

Managing Stormwater Runoff

Rainwater runoff can be a major source of pollutants. The problem with stormwater runoff is that we do not always see its effect. Although the impact is easy to see on bare, exposed soil, it is less visible on a well-maintained lawn. And yet lawn runoff can be a major source of pollutants to a lake.

Nonpoint source pollution, as it is called, is an accumulation of many individual sources of pollution on a site: soil particles, pet wastes, oil, dissolved metals, pesticides, excess fertilizer and herbicides. Everything in that lawn, as well as on the streets and driveways, is carried by stormwater runoff.

Turf is not a good filter for stormwater runoff. Grass roots are shallower than the roots of native vegetation. The deeper roots of native vegetation help to hold soil particles in place and enhance aeration and infiltration.

Runoff often contains phosphorous, a plant nutrient, which can increase algae growth, and in turn lower water clarity. Just 2 pounds of phosphorus can produce 100 pounds of algae. And although runoff from lawn-to-lake lakeshore sites varies considerably, on average a lawn-to-lake lot produces 2 pounds of phosphorous per summer compared to 0.03 pound per summer for a natural shoreland lot.

Minnesota soils are often phosphorus rich. So even an unfertilized lakeshore lawn allows seven to nine times more phosphorus to enter a lake than a naturally vegetated shoreline.

Shoreline buffers can help minimize impacts associated with the lawn-to-lake style. These corridors of natural vegetation along rivers and lakes help protect water quality.

A shoreline buffer of natural vegetation traps, filters, and impedes runoff. Buffers stabilize banks of lakes and rivers, offer scenic screening of shoreland development, reduce erosion, and control sedimentation.

Simple changes make big differences

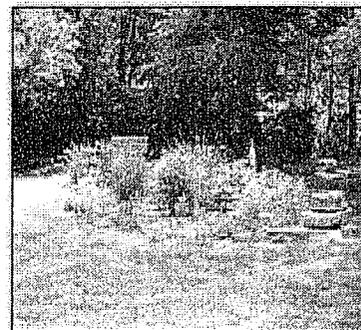
- Keep pesticides, oil, leaves and other pollutants off streets and out of storm drains.
- Clean up pet waste – bury it or flush it down the toilet.
- Redirect gutter downspouts that run onto impervious surfaces, such as driveways, patios and sidewalks so they run onto vegetated areas where they can safely soak in.

The Minnehaha Creek Watershed District is a local unit of government that manages and protects the water resources in the 181 square miles that drains to lake Minnetonka, the Minneapolis Chain of Lakes, and Minnehaha Creek.

Offices Located at:
18202 Minnetonka Boulevard
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Gardens for a Rainy Day

Rain gardens are the hottest new landscaping trend. More aptly called storm gardens, these flower patches clean up gritty storm water. Because lawns can typically soak up less than half an inch of precipitation from gentle rains, the storm water can pour in sheets off lawns and into the streets and then to nearby Minnehaha Creek or Lake Minnetonka. With an added rain garden, the airborne pollutants that collect on roof shingles wash into the bowl like garden where plants can absorb them.



A raingarden is a landscaping feature that uses native perennial plants and to help manage stormwater runoff from impervious surfaces such as roofs, sidewalks, and driveways.

Raingardens are designed with a shallow depression, so that when stormwater runs off a street, roof or driveway, it pools in the garden. Because these gardens use native plants that have long root systems, more water can be absorbed into the ground than it could in just a regular lawn with sod. The soil in raingardens also serves as a filter for any pollutants that might be picked up as water runs down the street. More information: www.minnehahacreek.org