



CNY Stormwater Coalition

Gardens and Gutters

A Central New Yorker's Guide to Managing Stormwater Runoff

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Another long, cold, snowy CNY winter is upon us. Whether you love it, hate it, or just cope with it, you're probably not thinking about the impact melting snow will have on water quality next spring. Most of us understand that as rain washes over the land it carries exposed soil and other substances into storm drains that flow to nearby lakes and streams. We think differently about snow, which appears stable in its frozen state. As long as our sidewalks and roads are clear, we simply accept snow as an unavoidable part of winter.

This changes in spring when the melting snow pack transforms our lawns into mudflats, floods our streams, clouds our lakes and reveals a full season's worth of accumulated trash and debris.

It's easy to lose sight of the fact that the substances we apply to keep our roads and driveways clear of snow and ice will be carried into our surface waters with the warmth of spring. Rock salt (sodium chloride) can affect spawning of certain fish species and harm vegetation if allowed to accumulate in the soil. If you use rock salt on your driveway, don't use more than you need or you may be flushing chlorides, and your money, down the stormdrain. Consider trying a non-toxic, biodegradable ice-melt product. These products are less harmful to the environment and often have residual effects that prevent new ice from forming. As a result, you may use these products less frequently than rock salt.

Many homeowners use sand to provide traction on sidewalks. Although effective, wind and melting snow can transport sand into stormdrains and surface waters where it can destroy aquatic habitat and create a substrate for unwanted plant growth. If you do use sand for traction, remember to sweep and collect it as soon as conditions allow.

Winter driving can be treacherous. Before you get behind the wheel, you'll almost certainly make sure you have plenty of windshield washer fluid in the reservoir to help you see where you are going. Most washer fluids contain toxic methanol as well as phosphates that contribute to algal blooms in our lakes and ponds. A single spray to clear the windshield may not add a lot of chemicals to the environment, but think about how many gallons you use over a typical winter. Then think about all of the other cars on the road that are probably using at least as much as you are.

The next time you reach for a gallon of traditional washer fluid at the store, take a look at the wide range of alternatives that are available, including concentrated liquids that are as effective and may be less costly than what you are currently using.

Before the snow flies, take a few minutes to collect the last leaves that may have accumulated in the stormdrain or catch basin in front of your house. Not only will this help keep melting snow from pooling and refreezing during brief warm ups, but it will help reduce the amount of phosphorus and organic matter that enters our waterways next spring.



When you are out on your favorite lake or pond this winter, remember that your actions can affect our water quality. Anything you leave on the ice when you are walking Fido, ice skating, or ice fishing will be there next spring. Please pick up after your pets to prevent bacteria and pollution from contaminating the water. Keep in mind that candy wrappers, soda bottles and cigarette butts all float, and will be waiting for us in the spring!



Winter Stormwater Pollution Solutions

With the colder weather upon us, water pollution prevention is very critical. Winter brings with it unique and significant pollution concerns to our lakes and streams. Because the ground will be frozen over the next few months, it acts like a hard surface similar to asphalt or concrete. It no longer has the ability to act like a natural filter.

Pollutants accumulate in snow banks and ice all winter long. Once the snow melts, all the grime, grit, dirt, road salt, and other pollutants are washed into our stormwater systems, lakes, and streams. This seasonal addition of melt water can result in the largest single annual water runoff event of the year and contributes significant amounts of pollutants to sensitive streams and lakes. It is important that we take steps to reduce the amount of potential pollution sources during the winter months.

Be stingy with your salt application and consider alternative salting methods. Salt can be harmful to plants, aquatic life and drinking water supplies. Salt alternatives can be less damaging to homes, landscaping and be used to de-ice and improve traction on a walkway or driveway. If you do apply salt, shovel first and apply as little as possible. Mixing salt with natural substances like beet juice can increase the salt's effectiveness at lower temperatures, reducing the amount of salt needed.

