

Keeping the Lakes Clean

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. How can that be? 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 phosphorus 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 phosphorus per summer compared to 0.03 pounds 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 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, offers scenic screening of shoreland development, reduce erosion, and control sedimentation.

**Here are some ways we can all make a difference at home, at the cabin or if we own a business:
Simple changes can make big differences**

- Keep pesticides, oil, leaves and other pollutants off streets and out of storm drains.
- Clean up pet waste – double bag the waste and throw it out in the trash.
- A simple start to managing rainwater is to 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.