

## **7. A Plan for Utilities**

The Plan for Utilities focuses on the underlying infrastructure needed to support development. The MPC states that a Plan for utilities may include "...water supply and distribution, sewerage and waste treatment, solid waste management, storm drainage, and flood plain management, utility corridors and associated facilities, and other similar facilities or uses." In Middle Smithfield, this section focuses on wastewater treatment, water supply and distribution, and stormwater management as the primary topics.

Public infrastructure is a pivotal factor in the capacity, form, and character of development in a community and plays a vital role in resource protection. Smaller lot sizes and more compact development can more easily be achieved through the use of public systems. Public infrastructure is a sign that a municipality is ready to accommodate growth in a specific area and helps to direct growth into that desired pattern.

Additionally, infrastructure is often one of the largest expenditures of a municipality and can greatly affect the financial health of a jurisdiction. Historically, State and Federal governments have paid for infrastructure due to its public nature. However, this type of funding has dwindled over the decades, leaving local governments to figure out when, where and how to locate and pay for additional infrastructure. As this funding source has dwindled, it has become vitally important for municipalities to carefully plan for both the improvement and maintenance of these systems over the long term through a capital improvements plan. As part of a growing region, planning for where and what type of development is an important tool in ensuring that infrastructure systems can be self-supporting without placing additional stress on the municipal and taxpayer budgets.

### **Wastewater Treatment**

In Pennsylvania, the laws regulating municipal wastewater management are known as Act 537 Plans and administered through the Pennsylvania Department of Environmental Protection (PADEP). Middle Smithfield Township's existing Act 537 Plan was adopted in April 2019. However, an Act 537 Special Study Area was completed and adopted by the Board of Supervisors for the Route 209 corridor in the spring of 2007, and an additional Act 537 Special Study was completed and adopted in October 2018 and revised in April 2019. This Study made connection to public sewers within commercial districts more practicable. The existing and planned conditions for the Township's facilities are described below.

There are two existing wastewater treatment plants in Middle Smithfield Township: the Middle Smithfield Township Treatment Plan and the Winona Lakes Treatment Plant, which have a combined capacity of 1,022,000 gpd (gallons per day). Both are owned and operated by the Middle Smithfield Township..

The Township acquired the Middle Smithfield Township Treatment Plant, located at the northeastern end of Route 209, in 1989 by entering into a lease/purchase agreement with the private owner. This agreement consisted of an allocation of 300,000 gpd for the Township, while the remaining 700,000 gpd would continue to serve the former owner Resorts USA.

COMPREHENSIVE PLAN UPDATE: 2022  
Middle Smithfield Township - Monroe County, Pennsylvania

---

The Winona Lakes Treatment Plant is located within the Winona Lakes subdivision, serving sections 12, 13, 14, and a limited number of lots within section 9. The capacity of this facility is 22,000 gpd. However, it has a discharge permit from the State for 50,000 gpd of treated effluent and there are plans to expand the facility to this capacity. There are 265 lots within the service area.

Given Middle Smithfield's desire to accommodate future growth in an orderly manner, the Township undertook an Act 537 Special Study of the Route 209 corridor as an initial effort to update to its Act 537 Plan. The Special Study proposed to amend the sewer service area for the MSTMA plant and double its treatment capacity to a total of 2.0 MGD (million gallons per day). The amendments to the sewer service area included an extension of the area to the Township's southern boundary with Smithfield Township and the removal of certain parcels where soils suitable for on-lot systems were found. Delaware River Basin Commission (DRBC) however indicated that an expansion to 2.0 MGD would not be viable given a practical economically feasible treatment process did not exist that would meet the required effluent limits.

The entire service area is located within a high-quality watershed and is subject to the requirements of DEP's Water Quality Antidegradation Implementation guidance handbook. In order to address delicate environmental constraints in this high-quality watershed, the study proposed that properties within the sewer service area that have the capacity to handle on-lot treatment will be required to do so. This will free up capacity for those properties whose soils cannot accommodate on-lot septic. The Board of Supervisors approved this Special Study in the spring of 2007 and the resulting sewer service area, depicting both the extension and areas removed, is shown on **Map 7-1**.

