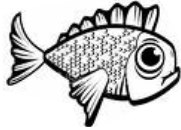


## What is being done to combat stormwater runoff?

- The pollution that wastewater and sewage treatment plants discharge into the environment is better regulated.
- The public is educated about the adverse impacts of stormwater runoff.
- Best management practices have been developed for sewer and wastewater treatment plants.
- The New York State Department of Environmental Conservation mandates permits for MS4s in urban locations and for construction projects.



## What are the Stormwater Phase II Regulations?

This regulation was passed on January 8, 2003 by the EPA in order to regulate the quality of stormwater. Even though Hamilton County does not have large Operators of Municipal Separate Storm Sewer Systems (MS4s), we are still affected by the regulations which state that construction that disrupts more than one acre, and construction under a large common plan that disrupts less than one acre require permits and stormwater management plans.

A State Pollutant Discharge Elimination System (SPDES) permit and a Notice of Intent are required before construction begins. If the construction plan will disrupt between one and five acres, and will show that no negative impacts on water quality will occur, a waiver may be issued.

## Permits

To receive a copy and more information about the necessary permits, call your local DEC office or check the DEC website at <http://www.dec.ny.gov/chemical/43150.html>



## For More Information

DEC Stormwater Homepage: <http://www.dec.ny.gov/chemical/8468.html>

Construction stormwater toolbox: <http://www.dec.ny.gov/chemical/8694.html>

Construction Stormwater Permit and Forms: <http://www.dec.ny.gov/chemical/43133.html>

# Stormwater

## Runoff



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## Hamilton County Soil & Water Conservation District

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PO Box 166  
Lake Pleasant, NY 12108  
Phone: 518-548-3991  
Fax: 518-548-5602  
Email: [hcswcd@frontiernet.net](mailto:hcswcd@frontiernet.net)  
Website: <http://www.hamiltoncountyswcd.com>

## What is Stormwater Runoff?

Stormwater is snow melt or rain that does not percolate into the ground, but instead, runs off the surface of the ground into water bodies.

### What are the causes?

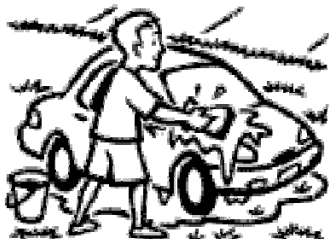
- Rain and snow melt flow over lawns, fields, roofs, paved surfaces, or bare soil, pick up pollutants, and carry them to water bodies.
- Runoff occurs when water can not percolate into the ground due to impermeable surfaces or ground saturation.

### What are the effects?

- Flooding: runoff that can't be taken up by soil or that flows over pavement collects and builds up on the surface.
- Erosion: stormwater that flows over exposed soil transports sediment and increases erosion.
- Contamination: stormwater collects and transports contaminants from the ground's surface to water supplies.

### What can stormwater runoff carry?

- Metals
- Automobile fluids
- Bacteria
- Chemicals
- Animal waste
- Litter
- Pesticides
- Fertilizers
- Soils
- Salt
- Debris



## How Does Stormwater Runoff Degrade the Environment?

- Drinking water can become contaminated
- Basements, streets, and yards can become flooded
- Biodiversity of aquatic organisms decreases
- Stormwater from paved surfaces may flow directly into water bodies without treatment
- Bacteria enter the ecosystem and lead to the death of aquatic life
- Waterways become clogged due to transported sediments
- Nutrients promote weed productivity, decreasing the amount of available oxygen in the water needed by other organisms to survive
- Transported soil decreases water clarity, adversely affecting plants and fish
- Wetlands, lakes, and rivers become polluted, decreasing the productivity of the entire ecosystem
- Soil erosion



## Benefits of Clean Stormwater

- Lowers the cost to treat drinking water
- Reduces the number and severity of floods and property damage
- Increased property values
- Recreational swimming, boating, and fishing opportunities
- Healthy aquatic ecosystems
- Cleaner beaches
- Increased tourism

## What Can *You* Do?

- Repair car oil leaks clean up pet waste, and pick up trash to prevent these pollutants from being carried into water bodies by stormwater runoff
- Safely store and dispose of chemicals
- Mulch bare soil to prevent sediment from eroding and washing into rivers and lakes
- Construct sediment traps and silt fences to trap sediment carried by stormwater runoff
- Prevent erosion and decrease the velocity of stormwater by planting and lining the area around your downspout with grass and rocks
- Use gravel, sand, or calcium chloride instead of rock salt as a de-icer during the winter months because salt is harmful to aquatic ecosystems. The other alternatives can be easily swept up in the spring
- Keep water off of paved driveways that are impermeable and allow it to flow over soil so that it will filter into the ground. Soil particles will collect pollutants, and aquifers will become recharged
- Do not use fertilizers and pesticides on gardens and lawns because they could run off into water bodies
- Wash your car on the lawn with organic soap to allow the water to percolate into the soil instead of running off down the street and into our water

