

Stormwater: Nuisance or Natural Resource?

What you should know and what you can do

You want to live in a township that offers great schools, diverse and attractive housing stock, reasonable taxes, very little crime, easy access to both Philadelphia and more rural parts of Montgomery and Bucks Counties, convenient shopping and lots of woods, streams, trails and parks - just like Lower Gwynedd.

Lower Gwynedd is such a desirable place to live that our population has been growing: according to census figures, the township had 12.3% more households (and 9.4% more people) in 2010 compared to 2000. In many ways, population growth benefits our township. For example, it means higher tax revenues to support township initiatives and justifies more diverse small business development. Population growth also brings challenges, including environmental concerns. For example, there are the obvious traffic issues as well as air and water pollution associated with higher concentrations of automobiles and land development and redevelopment projects.

Stormwater runoff presents numerous challenges. Stormwater runoff is water that originates during precipitation from rainfall or snowmelt that moves over ground during and immediately following a storm. This runoff does not infiltrate into the ground. In a watershed undergoing land development, such as Lower Gwynedd Township, the amount of stormwater runoff after a rainfall event can increase significantly! More impervious surfaces such as pavement, driveways, buildings, and parking lots prevent runoff from infiltrating into the ground. Long-term effects of increased amounts of natural habitat being turned into impervious surfaces

Even more problematic are the long-term effects of increased natural habitat loss:

- Fewer wooded lots, trees, shrubs and home gardens prevent rain water from slowly entering the aquifer. Healthy forests and woodlands absorb rain like sponges and prevent large volumes of runoff diverting into streams and drainage systems. These natural areas serve to clean the air by absorbing carbon dioxide, releasing oxygen and providing important habitats for many animal, bird and beneficial insect species.
- Asphalt and concrete retain the sun's heat, which raises surrounding air temperature and produces heat sinks/heat island effects.
- Fewer woods and native plantings lead to fewer species that rely on them, including birds and helpful insects, which lead to increased pressures on ecosystems.
- Impervious surfaces lead to increased stormwater runoff because the runoff cannot infiltrate into the ground.
- Land development practices include diverting rainwater off-site as quickly as possible. Stormwater that does not soak into the ground rapidly flows over land picking up debris, fertilizers, sediment, pet waste, residues from roadways and dissolved pollutants. The untreated runoff is transported to the nearest storm drain and eventually to streams and rivers. This untreated runoff harmfully affects water quality needed to support ecosystems and protect drinking water quality.

Stormwater runoff also costs homeowners! Stormwater is not discerning and quickly flows and can flood areas downstream from developed land, which can damage homes and businesses, flood septic system drainage fields and overwhelm streams and wetlands. Additional financial costs include more frequent flooding of roads and damage to infrastructure.

Failure to properly manage runoff can lead to flooding and cause extensive stream channel erosion. Naturalized landscapes, trees, shrubs, gardens, riparian buffers and vegetative lawns (rather than impervious surfaces) help to slow down rainfall and runoff, allowing water to gradually soak into the ground, helping to recharge aquifers and protecting streambanks. Naturalized landscapes also provide important localized habitats for birds and butterflies and beneficial insects such as bees.

The Township places special emphasis on stormwater management and has useful information regarding this issue and what YOU can do to mitigate the impacts of stormwater runoff. View the [Stormwater Management](#) page for more information.

In addition to the Township's ongoing efforts, the Gwynedd Green Committee's main focus will be to help township residents take steps to reduce stormwater runoff.

Another website to visit to gather information regarding stormwater runoff is the [EPA website](#). Residents can also view a video listed on this page titled "Reduce Runoff: Slow it Down, Spread it Out, Soak it In."