Rethink rinsing your garage floor. While it's tempting to take out the hose and wash that ugly, crusty, gray sludge and salt off of your car and out of your garage on a mild winter day—please don't! Residue left from road salt, oil, gas, and other road pollutants drips from your car and ends up on the garage floor. Your garage runoff most likely drains into a storm sewer or ditch which means you'll be flushing pollutants from your garage right into our streams and eventually into one of our beautiful local lakes. One alternative is to clean your car by taking it to a commercial car wash where the drains flow to waste water treatment facilities.

Watch your waste. Picking up pet waste is just as important in the wintertime as it is in the warmer months. Animal waste can be a significant source of harmful bacterial and disease. Cooler temperatures and frozen soil slow down the decay process. When the snow finally does melt, you will have a very unpleasant surprise waiting if pet waste is not removed daily. If you have horses or livestock, don't spread manure in the winter months. Manure is not effective in cold weather and doesn't break down in the soil. It accumulates on the surface and is then washed directly into streams and lakes during thaws, contributing bacteria and excessive nutrients to our surface waters.

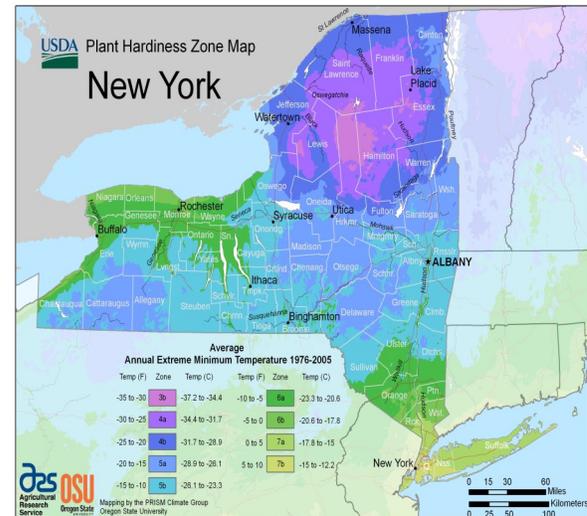
Cover bare soil. If you are doing earthwork in the winter remember to maintain your construction site erosion and sediment control practices to keep soil and other pollutants on your site and out of our streams and lakes. Late winter thaws and saturated soil conditions can lead to a very muddy spring. So be prepared and maintain erosion and sediment control practices all winter long, and plant winter ground cover on areas with bare soil to prevent soil erosion.

Maintaining a Healthy Landscape: What You Need to Know About Salt

Winter can be hard on your landscape if you don't have shrubs that can withstand road salt. Plants in cold-weather planting zones may need to endure several applications of salt per year. Minimize the amount of salt reaching plants by mixing sawdust or ash with road salt before application and direct saltwater drainage away from plants. Choosing the right plants makes a big difference if you want a vigorous post-winter landscape. Check with your county extension office, or the U.S. Department of Agriculture website to find your growing zone. They are numbered 1 through 9 and represent the temperature conditions and corresponding geographic areas under which plants will grow. Newer zone charts include both high and low temperature ranges.

Road salt is extremely tough on plants, both from its build-up in the soil near treated surfaces and its physical contact with foliage and branches as salt-laden spray is splashed or aerosolized by fast-moving traffic. When dealing with areas where salt may be a problem, such as along a roadside where winter salting is done, it is helpful to wash salt spray off plants and to flush the soil with fresh water. Roadside salt should be flushed out vigorously in early spring. If the soil is sandy, be sure to add organic material when planting, and also use it regularly as a mulch.

Call your local road maintenance department to find out what kind of salt application is used near your landscape. In some areas, deicing salt is dispersed by aerial application, others use only ground applications. Air-borne deicing salt on plants draws moisture out of plant tissue. Salt spray produces dieback on branches starting at the tips of leaves and needles of vulnerable shrubs. Spray and excess soil salts stunts growth of stems and foliage, and causes lack of vitality and death.



Not all gardening plants can tolerate these poor conditions. Gardeners must research the growing requirements of plants to determine their tolerance to road salt and other disadvantages near sidewalks, walkways or streets.

