

MUNICIPAL CASE STUDY

Smithfield Township, Pennsylvania

Smithfield Township is a rural, forested community located between the Pocono Mountains and the Delaware Water Gap. Despite this “woody” heritage, it has experience heightened development pressure in recent decades due to its location on the periphery of the New York/North Jersey metropolitan area, as commuters move farther and farther away from the urban megalopolis. As a result of this development, the township has begun to experience some of the water quality problems associated with suburban levels of stormwater runoff. Township officials and residents both fear that if additional development and land conversion is not held in check, the township will experience an irreversible deterioration in water quality and quality of life.

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Background

Smithfield Township is located at the easternmost part of Monroe County in northeastern Pennsylvania. The township is bordered by the Delaware River to the south and east. The town of Delaware Water Gap lies immediately to the south and the city of East Stroudsburg lies immediately to the west.

Smithfield is predominantly a residential community but also contains a mixture of institutions (hospitals and universities), industries (light manufacturing), and resorts (Shawnee Inn Golf Resort and Ski Area). It is also considered a picturesque community, with some rural features and views of the Delaware River, and a location bordering the Delaware Water Gap National Recreation Area on its eastern edge. Smithfield’s land use, broadly, is 69 percent forested, 23 percent developed, and 2 percent agricultural.

Quick Stats
Township of Smithfield

Major adjoining water body:
 Delaware River

Population: 7,353 (2010 Census)

Sewer system: Septic fields

Land area: 23.2 square miles

Water area: .7 square miles

Smithfield’s Perception of Water Quality

According to Brian Barrett, Smithfield Township’s chairperson, the township and its residents agree that water quality is a high priority, but for different reasons. Doug Schryver, Smithfield’s Planning Commission Chairman, supported this assertion by noting that many people who live near the Delaware River care about it and have a strong attachment to it, while others who live farther from the river may not consider surface water a top concern, but they do care about their drinking water and are sensitive to issues around drinking water.

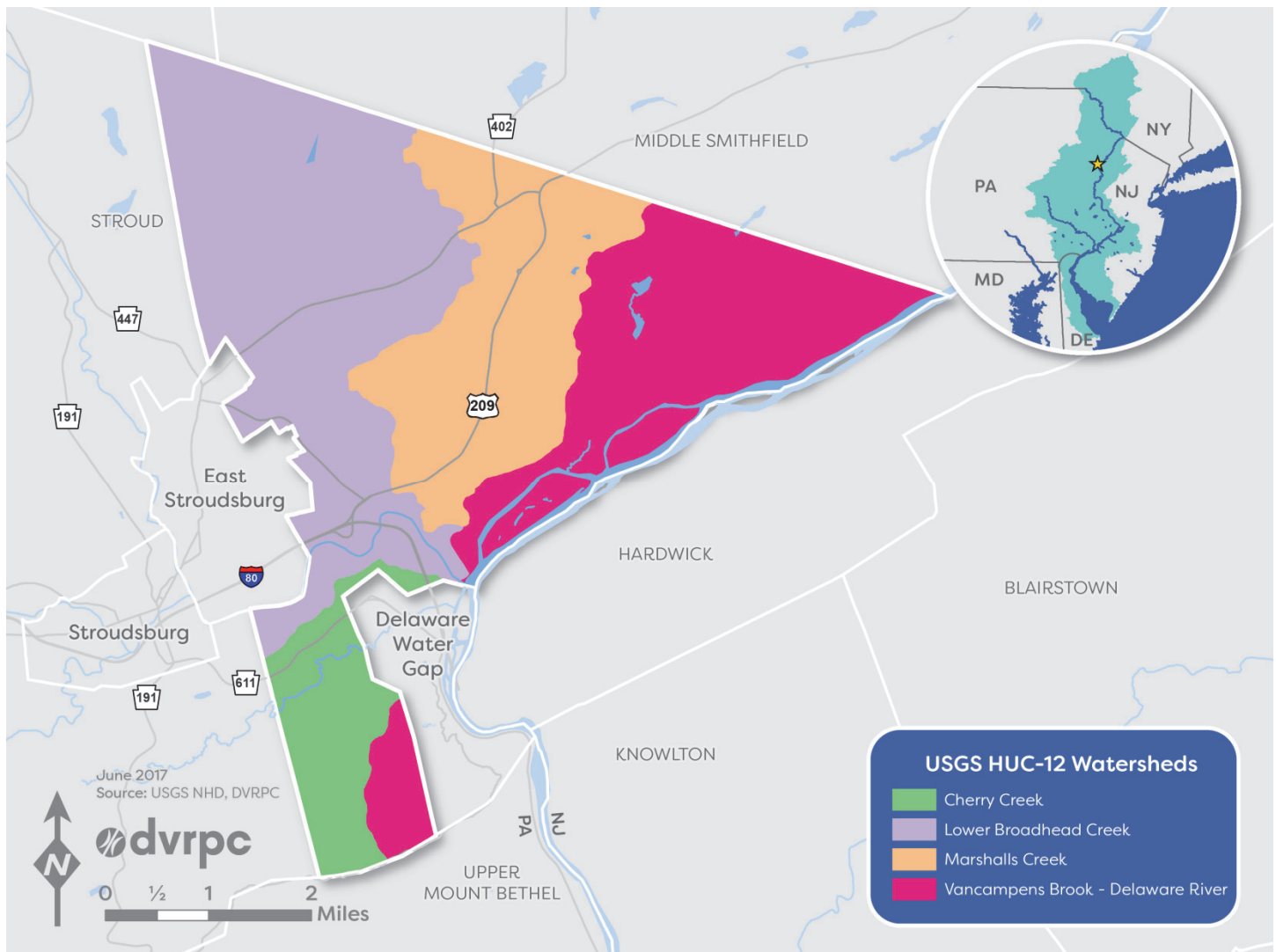
Smithfield’s municipal officials care about water quality protection for another set of reasons. Township officials care about ensuring that future development does not come at the expense of the overall health of the natural

