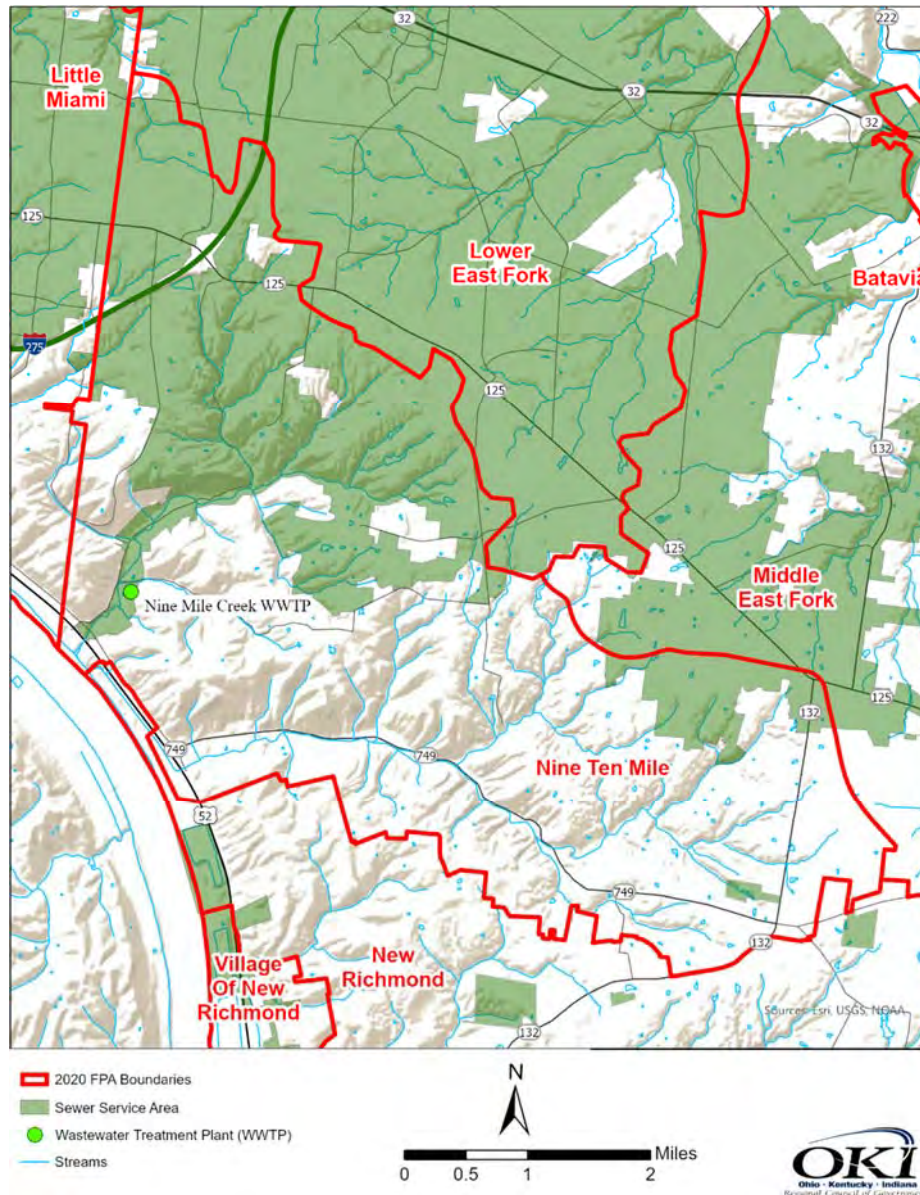
## **Watersheds and Major Waterways**

The FPA contains several smaller Ohio River tributaries including Pond Run, Twelvemile Creek, Fagin Run, Briggs Run, Ferguson Run, Little Indian Creek, and Boat Run. HUC 12 watersheds include Ferguson Run – Twelvemile Creek (050902011204) and portions of Boat Run – Ohio River (050902011203), Ninemile Creek – Ohio River (050902011208), and Tenmile Creek (050902011206).



# Nine Ten Mile Facility Planning Area

The Nine Ten Mile Facility Planning Area (FPA) contains the Nine Mile Creek Sewer Service Area and a small part of the Middle East Fork Sewer Service Area. Local jurisdictions include parts of Union, Pierce, Monroe, and Ohio townships, and half of the Village of Amelia.



## Facilities

Facility Name	Avg. Daily Flow*	# 2019 Connections (Actual)
	Daily Capacity*	# 2050 Connections (Projected)
Nine-Mile Creek Regional WWTP	2,020,000	3534
	3,000,000	7,069

\* Avg. Daily Flow and Daily Capacity are given in gallons per day.

## **Designated Management Agencies**

It is recommended that Clermont County Water Resources Department continue to be the designated management agency for wastewater collection and treatment within the FPA.

## **Population**

The 2010 population of this FPA was estimated to be 20,509, and the 2040 population is projected to be 22,621.

## **Issues**

Failing onsite treatment systems are located in the northern, central and southeastern portions of the FPA.

## **Plans**

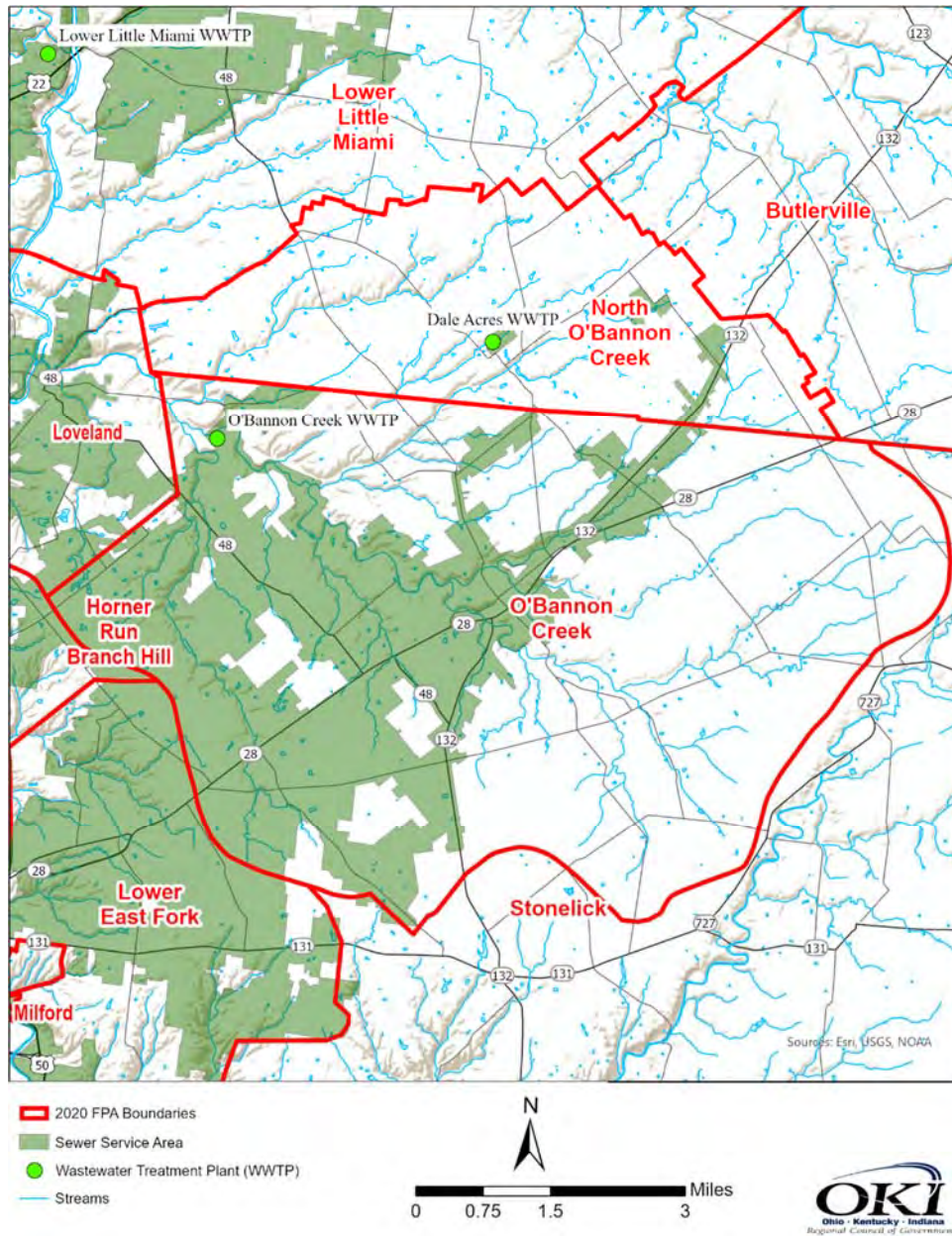
The existing plant has considerable excess capacity; it is recommended that the County continue to evaluate the plant's adequacy to handle peak weather flows as collection system improvements are made, and options to address failing onsite systems in the FPA.

## **Watersheds and Major Waterways**

The Facility Planning Area contains two Ohio River tributaries Ninemile Creek and Tenmile Creek. HUC 12 watersheds include parts of Ninemile Creek – Ohio River (050902011208), Tenmile Creek – Ohio River (050902011206), Lucy Run – East Fork Little Miami River (050902021203), and Dry Run – Little Miami River.

# O'Bannon Creek Facility Planning Area

The O'Bannon Creek Facility Planning Area (FPA) contains most of the O'Bannon Creek Sewer Service Area and a small portion of the Lower East Fork Sewer Service Area. Local jurisdictions include parts of Goshen Township, Miami Township, Stonelick Township, and Wayne Township.





## Facilities

Facility Name	Avg. Daily Flow*	# 2019 Connections (Actual)
	Daily Capacity*	# 2050 Connections (Projected)
O'Bannon Creek Regional WWTP	2,330,000	6639
	4,400,000	8,249

\* Avg. Daily Flow and Daily Capacity are given in gallons per day.

## Designated Management Agencies

It is recommended that the Clermont County Water Resources Department continue to be the designated management agency for wastewater collection and treatment in the FPA.

## Population

The 2010 population of this FPA was estimated to be 24,304, and the 2040 population is projected to be 26,396.

## Issues

Failing onsite treatment systems are located in the northern and eastern portions of the FPA.

## Plans

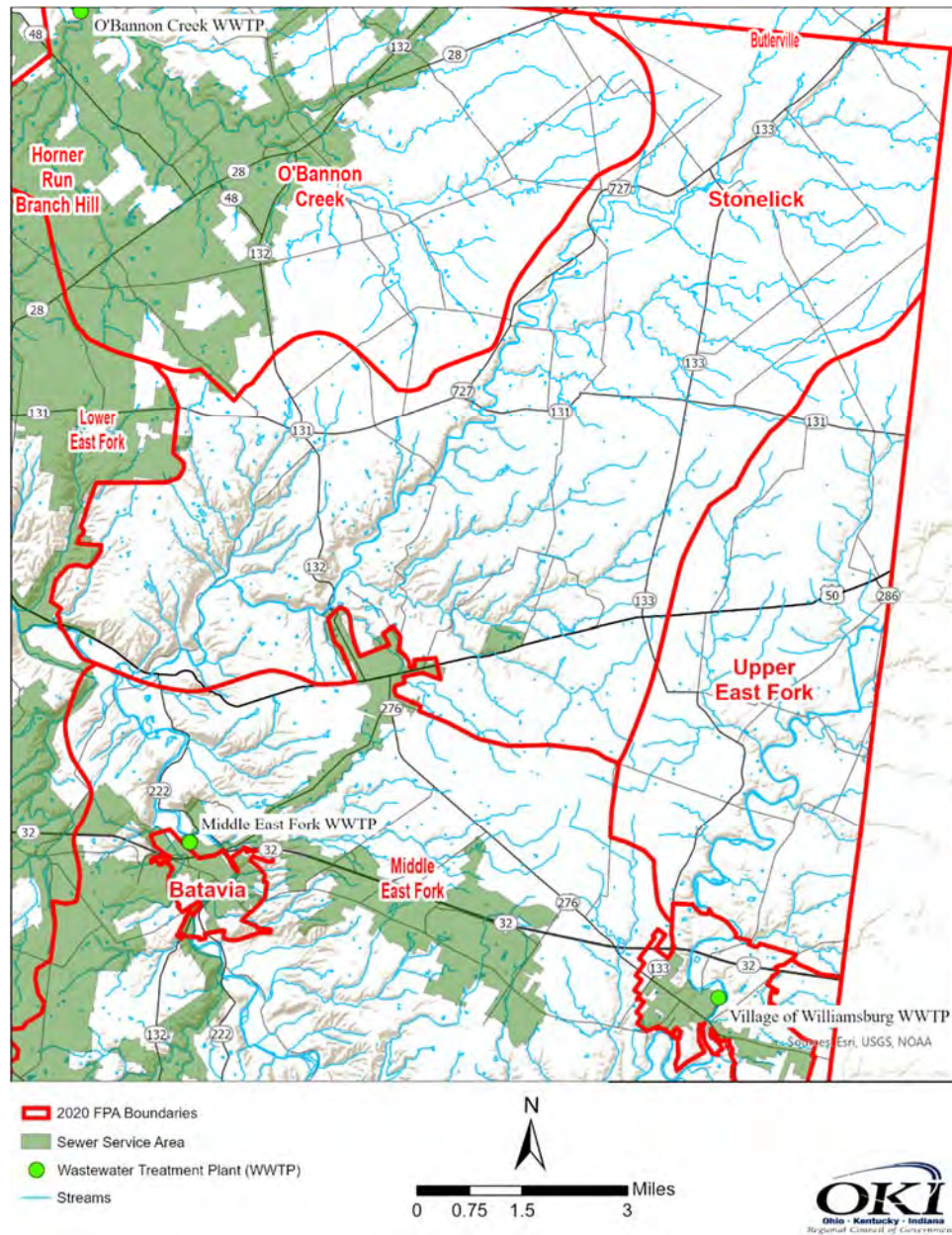
The treatment plant has significant excess capacity that could enable it to receive flows not only from this FPA, but potentially from the adjoining North O'Bannon Creek FPA in Warren County. It is recommended that the County investigate options for addressing failing onsite systems in the O'Bannon Creek FPA.

## Watersheds and Major Waterways

The FPA contains most of O'Bannon Creek and its tributaries. HUC 12 watersheds include O'Bannon Creek (050902020902) and part of Horner Run – Little Miami River (050902021403).

# Stonelick Facility Planning Area

The Stonelick Facility Planning Area (FPA) does not currently have centralized sewer service; the only facilities in the FPA are small package plants operated by Clermont Northeastern Local Schools and Stonelick State Park. Local jurisdictions include the Village of Newtonsville and parts of Village of Owensville, Wayne Township, Union Township, Stonelick Township, Goshen Township, Miami Township, and Jackson Township.



## Facilities

Currently there is no centralized sewer service within the FPA.

## **Designated Management Agencies**

It is recommended that the Clermont County Water Resources Department continue to be the designated management agency for wastewater collection and treatment in the FPA.

## **Population**

The 2010 population of this FPA was estimated to be 11,960, and the 2040 population is projected to be 12,444.

## **Issues**

Failing onsite treatment systems are located along the western border of the FPA.

## **Plans**

It is recommended that the County continue to investigate options for addressing failing onsite systems in the FPA.

