

Keeping our Water Healthy

The control of stormwater runoff helps to protect water resources, human health, and aquatic habitats. Keeping stormwater on site and out of storm drains saves money for municipalities by reducing maintenance and repair costs for drainage ditches, bridges, and roads. Reducing the amount of phosphorus fertilizer and sediment in stormwater runoff improves water quality by reducing algae blooms and improving aquatic habitat.

What is Stormwater Runoff?

Stormwater runoff is rain water or snowmelt that doesn't soak into the ground. As it flows across impervious surfaces, the runoff collects and transports pollutants such as sediment, nutrients, pesticides, oil, and gasoline. This untreated waste makes lakes, streams, and wetlands unfit for drinking, swimming, fishing, 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 activities. Agricultural and gardening practices for example can result in the flow of pesticides, herbicides and fertilizers (especially phosphorus) from lawns, gardens and fields to local waters. Bacteria in the water 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 contribute to stormwater runoff.



Why is Stormwater Runoff a Problem in Central New York?

With the growth of Syracuse and surrounding suburbs, paved surfaces have replaced forests, wetlands, and fields. Much of the urban landscape is covered by impervious surfaces—such as sidewalks, parking lots, roads, driveways, and buildings—which cause water runoff to flow into storm drains instead of seeping into the soil.

Runoff from impervious surfaces is a major source of water pollution and storm drains transport stormwater and pollutants directly to local lakes and streams. Impervious surfaces within a typical city block can generate five times more stormwater runoff than a forested area of the same size. Increased runoff after a heavy rainfall or rapid snowmelt in the spring can also lead to dangerous flooding and expensive repairs for municipalities and homeowners.

You Can Help by Making a Personal Commitment to Cleaner Water

By providing opportunities for stormwater to soak into the soil, you can reduce the flow of the runoff from your property and help improve water quality. Plants and soil organisms filter and break down many of the pollutants commonly found in stormwater. Trees and bushes reduce the potential for erosion and flooding. In addition to improving water quality, vegetation can boost property values while saving money and energy used to cool your home. Clean, fresh water is not only essential for human health, it adds to the quality of life in Central New York.

Home and business owners, builders, and local governments are working to protect water resources, human health, and aquatic habitats by controlling stormwater runoff. You can help to make a positive impact in your community by following these recommendations.



Home and Yard Care

Reduce the amount of stormwater runoff from your property by diverting roof water to a rain barrel which can then be used for landscaping purposes. Water your lawn and garden plants in the early morning or late afternoon in order to minimize evaporation and make every drop count. Plant a rain garden or simply increase the amount of vegetation and mulch around your home to reduce runoff. Conserve water by sweeping sidewalks and driveways rather than using a hose and be sure to cover piles of mulch and soil to avoid runoff during rain events.

Never dump trash into street gutters or storm drains because they transmit water directly to nearby lakes and streams. Be sure to remove leaves from rain gutters to avoid water overflow and erosion problems. If you have plans to replace paved surfaces such as a driveway or patio, consider using material such as cobbles or gravel, porous asphalt, paving stones, mulch, grass or other natural ground covers. Using these materials will reduce runoff by allowing water to slowly soak into the soil.

Be sure to clean up after your pet. Scooping your dog's waste isn't just a courtesy—it also helps to protect water resources. Pet waste left on the ground is transported by stormwater runoff and can add bacteria, parasites and viruses to local lakes and streams. This can create unhealthy conditions for people and animals.

Car Maintenance

Every year approximately 180 million gallons of used oil seeps into our waterways - 16 times the amount spilled by the Exxon Valdez. Keep your car engine well-tuned to prevent fuel and oil leaks. Fill your fuel tank slowly and don't "top off" or overflow the tank. Store oil, gasoline, antifreeze and other automotive products in tightly sealed containers in order to avoid leaks and spills and never put gasoline, oil, gardening products, pesticides and other household waste down the storm drain. Use a commercial car wash or wash your car on a lawn to avoid having the water drain directly into the storm sewer.



Home Improvement Projects

Simple decisions that you make during a home improvement project can help protect local lakes and streams. For example, cover storm drains before you start a project and properly dispose of construction debris such as concrete and mortar. Never put your household or construction waste down a storm drain.

Be sure to store household substances in tight, secure containers to avoid leaks and spills and use non-toxic, biodegradable, recycled and recyclable products whenever possible. Use paints, solvents, and cleaners in the smallest amounts possible and follow the directions on the label. Clean up spills immediately and dispose of the waste safely.

