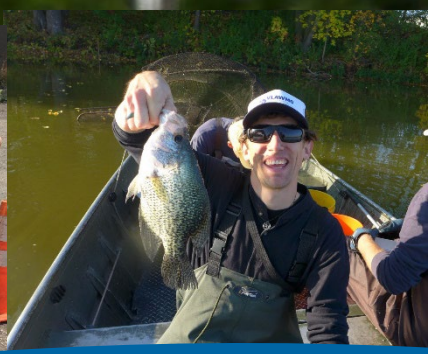
Good Neighbor Guide

VLAWMO
Vadnais Lake Area
Water Management Organization



Good Neighbor Guide

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Welcome to the Good Neighbor Guide

There are lots of ways to be a good neighbor. This guide focuses on being a good neighbor to the lakes, streams, wetlands, and groundwater of our community. This in turn extends to our neighbors next door and downstream.

Minnesotans appreciate their many bodies of water. Some look forward to fishing, boating, and swimming, while others just like seeing the lakes and wildlife. What's less visible though, is how household and yard care also connect to local water. Whether its a homeowner's association, multi-family building, or single-family home, water is everyone's business. But what's good for water? What's bad? Where can we go for guidance?

This guide will provide ideas for how to be good neighbors to humans, wildlife, and the water. Together we can ensure that we all enjoy our lakes, streams, wetlands, and groundwater for many years to come.

Join Drippy and the Junior Watershed Explorer Superheroes to gear up and go!

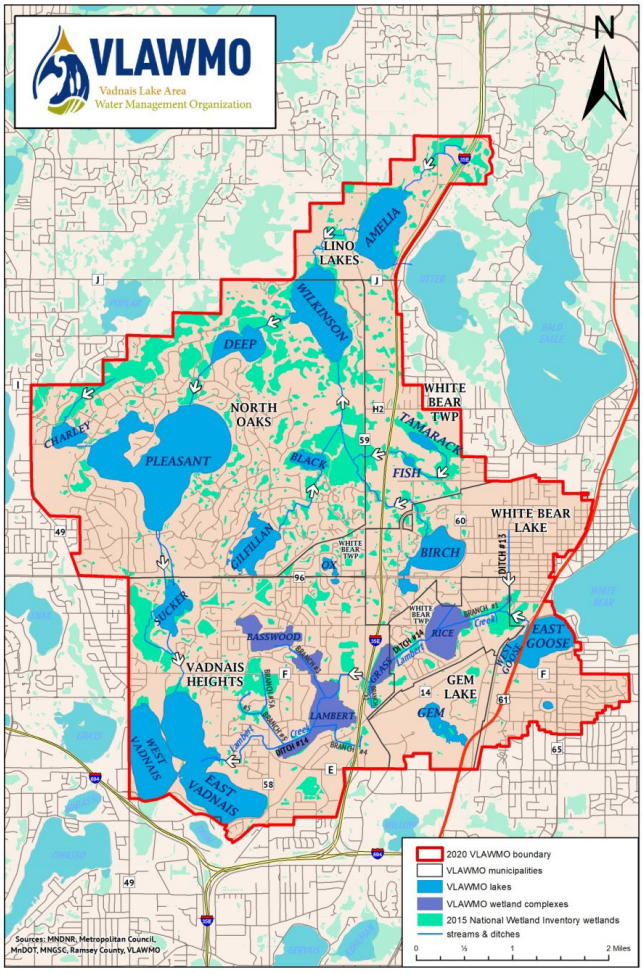
Drippy

VLAWMO Junior Watershed Explorer Superheroes

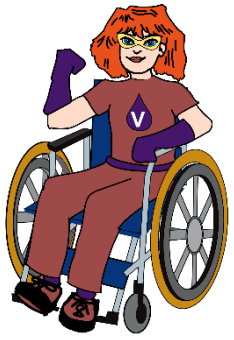
What's a Watershed?

A watershed is an entire area that drains to a common body of water. We live in the Vadnais Lake Area Water Management Organization (VLAWMO). Most of the water in this watershed flows to East Vadnais Lake. East Vadnais Lake is also the final reservoir for the Saint Paul Regional Water Services. Gem Lake is the only other lake in the watershed without a natural outlet.

