

Storm water management Understanding the MS4 Program

What is the MS4 Program?

Untreated or uncontrolled storm water runoff is the number one cause of impairment in our local waterways. Polluted runoff is often transported through municipal drainage systems until it eventually discharges into streams, lakes, and rivers untreated. An MS4, or Municipal Separate Storm Sewer System, is comprised of drainage systems including streets, catch basins, curbs, gutters, ponds, ditches, man-made channels and storm pipes owned by a state, county, city, town, township, borough or other public entity. The National Pollutant Discharge Elimination System (NPDES) storm water Phase II regulations require permit coverage for storm water discharges from MS4s, mainly those located in urbanized areas. Therefore, most townships and boroughs, including Churchill Borough, are required to comply with the MS4 Program.

MS4 Programs are intended to improve our nation's surface waters by reducing the quantities of pollutants that are picked up by runoff and transported into the storm sewer systems during rainfall events. As part of the MS4 Program, municipalities hold a permit to discharge storm water into local waterways. This permit requires the municipalities to implement and maintain a storm water management program that (1) reduces the discharge of pollutants to the maximum extent possible; (2) protects water quality; and (3) satisfies the water quality requirements of the Federal Clean Water Act. In Pennsylvania, the MS4 program is administered by the Department of Environmental Protection (DEP).

The MS4 program has six elements termed "minimum control measures" that when implemented should result in significant reduction in pollutants discharged into receiving waters. The six minimum control measures and the actions required include the following:

Public Education and Outreach - Distribute educational materials and conduct outreach to inform citizens about the impacts that storm water runoff has on water quality.

Public Participation/Involvement - Provide opportunities for citizens to participate in the storm water management program or other programs which improve water quality.

Illicit Discharge Detection and Elimination - Develop and implement a plan to detect and eliminate non storm water discharges into the storm water system.

Construction Site Runoff Control - Develop, implement and enforce an erosion and sediment control program for construction site activities that disturb one acre or greater.

Post-Construction Runoff Control -

Develop, implement and enforce a program to address discharges of post-construction storm water runoff from new development or redevelopment areas.

Pollution Prevention/Good Housekeeping - Develop and implement a program that reduces or prevents pollutant runoff from municipal operations.

All municipalities should be committed to improving water quality through better management of stormwater runoff. Every resident can participate in their municipal stormwater program by reducing or preventing pollutant runoff from their own property and by reporting any non-storm water discharges into the Borough's drainage system.

What can we do to help keep stormwater clean?

There are numerous things we can all do on a daily basis to keep pollution out of our waterways. The following are just a few things we can all do to help improve water quality in our streams, rivers & lakes.

1. Never dump anything into storm drains, swales or streams.
2. Pick up litter from the street before it gets into storm drains.
3. Use limited amounts of fertilizer.
4. If you must use pesticides, search for an environment-friendly brand.
5. Recycle motor oil, paint, and other hazardous chemicals. Never dump such materials down the drain or into the storm system.
6. Recycle glass, plastic, and aluminum.
7. Always pick up your pet's waste or harmful bacteria can get into our water!

What types of connections are prohibited?

The following connections are strictly prohibited:

- Any drainage pipe, channel or ditch, whether on the surface or subsurface, which allows non-storm water discharge, including sewage, process wastewater, and wash water, to enter the storm sewer system, and any connections to the storm drain system from indoor drains and sinks.
- Roof Drains - Roof drains shall not be connected to streets, sanitary or storm sewers or roadside ditches, except when it is more advantageous to connect directly to streets or storm sewers. Connection of roof drains to street or roadside ditches may be permitted on a case-by-case basis. Roof drains shall discharge to infiltration areas or vegetative BMPs (Best Management Practices) to the maximum extent practical. This will help to promote groundwater recharge and reduce runoff.
- Waste disposal prohibitions – It is illegal to dispose of or leave any refuse, rubbish, garbage, litter, or other discarded materials in any public or private property, driveway, parking area, street, alley, sidewalk or other component of the Borough's storm sewer system so that such materials may cause or contribute to pollution. Garbage deposited in streets in proper waste receptacles for the purposes of routine collection is exempted from this prohibition.
- Any drain or pipe connected to the municipality's storm sewer system from a commercial or industrial land use which has not been documented in plans, maps, or equivalent records, and approved by the municipality.

Please continue to read future newsletter articles on the MS4 program as the educational phase continues.