

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

The Plan for Utilities focuses on the underlying infrastructure needed to support development. The MPC requires that the wastewater treatment, water supply and distribution, and stormwater management be the three primary topics addressed in this section.

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 1986. 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. The study and the resulting sewer service area changes are currently under review by the PA DEP. An updated Act 537 Plan for the remainder of the Township is still needed. 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 Plant 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 Municipal Authority, a quasi-governmental agency appointed by the Board of Supervisors.

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. Of this 700,000 gpd, 300,000 gpd is already allocated to the County Club of the Poconos.

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.

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**.

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 growth along the majority of the Route 209 corridor, the designated T-6 Zone, with some of the surrounding areas of T-5, High Intensity Development district and T-4, 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. In addition, the Proposed Character Areas are intended to reflect a longer-term build-out of the Township in accordance 2020 projections and beyond, as discussed in Section 4D.

As the Township gauges growth within these areas, ideally growth will be timed and coordinated to come online as the new capacity becomes available. This will assist in offsetting the Township's carrying costs, reducing debt and the long-term burden on taxpayers. The estimated cost of the expansion of the system is more than 18 million dollars. The Township is committed to this expansion and plans to refinance existing bonds and obtain additional bonds in order to finance the project. This expansion of distribution lines and treatment facilities is supported in Monroe 2020 and the Township Board of Supervisors has approved the Plan.

### *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. Eighty seven percent (87%) of the Township is served by individual private wells, the fourth highest percentage in Monroe County. 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 and Country Club of the Poconos. 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 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 currently reviewing a draft stormwater ordinance, which once adopted (anticipated in summer 2007), will bring the Township into compliance with Act 167 for the Brodhead Creek watershed.

There is no existing Act 167 Plan for the Bushkill Creek watershed, primarily located in Pike County, to the north.

#### Community and Municipal Infrastructure Goal

As referenced in Chapter 2, 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:

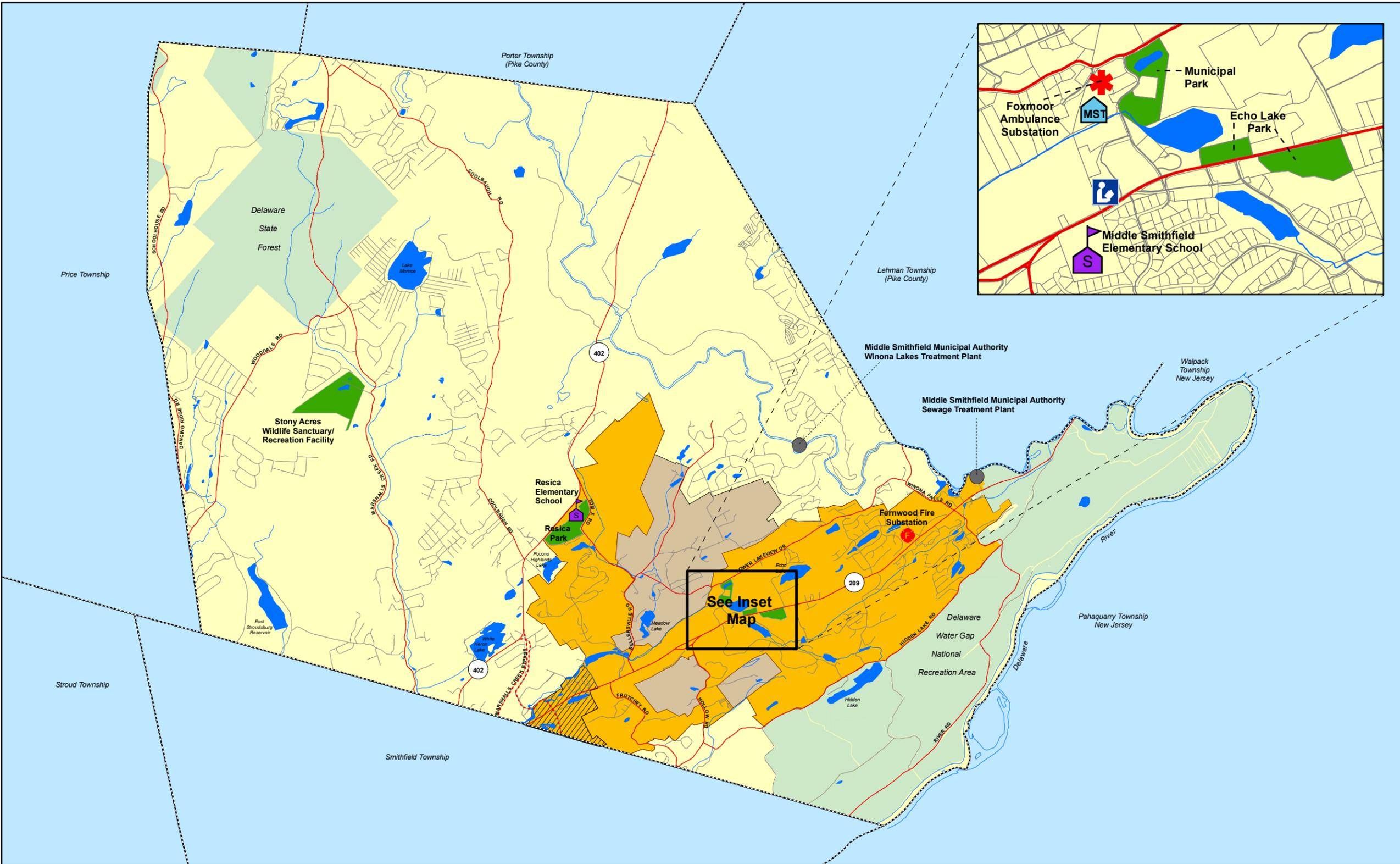
1. Provide sufficient wastewater treatment capacity for desired population and economic growth.
2. Help to ensure an adequate supply of drinking water is available for the projected population in accordance with the State Water Plan.
3. Improve stormwater management practices.

#### Recommendations

1. The Township's newly adopted Act 537 Special Study Area, currently under review by the PA DEP, is a first step in ensuring that the Township can support desired and projected residential and nonresidential growth for the next 10 to 20 years. However a complete update to the Act 537 Plan is still needed. As

- amended, the sewer service area will help to concentrate growth in the T-6, Route 209 Corridor as depicted in the Township's Land Use Plan. The establishment of capital improvements plan will help to coordinate the new capacity with new development, and thereby assist the Township in carrying the large upfront costs of such a system upgrade.
2. Continue to monitor, maintain and repair the sewage disposal systems owned and operated by MSMA.
  3. 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.
  4. 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.
  5. 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.
  6. 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.

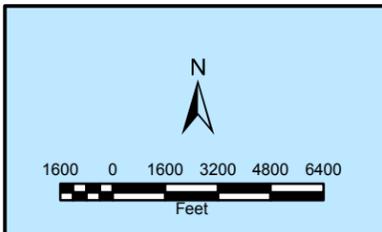
# Map 7-1: Community Facilities & Utilities



**Middle Smithfield Township  
Comprehensive Plan  
Update**

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Monroe County, Pennsylvania



Data Sources:  
Base Features - Monroe County  
Planning Commission, September 2006  
Community Facilities - Consultant's  
Analysis, 2007

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<b>Legend</b>	
	Municipal Building
	School
	Public Library
	Park
	Ambulance Substation
	Fire Substation
	Sewage Treatment Plant
	Areas Removed from Sewer Service Area
	Sewer Service Area
	2007 Sewer Extension