The watershed includes all or parts of Gem Lake, Lino Lakes, North Oaks, White Bear Township, White Bear Lake, and Vadnais Heights. The watershed is about 24 sq miles, and it includes 15 lakes, Lambert Creek, and over 500 wetlands.



What lakes are near your house? Where do you think the water from your lawn and street go, and how does it reach its end destination? Learn more about the watershed and what's happening near you at www.VLAWMO.org.

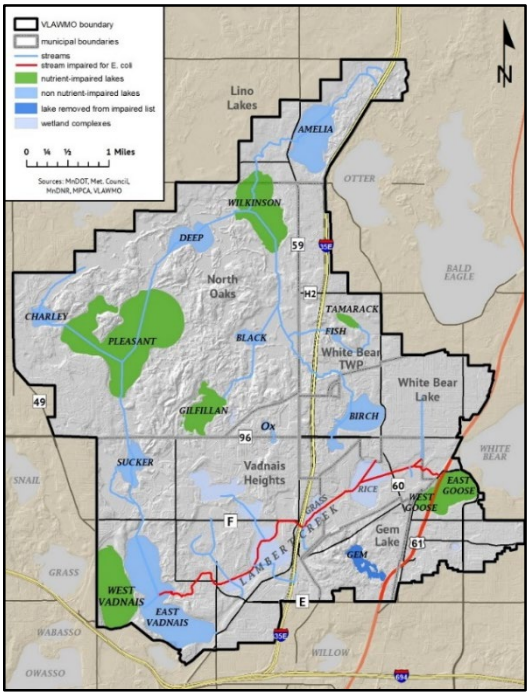


Impaired and Polluted Waters in the Watershed

While much has been accomplished in how we use and conserve surface water, there is still much to do. Minnesota has an abundance of water, but over half of the State's waters are listed as impaired or polluted. Some of these lakes and streams are within the VLAWMO watershed (see map).

In the 1950's-80's many wetlands were filled, and creeks were often channeled into straight ditches. This reduced the natural water storage capacity. At the same time, development has increased the number of hard surfaces that generate runoff and send water downstream (roofs, parking lots, etc.). As a result, some areas receive more water than others, yet spaces to store it are limited. Our neighbors are more than those who live right next door - they could be downstream miles away.

The way we take care of our yards can have a big impact on others. Will you join the VLAWMO community in helping keep our local waters clean and healthy?



Where Does Water Pollution Come From?

The biggest polluter of lakes and streams comes from stormwater runoff. As rain falls on impermeable surfaces such as rooftops and parking lots, it picks up debris, contaminants, and other pollution on its way to a waterbody. Stormwater flows from streets and can even flow from yards into stormdrains. Stormdrains lead directly to the nearest body of water.

Take some time to observe stormwater runoff from your roof and yard.

Does it drain to a wetland, lake, pond, or something else?

