

Little Bushkill Creek



What is a Best Management Practice (BMP)?

A "BMP" is a physical control (e.g., designed structure) installed or management action taken to reduce pollution from identified sources.

Common BMPs for stream water quality restoration

- Stream buffer restoration
- Agricultural fencing
- Regular septic pumping
- Septic system repairs
- Sewer system repairs
- Stormwater retrofits
- Homeowner BMPs
 - Reduce fertilizer use
 - Reduce pesticide use
 - Use organic detergents
 - Rain barrels
 - Rain gardens/bioswales
 - Infiltrate stormwater
 - Proper lawn care
 - Compost yard wastes



water quality restoration

Fixing water quality problems and impairments

Studies conducted on the Little Bushkill Creek and its watershed indicate that water quality is impacted, or "impaired," by bacteria/pathogens and siltation originating from several sources, including:

- Urban stormwater runoff
- Stream channel erosion
- Failing/malfunctioning septics
- Old sewer lines in disrepair
- Agricultural activities
 - Livestock (in or near streams)
 - Insufficient stream buffers
 - Manure management

Plainfield Township is working closely with the Pennsylvania Department of Environmental Protection (PA DEP) and the Northampton County Conservation District (NCCD) to get these problems corrected and to restore the water quality of the Little Bushkill Creek. The Township is also working with Wind Gap Borough on correction of suspected sewer line problems and repairs.

Smaller problems found on private properties will ultimately need to be corrected by the owners, with potential design, permitting, and funding assistance through various sources, such as the Township, the Northampton County Conservation District, and the PA DEP.

Homeowners and landowners are also encouraged to implement many simple BMPs that will reduce stormwater runoff, nutrients, and sediments reaching our local streams, ponds, and wetlands. Implementation of these BMPs will ultimately save money by reducing costly repairs and improve functionality and aesthetics.



Figure 1 - Cracked and leaking sewer pipe

Homeowner and landowner BMPs

Maintenance of BMPs

All BMPs require some level of basic maintenance. Through proper design, however, that maintenance should be minimized and more cost-effective than not having the BMPs in place.

Common maintenance activities include:

- Mowing (often once only, during early spring)
- Invasive/exotic plant removal or treatment
- Clearing of blocked water control structures
- Stabilization of erosion
- Sediment removal
- Debris removal
- Replacement of dead plantings

Many homeowner BMPs add considerably to the landscape aesthetics of a property. Basic maintenance is similar to traditional landscape beds and gardens.

Conversion of mowed lawn areas to natural areas will not only provide better management for stormwater runoff, siltation, and nutrients, but will also look nice and reduce mowing time and costs.

A wealth of information on homeowner BMPs may be found on-line at many sources. Penn State University's Master Watershed Stewards may also provide design, installation, and other assistance - visit: (extension.psu.edu/programs)

Stormwater management

Directing downspouts into rain barrels, rain gardens, bioswales, and infiltration "dry wells" is simple and helps reduce damages to your property and to local streams. Rain barrels provide an excellent source of free water for landscaping and gardening. Rain gardens and bioswales are often landscaped with showy plants and add to the landscape in addition to removing and recharging stormwater.

Septic system maintenance

Septic tanks should be pumped every three (3) to five (5) years, depending on amount of use. Regular pumping is the best way to protect your drainfield from clogging and costly maintenance. Septic drainfields should be kept mowed to help prevent pipe clogging and should be inspected annually for potential leaks to the ground surface. Any damages to drainfields, including animal damages, should be promptly repaired. Drainfield malfunctions should be reported to the Township in order to properly address the problem as a repair. In worst cases, system replacement may be necessary.

Restore stream buffers

Planting native vegetation and allowing natural conditions to develop along streams helps to stabilize the streambanks and minimize streambank erosion. The vegetation also filters out pollutants in the stormwater runoff and improves stormwater infiltration. Riparian buffer plantings should include native trees, shrubs, grasses, wildflowers and other vegetation that are suited for riparian habitats and provide habitat for native wildlife. Stream buffers may be as little as 10 feet, but are commonly 35 to 50 feet on each side of the channel. If channel is severely eroding, structural stabilization (e.g., using large stone) may be necessary in addition to plantings.

Proper lawncare

Reduce or eliminate the use of fertilizers and pesticides, which are generally only needed to correct uncommon, serious problems. If fertilizers and pesticides must be used, follow the label instructions very closely to avoid unintended discharge into nearby streams and wetlands. Mowing no lower than 3 inches is healthier for grass and will reduce the frequency and costs of mowing. Grass clippings are best left in place to rot and replenish the soil, but if they must be bagged can be used for excellent weed control on gardens or may be composted, along with leaves, branches, etc. DO NOT dump grass clipping, leaves, and other lawn debris in wetlands, streams, or floodplains, where nutrient enrichment and high organics will harm aquatic organisms.

Watch what goes "down the drain"

Septic systems, wastewater treatment plants, and stormwater systems are not meant to treat and remove everything that people commonly put into them. Many cleaning products, medicines, paints, automotive fluids, lubricants, etc. contain harmful components that are not removed and ultimately may become part of surface and ground water, as well as drinking water. Other proper disposal methods exist. Read and follow product labels. Whenever possible, reduce use or try organic alternatives.

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