

Dare to be a force of nature. Each and everyone of us has the power to make a difference.

Stormwater Management: What Would Nature Do?

Known as the Blue Planet, the surface of the Earth is 71% water and only 29% land. The Earth is an incredibly complex and vibrant ecosystem, where living organisms interact with each other and their environment to create the ideal conditions for life. Every April 22 we celebrate the Earth. Earth Day is important because it educates us about what we have and what we can lose when we act in ways that aren't environmentally friendly or energy efficient. Earth Day reminds us that we need to take action to protect our environment now, before it's too late.

This year, why not make *every* day Earth Day by making a personal commitment to learn about and engage in simple year-round stormwater management practices. Basic stormwater management techniques provide a reliable path towards sustainable water quality protection that is good for the environment, our health, and the economy. Remember, without fresh, clean water, life is just dry!

What Is Stormwater Runoff?

Stormwater runoff is rain and snowmelt that doesn't soak into the ground. As it flows across surfaces such as roads, parking lots and rooftops, it collects and transports pollutants such as sediment, fertilizers, pesticides, bacteria, motor oil, and litter. This untreated waste is directly discharged into our lakes and streams,

making them unfit for drinking, fishing, swimming, and other water based recreation. Stormwater runoff also contributes to flooding, and can lead to expensive infrastructure and property repairs for municipalities and homeowners.

What Are the Sources of Stormwater Pollution?

Stormwater pollution originates from a variety of land-use and day-to-day activities. For example, agriculture and gardening practices can result in the flow of pesticides, herbicides and fertilizers (especially phosphorus) from lawns, gardens and fields to local waters. Pathogens

and bacteria can originate from animal waste, poorly maintained septic systems, and illegal connections to storm sewer systems. Oil and grease from poorly maintained vehicles, and sediment from construction activities can also contaminate stormwater runoff.

Why Is Stormwater Runoff a Problem in Central New York?

In many of our urban and suburban communities, forests, wetlands and fields have been replaced by impervious surfaces—such as buildings, roads, sidewalks, and parking lots—which increases the amount of stormwater and pollutants flowing directly into our

surface waters instead of soaking into the soil where many of those pollutants can be filtered or broken down by natural processes. Impervious surfaces within a typical city block can generate five times more stormwater runoff than a forested area of the same size.

You Can Help by Making a Personal Commitment to Cleaner Water.

Protecting surface and ground water is everyone's responsibility. Although runoff from a single property may not be substantial, the combined effect of an entire neighborhood can significantly impact local lakes and streams. There are many things that we can all do to reduce the volume and improve the quality of stormwater runoff

from our homes and throughout our communities. This flyer will help get you started. Stand up for clean water and make every day Earth Day, because clean fresh water is not only essential for human health, it adds to the quality of life in Central New York.

STORMWATER FACTS

Impervious surfaces like roadways and rooftops typically generate 5 times more runoff than a woodland area of the same size.

Phosphorus and sediment are primary pollutants of concern that are easily transported in stormwater runoff.

Cutting grass high means more extensive root systems. Deep roots hold soil in place and prevent stormwater erosion.

Pet waste that is not properly collected and disposed of is a primary source of pathogens in our waterways.

An average dog produces about ¼ lb. of waste per day.

Warm water holds less oxygen than cold water. Runoff from hard surfaces can be hazardous to aquatic life during hot summer months.

Gardening for Water Quality Protection in Central New York



The CNY Stormwater Coalition is made up of 29 municipalities in Onondaga and Oswego Counties that are working together to reduce stormwater runoff and improve water quality in Central New York.

To learn more about the Coalition and how you can get involved, visit the CNY stormwater website at WWW.CNYRPDB.ORG/STH20

A Fat Lawn Is Nice, but Please Don't Overfeed the Grass

Healthy lawns and landscaping can make your yard look attractive and improve the value of your property, but did you know that landscaping and garden maintenance activities—and poorly maintained landscapes—can contribute to water pollution in Central New York?

Phosphorus is a nutrient that is essential for plant growth and was once a common component of commercial lawn fertilizers. In many areas of NYS, soils naturally contain a sufficient amount of phosphorus to support the growth of turf grass without the need for additional fertilizer. The high levels of phosphorus from unnecessarily-applied fertilizer can degrade water quality, making it unhealthy for people and aquatic life. During spring snowmelt and rain events, phosphorus can be transported by stormwater runoff directly into lakes, streams, and wetlands.