In early 2009, only 4,000 gpd (20 EDUs) were estimated to be remaining of the Township's capacity to offer to applicants within the sewer service area. On July 22, 2009, the Township entered into an Agreement with the Bushkill Group, Inc. to purchase 134,069 gpd of capacity that was previously associated with the Fernwood Resort properties at the Middle Smithfield Township Treatment Plant. On February 12, 2010 the Township entered into a separate Agreement with Big Ridge Developers, LP to purchase 176,800 gpd of capacity at the Middle Smithfield Township Treatment Plant.

The Special Study adopted in October 2018 and revised in April 2019 recognized that the updated wastewater flow projections were dramatically lower than those contained in the Township's 2007 Act 537 Special Study. Therefore, the previously considered need to evaluate the expansion of the plant was determined to be no longer applicable and therefore removed from the Act 537 Plan. Additionally, the Township would no longer maintain or enforce a Connection Determination Plan (CDP), which was instituted as a protection for the high-quality watershed in which Middle Smithfield Township is located. The CDP was determined to no longer be deemed necessary to protect the watershed, and retaining it would be unduly restrictive to economic development. And the sewer service area was updated to include properties within the C2 Zoning District located along Route 402. The resulting sewer service area is shown on the Special Study report.

While the new boundaries of the sewer service area do not cover the entire Route 209 corridor, it does support the future land use plan by allowing a greater concentration of

COMPREHENSIVE PLAN UPDATE: 2022  
Middle Smithfield Township - Monroe County, Pennsylvania

---

growth along the majority of the Route 209 corridor, the designated Medium Density Development also being included. The correlation of these Character Areas with the sewer service area will help direct the projected and desired population and economic growth to where the Township is prepared to accommodate it over time. The timing of these plans is an important distinction to make as growth management within the Township moves forward. While the Comprehensive Plan is required to be reviewed every ten (10) years per the Municipalities Planning Code, the Act 537 Plan has a shorter life span and thus plans for less growth than the Comprehensive Plan. The existing treatment plant is anticipated to account for this long-term development within the Township but Act 537 planning should be consulted on a routine basis to account for any changes in projections.

*On-lot sewage disposal systems*

As the majority of the Township lies outside of the sewer service area, the most common wastewater management system in the Township is the on-lot or community systems, which utilize septic tanks, sand mounds or underground storage tanks. As with most systems, they require careful siting and the presence of suitable soils, continual monitoring and maintenance, and ultimately timely replacement in order to avoid failures that contaminate groundwater supplies.

As they age, many systems in the Township are failing or expected to fail in the near future. The Township has a proficient monitoring system to maintain these systems and identify potential issues that could cause contamination of soil and groundwater supplies. This monitoring includes identifying systems that were installed incorrectly or inappropriately initially and providing alternatives and assistance to owners to prevent or remedy negative impacts.

Water Supply and Distribution

Middle Smithfield Township relies on groundwater supplies for all of its drinking water needs and will continue to do so for the foreseeable future. The remaining properties are served through community well systems owned by homeowners associations and business within the community, such as those for Saw Creek, Big Ridge, Country Club of the Poconos, and Lake of Pines. These are often operated by Pennsylvania American Water Supply Company.

Stormwater Management

Stormwater management has received increasing attention in recent years as all levels of government and communities alike gain a greater awareness and appreciation for its role in protecting water quality, enhancing water availability, and reducing flooding potential. As the concerns associated with greater development and increased impervious surfaces arises, traditional practices of on-lot detention basins and other

COMPREHENSIVE PLAN UPDATE: 2022  
Middle Smithfield Township - Monroe County, Pennsylvania

---

structural techniques have given way to a more innovative and comprehensive view that takes an entire watershed into consideration.

Stormwater management issues often arise in older, low lying neighborhoods lacking the infrastructure to control and convey runoff or along roads ill-equipped to handle increasing volumes. New development in recent decades has added to these issues by increasing the volume of drainage, while decreasing the natural areas that formerly absorbed or infiltrated the water before it got to a stream or water body. Faster volumes result in greater erosion and sedimentation of area waterways, while decreasing the supply of water available to recharge and replenish underground aquifers. In addition, stormwater runoff conveys significant amounts of pollutants from rooftops, driveways, lawns and streets into area streams degrading water quality.

