

MUNICIPAL ACTIONS
to PROTECT and IMPROVE
WATER QUALITY
IN THE DELAWARE RIVER WATERSHED



📍 MUNICIPAL CASE STUDY

Kidder Township, Pennsylvania

A resort town in the Poconos best known for Jack Frost Big Boulder ski resorts, Hickory Run State Park, and Lake Harmony, Kidder Township's economy depends on eco-tourism, and residents and businesses alike know that good water quality is good business. Recognizing that what happens on the land impacts the water, Kidder Township adopted new land use regulations designed to protect and improve water quality.

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Background

Kidder Township is a resort town in Carbon County, Pennsylvania, nestled among the Poconos by the intersection of PA Route 80 and Interstate 476. The township encompasses 70 square miles of wooded land and encircles Hickory Run State Park, known for its 16,000 acres of trails, trout streams, and other recreational opportunities. In addition to the park, some of the town's most notable attractions include the Jack Frost Big Boulder ski resort and Lake Harmony. The township has maintained a fairly constant population over recent years, hovering around 1,818 as of 2015. However, Kidder Township receives over 10,000 vacationers throughout the year, who visit for the variety of activities available year-round.

Quick Stats

Kidder Township, Carbon County

Major water bodies:

Lehigh River, Lake Harmony, Big Boulder Lake

Population: 1,818 (2015)

Land area: 69.1 square miles

Water area: 0.7 square miles (1%)

Among the most prominent water bodies in the area are the Lehigh River, which bounds the township to the west; Lake Harmony; and Big Boulder Lake. In addition, all of Kidder Township's streams are high value or exceptional quality. Because the township's economy depends heavily on eco-tourism, protection of water quality is a high priority for many who live and work there.

Challenges

One of the biggest challenges in protecting water quality cited by Bob Dobash, township building inspector, is the amount of impervious surfaces. Managing stormwater runoff becomes a challenge when precipitation is unable to percolate into the ground, and runoff carries pollutants like car oil into nearby waterways. Much of the township was developed in the 1950s, prior to the codification of many of the land development and stormwater management standards that exist today to control the construction of impervious surfaces. Adding to the problem of older, more impervious development, much of the impervious development in the township is on private property, and many of these property owners are unable to make the necessary investments to install better stormwater management features. The township is unable to provide financial assistance to these homeowners due to prevailing laws that prevent them from spending public money on private property.

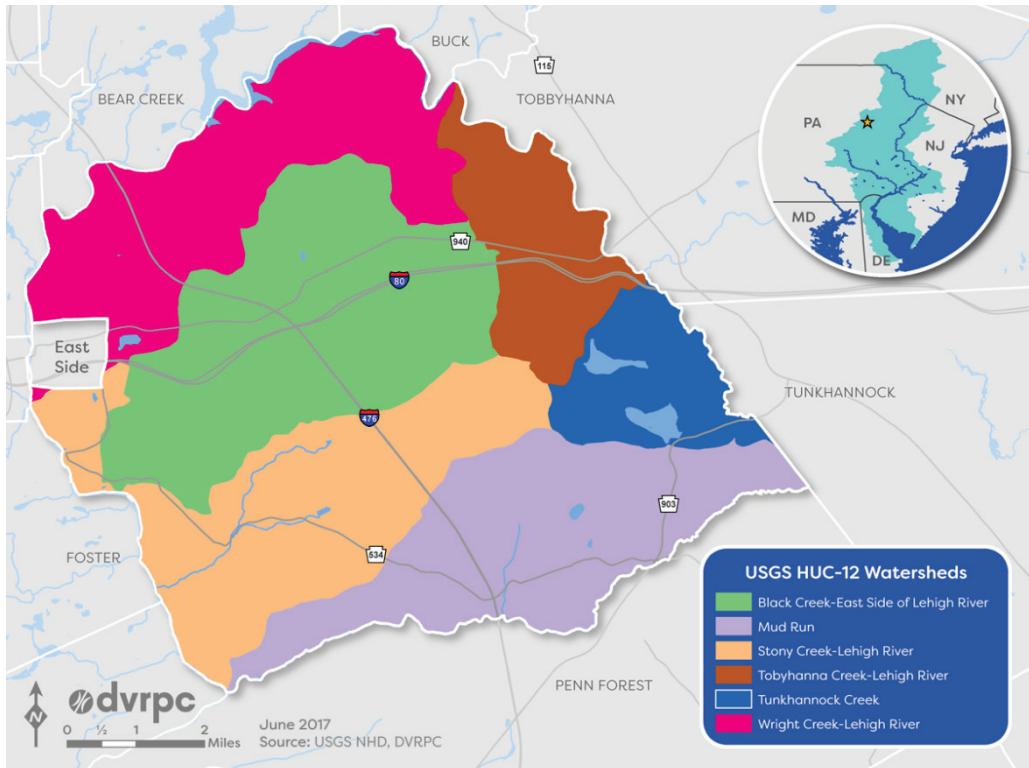
In addition to impervious surfaces, one recent object of contention has been the development of the PennEast Pipeline. The 120-mile pipeline has been proposed to run from Dallas Township, Pennsylvania, to Mercer County, New Jersey, and will carry natural gas through many communities, including Kidder Township. In addition to the pipeline, the pipeline's compressor station was proposed and approved to be located in Kidder Township. The compressor station will sit along the route of the pipeline, remove excess solids or liquids from natural