As of January 1, 2012, a new state law is helping to improve water quality by reducing the use of phosphorus fertilizer. Better water quality improves recreational and other uses of our freshwater resources. Implementation of the law will reduce costs to local governments and other entities that are required to remove excess phosphorus from stormwater and wastewater.

The 2012 phosphorus law restricts the use of lawn fertilizer in the following ways:

- Prohibits the use of phosphorus lawn fertilizer unless establishing a new lawn, or a soil test shows that the lawn soil does not have enough phosphorus to support turf growth.
- Prohibits the application of lawn fertilizer on impervious surfaces. Any spilled fertilizer must be cleaned up.
- Prohibits the application of lawn fertilizer containing nitrogen, phosphorus or potassium between December 1st and April 1st.

ADDITIONAL WAYS TO REDUCE PHOSPHORUS RUNOFF

- Test your soil before applying fertilizer and use the results to determine the correct application rates.
- Never apply fertilizer before a rain storm.
- Pick up after up after your pet. Pet waste contains phosphorus and pathogens that can be transported by stormwater runoff.
- Never dispose of pet and yard waste in stormdrains or ditches.
- Mow your lawn at regular intervals. Leave grass clippings on the lawn and use a compost pile for excess yard waste such as leaves.
- Cover exposed soil and mulch stockpiles to prevent erosion during rain events.
- Plant a rain garden to slow the rate of stormwater runoff.
- If you live by a lake, river, or stream, plant a buffer strip along the shoreline to slow the volume of stormwater runoff, absorb excess nutrients, and reduce soil erosion.



Animal Waste and Water Quality: Is It Really a Problem?

It might not seem like a stormwater problem, but animal waste is one of the many seemingly small sources of pollution that can add up to big problems for water quality and human health. While most people connect animal waste problems to agriculture, studies have shown that pet, waterfowl, and other urban wildlife waste can cause significant water pollution problems.

Animal waste contains several pollutants—nutrients, pathogens, and toxic materials such as ammonia—that contribute to water-quality problems. When animal waste is washed by rain into lakes and streams, it decomposes, using up oxygen and releasing its pollutant load. During summer months when water is warm, this lethal combination of low

oxygen and increased pollutants can kill fish and other aquatic animals, and contribute to the growth of algae, which makes water murky, green, and foul-smelling, and often unfit for swimming, fishing, and boating. Pathogens—the disease-causing bacteria and viruses associated with animal and human waste—can also make local waters unswimmable and unfishable, and can cause severe illness in humans.

Fortunately, there are simple actions everyone can take to help protect water quality and reduce pathogens in stormwater runoff. While it may seem easier to ignore the problem of animal waste, by always picking up after your pet, you are protecting the environment *and* your health.

Pick Up After Your Pet

Preventing water pollution can be as simple as remembering to take along a plastic bag or pooper scooper when you walk your dog. Flush the waste (not the bag) down the toilet, or toss the waste (bag and all) into the garbage.

There are other good reasons to pick up pet waste. Some diseases can be transmitted from pet waste to humans through soil contact. Children who play outside and adults that garden are at risk for infection when pet waste is left to decay on the ground.



Don't Feed Waterfowl

Gaggles of geese can elicit giggles of delight in children and adults, but the problems caused by our feathered friends are no laughing matter. Feeding attracts birds in unnaturally high numbers. Geese, swans and other waterfowl contribute a heavy load of waste to our waters. Waterfowl droppings are high in nitrates which contribute to low oxygen levels in water and lead to the death of fish and aquatic plants, and the encroachment of noxious weeds and algae. Waterfowl droppings also harbor strains of *E. coli*, some of which may cause disease in humans.



Hobby Pets Matter

Large livestock operations must have permits and are regulated to ensure proper disposal of the waste they create, but smaller backyard farming operations and hobby pets such as chickens, goats, and horses, are often overlooked. Their waste should also be properly managed to prevent it from contaminating our waters. Collect piles of manure and keep it under cover, sheltered from the wind and rain and away from lakes, streams, and other drainage areas. Direct downspouts and runoff away from these piles and/or build a compost system, or have an offsite compost facility collect the manure.



When Was the Last Time You Surfed Your Watershed?

