



# ***STORM WATER AND THE COMMUNITY***



## ***WHAT IS STORM WATER?***

In South Whitehall, Storm Water runoff occurs after a rainfall. This unfiltered water reaches our neighborhood streams and rivers.

Eventually the runoff will make its way into our ground water. (Water beneath the earth's surface)

Storm water flows over impervious (unable to penetrate) surfaces like driveways, sidewalks, streets, parking lots and roofs and is unable to percolate (filter or seep) into the ground.

## ***LET'S TALK ABOUT THE HISTORY***

Over many decades, the replacement of forests with housing and commercial development has resulted in a decrease in the amount of water that seeps into the ground. As a result, creeks and rivers flood more often with heavy rains, bringing increased pollutants to our waterways.

### ***IN GENERAL TERMS, MORE HARD SURFACE, MORE RUNOFF.***

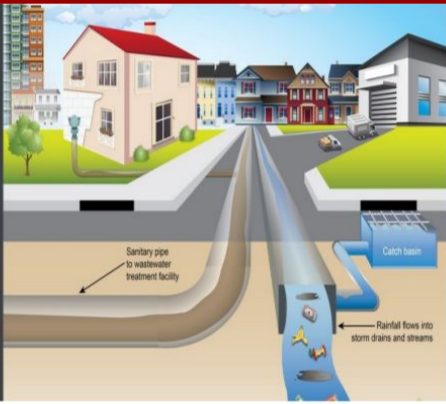
Many of the townships older urban and suburban areas were developed when standard practice dictated that runoff from paved surfaces (roads, roofs, parking lots, etc.) should make it to the storm drains as quickly and directly as possible. The amount and speed of this water has resulted in local flooding, erosion in the stream and riverbanks, as well as destroying habitats.

The good news is the way we manage our stormwater has changed dramatically. Land developers are held to a different standard than they were in the past. Instead of releasing the stormwater runoff as fast as possible, now they are required to hold back that water and release it at a rate that would happen naturally if development did not occur. By slowing down the runoff this allows sediment and pollutants to be collected prior to the water reaching our creeks, streams, and rivers. This process allows infiltration into the ground, which lessens the amount of water that can overwhelm our existing stormwater infrastructure (pipes, inlets) and flood our streets, properties, and waterways.

## WHAT DOES MS4 MEAN?

### Municipal Separate Storm Sewer System (MS4)

- Owned by a state, city, town, village, or other public entity that discharges to waters of the U.S.
- Designed or used to collect or convey storm water (including storm drains, pipes, ditches, etc.)
- Not a combined sewer.
- Not part of a Publicly Owned Treatment Works (sewage treatment plant).



## WHERE DOES POLLUTION COME FROM?

### Pollution in Storm Water Runoff

- Sediment can cloud the water and make it difficult for plants to grow.
- Bacteria in swimming areas can cause health hazards.
- Plastic bags, bottles, and other debris can have a negative effect on fish and other wildlife.
- Insecticides, pesticides, paint, motor oil and other auto fluids can poison plants and animals.
- Polluted Storm Water can make drinking water dangerous for people to drink.



## WHAT CAN WE DO TO HELP?

- ★ Never pour any hazardous substance like oil, cleaning supplies, and paint down the drain.
- ★ Use pesticides and fertilizers sparingly to prevent excess runoff.
- ★ Never dump automotive fluids or grass clippings directly into the streets, streams, or storm drains.
- ★ Pick up pet waste while walking your dog. This causes harmful bacteria to wash into the streams and rivers.
- ★ Sweep up litter and debris from sidewalks, driveways, and parking lots.

## BUT WHAT CAN I DO ON MY PROPERTY?

When installing or redoing your driveway or patio consider using pervious or porous materials. Porous paving is a modification to asphalt or concrete which allows the rainwater to drain through the surface to a gravel or stone bed underneath the surface. Water is held in the voids of the stone bed and slowly drains to the soil underneath. Porous pavers and concrete can be good choices for patios.

Rain gardens are often talked about and we may see them around our neighborhoods. A rain garden is a shallow depression that holds stormwater runoff.

It is planted with select native, perennial vegetation that will filter and use stormwater runoff as well as increase water infiltration. The deep and dense root system of the plants increases the amount of water that infiltrates as compared to the shallow roots of lawn grass. Vegetated swales are wide, shallow channels planted with grass or shrubs. Vegetated swales slow stormwater runoff, promote infiltration of the water, and filter pollutants and sediment. Some swales are a combination of plants, stones, and rocks.

### Want to learn more?

Check out Homeowners Guide to Stormwater BMP Maintenance What You Need to Know to Take Care of Your Property available as a download in PDF format.