Clean paint brushes in a sink, not outdoors where the cleaning product can pollute surface and ground water. Filter and reuse paint thinner when using oil-based paints and dispose of excess paint through household hazardous waste collection programs. To dispose of latex paint, leave the container in a ventilated area until the paint is completely dried. When the paint is solidified, put the entire container in the trash.

Slow the volume of stormwater runoff by directing downspouts away from driveways and other paved surfaces and in the direction of nearby lawns or rain barrels.

The Benefits of Rain Gardens

Rain gardens are landscaped areas that are planted with native, water tolerant plants. Rain gardens soak up rainwater when it flows off of roofs and pavement. During storm events the water flows into rain gardens where it has time to gradually seep into the soil rather than flowing into storm drains. Compared to a traditional lawn, rain gardens allow about 30% more water to soak into the ground, thereby reducing the threat of flooding and potential harm to aquatic habitats.

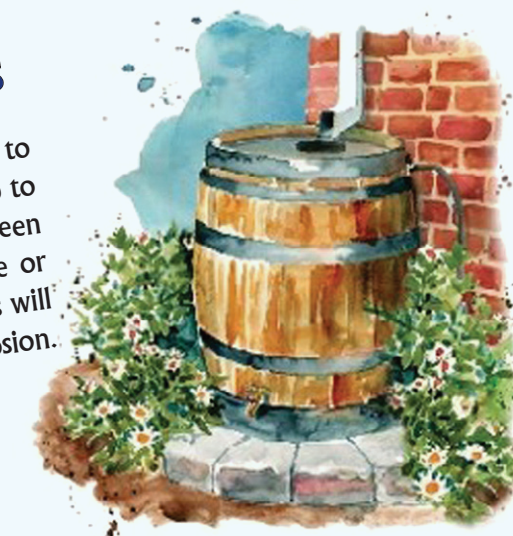


The Benefits of Rain Barrels

Rain barrels are used to collect and store rainwater that flows off of roofs. They are useful in reducing the amount of stormwater runoff from individual properties, and the water can be used to irrigate flower gardens, trees, or lawns. Roof runoff contains contaminants, so the rain barrel water should only be used on non-edible plants such as landscape flowers and bushes.

The Benefits of Trees and Bushes

Did you know that trees can reduce rain water runoff by 15 to 35 percent? In urban areas, a deciduous tree can intercept up to 750 gallons of stormwater runoff per year. A mature evergreen can intercept up to 4,000 gallons! If you live along a lake or stream, plant trees or bushes along the shoreline. The roots will slow the rate of stormwater runoff and will reduce soil erosion. The planting will also improve wildlife habitat.



Municipal Participation in Stormwater Management

The control of stormwater runoff is a national priority. Local municipal officials are working hard to protect water resources through better stormwater management. Throughout Central New York, municipalities are making provisions to allow the use of permeable paving materials on public projects when conditions are appropriate. Developers are required to incorporate more green spaces in new developments and to avoid disturbing existing vegetation that naturally slows and infiltrates stormwater runoff. Municipal turf management programs no longer rely on the routine use of pesticides and chemical fertilizers. Roadway maintenance crews work to keep storm drains and culverts clear of trash and excess vegetation in order to reduce stormwater backups, road hazards, and the threat of flooding. These local efforts are improving water resources through the control of stormwater runoff.

Additional information about the Central New York Stormwater Coalition is available at <http://www.cnyrpd.org/stormwater/public/>

Stormwater Pollution Hotline

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 435-3157. The hotline is manned 24 hours a day, seven days a week.

A Regional Stormwater Coalition Protects our Water Resources While Saving Time and Money!

27 municipalities in the Syracuse Urbanized Area are members of an intermunicipal organization called the Central New York Stormwater Coalition. The Coalition, coordinated by the Central New York Regional Planning & Development Board, is a cost-effective and efficient way for local municipalities to reduce stormwater runoff and improve water quality. Through the Coalition, municipalities are creating opportunities to share services, reduce costs, and improve water quality.



Activities within a watershed influence water quality in lakes and streams



This information is provided by the Central New York Regional Planning & Development Board on behalf of the Towns of Camillus, Cicero, Clay, DeWitt, Geddes, Hastings, LaFayette, Lysander, Manlius, Marcellus, Onondaga, Pompey, Salina, and Van Buren; the Villages of Camillus, East Syracuse, Central Square, Fayetteville, Liverpool, Manlius, Marcellus, Minoa, North Syracuse, Phoenix, and Solvay; the City of Syracuse; and Onondaga county.

