Stormwater Pollution

What is Stormwater?

Stormwater is water from rain or melting snow that does not soak into the ground. It flows from rooftops, over paved areas, bare soil, and sloped lawns. As it flows, stormwater runoff collects and transports soil, animal waste, salt, pesticides, fertilizers, oil and grease, debris and other potential pollutants.

What is the Problem?

Rain and snowmelt wash pollutants from streets, construction sites, and land into storm sewers and ditches. Eventually, the storm sewers and ditches empty the polluted stormwater directly into streams and rivers with no treatment. This is known as *stormwater pollution.*

Polluted stormwater degrades our lakes, rivers, wetlands and other waterways. Nutrients such as phosphorous and nitrogen can cause the overgrowth of algae resulting in oxygen depletion in waterways. Toxic substances from motor vehicles, and careless application of pesticides and fertilizers threaten water quality and can kill fish and other aquatic life. Bacteria from animal wastes and improper connections to storm sewer systems can make lakes and waterways unsafe for wading, swimming and fish consumption. Eroded soil is a pollutant as well. It clouds the waterway and interferes with the habitat of fish and plant life.

Fortunately, stormwater pollution can be prevented or minimized by implementing Best Management Practices which are procedures or activities that reduce or eliminate pollutants in stormwater.

County of Erie
Department of Environment & Planning
Environmental Compliance Services

Joel A. Giambra, County Executive

Western New York Stormwater Coalition

A partnership to protect water quality

A number of communities, government agencies and consultants in Western New York have joined together to develop a stormwater management program to protect our waterways and enhance our quality of life. The goal of the Coalition is to utilize regional collaboration to identify existing resources and develop programs to reduce the negative impacts of stormwater pollution.

The Coalition meets every month to work collectively on developing and implementing a stormwater management program that complies with New York State's Phase II Stormwater regulations.

Coalition Members

Erie County
Alden (V)
Alden (T)
Amherst (T)
Angola (V)
Aurora (T)
Blasdell (V)
Boston (T)
Buffalo (C)
Cheektowaga (T)
Clarence (T)
Depew (V)
East Aurora (V)
Eden (T)
Elma (T)
Evans (T)
Grand Island (T)
Hamburg (V)
Hamburg (T)
Kenmore (V)
Lackawanna (C)
Lancaster (V)
Lancaster (T)
Newstead (T)
Orchard Park (T)
Sloan (V)
Tonawanda (C)
Tonawanda (T)
West Seneca (T)
Williamsville (V)

Niagara County
Cambria (T)
Lewiston (V)
Lewiston (T)
Niagara (T)
North Tonawanda (C)
Pendleton (T)
Porter (T)
Wheatfield (T)
Youngstown (V)

Agencies and Consultants
Buffalo State College
Peace Bridge Authority
Erie County DEP/DPW
Niagara County DPW
New York State Department of Transportation
Erie County Soil & Water Conservation District
Niagara County Soil & Water Conservation District
Erie County Health Department
Connie D. Miner & Co., Grant Consultant
Foit Albert
Malcolm Pirnie
O'Brien and Gere
Parsons
R & D Engineering
URS Corp
Wendel Duchscherer
Acres International
Metzger Civil Engineering

For information on the Coalition and how it is working to address the requirements of the Phase II Stormwater Rule, contact the Erie County Department of Environment and Planning at (716) 858-6370.

Western New York Stormwater Coalition
c/o Erie County DEP
Room 1077
95 Franklin Street
Buffalo, New York 14202

Construction Site Stormwater Runoff Control…

How to Prevent Water & Storm Sewer Pollution

A Summary of Best Management Practices for:

The Construction Industry

WNY Stormwater Coalition

BMPs for All Construction Sites

Basic pollution prevention practices can significantly reduce the amount of pollution leaving construction sites. When exposed to the elements, construction materials, debris, trash, fuel, paint and stockpiles become pollution sources when it rains. The following practices should be implemented on site:

- Keep potential sources of pollution out of the rain to the maximum extent possible (e.g. inside a building, under a tarp, sealed in containers).
- Clearly identify a protected, lined area for concrete truck washout. This area should be located away from streams, storm drain inlets or ditches and clean out periodically.
- Park, refuel and maintain vehicles and equipment in a designated area on the site to minimize the area exposed to possible spills and fuel storage. Keep spill kits close by and clean up spills and leaks immediately, including those on pavement and earth surfaces.
- Practice good housekeeping. Keep the construction site free of litter, construction debris and leaking containers.
- Never hose down paved surfaces to clean dust, debris or trash as the water could wash directly into storm drains or streams. Sweep up materials and dispose in the trash. Never bury trash or debris.
- Dispose of hazardous materials promptly and properly.

Stormwater and the Construction Industry

As stormwater flows over a construction site, it picks up pollutants such as sediment, debris and chemicals. High volumes of stormwater can also cause streambank erosion and have a negative impact on aquatic habitat. Preventing stormwater pollution is an important responsibility at all construction sites.

Best Management Practices

The following information provides a summary of guidance on a variety of BMPs typically used on construction sites.

Construction Phasing

- Sequence construction activities so that soil is not exposed for long periods of time.
- Schedule or limit grading to small areas.
- Immediately seed areas that will be exposed for 7 days or longer with annual rye
- Install sediment control practices before any soil disturbance begins.
- Schedule site stabilization activities immediately after the land has been graded to its final contours.

Storm Drain Inlet Protection

- Use appropriate methods to protect the storm drain to filter out trash and debris
- If inlet filters are used, maintain them regularly.

Silt Fence

- Inspect silt fences after each rainstorm and weekly
- Make sure the bottom of the silt fence is buried in the ground 6 inches.
- Make sure stormwater does not flow around the silt fence during storm events.
- Don't place silt fence in the middle of a waterway.
- Attach fence securely to stakes. Stakes should be on the downslope side of the fence.

Protect Natural Features

- Identify and protect areas where existing vegetation, such as trees, should not be disturbed by construction activities .
- Protect streams, stream buffers, wild woodlands, wetlands or other sensitive areas from any disturbance or construction activity with fencing or by clearly marking the

Vegetative Buffers

- Protect and install vegetative buffers along waterbodies to slow and filter stormwater runoff.
- Maintain buffers by replanting periodically to ensure their effectiveness (mowing discourages growth of woody vegetation, which actually takes up more runoff).

Slopes

- Rough grade or terrace slopes.
- Break up long slopes with sediment barriers or under drain.
- Divert stormwater away from slopes.

Dirt Stockpiles

- Cover or seed all dirt stockpiles.

Construction Entrances

- Remove mud and dirt from the tires of construction vehicles before exiting the construction site onto paved roadways, but do not use water.
- Inspect construction entrance to ensure it does not become buried in soil (Entrance should be maintained with gravel to retain soil on-site).

Site Stabilization

- Vegetate, mulch or otherwise stabilize all exposed areas as soon as land alterations have been completed.