Many of Middle Smithfield's communities have little to no stormwater management controls or use existing technologies. Some of these technologies, such as water detention basins, are a challenge to keep safe and attractive, while the success rate is limited by the community's ability to properly maintain and repair. As Middle Smithfield looks forward to accommodating new growth and development, new technologies for addressing stormwater are needed. Improving the quality of stormwater management and therefore the quality of the area's waterways will require continued cooperative effort between state and local governments, as well as partnering with other agencies allied on a regional level.

The Commonwealth of Pennsylvania requires that counties prepare and adopt watershed based stormwater management plans, known as Act 167 Plans. Administered through the PA DEP, the Act also requires municipalities to adopt and implement ordinances that regulate development consistent with these plans. Middle Smithfield is home to three watersheds: the Shohola-Bushkill Creeks Watershed, the Delaware River Watershed, and the Brodhead Watershed.

The Act 167 Plan for the Brodhead Creek watershed was developed in the early nineties and has been adopted by Monroe County as part of Monroe 2020. These recommendations, as well as draft ordinances are a good source of professional information that the Township can adopt to improve its stormwater management through best management practices. The Township is in compliance with Act 167 for the Brodhead Creek watershed.

#### Delaware River Watershed

There is an Act 167 Plan for the Bushkill Creek watershed, located primarily in Pike County, to the north. The Plan was Approved by the Department of Environmental Protection in April 2006.

The Municipal Separate Storm Sewer System (MS4) program requires an MS4 owner/operator to implement a series of programs to reduce the discharge of pollutants from the storm sewer system to the maximum extent practicable. The MS4 permit is designed to reduce contamination of stormwater runoff and protect rivers, lakes and streams from polluted stormwater runoff and water quality.

The MS4 Pollution Reduction Plans are depicted on Maps 7-2, 7-3, and 7-4.

COMPREHENSIVE PLAN UPDATE: 2022  
Middle Smithfield Township - Monroe County, Pennsylvania

---

Refuse

The Monroe County Municipal Waste Authority and Recycling Center in Blakeslee and Grand Central Sanitary Landfill serve Middle Smithfield Township

The Oak Grove Multi Municipal Compost Processing facility, located at 3305 Oak Grove Drive, is jointly operated and available to residents of: Middle Smithfield Township, Smithfield Township, and Lehman Township. The composting center collects leaf and yard waste, and disposes of these items in a safe and clean location. In addition, mulch is offered for purchase by residents at the facility.

Community and Municipal Infrastructure Goal

The Township's overall goal for Utilities is to **plan and implement community and municipal infrastructure to support development where desired and as needed.**

This goal is supported by the following three objectives:

1. Provide sufficient wastewater treatment capacity for desired population and economic growth.
2. Help to ensure an adequate supply of drinking water is available for the projected population in accordance with the State Water Plan.
3. Improve stormwater management practices.

