

West Bradford Township Stormwater Management Program **In Conjunction with the Pennsylvania DEP MS-4 Program**



The Problem

We all see the water flowing into our storm drains during storm or snowmelt. What most residents don't realize, is that the water flowing into our Municipal Separate Storm Sewer Systems (MS4's) is arriving dirtier and in greater quantities than ever before.

The problem occurs when precipitation lands on an impervious surface such as a paved street, rooftop, or driveway. Instead of the water slowly soaking into the soil and becoming purified, the water flows over these impervious surfaces and picks up pollutants. Oil and grease from roadways, pesticides from lawns, sediment from construction sites, and litter are all picked up by the water and conveyed directly to a storm drain with the impurities in tow.



The Result

- Increased volumes of polluted water reaching our storm sewers impair the waterways, thereby discouraging use of the resource.
- Pollutants contaminate drinking water supplies, and interfere with the habitat for fish, aquatic organisms, and wildlife.
- High volumes of water undercut streambeds and cause erosion, leading to an overall downfall in the health of a stream.

The Solution

West Bradford Township is part of a statewide campaign to combat storm sewer pollution. The Pennsylvania Department for Environmental Protection has developed the following six guidelines (Minimum Control Measures) for program development in order to help communities like West Bradford Township maintain a complete stormwater program. Please click below for the EPA requirements and further explanations:

Public Education and Outreach

Distributing educational materials and performing outreach to inform citizens about the impacts polluted storm water runoff discharges can have on water quality.

Controls include: Creating brochures or fact sheets for public distribution.
 Instituting educational programs for school-age children.

Public Participation/Involvement

Providing opportunities for citizens to participate directly in program development and implementation.

Controls include: Organization of community clean-ups, storm drain stenciling, outfall monitoring, and citizen watch groups.

Illicit Discharge Detection and Elimination

Developing a system to detect and eliminate illicit discharges to the storm sewer system.

Controls include: Promoting recycling programs for commonly dumped wastes.
Locating and testing suspected problem areas for pollution.
Informing the public of the hazards of illegal discharges.

Construction Site Runoff Control

Developing, implementing, and enforcing an erosion and sediment control program for construction activities.

Controls include: Appropriate site plan review and inspection of new construction.
Require implementation of State and County erosion control regulations.

Post Construction Runoff Control

Creating a program to address storm water runoff from newly developed or redeveloped areas.

Controls include: Require protection of environmentally sensitive areas (e.g. wetlands).
Require recharge of runoff from new impervious surfaces.

Pollution Prevention/Good Housekeeping

This program's goal is to reduce pollutant runoff from municipal operations.

Controls include: Regular street sweeping.
Reduction in the use of pesticides or street salt.
Frequent catch-basin cleaning.

Storm Drain Stenciling

West Bradford Township with the assistance of volunteers has started to mark some of the storm drains in the Township with the "No Dumping / Drains to Waterways" stencils. These storm drain stencils educate the public that anything you dump into the storm drain ends up directly in a creek or other public waterway. If you would like volunteer and help with storm drain stenciling: please call the Township at 610-269-4174 or e-mail us at wbradford@westbradford.org



What Residents can help watch for:

- Sediment leaving a construction site in stormwater
- Spills, hazardous materials (Chemical, Gas, Oil)
- Illegal dumping activity into streams or storm sewers
- Dry weather flows observed to be contaminated or polluted from outfall pipes into streams (72 hours after a rain storm)
- Observed pollution event or pollutants in stream
- Clogged, leaking or overflowing sanitary sewer lines
- Inadequately treated effluent from a sewage treatment plant



Residents may be the first to recognize "illicit" discharges dumping into storm sewers or coming out of from storm sewer outfalls. If you see an "illicit" discharge, please report that to the township by one of the following methods:

| <i>Issues Observed</i> | <i>Primary Contact Info.</i> | <i>Additional Contact Info.</i> |
|---|--|---|
| DEP 24-Hour Water Quality Hotline | 484-250-5900 or 1-800-541-2050 | Anytime, including evenings and weekends |
| Spills and other Emergencies Hotline | PA DEP 484-250-5900 | PA Emergency Mgt. Agency 800-424-7362 |
| Off site discharge of sediment | Chester Co. Conservation District 610-925-4920 | Send photo, full address, and directions |
| Clogged, leaking, overflowing sewer lines | West Bradford Township 610-269-4174 | After hours call Chester Co. Dept. of Emergency Services 610-692-5100; if sewage is entering water courses, also call DEP |
| Dry weather storm sewer flows that are observed to be polluted or contaminated | West Bradford Township 610-269-4174 | After hours call West Bradford Township Police |
| Fish kills, illegal fishing | PA Fish & Boat Commission 717-626-0228 | For fish kills, also call DEP 484-250-5991 or 5900 |
| Broken water mains | AQUA PA 610-525-1402 | 24-hour |

Related Publications and Resources

Pennsylvania Department of Environmental Protection – Contains information on Pennsylvania's storm water management program including the Best Management Practices manual.