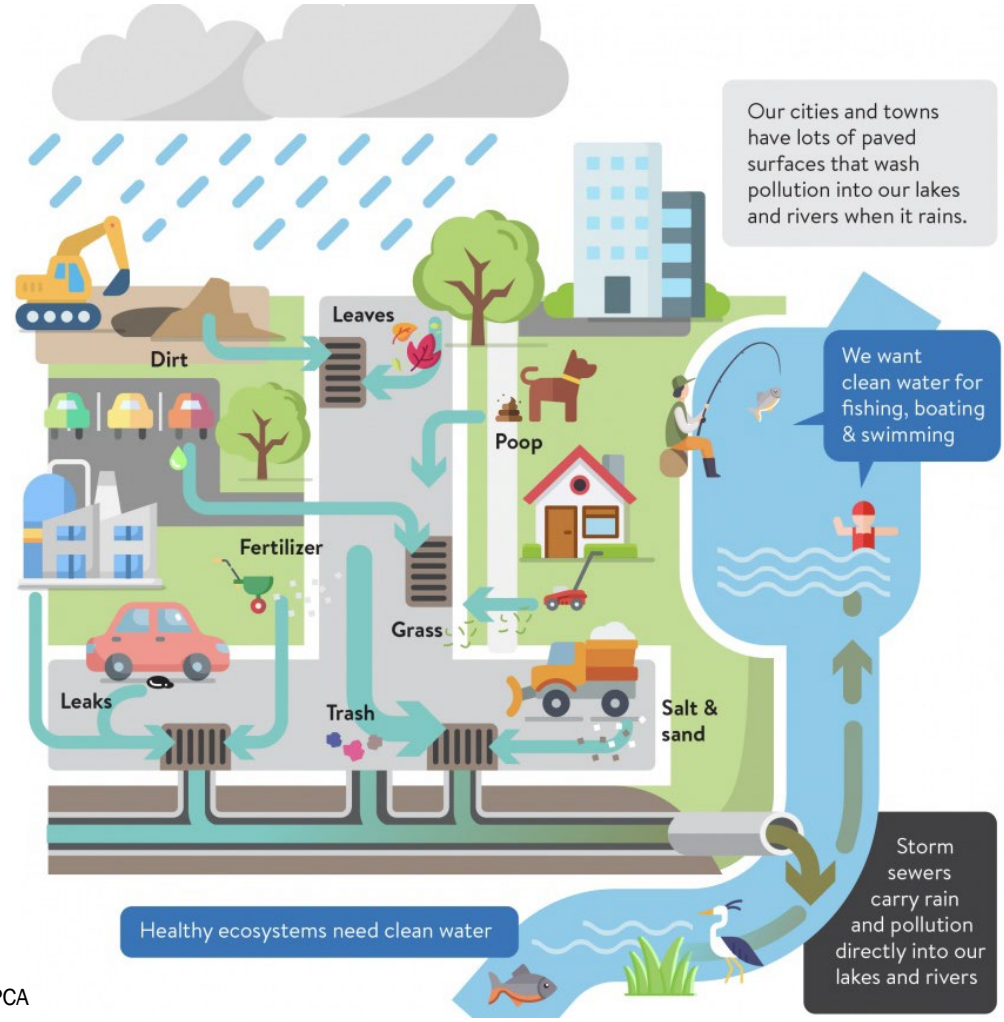


Image: MPCA

Common Pollutants in Stormwater

Yard waste: Yard waste such as leaves and grass clippings contain nutrients such as phosphorus and nitrogen. These nutrients become pollutants in the water and can cause algae blooms that disrupt the balance of fish, plants, and macroinvertebrates. An impaired or polluted waterbody can also clog or reduce the health of another waterbody downstream.

Fertilizers: When used incorrectly or excessively, fertilizers can put excessive nutrients into our lakes, streams, and wetlands.

Herbicides and Pesticides: When used incorrectly or haphazardly, chemical treatments for weeds and/or insects are poisonous to wildlife and aquatic life.

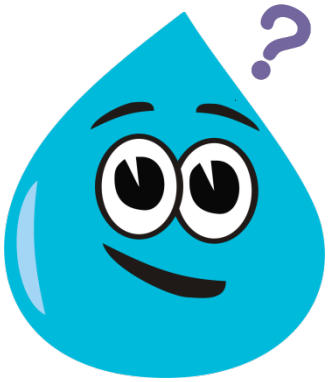
Sediment: Soil, sand, and debris wash into lakes with stormwater and makes the water murky or cloudy. This blocks light from filtering into the water, and harms fish, plants, and aquatic wildlife.

Bacteria: Bacteria like E. coli from animal waste, including pet waste can make people or pets sick.

Chloride: Chloride is a chemical found in road salt and deicers. It's used in winter to keep ice off our streets, sidewalks, and parking lots. It's toxic to aquatic life and alters the way lakes cycle temperature and nutrients over the seasons. Chloride is a permanent pollutant in freshwater and can contaminate groundwater.

Slow It Down, Soak It Up

There's lots of lawn care and water information out there. Sometimes it can be confusing! Remember that the basic idea is to **slow down** runoff and **soak it up** into the ground. Once you start watching for opportunities, there's often creative ways to approach it considering your aesthetic tastes and practical needs.



Chances are you're already doing some of these water-friendly practices. Read on to see which ones you are already doing, and which ones could be something new to try.

Healthy lawn and yard care includes:

- Mowing
- Watering and irrigation
- Fertilizing sparingly
- Re-routing and reducing runoff
- Using native plants for gardens or groundcovers
- Controlling pet waste and erosion
- Smart salting

Healthy Lawn and Yard Care

Mowing

Mow high

Strive for a 3-4” mowing height throughout the year. This will lead to a healthier lawn that is more resistant to weeds and better withstands drought.