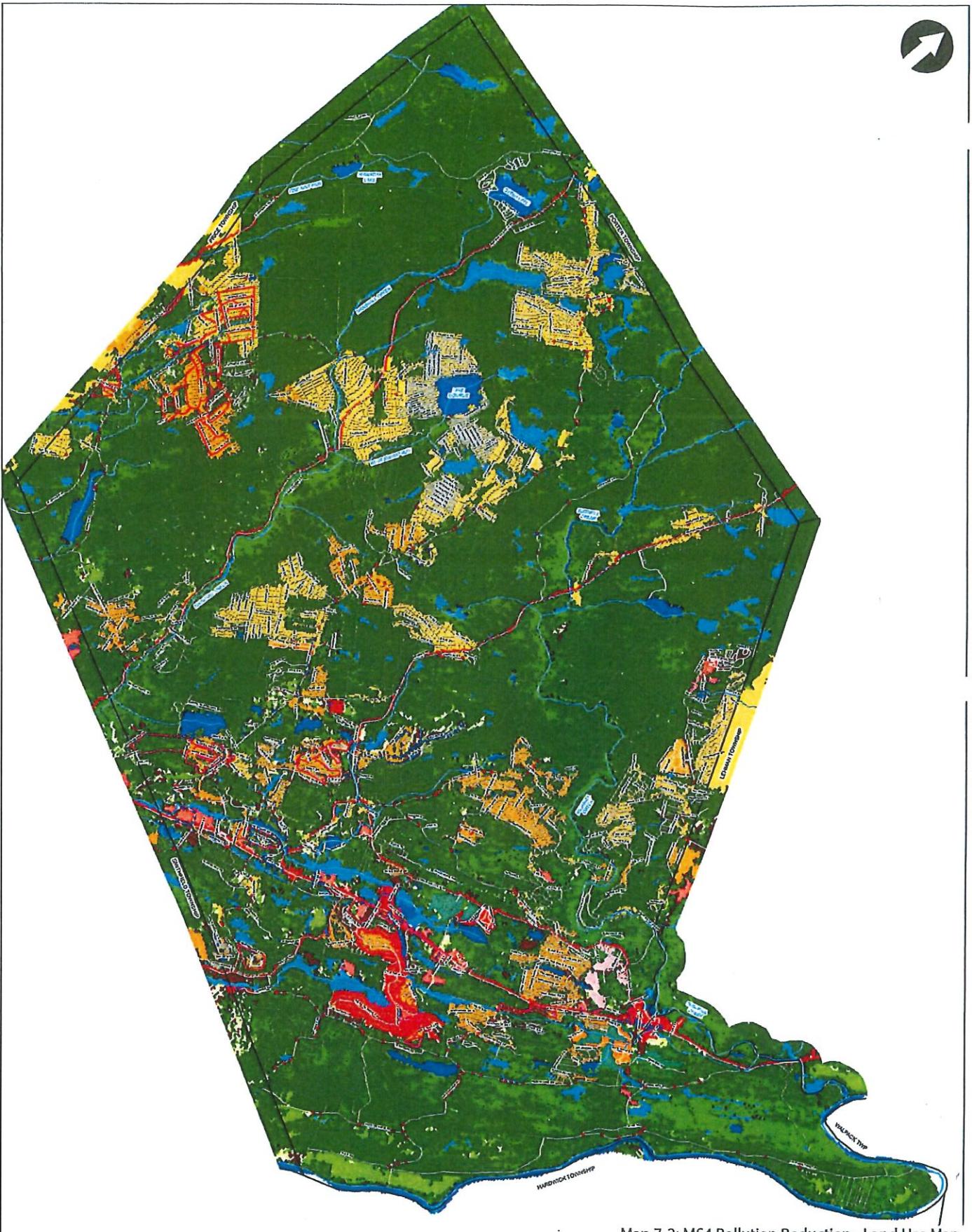
Recommendations

1. Continue to monitor, maintain and repair sewage disposal systems..
2. In the remaining areas of the Township, individual on-lot septic tanks and sand mounds remain a feasible option in the Township. The fragile environmental features found throughout Middle Smithfield Township makes the continued reliance on these systems a concern. The continuous program of monitoring and maintenance of existing onsite and community systems within the Township will prove vital to future drinking water supplies. It is important that the Township partner with the PA DEP and developers to explore how alternatives such as Large Soil Absorption (LSA), spray irrigation, and other innovative options can be utilized to balance growth with needed environmental sensitivity.
3. Protecting Middle Smithfield's water supply relies completely on the protection and maximization of existing groundwater supplies. To achieve this the Township should consider incorporating recommendations from the Monroe County Water Supply and Wellhead Protection Plan into the Township Codes and in accordance with the State Water Plan.