Bearded iris (Iris Germanic) is a hardy perennial that is tolerant of road salt. Frequently grown as a border plant along sidewalks and roadsides, it can thrive under poor growing



conditions. The most important growing requirement for bearded iris is good drainage. It does not tolerate wet soil or standing water, which causes its rhizomes to rot. It prefers full sun and moderately dry soil for prolific blooming. Bearded iris grows best in United States Department of Agriculture hardiness zones 3 to 10. At maturity, iris can reach 36 inches tall. Many cultivars of iris exist, which offer blooms in a rainbow of colors and bi-colors.



Bee balm (*Monarda didyma*) thrives in full sun or part shade and is tolerant of road salt. Planted as a border along walkways or streets, bee balm typically grows 2 to 4 feet tall at maturity. As a hardy perennial, bee balm grows best in USDA hardiness zones 4 to 9. Similar to the rhizomes of irises, bee balm also requires well-drained soil.



Some **daylilies** have fragrant blossoms. Gardeners treasure daylilies for its versatility and hardiness. While the daylily tolerates road salt, it also requires will drained soils. Daylily blooms best in full sun but

can remain vigorous in partial shade. Daylilies are recommended for USDA hardiness zones 3 to 9.

Garden phlox is a hardy perennial that's impervious to road salt. This tough plant grows best in full sun. The woodland phlox is a variety that enjoys shade. Recommended for USDA hardiness zones 4 through 8, garden phlox can reach 4 feet tall at maturity. Gardeners can plant creeping phlox for a groundcover. Providing adequate water with good drainage will keep all varieties of garden phlox blooming for years.



Of course there are a multitude of salt tolerant shrubs that you can also plant for both their beauty and their benefits including Rose of Sharon, Honeysuckle, Hydrangea, Sumac and Witch Hazel. Your local Cornell Cooperative Extension office is a great source of information to help you select native, non-invasive, salt tolerant perennials, shrubs and trees. It's never too early to think about Spring!

Featured Plant: Christmas Fern



This plant is hard to beat. It handles just about any soil, takes shade or sun, and is green year round. It's also one of the few plants native to our area that you can keep as a houseplant. The Christmas fern is popular in cultivation as an ornamental plant for gardens and natural landscapes because it is easy to grow and can be used in many settings and soils.

It has been noted that this fern can serve a soil conservation and erosion control function on steep slopes. The fronds are semi-erect until the first hard frost, after which they recline to be flat on the ground. With proper care, the ferns provide winter interest in the garden when most other plants remain dormant.

The CNY Stormwater Coalition

The CNY Stormwater Coalition was formed in order to establish a regional approach to stormwater management and water resources protection. The Coalition is made up of 27 cities, towns, villages and counties that operate Municipal Separate Storm Sewer Systems (MS4s). Through the Coalition, municipalities are working together to meet regulatory requirements while improving water quality in Central New York.

CNY STORMWATER COALITION MEMBERS

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

The CNY Stormwater Coalition is pleased to welcome the **Village of Camillus** as its newest member.

The CNY Stormwater Coalition is staffed and coordinated by the Central New York Regional Planning & Development Board. For more information, visit the CNY Stormwater website at www.cnyrpdb.org/stormwater



Calendar of Events

Check back next Spring for upcoming current events and happenings. For those of you that are planning ahead, Cornell Cooperative Extension of Onondaga County will conduct the following two presentations at the DeWitt Community Library located at 3649 Erie Blvd. in DeWitt.

Seed Starting
March 23, 2015 7:00 PM - 8:30 PM

Let's Talk Composting
April 20, 2015 7:00 PM - 8:30 PM

CNY Stormwater Coalition Meeting
February 10, 2015 1:00 PM - 2:30 PM
 Location TBD

CNY RPDB Awarded Water Quality Improvement Program Grant to Address Urban Stormwater

The CNY RPDB was awarded a NYS Department of Environmental Conservation Water Quality Improvement Grant to help address the impacts of phosphorus and pathogens in area waterbodies including the Seneca River, Limestone Creek, Ninemile Creek, and the Onondaga Lake Watershed. Work gets underway this spring in portions of the Towns of Camillus, Cicero, Clay, DeWitt, Hastings, Lysander, Manlius, Onondaga, Pompey, Geddes, Marcellus and Van Buren, as well as the Village of Central Square.