Clean up

Blow grass clippings away from pavement and sweep them back on the lawn if they get onto the street or sidewalk.

Dispose of yard waste responsibly

Avoid dumping yard waste such as leaves and grass clippings into ditches and wetlands. Although they're natural material and seem innocent, grass clippings, leaves, and yard waste become pollutants in water bodies, clog up waterways, and create conditions that are less favorable to native species. Instead, dispose of yard waste through a licensed hauler service, a home compost, or at a County compost facility.

When mowing height increases, the depth of rooting increases

This helps rainwater absorb into the ground and prevents runoff pollutants from entering our lakes and streams

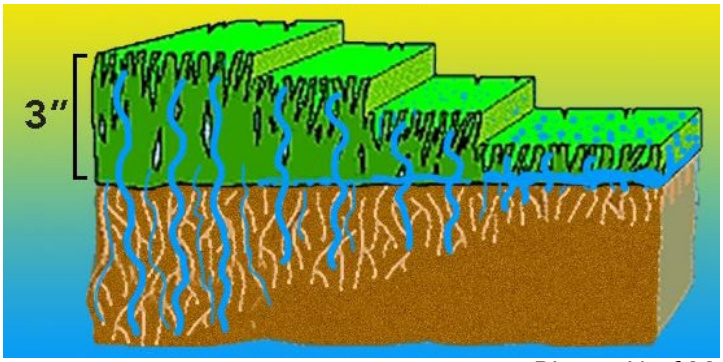


Photo: U of M

Healthy Lawn and Yard Care

Watering

Water just enough
Strive for 1” of watering per week, accounting for precipitation.

Watch your timing
Water or set irrigation systems for early morning or late evenings.

Always adjust sprinkler heads
Keep them from spraying onto pavement.

Keep it low
Select sprinklers that reduce evaporation and wind drift. These sprinklers will keep water low to the ground and disperse water in a stream rather than a mist.

Shorter sessions
Divide typical lawn watering time in half, and water twice. Two short sessions generate less runoff. Leaving a few hours between watering sessions helps the lawn hold the water. For trees and shrubs, deeper watering sessions are recommended.

Monitor irrigation systems
Avoid a "set it and forget it" strategy. As seasons change, rain patterns change. Adjust irrigation systems weekly according to rainfall and cut back on watering days as temperatures decrease.

Try a smart irrigation system
Or use manual settings to prevent wasting water from irrigating during rain events.

Healthy Lawn and Yard Care

Fertilizing

Order a soil test every few years
Apply treatments according to what the turf and soil need. This saves time and money in the long run.

Go natural
Use grass clippings and mulched leaves (up to 50% leaf coverage) as a source of free fertilizer.

Wait it out
If you need to fertilize, strive to do so in late August/early September when grass is prepping for winter and can use it the most.

Pick carefully
If you choose to fertilize your grass, choose a "slow-release" fertilizer. Avoid "weed-and-feed" mixes, as these often generate polluted runoff and do not treat specific soil and turf needs. By law, fertilizers must contain a "0" phosphorus value except for newly created lawns (the P value is the middle number on the label).

Be strategic
Is turf the best option? Some yards have tough-to-mow spots with slopes or wet areas. If turf isn't used for play and only a mower travels over it, it could be time to try something new. Many alternatives exist including low/no-mow turf, bee lawns, sedge or other ground covers, or native plants and prairie grasses . Check out VLAWMO.org for more resources on turf options and maintenance.

Healthy yard care is all about smart habits and planning ahead.

Take time to research and learn more with graphics and videos at:
vlawmo.org/residents, metroblooms.org, bluethumb.org

Reduce and Re-route Runoff

The yard can be part of a water-storing landscape.

Raingardens

Raingardens are bowl-shaped gardens that include soil amendment (compost/sand mixtures) and deep-rooted native plants. They act like natural filters, capture stormwater runoff, and let it soak into the ground. The soil becomes enhanced by living roots ("green infrastructure") which traps and removes pollutants.