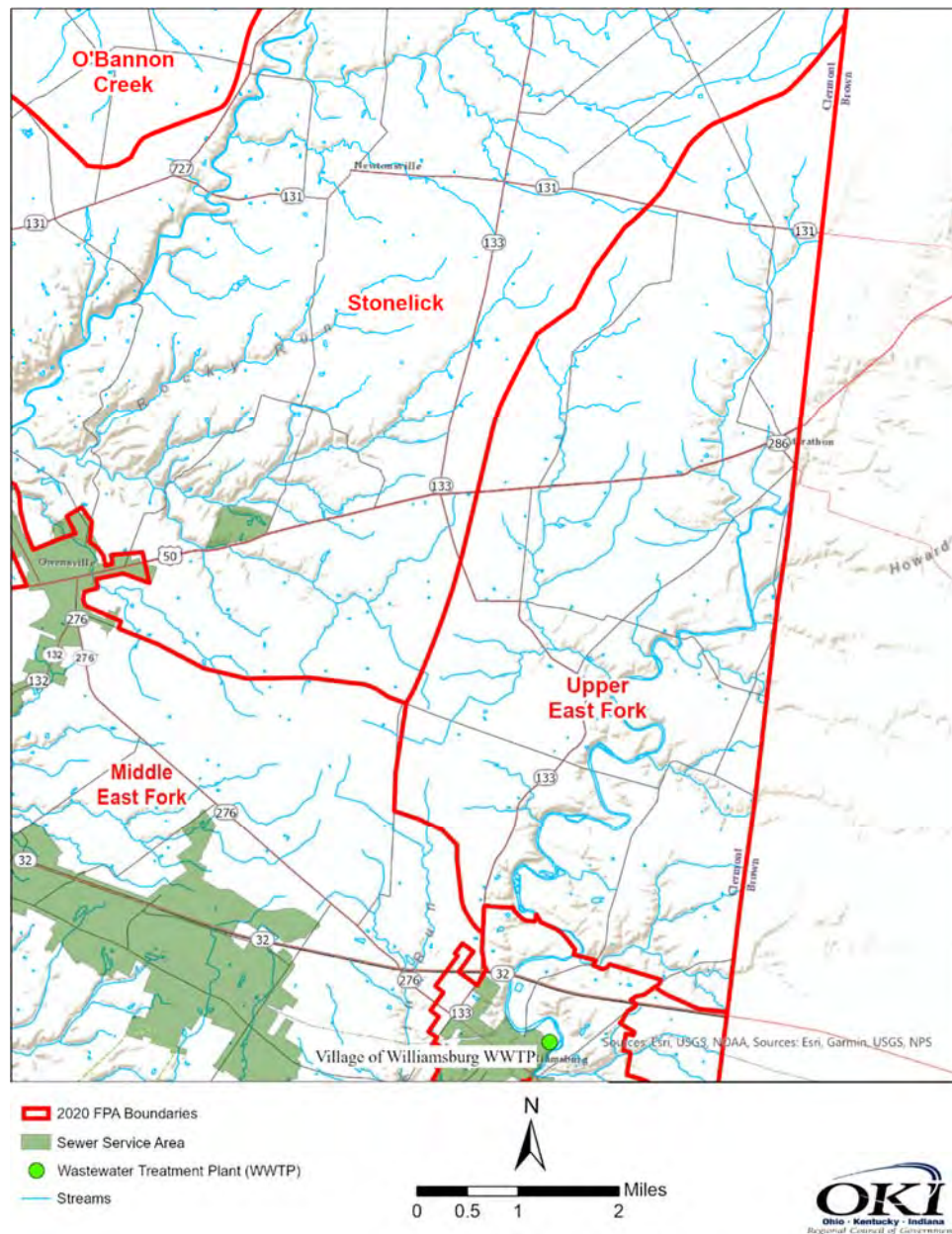
## **Watersheds and Major Waterways**

The FPA contains Stonelick Creek from its headwaters to its confluence with the East Fork Little Miami River. Stonelick tributaries include Lick Fork, Patterson Run, Brushy Fork, Rocky Run, Moores Fork, Hunter Creek, and Locust Creek. HUC 12 watersheds include parts of Headwaters Stonelick Creek (050902021301), Moores Fork – Stonelick Creek (050902021303), Brushy Fork (050902021302), Lick Fork – Stonelick Creek (050902021304), Salt Run – East Fork Little Miami River (050902021305), O'Bannon Creek (050902020902), and First Creek (050902020703).



# Upper East Fork Facility Planning Area

The Upper East Fork Facility Planning Area (FPA) currently contains no areas of centralized sewer service. Local jurisdictions include parts of Jackson Township Wayne Township, and Williamsburg Township.



## Facilities

Currently there is no centralized sewer service within the FPA.

## Designated Management Agencies

It is recommended that the Clermont County Water Resources Department continue to be the Designated Management Agency for wastewater collection and treatment in the FPA.

## **Population**

The 2010 population of this FPA was estimated to be 2,345, and the 2040 population is projected to be 2,478.

## **Issues**

Failing onsite systems are located near the western border of the FPA.

## **Plans**

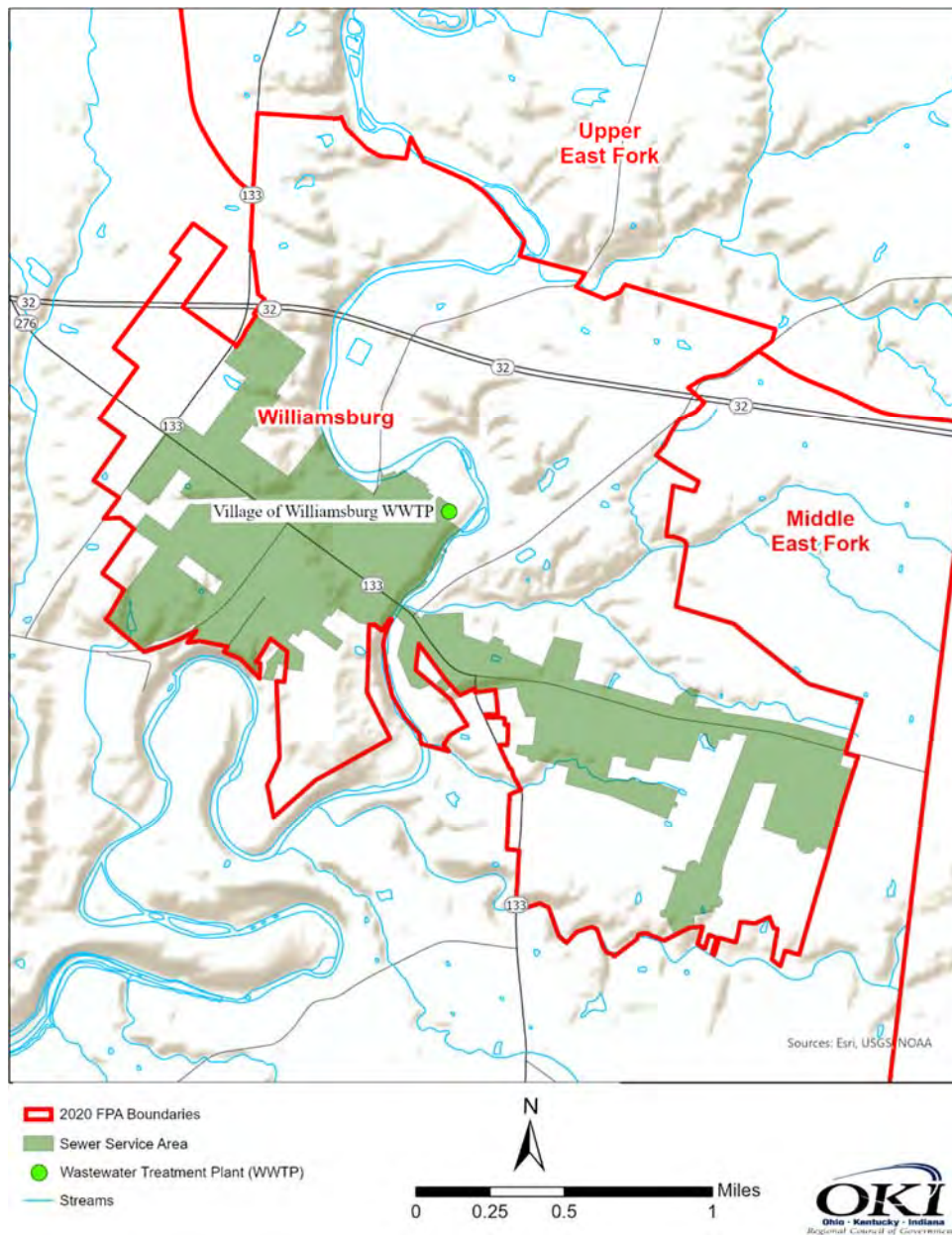
Given low population densities and the anticipation of slow growth, it is recommended that the County ensure the proper construction and maintenance of onsite systems in the FPA.

## **Watersheds and Major Waterways**

The FPA contains the upper portion of the East Fork Little Miami River relative to the county line. East Fork tributaries include Pleasant Run, Grassy Fork, Howard Run, Fourmile Creek and Cane Run. HUC 12 watersheds include parts of Solomon Run – East Fork Little Miami River, Moores Fork – Stonelick Creek (050902021303), Brushy Fork (050902021302), Fivemile Creek – East Fork Little Miami River (050902021102), and Todd Run – East Fork Little Miami River (050902021103).

# Williamsburg Facility Planning Area

The Williamsburg Facility Planning Area (FPA) contains the Williamsburg Sewer Service Area. Local jurisdictions include the Village of Williamsburg and parts of Williamsburg Township.



## Facilities

Facility Name	Avg. Daily Flow*	# 2019 Connections (Actual)
	Daily Capacity*	# 2050 Connections (Projected)
Village of Williamsburg WWTP	510,000	833
	900,000	969

\* Avg. Daily Flow and Daily Capacity are given in gallons per day.



## **Designated Management Agencies**

It is recommended that the Village of Williamsburg continue to be the designated management agency for wastewater collection and treatment in the FPA.

## **Population**

The 2010 population of this FPA was estimated to be 2,490, and the 2040 population is projected to be 3,100.

## **Issues**

The Village of Williamsburg has recently made major operational upgrades to its wastewater treatment plant.

## **Plans**

The Village is planning a treatment capacity expansion to 1 MGD during the planning period, which would be more than sufficient for the growth projected in the FPA. It is recommended that the Village continue to evaluate and address infiltration and inflow in its collection system.

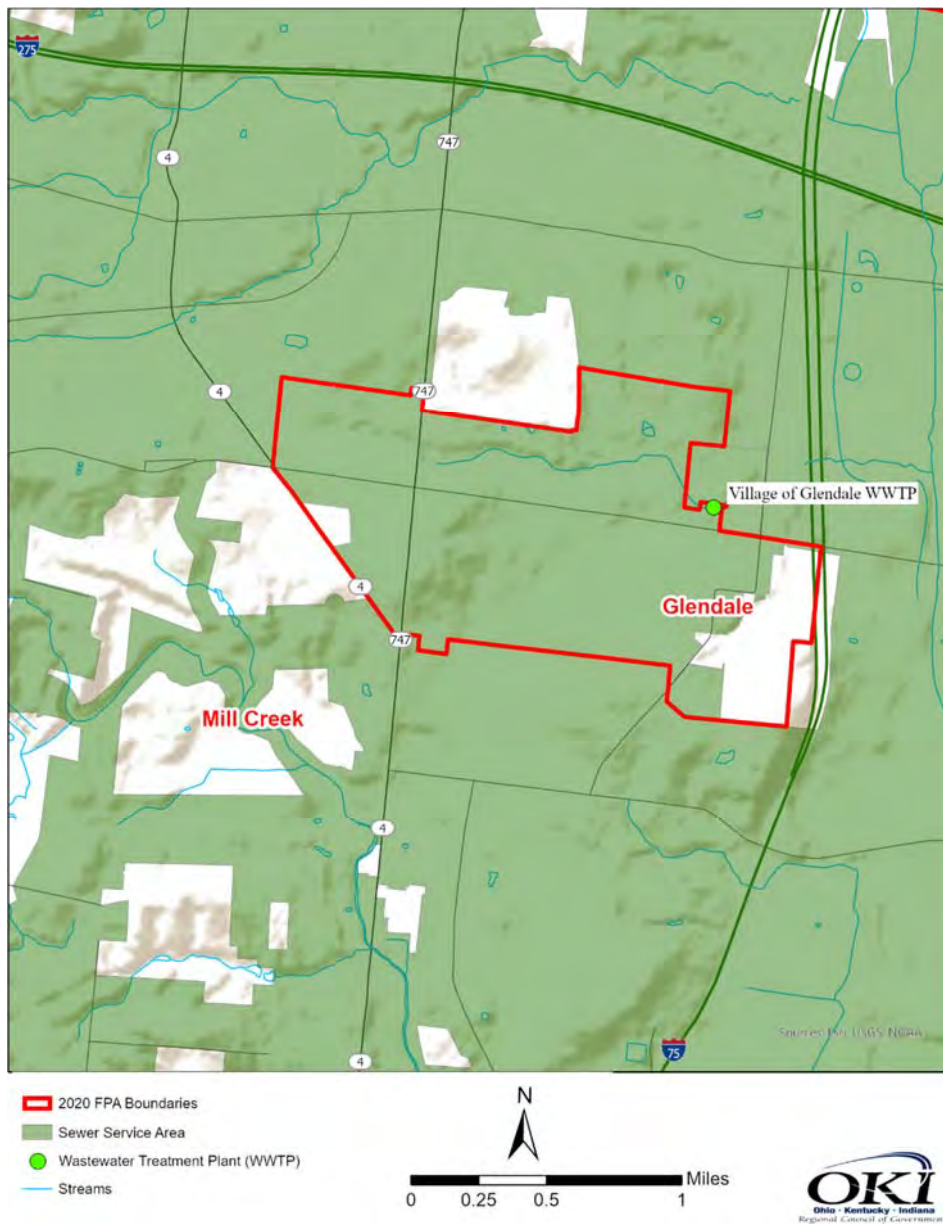
## **Watersheds and Major Waterways**

The Facility Planning Area contains a short section of the East Fork Little Miami River and some unnamed East Fork tributaries. HUC 12 watersheds include Fivemile Creek-East Fork Little Miami River (050902021102) and Todd Run-East Fork Little Miami River (050902021103).

***Recommended Hamilton  
County Wastewater  
Facility Planning Areas***

# Glendale Facility Planning Area

The Glendale Facility Planning Area (FPA) contains the Glendale Sewer Service Area, and consists of the Village of Glendale.



## Facilities

Facility Name	Avg. Daily Flow*	# 2019 Connections (Actual)
	Daily Capacity*	# 2050 Connections (Projected)
Glendale WWTP	677,000	1,100
	750,000	1,300

\* Avg. Daily Flow and Daily Capacity are given in gallons per day.



## **Designated Management Agencies**

It is recommended that the Village of Glendale continue to be the designated management agency for wastewater collection and treatment in the FPA.

## **Population**

The 2010 population of this FPA was 2,155, and the 2040 population is projected to be 2,357.

## **Issues**

Most of the land in the FPA is already developed and built out, with the exception of an area in the southeast.

## **Plans**

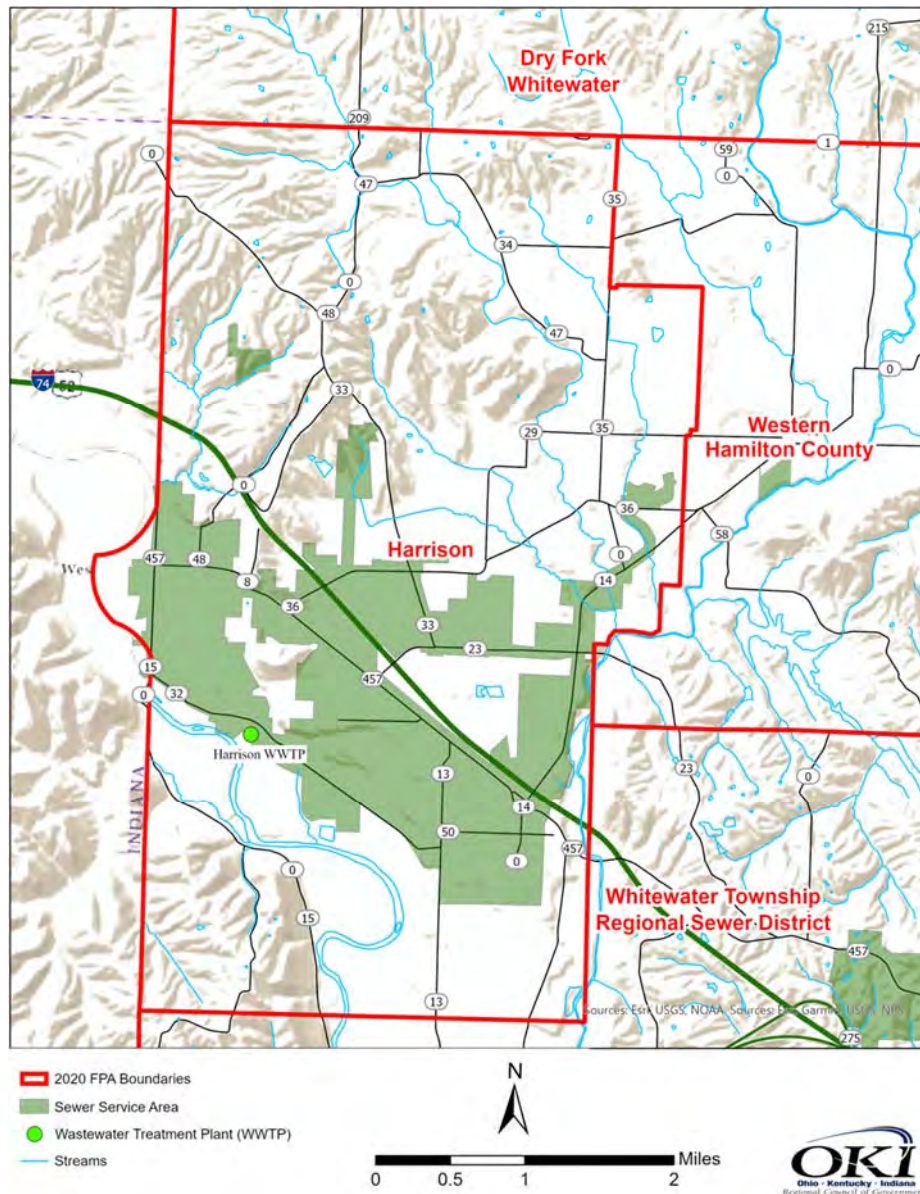
If development occurs in the southeast corner of the FPA, the Village will need to expand its collection system. Capacity at the treatment plant may be sufficient during the planning period depending on the extent and pace of development in the area that is not built out.

## **Watersheds and Major Waterways**

The FPA has Town Run, a Mill Creek tributary. It also has Brandywine Creek, a small tributary of Town Run. Most of the FPA is part of the HUC 12 watershed Sharon Creek – Mill Creek (050902030103). A small part of the FPA's western edge is in the West Fork Mill Creek (050902030102) watershed.

# Harrison Facility Planning Area

The Harrison Facility Planning Area (FPA) includes the Harrison Sewer Service Area. Local jurisdictions include City of Harrison (Ohio), Town of West Harrison (Indiana), Harrison Township (Ohio), and a small parts of Harrison Township (Indiana) and Crosby Township.