COMPREHENSIVE PLAN UPDATE: 2022  
Middle Smithfield Township - Monroe County, Pennsylvania

---

4. In addition to protecting the water supply itself from pollutants through various measures and additional regulations in the Township's Ordinances, the Township can encourage that the latest water saving devices are installed in new construction, and encouraged in redevelopment and rehabilitation, so that residents and businesses will simply use less water in the normal activities of daily life.
5. Improved stormwater management techniques, including the adoption of Best Management Practices (BMPs) such as vegetative filtration, riparian buffer plantings, bio-retention areas, and vegetative flow conveyance, into the Township Subdivision and Land Development Ordinance will protect and enhance water quality and quantity, stream viability, and help to control flooding. Further recommendations for consideration and incorporation are included in the Brodhead/McMichaels's Stormwater Management Plan and Floodplain Model Ordinance. In addition, the Township should advocate that an Act 167 Plan be completed for the Bushkill Creek watershed, utilizing the technical and financial assistance available at the State level.



Map 7-2: MS4 Pollution Reduction - Land Use Map

**Legend**

- Storm - Inlets
- Storm - Manholes
- Storm - Observation Point
- Storm - Outfalls
- Storm - Swales
- Storm - Headwalls
- Streams

- MS4 PRP Area
- MS4 Storm Drainage Areas
- Municipal Boundary
- Parcels
- Urban Areas- 2010 Census

**Land Use Legend**

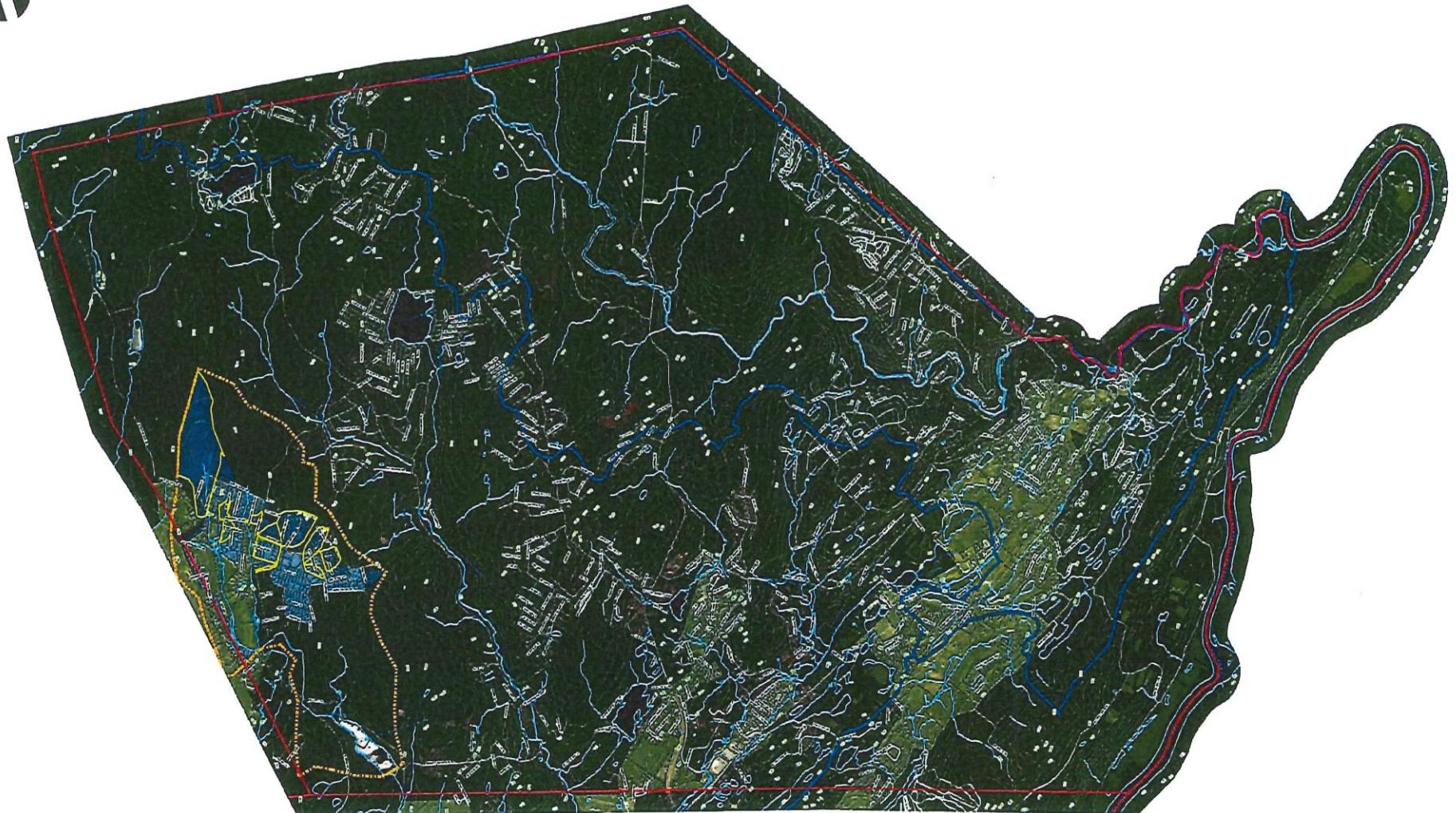
■ Water	■ Coniferous
■ Low-Density Mixed Urban	■ Deciduous
■ Medium-Density Mixed Urban	■ Mixed Woodland
■ High-Density Mixed Urban	■ Woody Wetland
■ Low-Density Residential	■ Emergent Wetland
■ Medium-Density Residential	■ Disturbed
■ High-Density Residential	■ Disturbed
■ Hay/Pasture	■ Turf/Golf
■ Cropland	