environment, and that the quality of life for residents is preserved. Protecting land for water quality is a means of helping fulfill those goals.

Smithfield's Watersheds and Waterways

Smithfield Township is located within the Middle Delaware-Mongaup-Brodhead Watershed. Six named waterways are contained within its borders, including Brodhead Creek, Caledonia Creek, Cherry Creek, Delaware River, Marshall Creek, and Sambo Creek. These waterways are located in four sub-watersheds (HUC-12): the Lower Brodhead Creek Watershed in the west of the township, the Marshalls Watershed in the north-center of the township, the Vancampens Brook-Delaware River Watershed in the east, and the Cherry Creek Watershed in the south. The Marshall Creek and Sambo Creek watersheds have the largest presence in the township and make up about two-thirds of the township's land area. Smithfield contains some headwaters—tributaries of the Delaware River—most notably the Brodhead Creek.

Map: Smithfield Township's HUC-12 Watersheds



Water Quality Problems

Population Growth

The proximity of Interstate Highway 80 puts the township within 1.5 hours of New York City, and over the past 30 years has made it a destination for residential commuters to New York City, who moved to the township from northern New Jersey municipalities and New York City.

Mary Ellen Higgins, the township's Environmental Advisory Council Chair, notes that in the 1990s, developers created a successful sales pitch for middle-class workers who were finding it hard to pay for life in New York City: "Why rent?" The implication was that in the Poconos, you could own your own home, and Smithfield, though a long commute away from New York, was a prime target as one of the first townships in Pennsylvania off the bridge to New Jersey. The population growth and attendant development of the past two decades have increased stormwater runoff and may have caused private well contamination.

Stormwater Runoff

Prior to the economic downturn in 2007, Monroe County was a fast-growing county, and developers wanted to construct primarily residential development in what happened to be environmentally sensitive land in Smithfield. Increased development on greenfield areas has brought increased impervious surface coverage to Smithfield, including more parking lots, driveways, and roofs. Ellen Lott, a project manager at the Nature Conservancy, a nonprofit environmental organization that has partnered with the township, indicated concern about giant parking lots associated with new large commercial developments in the township.

Over the past several years, the rate of development has decreased in the township, so it has not needed to push back against developers in the same way, but the impervious surface and its negative effects on the township's water quality remain.

Private Well Contamination

Seventy percent of residents in Smithfield use private wells, and 30 percent get their water from one of two water authorities: the Brodhead Creek Regional Authority or the Manwalamink Water Company. Because the majority of households in Smithfield use private wells, a main concern of residents is groundwater contamination. Some wells have been determined to be contaminated with *E. coli*, and according to Ellen Lott, many homeowners are unable to drink their water. The town hall is also facing *E. coli* contamination, which has informed township officials and staff of this issue in a particularly direct way.

There are several possible reasons for the contamination. Ellen Lott believes that because many people who recently moved to the township came from urban areas, they are less likely to be aware that their property contains its own well or septic system, and thus do not get these systems tested regularly. Mary Ellen Higgins cited poorly constructed septic systems, an increase of wells in the township, and a lack of municipal regulations requiring landowners to test their septic systems regularly. Doug Schryver commented that many people abandoned their homes after the financial crisis, and these resulting foreclosed homes are being rented, but absentee landlords are less likely to maintain their wells and septic systems than owner-occupied properties. Many of these homes—and their wells—are now 25 years old, and the wells are now failing.

