

# Practices to improve water quality

REDUCE RUNOFF AND  
PREVENT POLLUTION TO  
IMPROVE OUR WATER

WATER  
QUALITY

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## STORMWATER RUNOFF MANAGEMENT

Much of the rainwater that falls in urban areas, runs off rooftops and driveways to streets; through the storm sewers; and finally, to lakes, streams, or rivers without filtration or treatment. As it travels, water

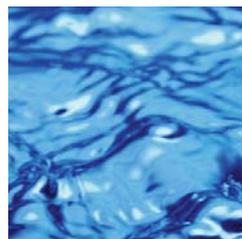
picks up a variety of pollutants, including sediment. The goal of runoff management is to keep excess water and pollutants from reaching the storm drains in your neighborhood streets.

## KEEP WATER IN YOUR YARD

Increase the opportunity for water to soak in or infiltrate into your soil. Many of our flooding and erosion problems exist because we move water too quickly off of our landscape. Water that once took days to filter through to the nearest lake, wetland or stream, has been channeled and moved off the landscape quickly through a series of impervious surfaces and pipes.

### **TO DO/Divert roof top water runoff by:**

- Moving or extending the downspouts to flow onto a vegetated area.
- Creating a rainwater garden. (see Rain Gardens, pg 19)
- Creating a water retention area with a shallow, grass-covered turf depression in the lawn.
- Stationing a rain barrel at the end of one or more shortened downspouts. (see Rain Barrels, pg 36)



### **TO DO/Reduce runoff from your driveway, patio or sidewalk:**

If you need to replace an existing hard surfaced area or would like to add an extra parking spot, patio, etc. install a porous surface that will allow water to seep through.

- Use cement or gravel tracks with a strip of vegetation in the middle for your driveway.
- Use reinforced soil products so that you can create a grass or gravel driveway.
- Place a drywell filter box of sand and crushed rock at the end of the driveway's down slope.
- Create a channel or gentle berm that diverts water running down the driveway into a rainwater garden or turf depression.
- Reduce unneeded impervious areas and replace it with vegetation.
- Slope one side of the patio toward a vegetated area.



### **TO DO/Reduce runoff from your lawn:**

Many lawns allow for little infiltration because the soil has become compacted during house construction. The following practices can increase infiltration.

- Amend and aerate your soils. (see Improving Soil, pg 4)
- Replace shallow rooted turf grass with deep rooted alternatives. (see Plant Selection, pg 7)
- Create a rainwater garden (see Rain Gardens, pg 19)

## **POLLUTION PREVENTION**

### **TO DO/Reduce pollution from impervious surfaces:**

- Clean up oil, gas, radiator fluid, and other leaks and spills on your driveway with absorbent cat litter, and then place in the garbage. Fix persistent leaks.
- Sweep any fertilizer from the driveway into the grass.
- Sweep up any grass clippings, leaves, and dirt (including those on the street).
- Avoid using salt and chemical products for ice control.
- Take your car to a commercial car wash facility, where wastewater is treated.

### **TO DO/Reduce use of pesticides and fertilizers:**

The U.S. Environmental Protection Agency estimates that homeowners and lawn care services apply nearly 70 million pounds of active pesticide ingredients (herbicides and insecticides) to urban lawns every year. Fertilizers are even more popular.

- Test your soil to determine how much fertilizer, if any, your lawn and garden needs (see Improving Soils, pg 4).
- Topdress with compost as an organic matter amendment to soil and/or lawn surface.
- Use fertilizers containing zero phosphorus if you must fertilize your lawn. Minnesota State Law prohibits the use of phosphorus containing fertilizers on existing lawns unless a soil test indicates a phosphorus deficiency. It's best to fertilize only in the fall.
- Instead of applying herbicides over the entire yard, spot treat weeds.
- Never use pesticides more than 10 years old. Bring them to a Hennepin County Drop-Off Facility (see Resources, pg 43).
- Never apply pesticides or fertilizer if rain is forecasted within the next day or two.
- Use low maintenance plants and grass varieties to reduce the need for pesticides and fertilizers.

### **TO DO/Properly dispose of pet waste throughout the year:**

During spring snowmelt and during summer storms, pet waste that is left on the ground travels with runoff directly to water resources and contributes to elevated bacteria and nutrient levels. Keep pet waste from polluting:

- Flush pet waste down the toilet, so your septic system or the sewage treatment plant can treat it.
- Seal the waste in a plastic bag and throw it into your garbage.

### **TO DO/Compost yard waste:**

It is a Minnesota state law that property owners cannot throw yard and tree waste (grass clippings, leaves, trees, stumps wood chips, garden debris, weeds) in with their household garbage. It is against some cities' ordinances to rake or blow leaves and grass clippings into the street, because they clog storm sewers and overload streams, lakes and rivers with nutrients and sediment. Here is what you can do:

- Leave grass clippings on your lawn when you mow. Decomposing grass clippings offer the same benefits as one application of fertilizer each year.
- Compost excess grass clippings and other yard waste. Yard debris will decompose into a soil amendment for your yard and garden (see Home Composting, pg 23).
- Use curbside collection or drop-off facilities for yard waste. Contact your waste hauler or city recycling coordinator.



## CONSERVE WATER

### TO DO/Water efficiently to conserve water:

- Be sure to water properly:
  - Choose the right size and type of sprinkler.  
Those that mist lose a lot to evaporation.
  - Water from 4-8 am  
(Cooler, less windy, reduced sunlight-all reduce evaporation loss.)
  - Do not water when it is windy or extremely hot.  
Water evaporates before it reaches the roots.
  - Sprinkle only plants – not pavement – to prevent unnecessary runoff.
  - Water thoroughly to a depth of 5-6 inches.  
(see Watering, pg 33)
- Rake in some compost to improve moisture retention and reduce the need for fertilizer.
- Let your grass grow longer to create a healthier root system.  
(see LiLaC: Low Input Lawn Care, pg 37)
- Spread mulch around the base of flowers, shrubs, vegetables, and trees.  
It keeps plants from losing water to evaporation and promotes plant growth.  
(see Mulching, pg 30)
- Replace some of your thirsty lawn with other attractive landscape plants that require less water. (see Landscape Design, pg 2)

### FOR MORE INFORMATION:

- Visit the Metro WaterShed Partner's tips for keeping Minnesota Water Clean at  
[www.cleanwatermn.org](http://www.cleanwatermn.org)