**MS4 POLLUTION REDUCTION PLAN  
LAND USE MAP**

MIDDLE SMITHFIELD TWP, MONROE COUNTY, PA

**GILMORE & ASSOCIATES, INC.**  
ENGINEERING & CONSULTING SERVICES  
3100 TILGHMAN STREET, SUITE 100, ALLENTOWN, PA 18104 • (610) 214-4264 • [www.gilmoreassociates.com](http://www.gilmoreassociates.com)

JOB NO. 17-01055A1 DATE: MARCH 2018



Map 7-3: MS4 Pollution Reduction Plan - Planning Area

SHEET INDEX

SHEET 1 - FULL TOWNSHIP

SHEET 2 - SAMBO CREEK WATERSHED



**MS4 POLLUTION REDUCTION PLAN  
PLANNING AREA MAP**  
MIDDLE SMITHFIELD TWP, MONROE COUNTY, PA  
GILMORE & ASSOCIATES, INC.  
ENGINEERING & CONSULTING SERVICES  
5100 TILGHMAN STREET, SUITE 150, ALLENTOWN, PA 18104 • (610) 366-8564  
[www.gilmore-associates.com](http://www.gilmore-associates.com)  
JOB NO: 17-01055-A1 DATE: DECEMBER 2020 S 5.1 0.2 0.4 0.8 0.5 0.4



Map 7-4: MS4 Pollution Reduction Plan - Planning Area

PARSING CLASSIFICATION LEGEND	
DD = DIRECT DISCHARGE AREA FLOWS DIRECTLY TO STREAM AND DOES NOT ENTER OR MIX WITH THE MUNICIPALITY'S MS4	
P = PRIVATELY OWNED/MAINTAINED; AREA IS NOT MAINTAINED BY MUNICIPALITY AND IS A SEPARATE PRIVATE ENTITY. NO DRAINAGE ENTERS OR MIXES WITH THE MUNICIPALITY'S MS4	
SR = STATE ROAD; AREA IS MAINTAINED BY PENNDOT & ALL DRAINAGE TO ROAD IS MAINTAINED BY PENNDOT	

Legend	
Municipal Boundary	Surface Water
Sambo Creek Watershed	Parcels
BWP DA	Contour Major 50FT
★ Storm - Outfall	Contour Minor 10FT
— Storm - Pipe	BMP Area
• Storm - Endwall	Planning Area
▪ Storm - Inlet	Urbanized Area

MS4 POLLUTION REDUCTION PLAN PLANNING AREA MAP	
MIDDLE SMITHFIELD TWP., MONROE COUNTY, PA	
GILMORE & ASSOCIATES, INC.	ENGINEERING & CONSULTING SERVICES
5100 TILGHMAN STREET, SUITE 150, ALLENSTOWN, PA 18104 • (610) 366-1064	www.gilmore-associates.com
JOB NO: 17-01055-A1	DATE: DECEMBER 2010
0.03328	0.12
0.18	0.24