A positive outcome from this crisis is a public awareness of water quality issues. Mary Ellen Higgins observed that many residents are stretched financially, balancing long-distance commutes and homeownership, making them particularly concerned about property values. Because residents are aware of the connection between

poor water quality from failed septic tanks and property values, they rank water quality “hand in hand” with property values.

Water Quality Solutions

Technical Assistance and Consultant Support

Smithfield hires consultants who have backgrounds in water quality management to work on water quality-related issues. They have consulted for many years with engineering firm Boucher and James, which Doug Schryver describes as “one of the best” and “experts in stormwater.”

The township also sought assistance on an open space referendum from two nonprofit environmental conservation organizations: the Nature Conservancy and the Trust for Public Land. Smithfield Township consults with the Monroe County Planning Commission and Monroe County Conservation District, and makes use of their technical assistance and funding programs for natural resource ordinances and plans. These projects are discussed below.

Land Preservation

Population growth has driven an interest among residents in preserving remaining open space.

One property recently acquired in the township is Mosier’s Knob, a 550-acre property near the Delaware Water Gap. Dawn Gorham looks to this preservation deal as a best practice, particularly in terms of the partnerships that were formed to preserve the property. Ellen Lott noted that a citizen’s preservation group, the Shawnee Preservation Society, assembled to protect it and was successful even though developers were fairly powerful.

Local Open Space Referendum

In the November 2016 election, the township voted on and passed a two-million-dollar bond to fund open space for water quality improvements, among other goals. Seventy-six percent of residents voted in favor. The bond will be floated in 2017, and the township expects to get matches from other organizations.

Ellen Lott from the Nature Conservancy was one of the many partners who worked with the township. The Nature Conservancy has protected land surrounding the Cherry Creek (the Cherry Valley National Wildlife Refuge), and a small portion of that area lies in Smithfield.

The Nature Conservancy got involved with Smithfield Township’s bond referendum indirectly. Brian Barrett knew the Nature Conservancy from its unsuccessful efforts to work with Monroe County to hold open space referendums in 2008 and 2010 after a successful referendum in 1998. The Nature Conservancy and another organization, Trust for Public Land, met with eight members from the township’s Environmental Advisory Council to discuss a referendum in Smithfield, and Trust for Public Land conducted a feasibility assessment that ascertained whether the township could afford to create a bond, what the bond would cost, and the likelihood of residents accepting it. The township wanted to preserve land for growth management and water quality, and had already identified parcels.

The Nature Conservancy conducted a poll to see if residents would support the bond, and as the results were positive, the partners “went into campaign mode,” as Ellen Lott described it. She noted that Trust for Public Land staff, who are “masters of campaigning,” helped craft the ballot language based on the polls. The township approved putting it on a ballot, and—in a rare occurrence, according to Ellen Lott—all three township

supervisors wanted to be involved. Trust for Public Land and the Nature Conservancy made use of mailings, phone banking, and advocates at the polls to explain the referendum and its benefits. Ellen noted that Smithfield did something that townships rarely do: send their own volunteers door to door to talk about it.

The referendum had some additional support. It was aided by State Representative Rosemary Brown (189th District), who made a positive statement about the bond referendum, which neither Smithfield nor its partners requested. Also, when asked by the township, a director of one of the three regional water authorities agreed to send out information about the referendum. Finally, as Ellen Lott noted, “the fact that there was no organized opposition helped.”

Official Map and Partner Ordinance

Smithfield has additional land use policies in place to protect its waterways. Along with three peers in Monroe County, it has an official township map that includes riparian buffers and target acquisition/easement areas, particularly in the headwaters. Monroe County Planning Commission offered the geographic information systems mapping services that enabled the township to create this map and paid for one-half the cost of the associated ordinance. Christine Meinhart-Fritz noted that official maps, which are discussed in Article 4 of Pennsylvania’s Municipal Planning Code, can be a valuable tool for extending a municipality’s budget: a municipality may not have the finances to preserve every parcel that is prioritized on an official map, but the official map gives the municipality extra leverage when working with developers to incorporate water quality protection measures on parcels that have been included on the official map.

Stormwater Ordinance

Smithfield Township is proud of their 2006 stormwater ordinance, which was one of the first to be created in Monroe County. The ordinance requires 150-foot buffers, which is the high end of the 75–150-foot range recommended in Monroe County Planning Commission’s stormwater plan. When the County Planning Commission adopted their stormwater plan, they asked municipalities to adopt a stormwater ordinance that was consistent with their plan, and then met with township supervisors to address their concerns (for example, letting them know that the riparian buffers did not constitute a taking). So far developers and residents in Smithfield seem to have accepted this regulation; Mr. Barrett noted that there was not a lot of pushback when the ordinance was passed.