A watershed is the land that water flows across or under on its way to a river, lake, stream, or bay. Water travels over farm fields, forests, suburban lawns, and city streets, or it seeps into the soil and travels as groundwater. Watersheds are separated from each other by high points, such as hills or slopes.

Everyone lives in a watershed. The water in your backyard drains over or under the ground to a creek, pond, stream, or lake and is a part of its watershed.

Where does the rain in your backyard end up? The answer to this question is your watershed address, the drainage basin where you live.

You can identify your watershed address at the LOCATE MY WATERSHED webpage (www.epa.gov). Once there you can search by city, state, zip code or school name to locate the Hydrologic Unit Code (HUC) of your watershed. Once you do, you will have access to water quality and stream flow data, links to other watershed websites, and contact information for volunteer and watershed groups active in your watershed.

Learn more about how you can protect stormwater and improve water quality from the Keep It Clean Partnership at www.KeepItCleanPartnership.org



New York Celebrates Water Week May 3-9, 2015

Water Week is a time to think about how fortunate we are for the state's abundant water resources and how we can all help protect, restore and conserve them. Celebrate Water Week by holding an event or conducting an activity. Anytime is a good time to celebrate our valuable water resources!

- Get together with friends and local government to adopt a section of waterway. Plan a picnic and clean up the banks of a nearby waterway, bike route or highway.
- Fight mud! Help control soil erosion. Sediment and fine soil particles can suffocate fish and destroy their habitat. Cover bare areas of soil with

mulch, or plant grass and ground cover to keep the rain from washing the soil into storm drains, ditches, streams, and lakes.

- Don't waste water. Wash your car on the lawn, or better yet, use a commercial car wash. Most commercial car washes recycle or pretreat their waste water, thereby reducing its effect on the environment.

Find more ideas for water-related activities on the NYS Department of Environmental Conservation's Watershed Stewardship webpage, WWW.DEC.NY.GOV.

Municipal Participation in Stormwater Management

The CNY Stormwater Coalition was established to advance a regional approach for managing stormwater and protecting water resources. The Coalition is made up of 29 cities, towns, villages, and counties that operate Municipal Separate Storm Sewer Systems (MS4s). Through the Coalition, members are working together to meet regulatory requirements, share resources and expertise, and improve Central New York's water quality.

2015 Coalition Members

| | |
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| Camillus Town | Camillus Village |
| Cicero Town | Central Square Village |
| Clay Town | East Syracuse Village |
| DeWitt Town | Fayetteville Village |
| Geddes Town | Liverpool Village |
| Hastings Town | Manlius Village |
| LaFayette Town | Marcellus Village |
| Lysander Town | Minoa Village |
| Manlius Town | North Syracuse Village |
| Marcellus Town | Phoenix Village |
| Onondaga Town | Solvay Village |
| Pompey town | Onondaga County |
| Salina Town | |
| Van Buren Town | |
| Syracuse City | |
| NYS Fairgrounds | |
| Baldwinsville Village | |

Gardens and Gutters—Your Local Stormwater Connection

Gardens and Gutters is the electronic newsletter of the CNY Stormwater Coalition. Distributed by E-mail just four times a year, each edition is filled with informative articles, seasonal stormwater management tips, upcoming events and links to useful tools and resources.

To subscribe, send an e-mail to stormwater@cnyrpd.org with the word "subscribe" in the subject line. If you are not satisfied with the content, simply respond to the unsubscribe link that is part of every edition.

Hurry! The Spring edition will be out soon!

If You See Something, Say Something

The direct discharge of anything other than stormwater to a storm drain is called an illicit discharge. Illicit discharges to storm sewers are a problem because the waste generally flows directly to local waterways without any additional treatment.

A Stormwater Pollution Hotline has been established for reporting illicit discharges to storm sewer systems in Onondaga County. If you suspect someone has discharged contaminants such as chemicals, construction materials, paint or petroleum products to a storm sewer or roadway, please contact the Onondaga County Stormwater Pollution Hotline at 315-435-3157. The hotline is manned 24 hours a day, seven days a week by the Onondaga County Office of Water Environment Protection.

Save the Rain

Save the Rain is a comprehensive stormwater management plan intended to reduce pollution in Onondaga Lake and its tributaries.

Every drop counts! See how you can make a difference. Visit savetherain.us