## Facilities

Facility Name	Avg. Daily Flow*	# 2019 Connections (Actual)
	Daily Capacity*	# 2050 Connections (Projected)
Harrison WWTP	1,173,100	4500
	2,930,000	4,857

\* Avg. Daily Flow and Daily Capacity are given in gallons per day.

## **Designated Management Agencies**

It is recommended that the City of Harrison continue to be the designated management agency for wastewater collection and treatment in the FPA, which corresponds to the outer boundaries of the City of Harrison and Harrison Township.

## **Population**

The 2010 population of this FPA was estimated to be 14,036, and the 2040 population is projected to be 15,543.

## **Issues**

Failing onsite treatment systems are located in the northern and eastern portions of the FPA.

## **Plans**

The City of Harrison plans to expand its sewer system within its corporate boundaries and into parts of Harrison Township (Ohio) to meet requests for treatment. The City also has an interlocal agreement with the Dearborn County (Indiana) Regional Sewer District to accept flows from development in the West Harrison (Indiana) Tax Increment Financing District. Approximately 1,000 new connections at maximum are anticipated for the City of Harrison's sewer system by the year 2040. The capacity of the treatment plant is expected to be sufficient during the planning period.

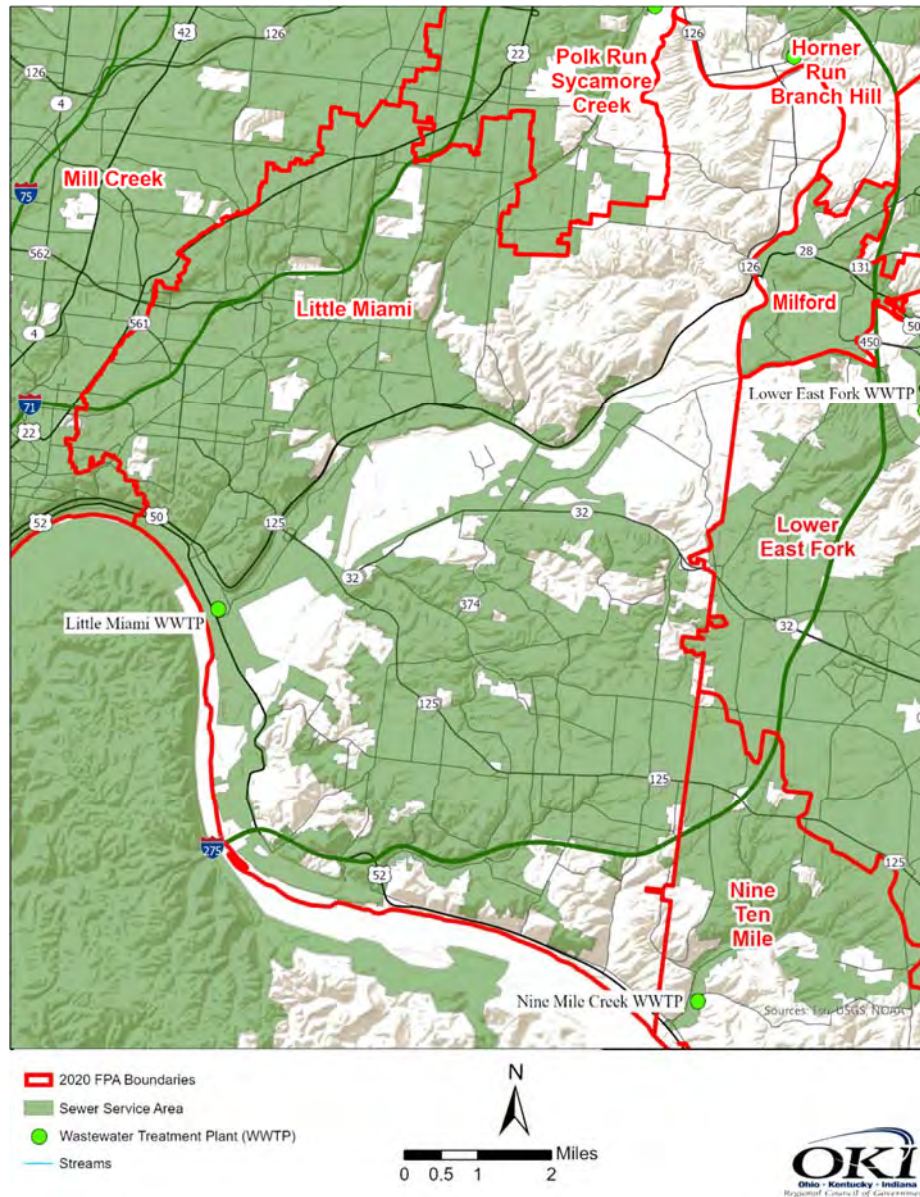
## **Watersheds and Major Waterways**

The FPA contains a section of the Whitewater River and tributaries including Dry Fork Whitewater River, Jamison Creek, Kolb Creek, Lee Creek, and Howard Creek. HUC 12 watersheds include Howard Creek – Dry Fork Whitewater River (050800030808), Lee Creek – Dry Fork Whitewater River (050800030809), and Jameson Creek – Whitewater River (050800030810).



# Little Miami Facility Planning Area

The Little Miami Facility Planning Area (FPA) contains the Little Miami Sewer Service Area. Local jurisdictions include City of Silverton, City of Madeira, Village of Terrace Park, Village of Newtown, Village of Mariemont, Village of Fairfax, Anderson Township, Columbia Township, and parts of the City of Cincinnati, City of Deer Park, City of Norwood, City of Indian Hill, Sycamore Township, and Symmes Township.



## Facilities

Facility Name	Avg. Daily Flow*	# 2019 Connections (Actual)
	Daily Capacity*	# 2050 Connections (Projected)
Little Miami WWTP	30,000,000	18,563
	55,000,000	18,800

\* Avg. Daily Flow and Daily Capacity are given in gallons per day.

## **Designated Management Agencies**

It is recommended that the Metropolitan Sewer District of Greater Cincinnati (MSD) continue to be the designated management agency for wastewater collection and treatment in the FPA.

## **Population**

The 2010 population of this FPA was estimated to be 150,326, and the 2040 population is projected to be 150,421.

## **Issues**

Some clusters of failing onsite treatment systems are located in areas throughout the FPA. MSD is making significant improvements to address sanitary and combined sewer overflows in the Little Miami collection system.

## **Plans**

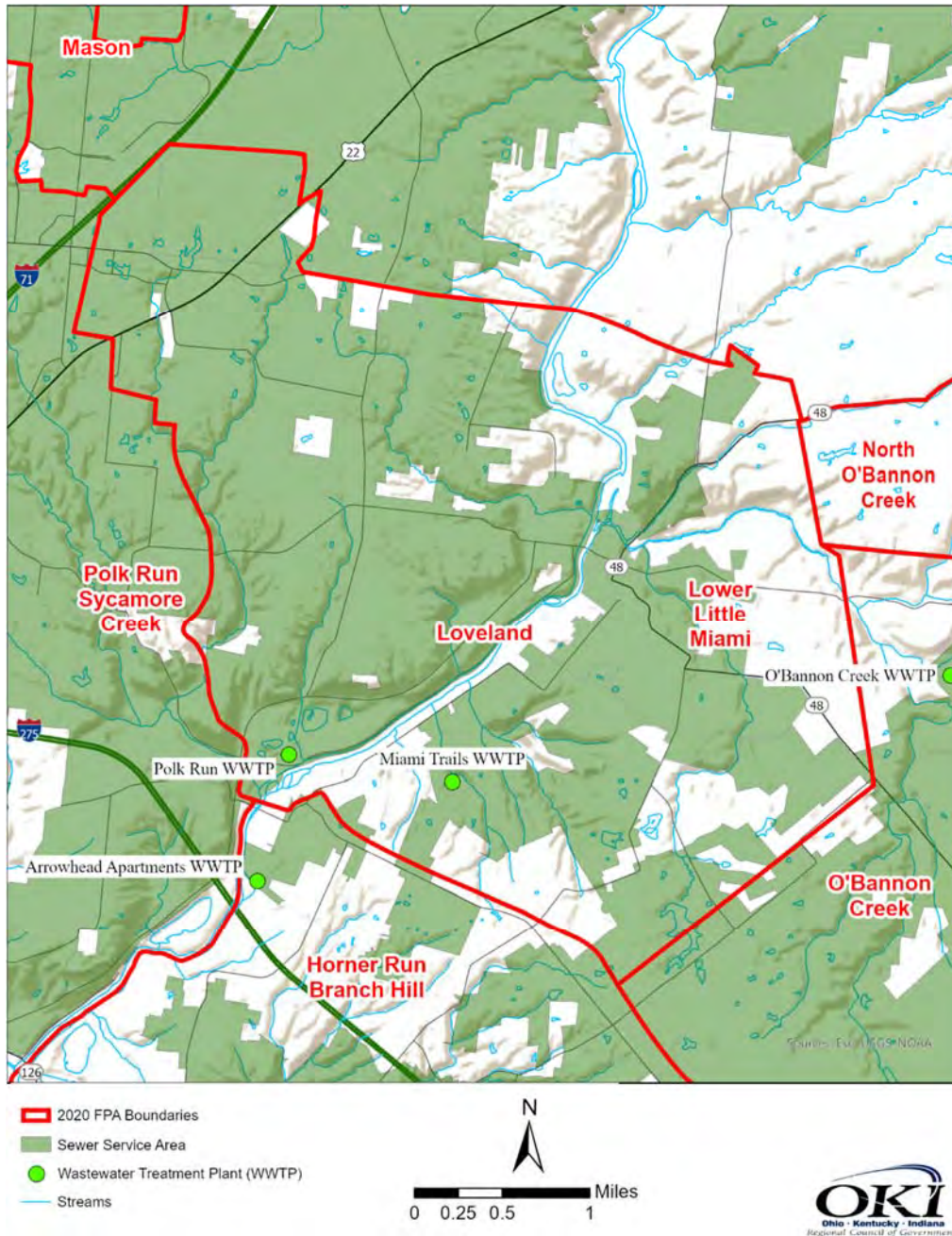
It is recommended that MSD continue to upgrade the Little Miami Wastewater Treatment Plant to increase wet weather sewage treatment capacity along with improvements to address sanitary and combined sewer overflows.

## **Watersheds and Major Waterways**

The confluence of the Little Miami River and the Ohio River is located in the southwestern edge of the FPA. Little Miami tributaries include Duck Creek and Clough Creek. Ohio River Tributaries include Threemile Creek, Fourmile Creek, and Fivemile Creek. HUC 12 watersheds include Clough Creek – Little Miami River (050902021406), Duck Creek (050902021404), and portions of Town of Newport – Ohio River (050902030201), Ninemile Creek – Ohio River (050902011208), Horner Run – Little Miami River (050902021403), and Sycamore Creek (050902021401).

# Loveland Facility Planning Area

The Loveland Facility Planning Area contains most of the City of Loveland and parts of Symmes Township, Hamilton Township, Miami Township, and Goshen Township. Symmes Township and Loveland receive wastewater services from the Metropolitan Sewer District of Greater Cincinnati (MSD) at the Polk Run Wastewater Treatment Plant (WWTP). Miami Township is served by the Clermont County Water Resources Department at the Miami Trails and O'Bannon Creek WWTPs.





## Facilities

Facility Name	Avg. Daily Flow*	# 2019 Connections (Actual)
	Daily Capacity*	# 2050 Connections (Projected)
Polk Run WWTP	5,000,000	9,390
	8,000,000	9,550
Miami Trails WWTP	311,000	993
	400,000	1,023

\* Avg. Daily Flow and Daily Capacity are given in gallons per day.

## Designated Management Agencies

The City of Loveland is identified in the original 1977 Regional Water Quality Management Plan as the designated management agency for this FPA.

## Population

The 2010 population of the FPA was estimated to be 22,589, and the 2040 population of the FPA is estimated to be 22,896.

## Issues

The population of this FPA has more than doubled since the original 1977 Plan was prepared. The corporate boundaries of Loveland straddle three counties, Hamilton, Warren and Clermont, and the Loveland FPA is surrounded by other FPAs (Polk Run Sycamore Creek on the west; Lower Little Miami on the north; North O'Bannon Creek and O'Bannon Creek on the east; and Horner Run Branch Hill on the south) managed by the sewer departments of those three counties.

The Clermont County Water Resources Department operates the Miami Trails plant in the FPA as well as some sewer lines. An agreement between Loveland and the Metropolitan Sewer District of Greater Cincinnati (MSD) subsequent to the 1977 Plan resulted in MSD assuming the operation and management of the Polk Run plant, after which MSD made substantial improvements to both the operations and treatment capacity of the plant that allowed expansion of the service area to accommodate the rapid growth that was occurring in the FPA. In 2008, citing MSD's rising customer rates associated with meeting the terms of its federal consent decree, Loveland initiated litigation to withdraw from their agreement, and MSD countersued. Litigation was still in process at the time of major updating of OKI's Water Quality Management Plan in 2011. Subsequently, the U.S. Supreme Court ultimately declined to hear the case, letting stand a lower court ruling which found the legal agreement between Loveland and MSD valid.

In addition, in the late 1980's, Ohio EPA issued construction permits to the Warren County Sewer Department to construct sewer lines in the small northwest portion of this FPA that is within Warren County; the flows from these Warren County sewer lines have been sent by gravity to the Polk Run treatment plant that is operated by MSD. Some failing onsite treatment systems exist in the southern and southeastern portions of the FPA.



## **Plans**

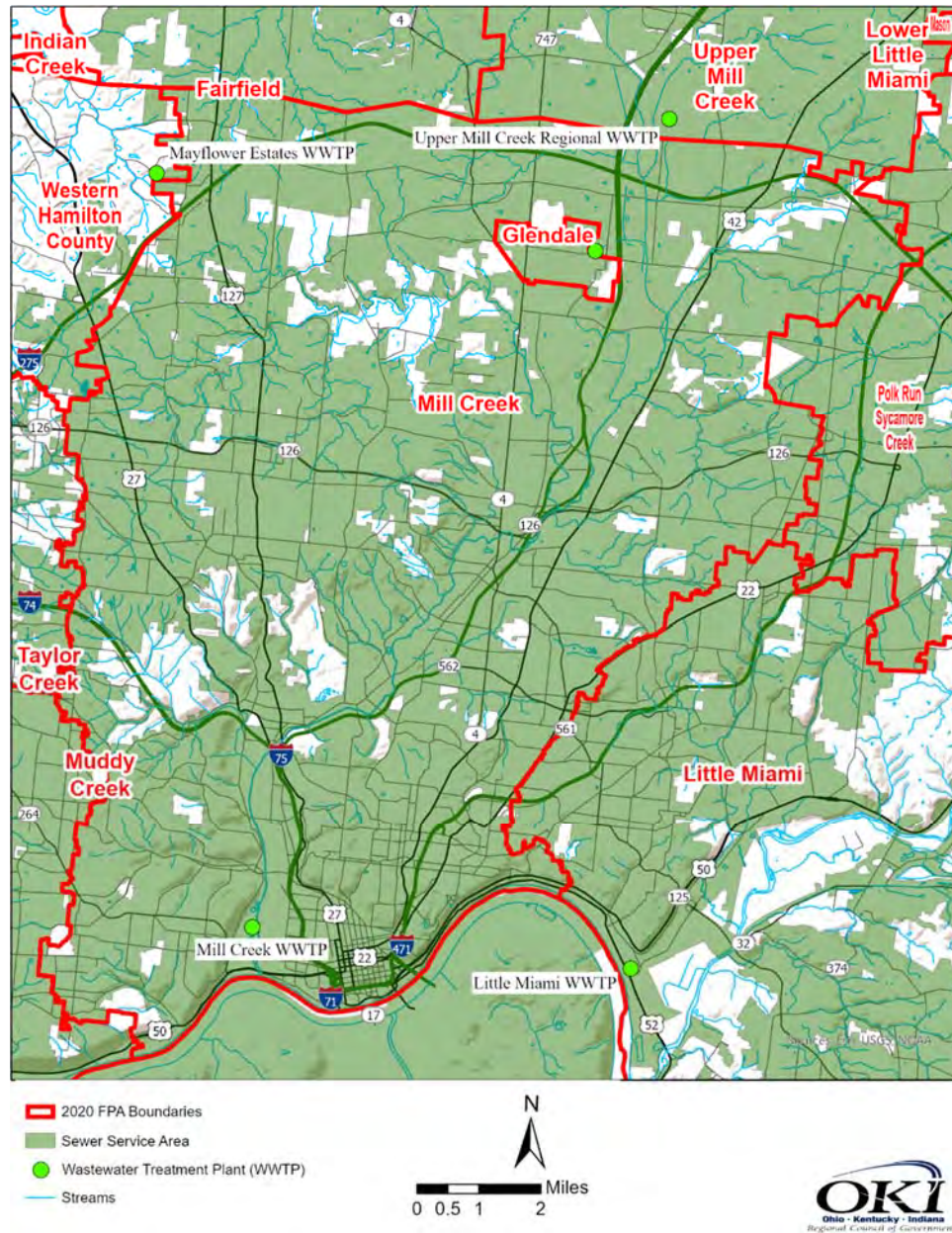
Given the many developments that have occurred since the original Plan was prepared and the number of wastewater management agencies in the vicinity of this FPA, the boundaries of this FPA need to be updated to enable planning both for anticipated growth and for addressing failing onsite treatment systems.