Observing how water flows in your yard after a rain event will help you identify possible locations for a raingarden. Directing the flow of stormwater from a roof to a raingarden is an excellent way to support groundwater and relieve water storage downstream.

Raingardens can also help consolidate the water in a wet, soggy yard. This puts the wet spot in an intentional, predicable space, and preserves other areas of the yard for play.

Reduce and Re-route Runoff

The yard can be part of a pollution-filtering landscape.

Native Plants

Native plants are plants that are well adapted to an area's climate, soil, and pollinator species. They have deep roots to stabilize soil and soak up water, need less watering once established, and are beneficial to native bees, butterflies and wildlife. Taking away lawn and planting native flower gardens are excellent ways to save water, improve the watershed, nurture pollinators, and add more beauty to your yard. They work well for either raingardens, native pocket plantings, shoreline restorations, or prairies. A good resource for native plants is www.bluethumb.org

Redirect Downspouts

If a raingarden or rainbarrel isn't an option, there's still ways to help the watershed. Re-directing a downspout to a grassy area gives runoff a chance to be filtered by vegetation and for some to be soaked into the soil. This can be an easy fix in areas with no basement or it could mean extending a downspout at least ten feet from a home foundation.

Reduce and Re-route Runoff

The yard can be part of a restorative landscape.

Store and Reuse Water With Rainbarrels

Rainbarrels are containers that collect rainwater from rooftops to be used in other ways such as watering garden plants.

www.vlawmo.org/grants
to learn more.

Plant Trees

Trees recycle stormwater by capturing it, storing it, and returning it back into the atmosphere. They reduce the amount of runoff that carries pollution off the landscape

Permeable Pavers

Any area that is paved like a driveway, a patio or sidewalk can be a major source of runoff into storm drains after a rainstorm. Permeable pavers allow stormwater to soak into the ground by running down into the gaps between pavers. The base of stone and soil beneath the pavers acts as a filter for pollutants.

Other Steps to Protect Our Water

Pick-up Pet Waste

Although it seems innocent and minuscule, pet waste is in the same category of water contaminants as toxic chemicals and oil.

Why?

- Dogs are abundant in urban and suburban areas, so these areas get a higher density of waste. According to the EPA*, the average dog discards about ¾ of a pound of waste per day. One hundred average sized dogs can produce up to 27,000 lbs. of waste annually.
- Pet diets are high in protein, unlike geese and deer. This makes for nutrient-dense waste that becomes a pollutant.
- Pet waste contains harmful things like hookworms, E. coli, salmonella, and more. These are a risk to pets, as well as human health.
- Picking-up pet waste promptly is the responsible choice.

Wash Smart

Washing your car at home is convenient, but it can send soap, oil, salt, and mud to a lake or wetland. Visiting a commercial car wash helps reduce this extra input by sending the dirty wash water to a treatment plant.

*Environmental Protection Agency (EPA) and Minnesota Pollution Control Agency (MPCA).

Reduce Erosion and Sedimentation

Faster stormwater runoff leads to damaged soil

Cover Bare Soil

Be attentive to bare soil and cover it quickly with sod, shrubs, mulch, or an arranged planting. Soil is more susceptible to erosion when dried out from wind or sun exposure. For temporary protection, use burlap or an erosion control blanket.

Stabilize

Consider a dry creek bed for areas that get lots of runoff at a high velocity. Place boulders or trap rock to slow runoff, giving it more time to soak into the ground, disperse, and reduce soil damage. Sometimes regrading a slope is needed as well.

Other Ways to Help

ADOPT A STORM DRAIN

Join thousands of neighbors from across the Twin Cities metro who are volunteering to clean their nearby storm drain. Adopters strive to keep their drain clean from leaves, trash, sediment, and anything else that might clog them.

Go to Adopt-a Drain Minnesota at adopt-a drain.org to get started, give your drain a fun name, or even order a yard sign.

Winter Maintenance: Smart Salting

Seek Other Options

Salt is just one of many tools for maintaining safe surfaces during winter. To help protect water quality, spend some time developing a strategy that uses a variety of products and tools including manual strategies, other deicers, grit, or sand (see page 20). Salt should never be treated as a thick "blanket" – heavy application leads to excess salt which impacts surface and groundwater.