<http://www.dep.pa.gov/Pages/default.aspx#.V1haFdUrJhE>

Pennsylvania Department of Environmental Protection Southeast Regional Office – Provides information on Southeast Pennsylvania's storm water management program and procedures for reporting an environmental incident.

<http://www.dep.pa.gov/About/Regional/SoutheastRegion/Pages/default.aspx#.V1hWEtUrJhE>

Chester County Conservation District - The mission of CCCD is to provide leadership in addressing natural resource conservation issues by promoting the sustainable use of those resources to the citizens of Chester County through education and technical assistance.

<http://www.chesco.org/205/Conservation-District>

Brandywine Red Clay Alliance - BRC provides Water protection and Environmental Education for the Brandywine and Red Clay Watersheds. BRC is now more than 800 members strong and is still working to protect the picturesque and productive Brandywine and Red Clay Watersheds.

<http://www.brandywineredclay.org/>

Chester County Water Resources Authority - The mission of CCWRA is to provide the basic science, analyses and planning necessary to protect public safety, to preserve the integrity of the County's natural water resources and watershed systems, and to balance the needs of water users in support of *Landscapes* and planned growth for the County.

<http://www.chesco.org/158/Water-Resources-Authority>

Pennsylvania Department of Environmental Protection Best Management Practices (BMP) Manual - <http://www.elibrary.dep.state.pa.us/dsweb/View/Collection-8305>

Turn your home into a Stormwater Pollution Solution! – The EPA homeowner's guide to healthy habits for clean water.

http://www.epa.gov/npdes/pubs/solution_to_pollution.pdf

Stormwater Discharges from MS4s – General information about stormwater discharges from municipal separate storm sewers.

<http://www.epa.gov/npdes/stormwater-discharges-municipal-sources#overview>

Stormwater Manager's Resource Center - The SMRC provides tools and techniques necessary to protect watersheds and to enhance and restore local water resources.

www.stormwatercenter.net/

Low Impact Development Center – Information on protecting the environment and water resources through integrated site design techniques.

www.lowimpactdevelopment.org

Strategies: Community Responses to Runoff Pollution – This interactive web document explores some of the most effective strategies that communities are using around the nation to control urban runoff pollution.

<http://www.nrdc.org/water/pollution/storm/stoinx.asp>

Guidebook to Maintaining Privately Owned Stormwater Systems – This document was published by the Northern Virginia Regional Commission but is applicable to all privately owned stormwater management facilities in the Township. Provides a resource for maintaining different type of stormwater management facilities.

<http://www.novaregion.org/DocumentView.aspx?DID=1675>

NPDES Permit Program Basics – This website contains basic information on the major features and elements of the NPDES permit program.

http://cfpub.epa.gov/npdes/home.cfm?program_id=45

National Menu of Storm Water Best Management Practices (BMPs) – This interactive web document gives an overview of all BMPs for guidance and reference purposes.

<https://www.epa.gov/npdes/national-menu-best-management-practices-bmps-stormwater#edu>

After the Storm! – A Citizen's Guide to Stormwater

https://www3.epa.gov/npdes/pubs/after_the_storm.pdf

Protect Your Water Quality from Urban Runoff – Clean water is everybody's business!

http://www.epa.gov/npdes/pubs/nps_urban-facts_final.pdf

What Happens After the Flush? – How a house works!

http://www.epa.gov/npdes/pubs/what_happens_after_the_flush.pdf

Water Efficient Landscaping – Preventing Pollution and Using Resources Wisely

<http://www.epa.gov/npdes/pubs/waterefficiency.pdf>

Stormwater and the Construction Industry - Maintain Your BMPs!

<http://www.epa.gov/npdes/pubs/posterside1.pdf>

How Do I Get Stormwater Permit Coverage for My Construction Site? - A Construction Site Operator's Guide to EPA's Stormwater Permit Program

http://www.epa.gov/npdes/pubs/sw_cgp_brochure.pdf