Reining in **Runoff**

"If there is magic on this planet, it is contained in water." – Loren Eiseley

Water brings the landscape to life by nourishing plants – including crops, gardens and trees – that are the base of Earth's complex food web. It trickles beneath the soil to form groundwater, emerging years or centuries later through natural springs or artificial wells.

Water that can't be absorbed moves over the landscape, flowing toward lakes, rivers, wetlands and other low spots. This natural phenomenon is known as surface runoff.

Before Minnetonka was developed, most of the rain and snowmelt soaked into the soil or was captured by trees and plants. Only about ten percent of precipitation became runoff. Today the landscape contains a mix of vegetation and hard surfaces such as rooftops, parking lots and streets that shed water, producing significantly more runoff.

Urban runoff collects a daunting assortment of pollutants (road salt, grass clippings and leaves, pet waste, lawn and garden chemicals, vehicle oil) before storm sewers along the street divert it into local wetlands, streams and lakes.

The good news? You can help reduce runoff and improve our water...

2,000 square feet of rooftop or paved surface generates over 1,200 gallons of runoff from only 1 inch of rain.

Sanitary sewage from homes and other buildings is filtered and treated before it is released into local surface waters. But water in the storm sewer system receives no treatment.

Keep **Storm Drains** Clear

Lakes, streams and wetlands are delicate systems that easily fall out of balance. Adding too much organic matter - such as grass clippings, leaves and twigs - causes algae to grow in the water. Yard litter can also block storm drains, causing flooding along the street.

- Keep grass clippings out of the street. Remind your lawn care company to do the same.
- Remember that yard waste makes great compost!
  - Mow leaves back onto your lawn.
  - Compost on-site or bag material for curbside collection.
  - Take yard waste to the drop-off site at Public Works (open in spring and fall).

Properly Dispose of **Pet Waste**

Pets are wonderful friends. But their waste carries bacteria and parasites that can sicken people, other pets and wildlife. Decaying pet waste also adds nutrients to freshwater, making it unhealthy for fish and other aquatic animals.

Pick up after your pet wherever you go – in parks, on trails and in your own yard. Bag the waste and properly dispose of it in a trashcan.



Native Plants Reduce Runoff

Residential properties are a mix of surfaces, some that absorb water and others that create runoff. Effective landscaping can retain large volumes of water on-site and reduce runoff pollutants.

Add native plants like Swamp Milkweed in areas upland of wetlands, creeks or lakes to capture runoff, filtering out sediment, nutrients and other pollutants. Swamp Milkweed grows well in damp soils and along sloped banks and ditches. It is a host plant for monarch caterpillars, and the beautiful pink flowers attract a wide variety of beneficial insects.

Convert turf around the edges of your lawn, or replace ornamental plants with low-maintenance species such as Sedum. This succulent doesn't require much water or care. Pollinators approve of it, too.

Install a rain garden at a low spot in your landscape. Rain gardens collect runoff from your downspouts and keep water from puddling in your yard.

The Importance of **Trees**

Minnetonka's lush community forest is not only beautiful, it conserves water and improves water quality. The tree canopy collects water and moves it into the soil. This reduces the need to irrigate and recharges the deep groundwater that provides our water supply. When less stormwater flows over the landscape, fewer harmful pollutants are deposited into surface waters.

Consider where you might want to replace or add new trees. You can plant trees through fall, or look for options in the city's tree sale next winter.

During a typical rain event, one mature tree can capture 100 gallons of water on its leaves and bark.

- Roots create tiny air spaces that allow more water to absorb.
- Tree roots hold soil in place, reducing erosion that harms water quality.

Protect trees before beginning a construction project:

- Install construction fencing beyond the farthest branch-tips of each tree.
- If equipment must pass over the roots, install temporary ramps to distribute the weight.
- Avoid moving equipment over wet soil.

Working Together Toward Healthy Water

- Become an Adopt-A-Drain volunteer to keep neighborhood storm drains clear of debris. Email Christine Petersen at **cpetersen@eminnetonka.com** for details.
- Learn to identify wetland species and assess the health of Minnetonka's wetlands. Email Aaron Schwartz at **aschwartz@eminnetonka.com**.
- Volunteer with the city's habitat restoration program. Email Janet Van Sloun at **jvansloun@eminnetonka.com** for information.
- Attend Pollinator Field Day at Lone Lake Park on Wednesday, July 10 to purchase native plants and learn how pollinator habitat can benefit water quality.
- Sign up for the monthly natural resources e-newsletter at **eminnetonka.com/natural-resources.**

April 2019 Natural Resources Happenings

Visit **eminnetonka.com/NRevents** or call 952-988-8400 to register (required) for these events:

Volunteer Buckthorn Cutting

Saturday, April 13
9a.m.-noon

Cullen Preserve
2510 Oakland Road

Cut buckthorn and arrange brush to decompose onsite. Additional information (including a map and parking instructions) will be emailed.

Garlic Mustard Workshops

Wednesday, April 18
6:30-8p.m.

Monday, May 6
6:30-8p.m.

Minnetonka
Community Center

14600 Minnetonka Blvd.

Learn the best methods and timing to control this very invasive species.