## **Watersheds and Major Waterways**

The FPA contains a section of the Little Miami River and several tributaries including Bares Run and O'Bannon Creek. HUC 12 watersheds include Polk Run – Little Miami River (050902021402), Salt Run – Little Miami River (050902020903), and O'Bannon Creek (050902020902).

# Mill Creek Facility Planning Area

The Mill Creek Facility Planning Area (FPA) contains the Mill Creek Sewer Service Area. Local jurisdictions include the City of Forest Park, City of Springdale, City of Sharonville, City of Reading, City of Wyoming, City of Mount Healthy, City of North College Hill, City of Saint Bernard, Village of Greenhills, Village of Evendale, Village of Woodlawn, Village of Lincoln Heights, Village of Lockland, Village of Arlington Heights, Amberley Village, Village of Golf Manor, Village of Elmwood Place, Springfield Township, and parts of the City of Cincinnati, City of Blue Ash, City of Norwood, City of Deer Park, City of Cheviot, Colerain Township, Green Township, Delhi Township, Columbia Township, and Sycamore Township.



## Facilities

Facility Name	Avg. Daily Flow*	# 2019 Connections (Actual)
	Daily Capacity*	# 2050 Connections (Projected)
Mill Creek WWTP	159,000,000	133,730
	130,000,000	134,000

\* Avg. Daily Flow and Daily Capacity are given in gallons per day.

## Designated Management Agencies

It is recommended that the Metropolitan Sewer District of Greater Cincinnati continue to be the designated management agency for wastewater collection and treatment in the FPA.

## Population

The 2010 population of this FPA was estimated to be 433,775, and the 2040 population is projected to be 416,901.

## Issues

Failing onsite treatment systems are located in parts of Springfield, Colerain, and Green townships. The Mill Creek collection system has combined sewer overflows along the Mill Creek from Cincinnati to Reading and along Mill Creek tributaries, and some remaining sanitary sewer overflows throughout the FPA, especially in the West Fork Mill Creek subwatershed.

## Plans

It is recommended that MSD continue to upgrade the Mill Creek plant to increase its wet weather treatment capacity along with addressing sanitary sewer overflows and combined sewer overflows in the collection system.

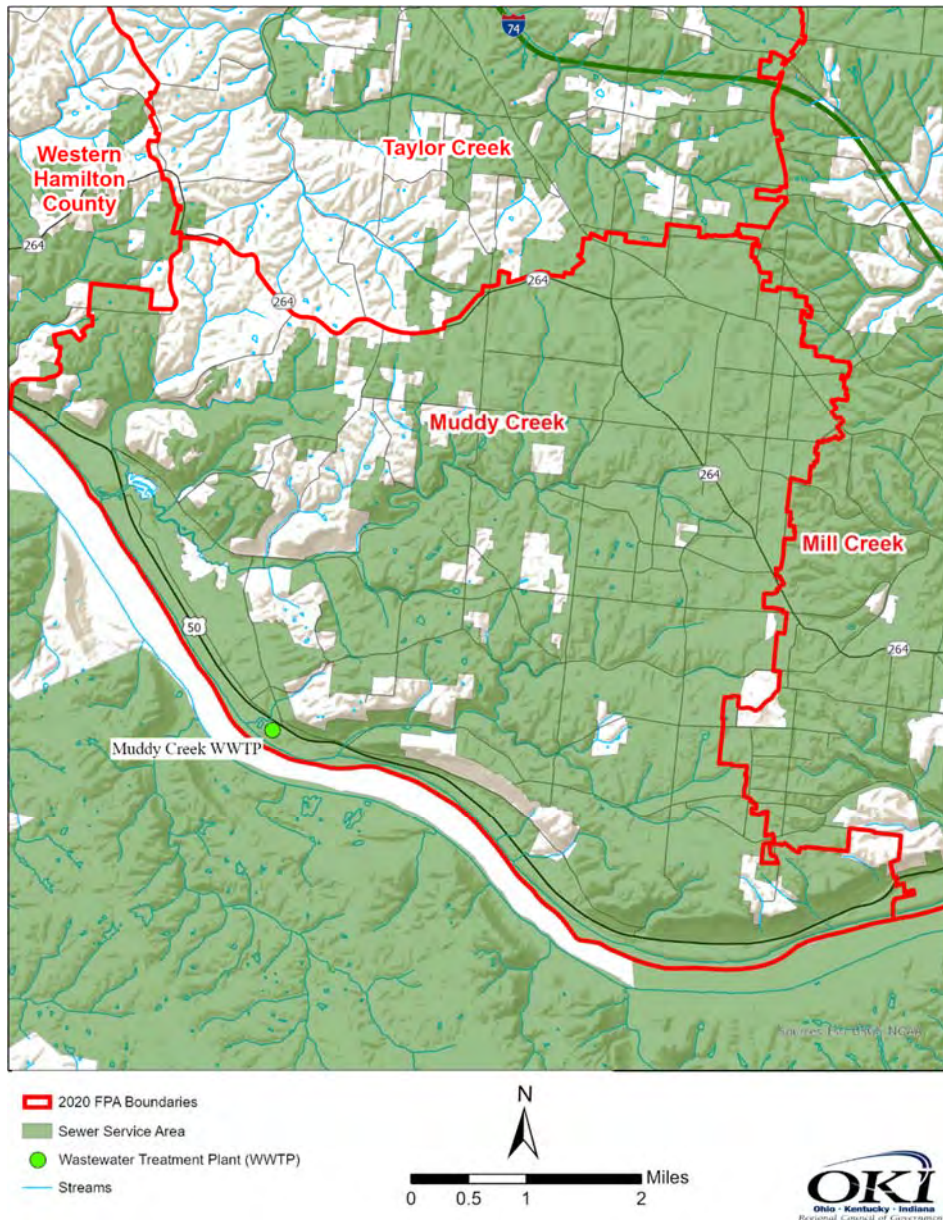
## Watersheds and Major Waterways

The confluence of the Mill Creek with the Ohio River occurs on the southern border of the FPA. Mill Creek tributaries include West Fork Creek, West Fork Mill Creek, Beaver Run, Town Run, Ludlow Run, Ross Run, Bloody Run, Congress Run, Sharon Creek, Amberley Creek, and the final segment of East Fork Mill Creek. Pleasant Run, a tributary to the Great Miami River, drains the FPA's northwest corner. HUC 12 watersheds include West Fork – Mill Creek (050902030105), West Fork Mill Creek (050902030102), Congress Run Mill Creek (050902030104), and parts of Deer Creek – Ohio River (050902030202), Town of Newport – Ohio River (050902030201), Sharon Creek – Mill Creek (050902030103), East Fork Mill Creek – Mill Creek (050902030101), and Pleasant Run (050800020901).



# Muddy Creek Facility Planning Area

The Muddy Creek Facility Planning Area (FPA) contains the Muddy Creek Sewer Service Area. Local jurisdictions include City of Cheviot, Village of Addyston, and parts of City of Cincinnati, Green Township, Miami Township, and Delhi Township.



## Facilities

Facility Name	Avg. Daily Flow*	# 2019 Connections (Actual)
	Daily Capacity*	# 2050 Connections (Projected)
Muddy Creek WWTP	15,000,000	9,465
	15,000,000	9,500

\* Avg. Daily Flow and Daily Capacity are given in gallons per day.



## **Designated Management Agencies**

It is recommended that the Metropolitan Sewer District of Greater Cincinnati continue to be the designated management agency for wastewater collection and treatment in the FPA.

## **Population**

The 2010 population of this FPA was estimated to be 78,994, and the 2040 population is projected to be 76,894.

## **Issues**

Clusters of failing onsite treatment systems are located in Green and Miami townships. The Muddy Creek collection system has a significant combined sewer overflow problem.

## **Plans**

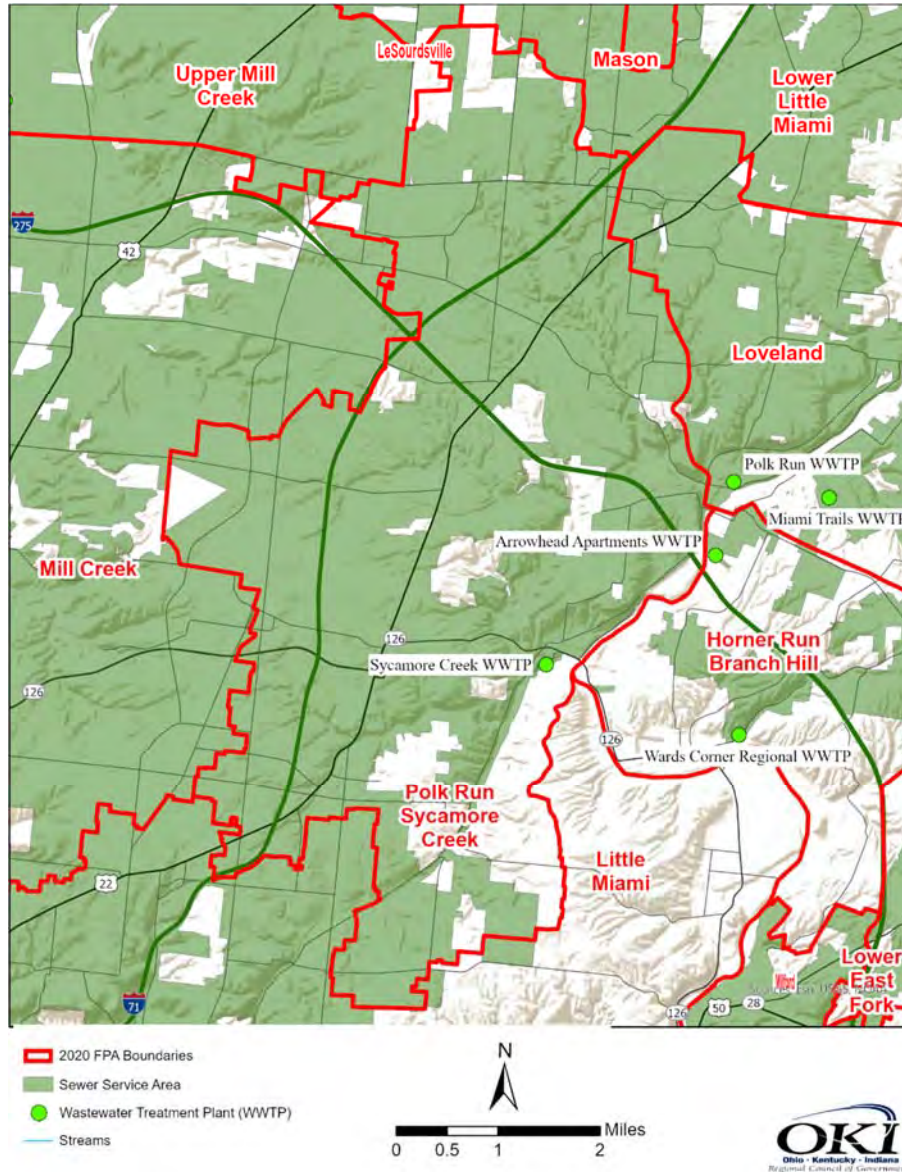
It is recommended that MSD continue to upgrade the Muddy Creek treatment plant to increase its wet weather treatment capacity in addition to making improvements to address combined sewer overflow problems.

## **Watersheds and Major Waterways**

The FPA includes minor tributaries that drain to the Ohio River. These include Muddy Creek, Rapid Run, and Wulff Run. HUC 12 watersheds include Muddy Creek (050902030203), part of Dry Creek – Ohio River (050902030202), and part of Garrison Creek – Ohio River (050902030204).

# Polk Run Sycamore Creek Facility Planning Area

The Polk Run Sycamore Creek Facility Planning Area (FPA) contains the Sycamore Creek Sewer Service Area. Local jurisdictions include parts of Deerfield Township, Symmes Township, Sycamore Township, City of Montgomery, City of Blue Ash, City of Indian Hill, City of Madeira, City of Loveland, and City of Sharonville.



## Facilities

Facility Name	Avg. Daily Flow*	# 2019 Connections (Actual)
	Daily Capacity*	# 2050 Connections (Projected)
Sycamore Creek WWTP	9,000,000	10,127
	9,000,000	10,300

\* Avg. Daily Flow and Daily Capacity are given in gallons per day.

## **Designated Management Agencies**

It is recommended that the Metropolitan Sewer District of Greater Cincinnati continue to be the designated management agency for wastewater collection and treatment in the FPA.

## **Population**

The 2010 population of this FPA was estimated to be 45,006, and the 2040 population is projected to be 45,006.

## **Issues**

Wet weather flows have been a significant problem in this FPA and MSD has made several operational improvements to the Sycamore treatment plant to increase wet weather treatment capacity. A small number of failing onsite treatment systems are located in the central parts of Symmes Township.

## **Plans**

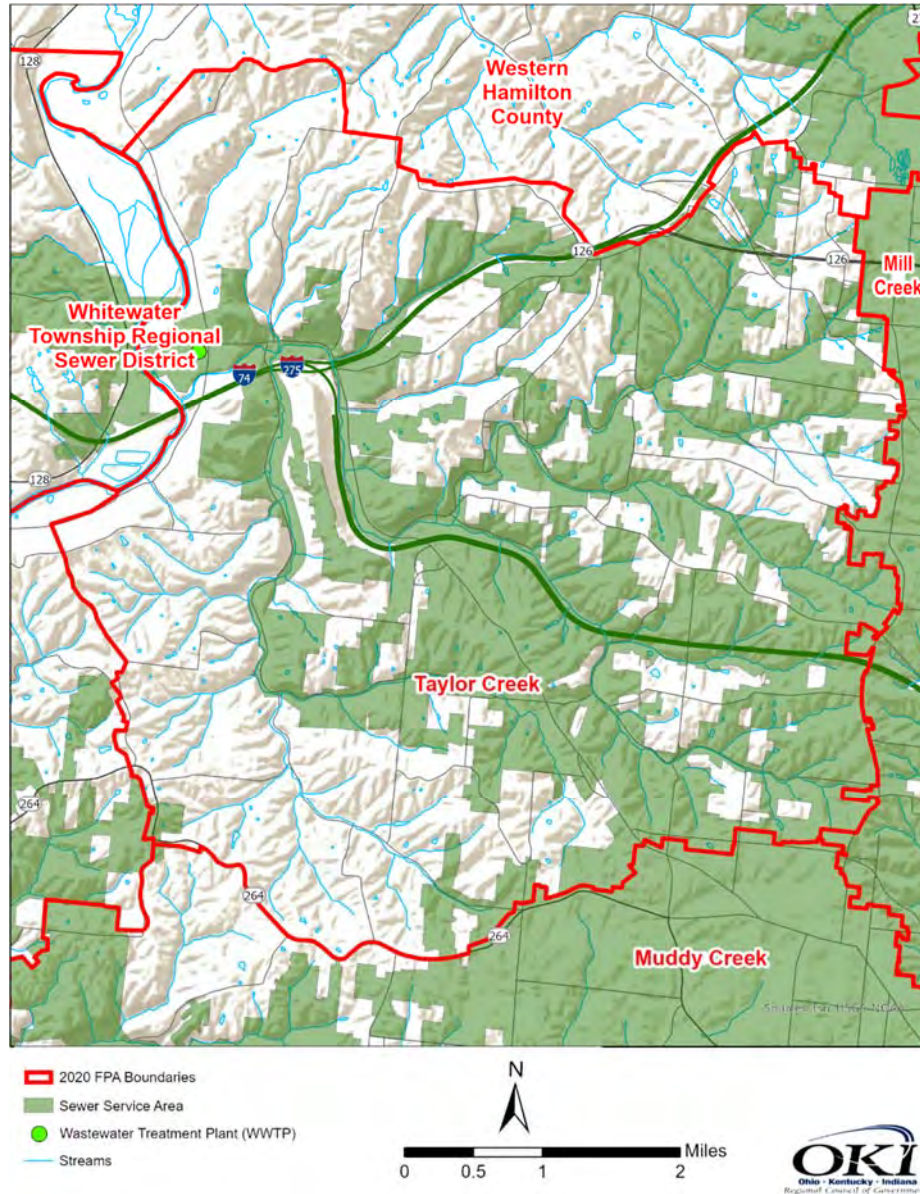
It is recommended that MSD continue to monitor the adequacy of wet weather treatment at the Sycamore plant and to plan for improvements and capacity increases as needed.

## **Watersheds and Major Waterways**

The confluence of Sycamore Creek with the Little Miami River is located on the eastern border of the FPA. Other streams include North Branch Sycamore Creek and most of Polk Run before its confluence with the Little Miami River. HUC 12 Watersheds include Sycamore Creek (050902021401) and parts of Polk Run – Little Miami River (050902021402), Sharon Creek – Mill Creek (050902030103), and Horner Run – Little Miami River (050902021403).

# Taylor Creek Facility Planning Area

The Taylor Creek Facility Planning Area (FPA) contains the Taylor Creek Sewer Service Area. Local jurisdictions include parts of City of Cheviot, Green Township, Colerain Township, and Miami Township.