Subdivision and Land Development Ordinance (SALDO)

According to Dough Schryver, the township’s SALDO is one of the toughest in the state and has helped slow development over the past 10 years. He notes that all residential and commercial builders have to follow it and “few developers want to build under it.”

The SALDO contains strict requirements for steep slopes. No slope over 15 degrees can be disturbed without “directly confronting” the township, as Doug Schryver notes, to find a solution for stormwater to avoid erosion and sedimentation. For land with a slope of between 15 percent and 25 percent, the maximum area of

Motivating Factors

Rapid growth and development: Leading to pressure for protection of natural areas to maintain quality of life.

Residential well-water contamination: Failing septic systems have contaminated private drinking-water wells with *E. coli*.

Valued local natural resources: As a community adjacent to the Delaware Water Gap and the Pocono Mountains, the natural resources of Smithfield are not only critical to its quality of life, but also to its tourist-based economy.

disturbance is 60 percent. For land with a slope of more than 25 percent, the maximum area of disturbance is 10 percent.

Besides regulating disturbance on steep slopes, the SALDO also describes how stormwater should be managed onsite; has provisions for street tree plantings; lists tree protection standards; regulates stormwater pipe size, and drain quantity and quality; and contains a percentage requirement for pervious land onsite.

Commercial Corridor Overlay Plan

The township hired planner Tom Comitta (of Tom Comitta Associates) to create an overlay plan to support development along its commercial corridor, which will help prioritize the use of existing infrastructure and deter development in greenfield areas. Doug Schryver cites science writer and explorer David Quammen, paraphrasing, “if a town is experiencing adverse impact, look to the downtown to rebuild rather than build anew.” The township hired Mr. Comitta because of his distance from day-to-day operations in the town and because he thinks “out of the box,” according to Doug Schryver.

Water Quality Champions

The township also benefits from having water quality champions in different roles. Elected officials and volunteer staff within the township support water quality, as does the Planning Commission, Environmental Advisory Council, and Open Space Committee.

Ellen Lott was impressed with the proactivity of the township’s leaders that led to the passing of their bond referendum. In fact, the township reached out to her regarding the bond after township leaders attended a workshop on funding for land protection that the Nature Conservancy co-sponsored.

Ellen Lott believes that a major criterion for successfully creating an open space or water quality funding program is leadership, but that conservation leaders typically do not run for office. The 1998 Monroe County open space bond campaign was novel in that regard: it motivated conservation-minded people to participate in political roles, and some are still in office. She feels that conservation-minded people need more encouragement to become politically savvy and active.

Municipal Concerns and Challenges Ahead

State Policies and Funding

Looking forward, the interviewees are primarily concerned with actors outside the township boundaries. Brian Barrett noted that the township has struggled with the regulatory limitations of Pennsylvania’s Municipal Planning Code, and is also concerned that the state may “erode” development setback requirements. He has observed efforts by some state-elected officials to weaken existing riparian setback laws and the status of county conservation districts and planning commissions.

He would like the state to be more progressive in its support of water quality protection and offer grants toward that end. One item on his wish list and for which he would like funding support is a township-wide study on the effects of stormwater runoff on clean streams, wetlands, and water quality, which would be expensive to have conducted by a professional.

Mary Ellen Higgins wants to see more state policies regarding septic system maintenance, particularly a state law requiring municipalities to monitor and manage septic systems. Without a law in place, she comments,

property owners have “no reward for being virtuous” if they manage their septic system appropriately, as the impacts of poor maintenance are mostly felt “downstream.” She feels that it would be helpful if the state prodded municipalities to address homeowner complaints in some way, perhaps by tying a related funding source like Growing Greener to a septic system requirement. She also believes that the township needs an ordinance to get residents to test and fix their septic systems.

Capacity

Ms. Higgins wants to use a Growing Greener grant to remove Japanese knotweed that is growing 20 to 30 feet deep in a local park along a 100-foot section of the Brodhead Creek at its confluence with the Delaware River. However, she doesn't have time to write grants, as she is a volunteer who works elsewhere full-time. She wishes that Smithfield had resources to help with the grant writing. Similarly, Doug Schryver wants a separate township officer who is focused on water quality. The township only has one officer, who is focused on code enforcement.

Funding and Time

While development of Smithfield Township has slowed since the recession, economic growth could bring a new surge of interest in the Poconos region and added development pressure to Smithfield. For Smithfield, now is the time to take advantage of the lull in construction to examine its existing land use regulations and determine if they would effectively maintain or improve the township's water quality.

Sources

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