

Little Bushkill Creek



What is a watershed?

A “watershed” is an area of land that drains all precipitation and runoff to a common point such as the outflow of a reservoir, mouth of a bay, or any point along a stream channel. The word “watershed” is sometimes used interchangeably with drainage area, basin or catchment.

Factors which influence stream flow:

- Precipitation
- Infiltration
- Evaporation
- Transpiration
- Storage
- Use by humans

Changes in land use from natural watershed conditions to developed uses dramatically changes stream flow.



water quality
and
impacts

What do you know about Little Bushkill Creek?

The Little Bushkill Creek begins at seeps along the base of the Blue Mountain in the northern portions of Wind Gap Borough and along Route 512 between the Borough and the Grand Central Landfill (see Figure 2 on reverse). Flow is to the south for approximately 8 miles, where the stream then discharges into the Bushkill Creek within Stockertown Borough. The watershed of the Little Bushkill Creek is approximately 17.4 square miles and comprises 63% of the land area of Plainfield Township.

Historically, the Little Bushkill Creek was valued as a source of high quality water for fishing, agriculture, and hydropower for several mills found along its course. Springs found throughout the watershed were used for water for homes and farms, with some still in use, today.

Land uses and development over the years have degraded the water quality and has resulted in “impairments,” as determined through water quality and DNA studies conducted through the

Pennsylvania Department of Environmental Protection (PA DEP). The primary impairments are related to bacteria and pathogens from human and animal waste, and from siltation associated with urban and agriculture land uses. Stream channel erosion caused by past uncontrolled stormwater has also added to siltation problems.

Plainfield Township is now working closely with the PA DEP to address both the new and old sources of these problems through implementation of watershed Best Management Practices (BMPs).



Figure 1 - Little Bushkill Creek within a natural wooded corridor along Bookshill Road

Impacts to stream water quality

All land uses represent potential impacts to water quality in local streams.

Urbanized areas such as Wind Gap and Pen Argyl Boroughs in the northern portion of the watershed represent potential impacts from increased stormwater runoff, leaky sewer pipes, and pollutants from roads and parking areas. Commercial and industrial development, as well as the large landfill in this area, represent potential impacts from increased stormwater runoff and other unintended pollutant discharges.

Agriculture and residential development in the middle and lower portions of the watershed, along with smaller urbanized areas, represent potential impacts from increased stormwater runoff, farm animal waste, and malfunctioning or substandard septic systems.

DNA testing conducted throughout the Little Bushkill Creek Watershed during 2016 and 2017 indicated that the most likely source of bacterial contamination was from old leaky sewer systems in the northern portion of the watershed and from animal and septic system waste in the central portions of the watershed.

Little Bushkill Creek Watershed

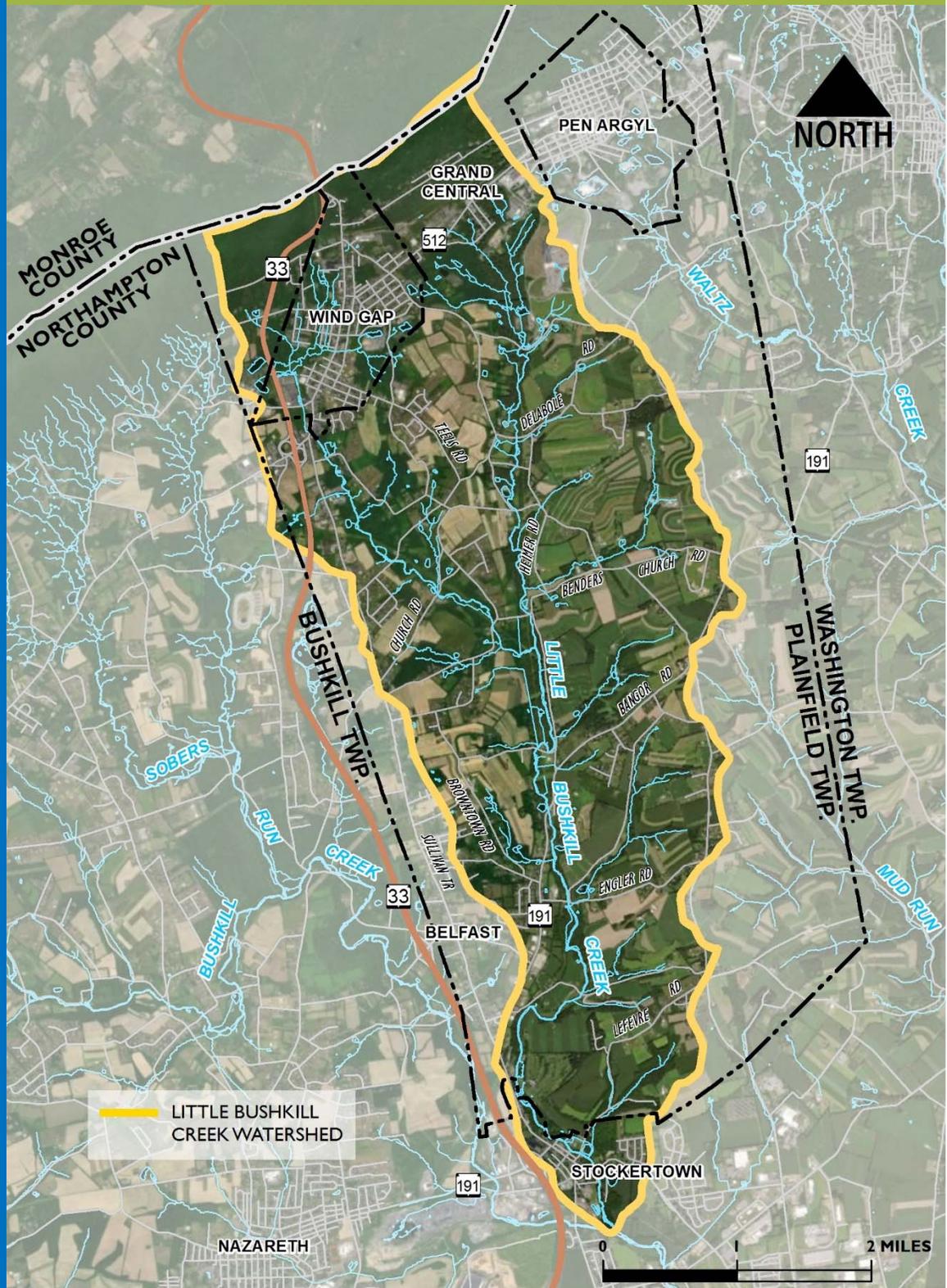


Figure 2 - Aerial map of the Little Bushkill Creek Watershed (PAMAP, 2018)

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