## Facilities

Facility Name	Avg. Daily Flow*	# 2010 Connections (Actual)
	Daily Capacity*	# 2040 Connections (Projected)
Taylor Creek Regional WWTP	3,000,000	3,892
	5,500,000	4,300

\* Avg. Daily Flow and Daily Capacity are given in gallons per day.



## **Designated Management Agencies**

It is recommended that the Metropolitan Sewer District of Greater Cincinnati continue to be the designated management agency for wastewater collection and treatment in the FPA.

## **Population**

The 2010 population of this FPA was estimated to be 36,943, and the 2040 population is projected to be 37,831.

## **Issues**

Failing onsite treatment systems are located throughout the FPA.

## **Plans**

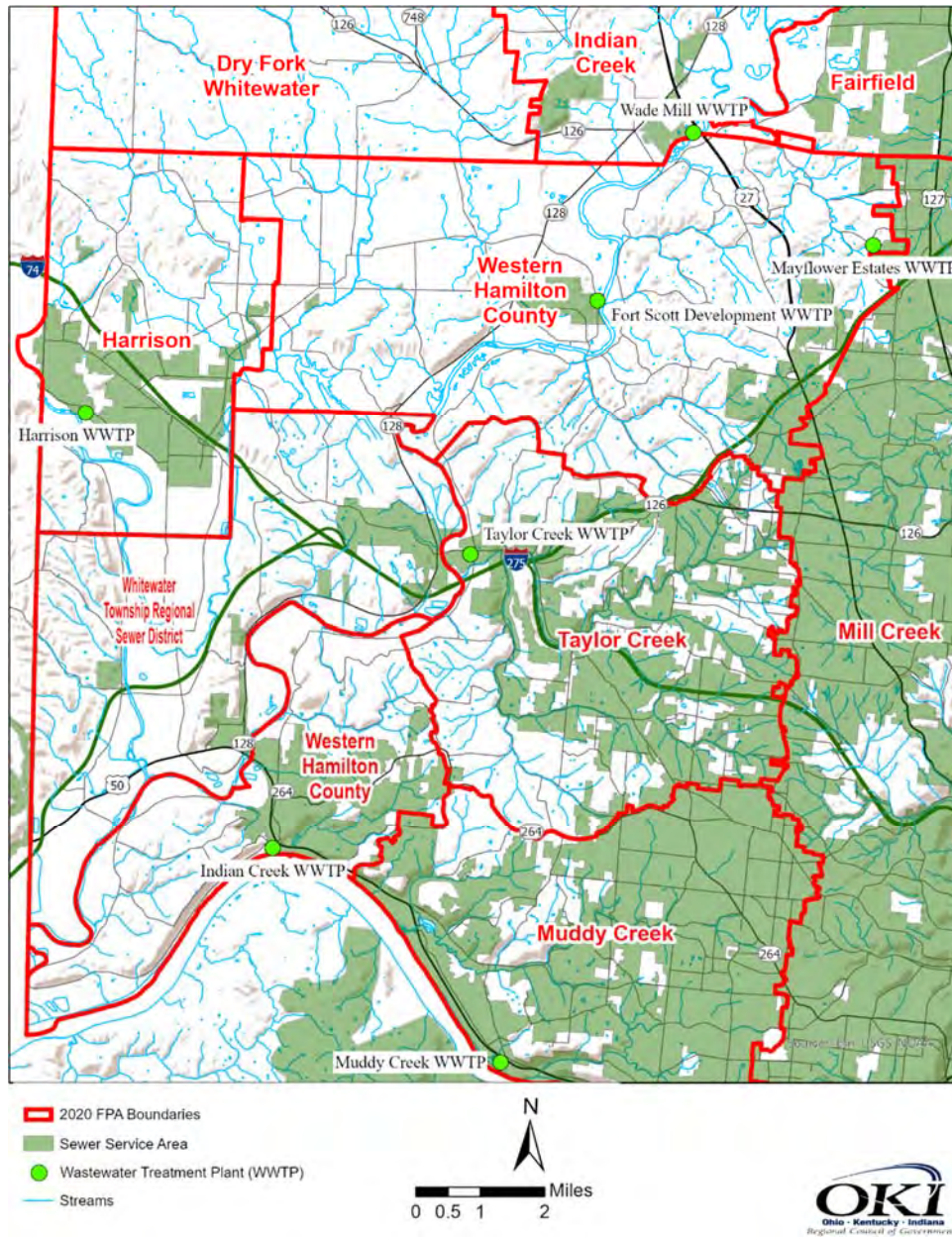
The Taylor Creek plant receives flows from within the FPA and from Whitewater Township, which is outside the FPA. It is anticipated that treatment capacity at the Taylor Creek plant will be sufficient for the planning period. It is recommended that MSD continue to investigate options to address failing onsite systems in the FPA.

## **Watersheds and Major Waterways**

The Confluence of Taylor Creek and the Great Miami River is located on the western border of the FPA. Taylor Creek tributaries include Brierly Creek, Sheed Creek, Eagle Creek, Forfeit Run, Mullen Run, Emerald Run, Wesselman Creek and Taylor Road Creek. The FPA's northwest lobe is drained by two un-named, intermittent streams that flow into the Great Miami River. HUC 12 watersheds in the FPA include Taylor Creek (050800020905) and a small portion of Jordan Creek – Great Miami River (050800020906).

# Western Hamilton County Facility Planning Area

The Western Hamilton County Facility Planning Area (FPA) contains the Indian Creek and Fort Scott Sewer Service Areas and the Whitewater Township Regional Sewer District. Local jurisdictions include the Village of Cleves, Village of North Bend, Whitewater Township, and parts of Miami Township, Colerain Township, and Crosby Township.



## Facilities

Facility Name	Avg. Daily Flow*	# 2010 Connections (Actual)
	Daily Capacity*	# 2040 Connections (Projected)
Indian Creek WWTP	1,000,000	1,075
	1,500,000	1,375
Fort Scott Development WWTP	.40,000	26
	500,000	500
Mayflower Estates WWTP	40,000	198
	80,000	200

\* Avg. Daily Flow and Daily Capacity are given in gallons per day.

## Designated Management Agencies

MSD is a wastewater management agency that is owned by Hamilton County and managed by the City of Cincinnati under a long term agreement, and was formed under Section 6117 of the Ohio Revised Code to provide service in unincorporated areas of Hamilton County. Subsequently, the Whitewater Township Regional Sewer District (WTRSD) was formed under Section 6119 of the Ohio Revised Code to provide sewer service within township boundaries; the township area is contained within the Western Hamilton County FPA.

Under agreements between WTRSD and MSD, the WTRSD has constructed some pump stations and sewer lines that it owns and maintains, and several other sewer lines that are being operated and maintained by MSD until debt service for the lines is retired, at which point MSD will own them. In addition, the WTRSD has constructed sewer lines for which they have been compensated by MSD and which MSD already owns as a result. The sewage flow in the WTRSD lines is being conveyed to MSD sewer lines and to MSD's Taylor Creek and Indian Creek wastewater treatment plants outside Whitewater Township and outside the Western Hamilton County FPA.

A legal agreement exists between the WTRSD and MSD detailing the process by which either entity may plan, construct, maintain and operate wastewater facilities in the township. In view of the legal agreement, it is recommended that both MSD and WTRSD be designated agencies for wastewater treatment management and collection within the Whitewater Township boundaries, and that MSD remain the designated agency for wastewater treatment management and collection in the Western Hamilton County FPA outside the Whitewater Township boundaries..

## Population

The 2010 population of this FPA was estimated to be 26,147, and the 2040 population is projected to be 27,107. Within Whitewater Township the 2010 population was estimated to be 5,519, and the 2040 population is projected to be 5,622.

## **Issues**

Failing onsite treatment systems and outdated package treatment plants are located throughout the FPA.

## **Plans**

At present, MSD's treatment capacity at the Taylor Creek and Indian Creek plants is adequate to handle existing and anticipated sewage flows from the FPA within the planning period. In terms of sewer system expansion, plans are underway to connect a portion of Whitewater Township along State Route 128 in the middle of the FPA to the Taylor Creek Wastewater Treatment Plant. This expansion will eliminate the Miamiview Estates, Westbrook, and Eastview package plants which are under private management. In the northern portion of the FPA, MSD is investigating the feasibility of constructing a regional-scale treatment plant that could enable the Mayflower Estates treatment plant to be decommissioned and failing onsite systems to be addressed. It is recommended that MSD continue to pursue options to address failing onsite systems in the FPA.

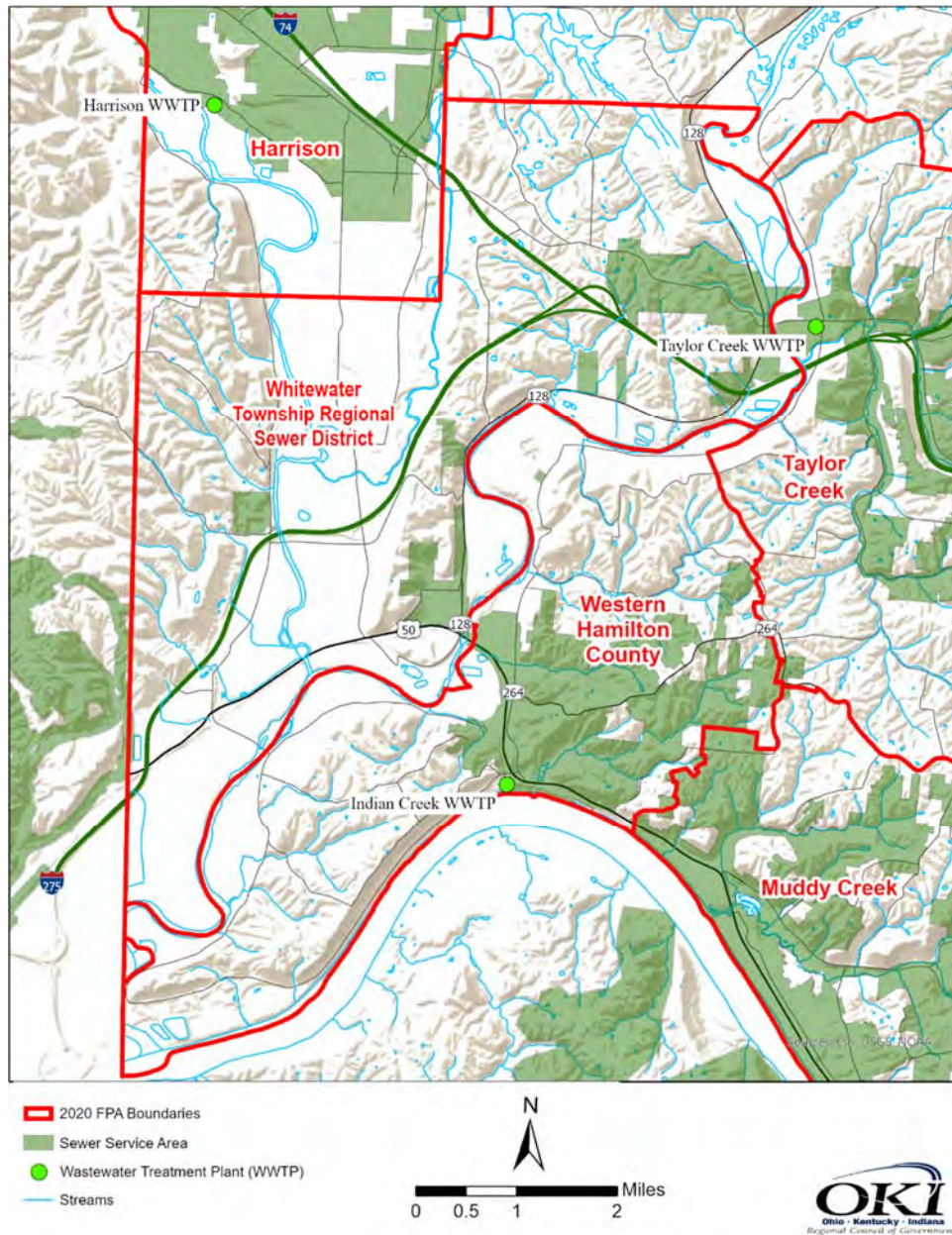
## **Watersheds and Major Waterways**

The FPA contains sections of the Great Miami River, Whitewater River, and several tributaries including Sand Run Creek, Fox Run, Dry Fork Whitewater River, Jordan Creek, Blue Rock Creek, Owl Creek Dunlap Run, Paddy's Run, and Banklick Creek. HUC 12 watersheds include Paddys Run (050800020903), Dry Run-Great Miami River (050800020904), Banklick Creek-Great Miami River (050800020902), Lee Creek-Dry Fork Whitewater River (050800030809), Jordan Creek-Great Miami River (050800020906), Jameson Creek-Whitewater River (050800030810), Doublelick Run-Great Miami River (050800020907), and Garrison Creek-Ohio River (050902030204).



# Whitewater Facility Planning Area

The Whitewater Facility Planning Area (FPA) is identical to the boundaries of Whitewater Township, and is located completely within the Western Hamilton County FPA.



## Facilities

There are no centralized wastewater treatment facilities in the Whitewater FPA; existing sewer lines convey flows to the neighboring Taylor Creek and Indian Creek treatment plants.

## **Designated Management Agencies**

The Metropolitan Sewer District of Greater Cincinnati (MSD) is a wastewater management agency that is owned by Hamilton County and managed by the City of Cincinnati under a long term agreement, and was formed under Section 6117 of the Ohio Revised Code to provide service in unincorporated areas of Hamilton County. Subsequently, the Whitewater Township Regional Sewer District (WTRSD) was formed under Section 6119 of the Ohio Revised Code to provide sewer service within township boundaries; the township area is contained within the Western Hamilton County FPA.

Under agreements between WTRSD and MSD, the WTRSD has constructed some pump stations and sewer lines that it owns and maintains, and several other sewer lines that are being operated and maintained by MSD until debt service for the lines is retired, at which point MSD will own them. In addition, the WTRSD has constructed sewer lines for which they have been compensated by MSD and which MSD already owns as a result. The sewage flow in the WTRSD lines is being conveyed to MSD sewer lines and to MSD's Taylor Creek and Indian Creek wastewater treatment plants outside Whitewater Township and outside the Western Hamilton County FPA.

A legal agreement exists between the WTRSD and MSD detailing the process by which either entity may plan, construct, maintain and operate wastewater facilities in the township. In view of the legal agreement, it is recommended that both MSD and WTRSD be designated agencies for wastewater treatment management and collection within the Whitewater Township boundaries, and that MSD remain the designated agency for wastewater treatment management and collection in the Western Hamilton County FPA outside the Whitewater Township boundaries.

## **Population**

The 2010 population of this FPA was estimated to be 5,519, and the 2040 population is projected to be 5,622.

## **Issues**

Failing onsite treatment systems and outdated package plants are located in the northern portion of the FPA.

## **Plans**

In terms of sewer system expansion, plans are underway to serve a portion of Whitewater Township along State Route 128 in the middle of the FPA and to convey flows to MSD's Taylor Creek Wastewater Treatment Plant. This expansion will eliminate the Miamiview Estates, Westbrook, and Eastview package plants which are under private management.

At present, MSD's treatment capacity at the Taylor Creek and Indian Creek plants is adequate to handle existing and anticipated sewage flows from the Whitewater Overlay FPA within the planning period, based on the population projection that Whitewater Township will add slightly more than 400 more people by the year 2030. As previously noted, a legal agreement between WTRSD and MSD details the process by which either entity may plan, construct, maintain and operate wastewater facilities in Whitewater Township, and it is recommended that both MSD and

WTRSD be designated agencies for wastewater treatment management and collection within the Whitewater Township boundaries.