For cases that require salt though, follow these easy directions:

Use 1 pound or less per 250 ft²

1 lb. of salt = 1 12 oz. coffee mug
1 parking space = ~162 ft²

½ to ⅓ of a 12 oz. coffee mug is enough to cover 1 parking space

1 tsp

permanently pollutes

5 gal

of freshwater

Photo: Clean Water MN

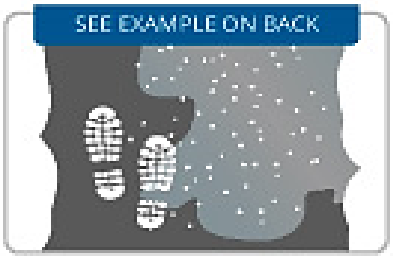
Winter Maintenance: Smart Salting

1. Shovel

Clear walkways before snow turns to ice, and before you apply salt. The more snow you clear manually, the less salt you'll need.

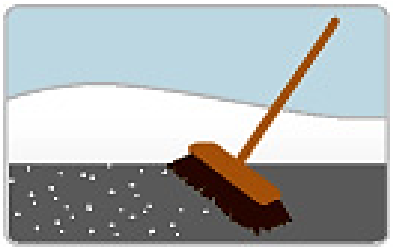
2. Select

Salt doesn't melt ice if the pavement is below 15 degrees, so use sand for traction when it's too cold, or choose a different de-icer.



3. Scatter

Use salt only where it's critical. When you apply salt to pavement, leave plenty of space between granules. A 12-ounce coffee cup of salt is enough to cover 10 sidewalk squares or a 20-foot driveway.



4. Sweep

Clean up leftover salt, sand, and de-icer to save and reuse as needed.

Protect our water!

Photo: Clean Water MN

Temperature Matters

Use the chart below to help chose the best deicer for different temperatures.

SALT AND DEICER COMPARISON

Melting Agent	Lowest Melting Temp.*	Things to Know
Urea	20°F	Promotes algae growth in waterways; over-application can harm plants; relatively pet-safe; slow-acting
Sodium Chloride (NaCl)	15°F	Harmful to plants; harmful to concrete; very corrosive to metal; cheap and abundant
Magnesium Chloride ($MgCl_2$)	-10°F	Harmful to plants; corrosive to metal; relatively high cost
Potassium Acetate	-15°F	Can cause surface slickness; lowers oxygen levels in waterways; biodegradable; relatively high-cost
Calcium Chloride ($CaCl_2$)	-20°F	Corrosive to metal; leaves slimy residue; less harmful to concrete
Sand Grit	No Melting	Provides traction only; potential pollutant; can be swept up and reused

* Refers to pavement temperatures.

Image: Mississippi Water Management Organization (MWMO)

Water Savings in the Home

Keep water in the fridge
Keep a pitcher of water in the refrigerator to reduce faucet run time as water gets cold.

Fix leaks
Leaky sinks, toilets, and pipes can waste up to 90 gallons of water each day.

On/off control
Keep water off when brushing teeth, use when needed.

Dish duty
Only run a full load of dishes. Skipping the extra rinse is often adequate and saves water.

Simple tools
Install faucet aerators and low-flow shower heads.

Shop smart
Watch for the WaterSense logo when purchasing devices and home appliances.

Learn about water softening
Visit the Minnesota Pollution Control Agency website (https://www.pca.state.mn.us) for tips on how to manage your home water softener for water quality. Small amounts of leftover water softening salt should be disposed of in the trash. Visit Ramsey County's disposal guide for more on water softeners. (https://www.ramseycounty.us/content/water-softeners)

The Good Neighbor Seasonal Checklist

SPRING

- [ ] **Mowing**
  Sharpen mower blades for the season, mow at 3” or higher to shelter soil and establish good root growth for later in summer.

- [ ] **Fertilizing**
  To encourage root growth and reduce mowing chores, fertilize in late summer/early fall instead of spring. Reserve spring fertilizing for starting a new lawn.

- [ ] **Target weeding**
  Focus weeding around Memorial Day before weeds get established. Always pull or clip seed heads before they go to seed.

- [ ] **Clean gutters, downspouts, and storm drains**

- [ ] **Sweep-up leftover salt and sand from streets and driveways**
  The street sweepers are very helpful, but if it rains before they can get to your area, debris gets washed into storm drains.