gas, and create the necessary pressure to maintain a steady flow of gas. Some residents in Kidder Township were (and many are still) concerned with potential negative effects of the pipeline, such as noise pollution, potential harm to water quality, and decreased property values along the pipeline. However, after hearing the measures presented by the PennEast Pipeline Company to mitigate those problems, the Kidder Township zoning board approved the project and permitted the company to proceed. While the township's zoning board determined that the pipeline was not the most pressing concern with regard to water quality, the pipeline may still contribute to a reduction in water quality, potentially affect eco-tourism, and thus have economic repercussions.

Given the importance of high-quality environmental assets in an eco-tourism hub like Kidder Township, maintaining water quality is a priority to the municipality. The township has formed an Environmental Advisory Council (EAC) to serve as an advisor on issues affecting natural resources, including air, land, water, and open space, within Kidder's borders. To date, the EAC has been active in implementing projects such as developing a natural resource inventory, drafting ordinances to reduce the effect of the PennEast pipeline on the township's environment, running citizen science programs, producing a guide to protecting the township's waters, and partnering with elementary schools in a rain garden program. One of its most significant recent projects was assisting with updating the township's zoning and subdivision ordinances.

Water Quality Solutions

Kidder Township updated its ordinances with assistance from the Natural Lands, a land trust located in Chester County. In 2015, Natural Lands received a grant from the William Penn Foundation to lead a project in the Upper Lehigh area focusing on how zoning ordinances could be used to improve water quality. When Natural Lands approached Kidder Township to see if it would be interested in participating in the project, the municipality had already been searching for funding that would allow it to take measures to improve and



protect its water quality. The township was prompted by the zoning board's approval of the pipeline and compressor station, and by the impending completion of a new interchange from the Pennsylvania Turnpike to PA Route 903, which is four miles south of Kidder. The interchange was expected to increase access to the township, potentially prompting the development of some of the larger parcels in proximity. In order to preserve the ecologically significant portions of those parcels, the municipality wanted to update their ordinances in advance of future development.

Over the course of two years, Kidder Township has worked to update its zoning and subdivision ordinances, supported by a 75 percent subsidy on the cost of drafting the zoning ordinance from the William Penn Foundation. The most significant changes to the updated ordinance are the addition of a natural resources overlay and language outlining conservation subdivision design requirements.

In Kidder's subdivision ordinance, conservation subdivision design includes provisions for conserving up to 60 percent of buildable land in addition to significant ecological features like streams and wetlands, and prioritizes contiguous conserved land rather than isolated patches.

Motivating Factors

Stormwater management: All the streams in Kidder are exceptional value or high quality, but poorly managed stormwater and impervious surfaces threaten their status.

New Infrastructure: The proposed PennEast Pipeline and compressor station, and pending completion of a highway interchange, have mobilized township officials, staff, and residents to take action to preserve their local natural resources.

Foundation Subsidy: A 75 percent subsidy from the William Penn Foundation for the township's zoning ordinance update allowed the work to happen comprehensively and at a fast pace.

According to the updated ordinance, **conservation subdivision design** can be divided into four steps.

1. Delineation of Conservation Open Space: Highlighting all primary conservation areas, including steep slopes, floodplains, wetlands, and other buildable land with high resource significance.
2. Location of House/Development Sites: Highlighting potential development sites, maintaining a 100-foot distance from primary conservation areas and a 50-foot distance from secondary conservation areas. The design should also consider potential benefits to housing location, including attractive views for residences.
3. Designing Infrastructure: Identifying streets, trails, and stormwater/wastewater management facilities that can optimize the landscape's natural ability to manage water.
4. Drawing in the Lot/Development Lines: Drawing lot boundaries to delineate individual parcels.

Developers were included in the process of updating ordinances, along with the EAC and municipal officials. The ordinances were recommended for approval by the township planning commission in late 2016, and are awaiting review and comment periods at the county level before being adopted by the Board of Supervisors.

Ann Hutchinson of Natural Lands notes that Kidder Township was successful in writing a progressive ordinance with conservation subdivision design because the community has a strong environmental ethic due to its commitment to eco-tourism as its primary form of economic activity. As a result, the township was ready to improve its construction standards when it was approached by Natural Lands because the township correlated good water quality with good business. "The subsidy allowed the work to happen more

comprehensively, and sooner rather than later,” she observed. Strong local leadership, particularly within the EAC, was also a key component in the municipality’s initiative to search for funding, which made the partnership with Natural Lands a natural connection.

Conclusion

A common driver behind Kidder Township’s initiatives to improve water quality is the importance of eco-tourism to the municipality’s local economy. This case study presents a scenario where the economic value of the environment is quantified through the economic productivity of the businesses that depend on it. Tied together, residents and business owners know that good water quality is good business.

Sources

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