## **Watersheds and Major Waterways**

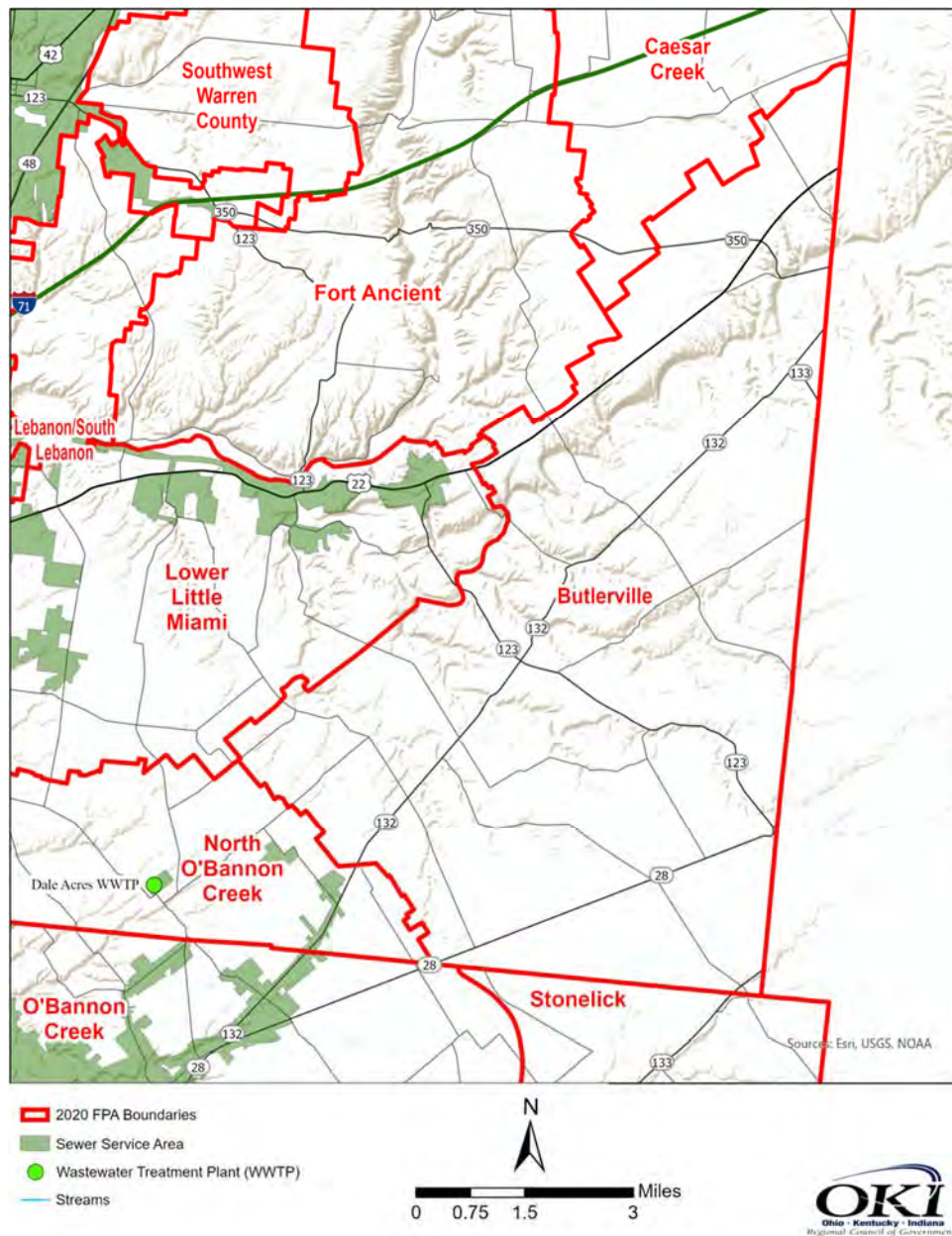
The FPA contains a section of the Whitewater River and its entire eastern border is defined by the Great Miami River. Other streams include Doublelick Run, Sand Run Creek, Fox Run, and Dry Fork Whitewater River. HUC 12 watersheds include Jordan Creek – Great Miami River (050800020906), Lee Creek – Dry Fork Whitewater River (050800030809), Jameson Creek – Whitewater River (050800030810), and Doublelick Run – Great Miami River (050800020907).

***Recommended Warren  
County Wastewater  
Facility Planning Areas***



# Butlerville Facility Planning Area

The Butlerville Facility Planning Area (FPA) does not have areas of centralized sewer service. Local jurisdictions include the Village of Butlerville, and parts of the Village of Pleasant Plain, Village of Blanchester, Harlan Township, Salem Township, and Washington Township.



## Facilities

Butlerville FPA has no centralized wastewater treatment facilities.

## Designated Management Agencies

It is recommended that the Warren County Water and Sewer Department continue to be the designated management agency for wastewater collection and treatment in the FPA.

## **Population**

The 2010 population of this FPA was estimated to be 5,449, and the 2040 population is projected to be 5,540.

## **Issues**

The scattered population in this rural FPA is served by onsite wastewater treatment systems. Although soils in most of the area are not suitable for the functioning of conventional septic tank-leach field systems, there are no known concentrations of failing onsite systems in the FPA.

## **Plans**

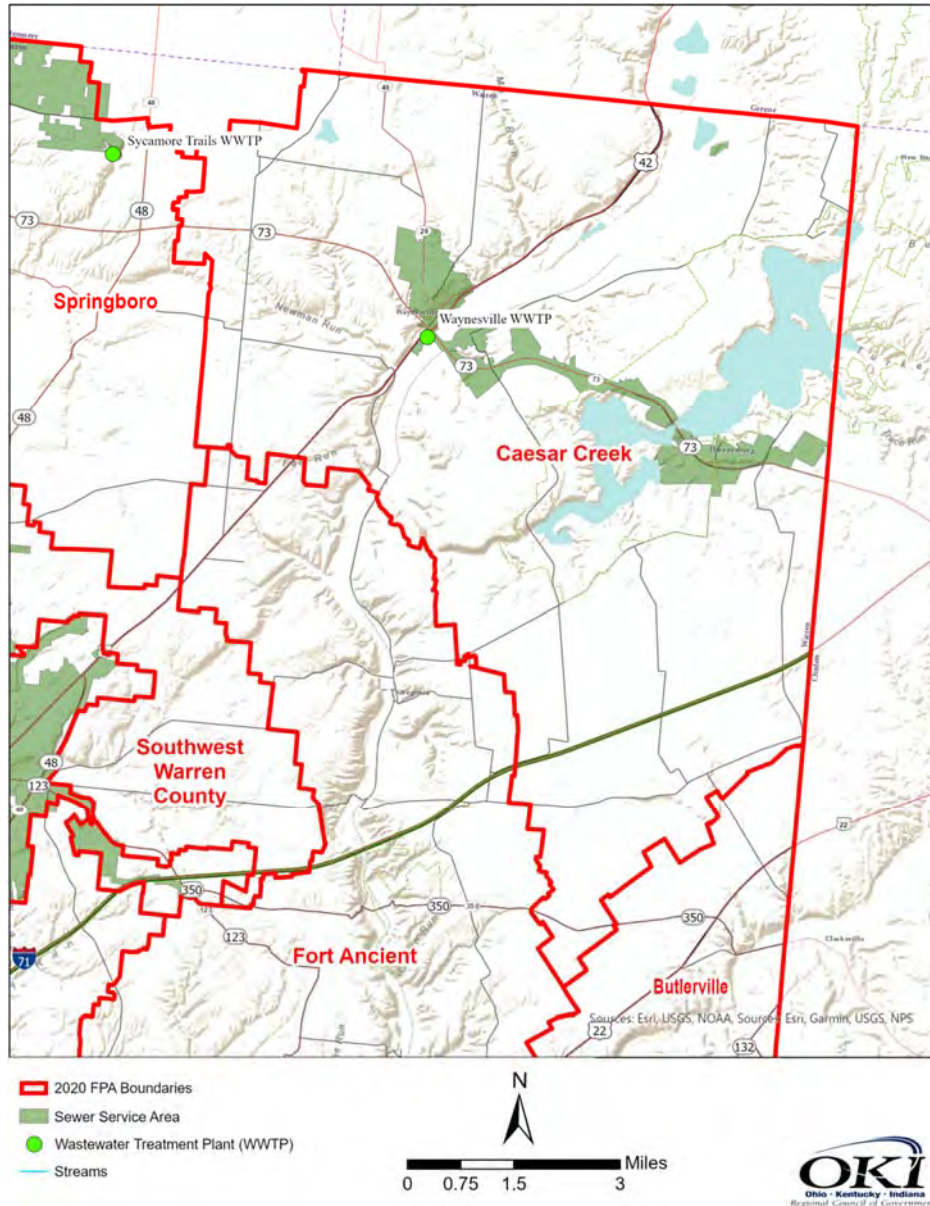
It is recommended that the County continue to ensure the proper construction and maintenance of onsite systems in the FPA, and to evaluate needs for centralized treatment if warranted by growth and appropriate development densities.

## **Watersheds and Major Waterways**

Streams in the FPA include Todd Fork, Sugar Run, Kunkers Run, Lick Run, Second Creek, Right Fork Second Creek, First Creek, Littles Run, Kellers Run, Locust Creek, and Marlins Run. HUC 12 watersheds include Lick Run – Todd Fork (050902020704), Little Creek – Todd Fork (050902020606), East Fork Todd Fork (050902020701), Second Creek (050902020702), and First Creek (050902020703).

# Caesar Creek Facility Planning Area

The Caesar Creek Facility Planning Area (FPA) contains the Waynesville Sewer Service Area. Local jurisdictions include the Village of Waynesville, Village of Corwin, Village of Harveysburg, and parts of Clear Creek Township, Wayne Township, Washington Township, and Massie Township.



## Facilities

Facility Name	Avg. Daily Flow*	# 2019 Connections (Actual)
	Daily Capacity*	# 2050 Connections (Projected)
Waynesville WWTP	696,000	1590
	71,000,000	1972

\* Avg. Daily Flow and Daily Capacity are given in gallons per day.

## **Designated Management Agencies**

It is recommended that the Warren County Water and Sewer Department continue to be the Designated Management Agency for wastewater collection and treatment in the FPA. In 2015 The Village of Waynesville transferred ownership of its collection system and treatment plant to Warren County, after treating waste from other areas in the FPA outside the Village's boundaries for several years through an inter-local agreement.

## **Population**

The 2010 population of this FPA was estimated to be 7,612, and the 2040 population is projected to be 8,042. Within the Village of Waynesville the 2010 population was 2,834, and the 2040 population is projected to be 3,100.

## **Issues**

The FPA includes Caesar Creek Lake, a manmade reservoir created primarily for flood control but also available for public water supply.

## **Plans**

Warren County plans to upgrade both the capacity and the treatment process of the Waynesville wastewater treatment plant to accommodate anticipated growth. It is also recommended that the County ensure the proper construction and maintenance of onsite systems in the FPA where sewer service is not feasible.

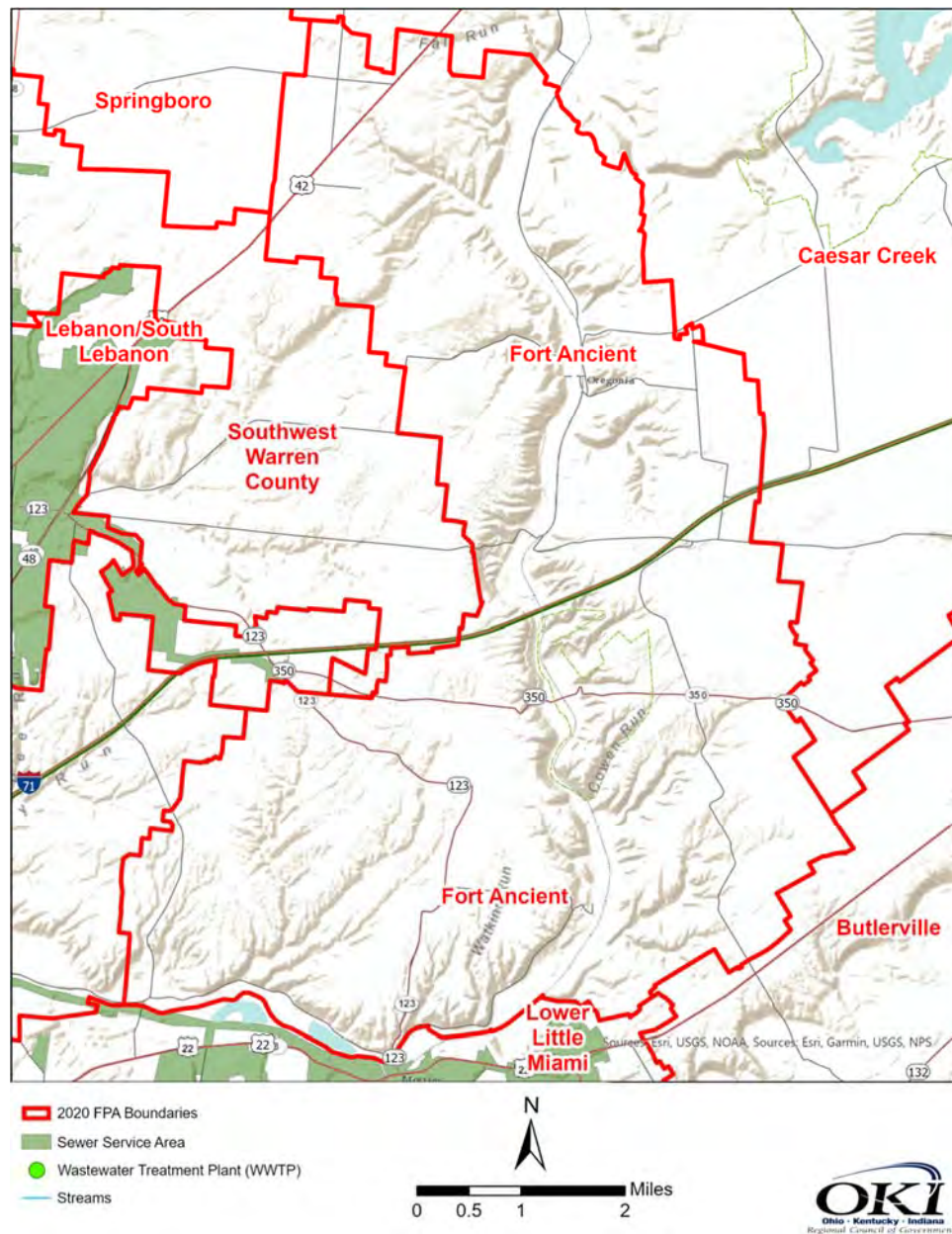
## **Watersheds and Major Waterways**

The FPA contains segments of the Little Miami River, Caesar Creek, and several tributaries including Newman Run, Rattail Branch, Satterthwaites Run, Mill Run, Furnas Ditch, Shaffers Run, Sandy Run, Trace Run, Jonas Run, Ruchs Run, Gum Run, Harlans Run, Flat Fork, and Knoll Brook. HUC 12 watersheds include Newman Run – Little Miami River (050902020504), Lower Caesar Creek (050902020406), and Flat Fork (050902020405).



# Fort Ancient Facility Planning Area

There are no areas of centralized sewer service in the Fort Ancient Facility Planning Area (FPA). Local jurisdictions include portions of Clear Creek Township, Wayne Township, Turtle Creek Township, Union Township, Salem Township, and Washington Township.



## Facilities

There are no centralized wastewater treatment facilities in the FPA.

## Designated Management Agencies

It is recommended that the Warren County Water and Sewer Department continue to be the designated management agency for sewer service planning in the FPA.

## **Population**

The 2010 population of this FPA was estimated to be 4,442, and the 2040 population is projected to be 5,011.

## **Issues**

The scattered population in this rural FPA is served by onsite wastewater treatment systems. Although soils in most of the area are not suitable for the functioning of conventional septic tank-leach field systems, there are no known concentrations of failing onsite systems in the FPA.

## **Plans**

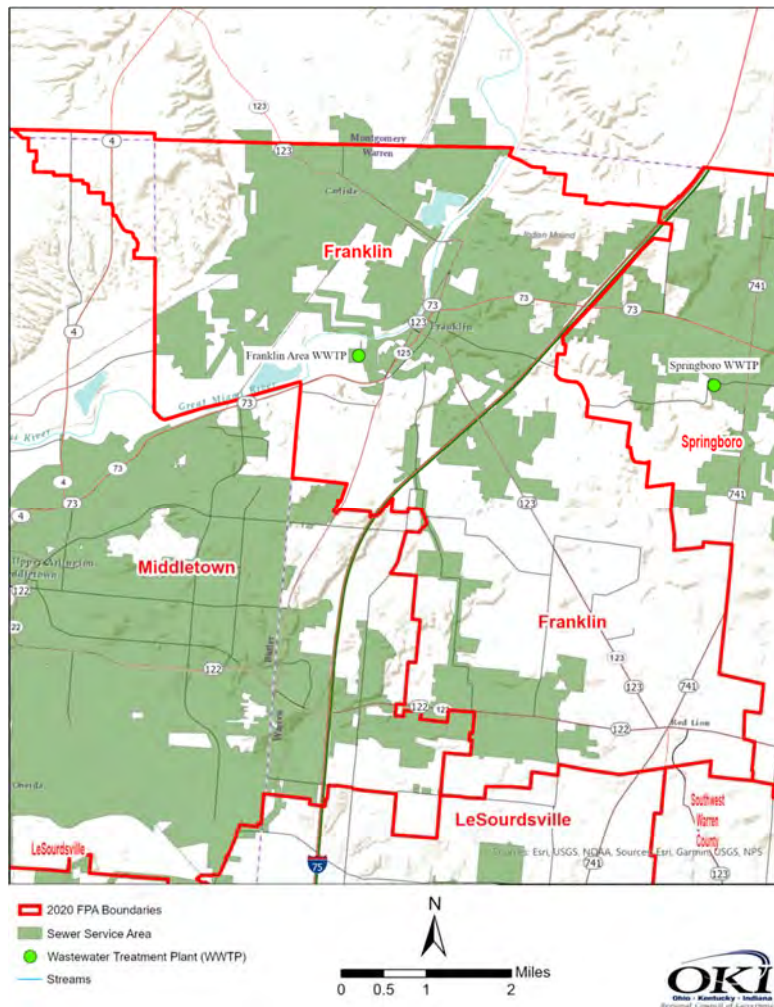
It is recommended that the County continue to ensure the proper construction and maintenance of onsite systems in the FPA, and to evaluate needs for centralized treatment if warranted by growth and appropriate development densities.

## **Watersheds and Major Waterways**

The FPA contains a section of the Little Miami River and several tributaries including Dry Run, East Turtle Creek, Hawleys Run, Olive Branch, Ferris Run, Cowen Run, Stony Run, Watkins Run, Harpers Run, Muntz Run, Grays Run, and Halls Creek. HUC 12 watersheds include Newman Run-Little Miami River (050902020504), Ferris Run-Little Miami River (050902020801), and Halls Creek-Little Miami River (050902020804).