- [ ] **Get a spring car wash at a commercial car wash**

- [ ] **Fresh garden mulch**
  For gardens, freshen-up mulch beds with a shredded hardwood mulch. Lay mulch up to 4” deep to reduce weeds.

- [ ] **Pick up pet waste**
  Dispose of any droppings that got lost over winter. Try to keep a speedy pick-up habit

The Good Neighbor Seasonal Checklist

SUMMER

☐ **Mulch grass clippings**
Mulch grass clippings by leaving them on the lawn.

☐ **Mow high**
Set your mower for 3-4". This will result in a healthy lawn with deeper roots and will require far less watering.

☐ **Water wisely**
Lawns only need about 1" of water per week. Account for rainfall in your watering, aim away from hard surfaces like driveways, and water in the morning and evening hours to retain the moisture. Odd/even watering bans don't imply that watering is needed on your allocated day.

☐ **Try some brown**
Grass is adapted to go dormant during dry times such as mid/late summer. Try going with the flow and letting some of the turf to temporarily turn brown.

☐ **Sweep driveways**
Keep streets and driveways clean of debris.

☐ **Consider replacing your turf**
Tired of the lawn? Replace thirsty turf with deeper-rooted groundcovers, low-mow turf, bee lawns, or native plantings.

The Good Neighbor Seasonal Checklist

FALL

☐ Prep for spring

Fall is a great time to lay grass seed or start a bee lawn.

☐ Leaf disposal

If you prefer raking, be sure to rake and keep the leaves out of streets and away from storm drains. You can also compost leaves or dispose of them as yard waste. Leftover leaves can serve as insect habitat if they are in an area where they will not blow into storm drains.

☐ Mulch your leaves

Ever get tired of raking? Mulching can be a great way to mix things up. Chopping them into small bits with a mower helps keep them on your lawn and away from storm drains. They are also a fertilizer for your yard. Mulching can happen if leaves cover less than 50% of the lawn, then switch to raking for above 50% coverage. Compost leaves or dispose of in a yard waste program – never dispose into ditches or wetlands.

☐ Aerate your lawn

Aerating your yard in fall every few years promotes grass growth and water infiltration while minimizing soil compaction. Seeding after aeration helps grass grow without using fertilizer.

☐ Fertilize smart

If you choose to fertilize your grass, only use zero-phosphorus fertilizer and be sure the product is labeled “slow release.” Avoid weed-and-feed combination products which might not be effective for your specific conditions and will thus contribute to excessive polluted runoff.

The Good Neighbor Seasonal Checklist

WINTER

PREVENT OVER-SALTING

☐ **Shovel early and often during a snowstorm**
This way the snow has less time to get compacted and turn into ice. Don't forget a trusty ice scraper or chopper!

☐ **Use salt and deicers sparingly**
The chlorides in these products are extremely harmful to the environment. More salt doesn't melt ice any faster and leaving extra on the ground risks contamination to water, soil, grass, and other plants.

☐ **Diversify**
Use different products and tools and keep them all handy to be ready for a wide variety of winter weather. Use sand or grit for traction when it's below 15^0F and sweep it up for re-use.
Grit is the best and more responsible product for that satisfying "crunch" under the boots

☐ **Scatter the salt**
Aim for 3" of space between salt granules. Use salt or deicer only in critical areas of traffic.

☐ **Sweep**
Sweep-up leftover salt before it finds its way to storm drains. Save it stored in a dry place and reuse it later, or throw away as garbage.

Photo: Deb Hartmann

VLAWMO
Cost-Share Grant Programs

Interested in yard improvements that beautify your space while supporting pollinators, improving watershed storage, and keep our lakes and wetlands healthy? VLAWMO has grant programs that can support many of the strategies from this guide: Raingardens, rainbarrels, native plantings, alternative turf, and more. Visit **www.vlawmo.org/grants** for more information, contact info, and grant applications.

Lawns to Legumes and Soil Health Grants

Landscape Grant

Rainbarrel Grant

Photo: Clean Water MN

Resources

- www.vlawmo.org
- www.metroblooms.org
- https://bluethumb.org/
- https://www.pca.state.mn.us/
- Eastmetrowater.org

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