# Franklin Facility Planning Area

The Franklin Facility Planning Area contains the Franklin and Carlisle sewer service areas, and part of the Warren County sewer service areas. Local jurisdictions include the City of Franklin, City of Carlisle, Franklin Township, Clear Creek Township, and parts of City of Middletown, Turtle Creek Township, and Madison Township in Butler County. (The community of Germantown in Montgomery County is also served by the Franklin wastewater treatment plant, but water quality management planning for Montgomery County is the responsibility of the Miami Valley Regional Planning Commission.)



## Facilities

Facility Name	Avg. Daily Flow*	# 2019 Connections (Actual)
	Daily Capacity*	# 2050 Connections (Projected)
Franklin Area WWTTP	3,200,000	2491
	4,500,000	9749

\* Avg. Daily Flow and Daily Capacity are given in gallons per day.

## **Designated Management Agencies**

It is recommended that the Franklin Regional Wastewater Treatment Corporation continue to be the designated management agency for wastewater treatment, and the Village of Carlisle, City of Franklin, and Warren County continue to be designated management agencies for wastewater collection in the FPA.

## **Population**

The 2010 population of this FPA was estimated to be 27,480, and the 2040 population is projected to be 30,574.

## **Issues**

The Franklin Regional Wastewater Treatment Corporation is managed by a board of the entities who send wastewater flows to the plant for treatment, but each entity operates its own collection system. Some failing onsite treatment systems are located in the northwestern portion of the FPA.

## **Plans**

It is recommended that the entities managing the Franklin Regional Wastewater Treatment System continue to consult with each other about plans for sewer system expansion as well as treatment plant capacity and operations, and investigate alternatives for addressing failing onsite treatment systems.

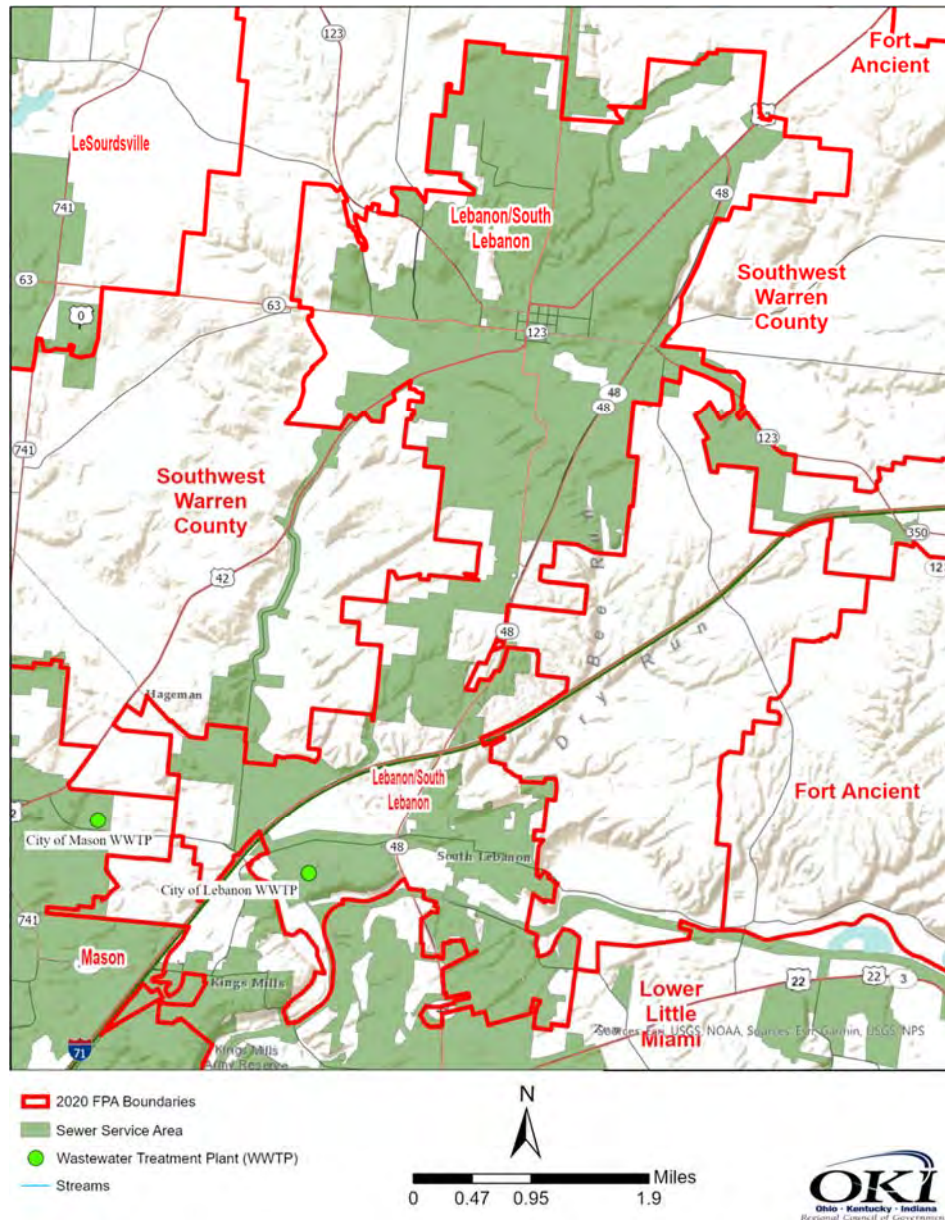
## **Watersheds and Major Waterways**

The FPA contains a section of the Great Miami River and several tributaries including Twin Creek, Clear Creek, Dry Run, Goose Creek, Grander Run, and Dicks Creek. HUC 12 watersheds include Browns Run-Great Miami River (050800020702), Town of Germantown-Twin Creek (050800020306), Dry Run-Great Miami River (050800020404), Clear Creek (050800020403), Dicks Creek (050800020704), and Shaker Creek (050800020703).



# Lebanon/South Lebanon Facility Planning Area

The Lebanon/South Lebanon Facility Planning Area (FPA) contains the Lebanon and South Lebanon Sewer Service Areas. Local jurisdictions include City of Lebanon, Village of South Lebanon, and a very small part of Turtle Creek Township.



## Facilities

Facility Name	Avg. Daily Flow*	# 2010 Connections (Actual)
	Daily Capacity*	# 2040 Connections (Projected)
City of Lebanon WWTP	2,785,400	7,075
	6,000,000	8,343

\* Avg. Daily Flow and Daily Capacity are given in gallons per day.

## **Designated Management Agencies**

It is recommended that the Village of South Lebanon continue to be the designated management agency for wastewater collection within its corporate boundaries, and that Lebanon continue to be the designated management agency for wastewater collection within its corporate boundaries and for wastewater treatment throughout the Lebanon/South Lebanon FPA.

## **Population**

The 2010 population of this FPA was estimated to be 24,148, and the 2040 population is projected to be 26,700.

## **Issues**

Significant growth is expected in the FPA and surrounding Southwest Warren County FPA in the planning period.

## **Plans**

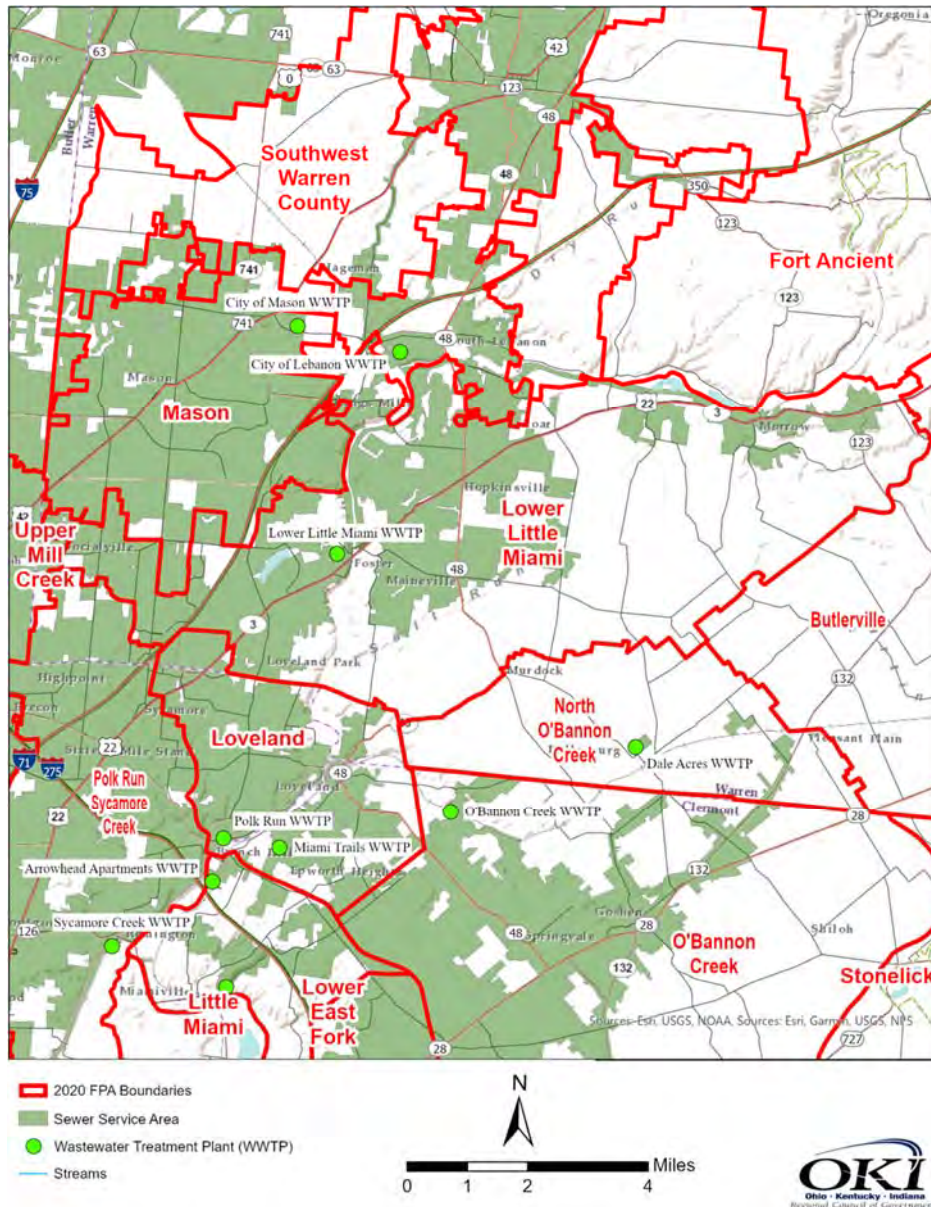
The City plans to make substantial operational improvements to the treatment plant within the next five years. Treatment capacity at the Lebanon plant is expected to be sufficient to accommodate anticipated growth in the FPA during the planning period.

## **Watersheds and Major Waterways**

The FPA contains a section of the Little Miami River and several tributaries including Turtle Creek, Reeders Run, French Run, Jamison Run, and Muddy Creek. HUC 12 watersheds include Turtle Creek (050902020803), Muddy Creek (050902020901), Salt Run – Little Miami River (050902020903), and Halls Creek – Little Miami River (050902020804).

# Lower Little Miami Facility Planning Area

The Lower Little Miami Facility Planning Area (FPA) contains the Lower Little Miami Sewer Service Area. Local jurisdictions include the Village of Maineville, Village of Morrow, and parts of Deerfield Township, Union Township, Hamilton Township, and Salem Township.



## Facilities

Facility Name	Avg. Daily Flow*	# 2019 Connections (Actual)
	Daily Capacity*	# 2050 Connections (Projected)
Lower Little Miami WWTP	5,689,000	16,266
	12,000,000	32,220

\* Avg. Daily Flow and Daily Capacity are given in gallons per day.

## **Designated Management Agencies**

It is recommended that the Warren County Water and Sewer Department continue to be the designated management agency for wastewater collection and treatment in the FPA.

## **Population**

The 2010 population of this FPA was estimated to be 48,074, and the 2040 population is projected to be 58,782.

## **Issues**

This area has experienced significant growth since the original Plan was prepared, and Warren County is making significant operational and capacity improvements to the Lower Little Miami treatment plant to accommodate additional continued growth.

## **Plans**

Warren County has constructed wastewater treatment improvements that increase capacity at the Lower Little Miami plant to 12 million gallons per day. The expansion will provide capacity for anticipated growth within the FPA during the planning period.

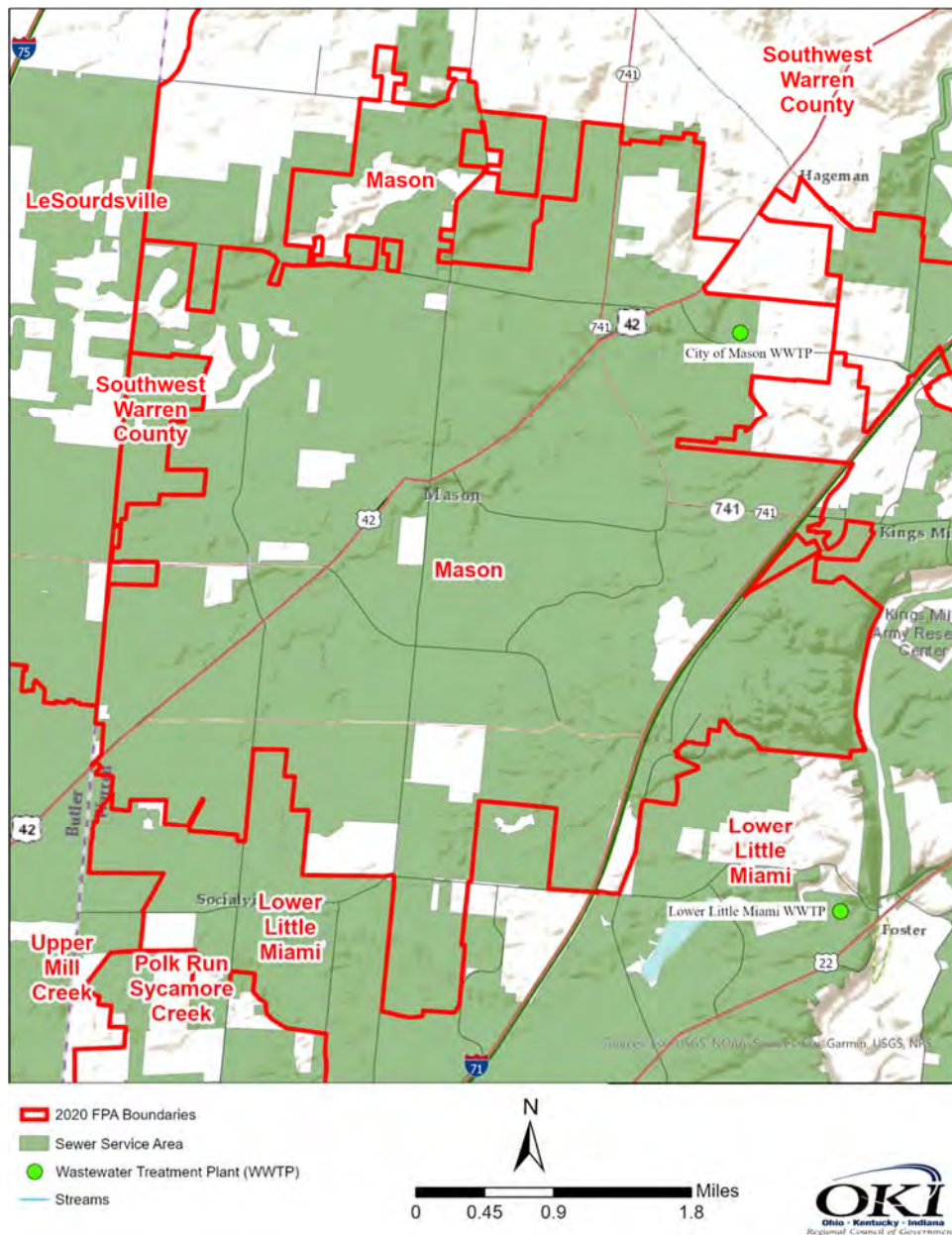
## **Watersheds and Major Waterways**

The FPA includes a section of the Little Miami River and several tributaries including Simpson Creek, Bear Run, Salt Run, Hen Run, Ertel Run, Bigfoot Run, and Todd Fork. HUC 12 watersheds include Muddy Creek (050902020901), Salt Run – Little Miami River (050902020903), O'Bannon Creek (050902020902), Halls Creek – Little Miami River (050902020804), First Creek (050902020703), Second Creek (050902020702), Lick Run – Todd Fork (050902020704), and Ferris Run – Little Miami River (050902020801).



# Mason Facility Planning Area

The Mason Facility Planning Area (FPA) contains the Mason sewer service area. The local jurisdiction included is the City of Mason.



## Facilities

Facility Name	Avg. Daily Flow*	# 2018 Connections (Actual)
	Daily Capacity*	# 2040 Connections (Projected)
City of Mason WWTP	6,000,000	11,339
	8,670,000	18,500

\* Avg. Daily Flow and Daily Capacity are given in gallons per day.

## **Designated Management Agencies**

It is recommended that the City of Mason continue to be the Designated Management Agency for wastewater collection and treatment within the FPA, which corresponds to the corporate boundaries of Mason.

## **Population**

The 2010 population of this FPA was 30,712, and the 2040 population is projected to be 31,863.

## **Issues**

The City of Mason is addressing the issue of sewage system infiltration and inflow, and completed a major expansion of its treatment plant.

## **Plans**

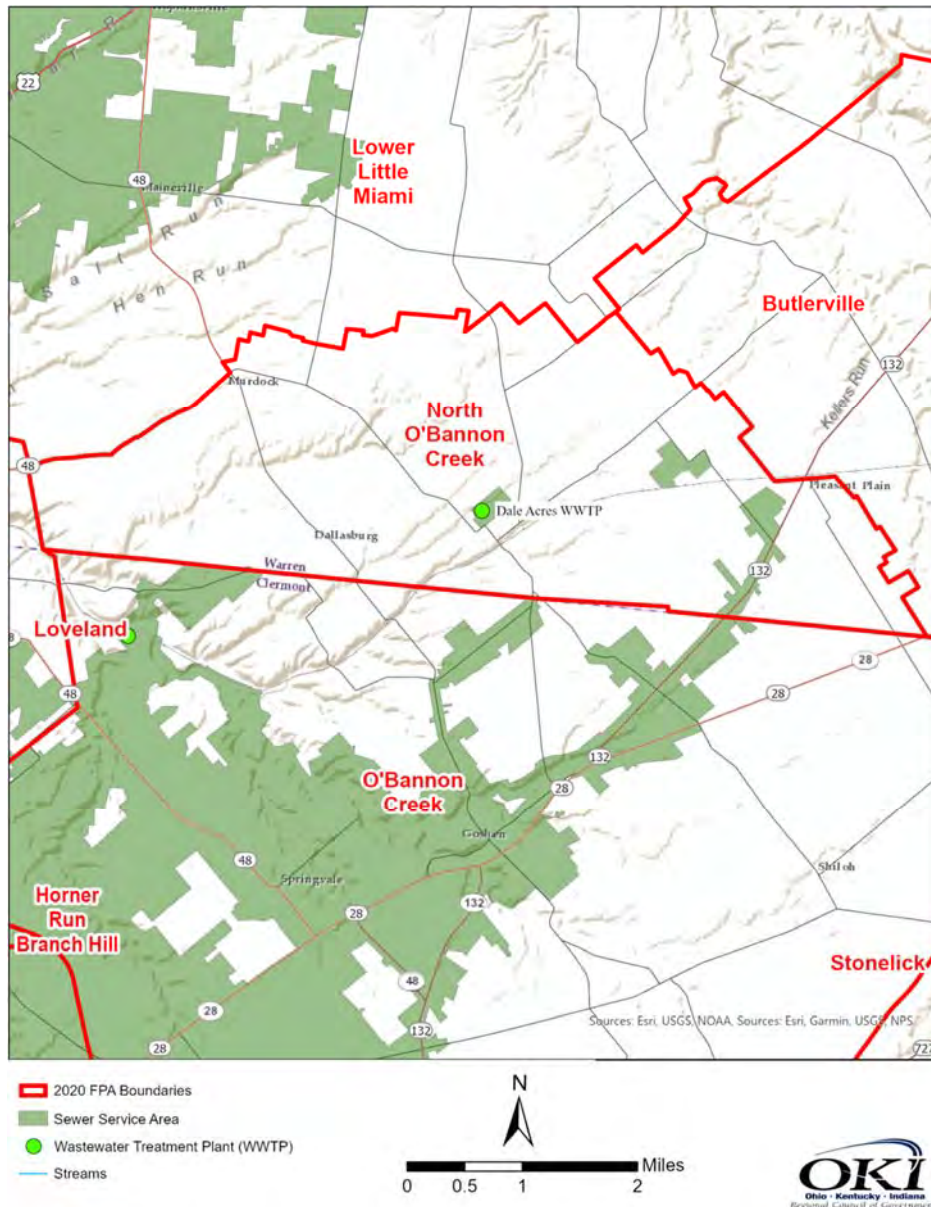
Treatment capacity at the Mason plant is expected to be sufficient to accommodate the growth anticipated in the FPA.

## **Watersheds and Major Waterways**

The FPA contains several Little Miami River tributaries including Muddy Creek, Little Muddy Creek, Hudsons Run, Pine Run, Davis Run, Hoff Run, and Union Run. HUC 12 watersheds include Little Muddy Creek (050902020802), Muddy Creek (050902020901), and Salt Run – Little Miami River (050902020903).

# North O'Bannon Creek Facility Planning Area

The North O'Bannon Creek Facility Planning Area (FPA) contains the Dale Acres Sewer Service Area. Local jurisdictions include parts of the Village of Pleasant Plain, Harlan Township, Salem Township, and Hamilton Township.



## Facilities

Facility Name	Avg. Daily Flow*	# 2019 Connections (Actual)
	Daily Capacity*	# 2050 Connections (Projected)
Dale Acres WWTP	.24,200	38
	.15,000	38

\* Avg. Daily Flow and Daily Capacity are given in gallons per day.

## **Designated Management Agencies**

It is recommended that the Warren County Water and Sewer Department continue to be the designated management agency for wastewater collection and treatment in the FPA.

## **Population**

The 2010 population of this FPA was estimated to be 1,915, and the 2040 population is projected to be 2,337.

## **Issues**

The scattered population in this rural FPA is served by onsite wastewater treatment systems. Although soils in most of the area are not suitable for the functioning of conventional septic tank-leach field systems, there are no known concentrations of failing onsite systems in the FPA. The Dale Acres treatment plant is over capacity.

## **Plans**

It is recommended that the Warren County continue to ensure the proper construction and maintenance of onsite systems in the FPA, and to evaluate needs for centralized treatment if warranted by growth and appropriate development densities. Warren County would like to provide sewer service to an expanding commercial facility in the North O'Bannon Creek FPA, and is investigating the possibility of conveying flows by gravity south to Clermont County for treatment. It is recommended that if growth and population densities warrant centralized wastewater treatment in the future, that flows in this FPA be conveyed by gravity to the O'Bannon Creek FPA.

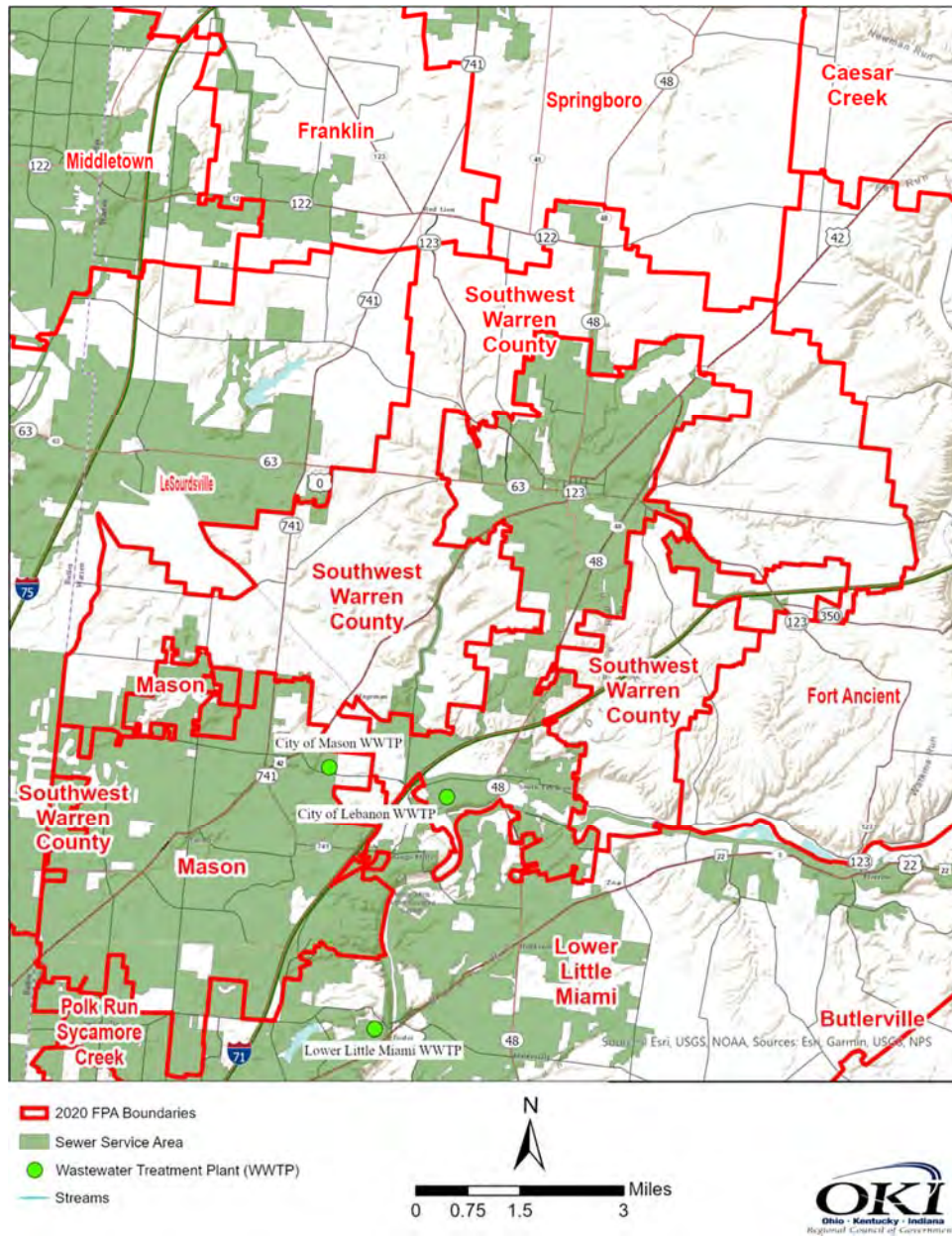
## **Watersheds and Major Waterways**

The FPA contains the O'Bannon Creek tributaries Stony Run and Grog Run, and is within the O'Bannon Creek (050902020902) HUC 12 watershed.



# Southwest Warren County Facility Planning Area

The Southwest Warren County Facility Planning Area (FPA) surrounds the Lebanon/South Lebanon and Mason FPAs. Other local jurisdictions include parts of Turtle Creek Township, Union Township, and Deerfield Township.



## Facilities

Facility Name	Avg. Daily Flow*	# 2010 Connections (Actual)
	Daily Capacity*	# 2040 Connections (Projected)
City of Mason WWTP	5,892,500	13,275
	8,670,000	18,500
City of Lebanon WWTP	2,785,400	7,075
	6,000,000	8,343

\* Avg. Daily Flow and Daily Capacity are given in gallons per day.

## Designated Management Agencies

It is recommended that the Warren County Water and Sewer Department continue to be the designated management agency for wastewater collection and treatment in the Southwest Warren County FPA outside of the Lebanon/South Lebanon and Mason FPAs. It is recommended that the City of Mason continue to be the designated management agency for wastewater collection and treatment within its corporate limits. It is recommended that the Village of South Lebanon continue to be the designated management agency for wastewater collection within its corporate boundaries, and that Lebanon continue to be the designated management agency for wastewater collection within its corporate boundaries and for wastewater treatment throughout the Lebanon/South Lebanon FPA.

Warren County currently sends wastewater flows from the Southwest Warren County FPA through interlocal agreements to the LeSourdsville plant managed by Butler County.

## Population

The 2010 population of this FPA was estimated to be 13,911, and the 2040 population is projected to be 17,143. Within the Lebanon/South Lebanon area the 2010 population was estimated to be 24,148, and the 2040 population is projected to be 26,700. Within the Mason area the 2010 population was 30,712, and the 2040 population is projected to be 31,863.

## Issues

Significant growth has occurred in this area since the original Plan was developed, and is expected to continue during this planning period. Failing onsite treatment systems are located in the northeastern portion of the FPA.

## Plans

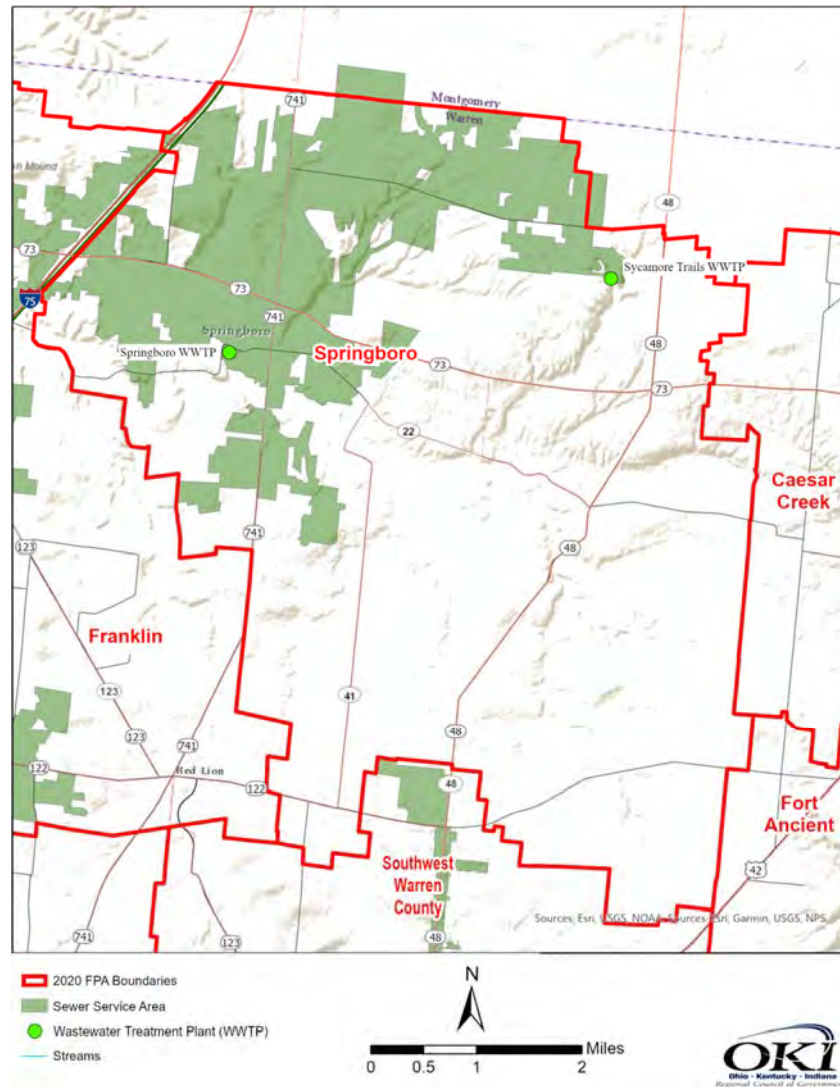
Treatment capacity at both the Mason and Lebanon plants would probably be sufficient to accommodate the growth anticipated in the FPA and to address the failing onsite treatment systems in the FPA. To accommodate low-density growth in the unincorporated areas, it is recommended that Warren County continue to ensure the proper construction and maintenance of onsite systems in the FPA. If centralized treatment is warranted by growth and development densities in the unincorporated areas, it is recommended that Warren County continue to convey wastewater flows from the northern portion of the FPA to the Lebanon plant and to investigate the feasibility of conveying flows from the southern portion of the FPA to the Mason plant.

## **Watersheds and Major Waterways**

The FPA contains several Little Miami River tributaries including Little Muddy Creek, Dry Run, Howards Run, Thompson Run, Hutchinsons Run, North Fork Turtle Creek, and Turtle Creek. HUC 12 watersheds include Little Muddy Creek (050902020802), Turtle Creek (050902020803), and Halls Creek – Little Miami River (050902020804).

# Springboro Facility Planning Area

The Springboro Facility Planning Area includes the Springboro sewer service area and the Sycamore Trails subdivision service area. Local jurisdictions include City of Springboro and parts of Franklin Township, Turtle Creek Township, and Clear Creek Township.



## Facilities

Facility Name	Avg. Daily Flow*	# 2019 Connections (Actual)
	Daily Capacity*	# 2050 Connections (Projected)
City of Springboro WWTP	2,300,000	8700
	4,000,000	10,500
Sycamore Trails WWTP	117,000	326
	80,000	326

\* Avg. Daily Flow and Daily Capacity are given in gallons per day.



## **Designated Management Agencies**

It is recommended that the City of Springboro continue to be the designated management agency for wastewater collection and treatment in the FPA, and that Warren County continue to be the designated management agency for the Sycamore Trails service area.

## **Population**

The 2010 population of this FPA was estimated to be 26,692, and the 2040 population is projected to be 31,410.

## **Issues**

This area has experienced significant growth since the original Plan was prepared and continued significant growth is expected during this planning period. Failing onsite treatment systems are located in the central portion of the FPA, and the Sycamore Trails treatment plant is over capacity.

## **Plans**

At present the City's treatment plant has sufficient capacity to meet the City's plans for additional service. It is recommended that the City continue to evaluate the adequacy of its collection system and treatment capacity as growth and development continue to occur in the FPA, as well as investigating options for addressing failing onsite systems in the FPA. It is also recommended that Warren County investigate the feasibility of decommissioning the Sycamore Trails plant and conveying its flows to Springboro or Montgomery County for treatment.

## **Watersheds and Major Waterways**

The FPA contains the headwaters of Clear Creek and several of its tributaries including Richards Run, Rapid Run, Coon Creek, Beech Run, Lower Mad Run, Rosers Run, Emleys Run, Dugans Run, and Bull Run. The FPA is located within the Clear Creek (050800020403) HUC 12 watershed.