



MINNESOTA WATER
LET'S KEEP IT CLEAN

Watershed and Lawn Care Tip Sheet

www.cleanwatermn.org

What is a watershed? A watershed is the surrounding land area that drains into a lake, stream, or river. It includes natural and artificial drainage systems, such as ditches and storm sewers. Even if your home is not next to a lake, stream, or river, you still live in a watershed. Every water body has a watershed that surrounds it and supplies it with water.

How do watersheds affect water quality? If we pollute the watersheds surrounding a lake, stream, or river, we're directly affecting the water quality in that lake, stream, or river. Everything we do in a watershed, from caring for our lawns and gardens to picking up our leaves, affects the local water body. Caring for your watershed is caring for your local lake or stream.

How is my watershed affecting water quality? Many events that occur in a watershed affect water quality, including the following:

Stormwater run off: In a natural watershed, rain falls on vegetated areas. Trees, grass and other plants allow the soil to soak up most of the rain that falls. In an urban watershed, rain falls on hard surfaces such as streets, driveways, and rooftops. The rainwater runs quickly over these hard surfaces and is not soaked up. This moving water is called stormwater runoff. Stormwater runoff is a result of rainfall and melting snow. As this water flows to storm sewers, it can pick up pollutants. Pollutants in stormwater runoff include oil and antifreeze from streets and driveways, leaves and grass clippings from gutters and streets, animal wastes from lawns and gutters, and fertilizers and pesticides from lawns and gardens. The loss of vegetated areas due to urbanization dramatically increases the volume of stormwater runoff. Urbanization also increases the amount of pollutants available to be picked up by stormwater.

Storm sewers: Stormwater runoff is carried directly to lakes and streams through storm sewers – pipes that run underground connecting streets and parking lots with near-by water bodies. Storm sewers are designed to prevent flooding, but also provide direct routes for pollutants to lakes, streams, and wetlands. By controlling the pollutants that enter storm sewers in stormwater runoff, we can control the amount of pollution entering our lakes and streams.

Lawn Care: Phosphorus is one of the most troublesome pollutants in stormwater runoff. Phosphorus comes from many sources, and it is the primary cause of water quality problems in our lakes and streams. Everything that is or was living contains phosphorus. It is in leaves. It is in lawn clippings. It is in animal wastes. It is an ingredient in some lawn fertilizers and most garden fertilizers. It is even attached to soil. When leaves, lawn clippings, animal wastes, fertilizers, and soil are picked up by stormwater runoff and are carried directly to our local lakes and streams, they provide the lakes with excess phosphorus. This excess phosphorus causes increased algae growth. Algae are small green plants that live in lakes and streams. Increased algae growth is observed as green algae blooms or “scums” on lakes. Too much algae is harmful to a lake system. It blocks sunlight and prevents other plants from growing. When it dies and decays, it also takes much needed oxygen away from fish. Limiting phosphorus reduces algae blooms.

You can reduce the amount of phosphorus entering a lake or stream by:

1. Keeping your leaves and lawn clippings out of the streets and gutters. Leaves and lawn clippings are a major source of phosphorus. When they are swept or washed into the nearest street or storm sewer, they end up in your local lake or stream. Keeping your leaves and lawn clippings out of the streets and gutters will have significant benefits for your local lake or stream.
2. Applying only the amount of fertilizer your lawn needs. A soil test will tell you how much-if any-fertilizer your lawn needs. Excess fertilizer may harm your lawn or pollute surface water. Fertilizer applied to your streets or sidewalks will get into the nearest lake or stream. Phosphorus from fertilizers can cause algae blooms. Use only phosphorus-free fertilizer unless you are establishing a new lawn or a soil test shows need for phosphorus fertilization – it is now Minnesota state law!
3. Controlling soil erosion around your house. When soil is left bare, rain water will run quickly over it. The moving water picks up soil particles. These soil particles have phosphorus attached to them. Some soils are high in phosphorus and are another source of phosphorus in stormwater runoff. The soil in stormwater runoff will end up in your local lake or stream and contribute to algae growth.

What can I do to help my watershed? You can help your watershed by understanding that you are part of the solution to water quality problems. Your actions affect the water and environment around us. Keeping your lawn healthy is beneficial to water quality. Plant and maintain grass and natural vegetation to help water quality by soaking up rainfall, reducing runoff, and retaining sediment. Use phosphorus-free fertilizers. Keep your leaves and lawn clippings out of the streets and gutters. Pick up your pet’s wastes. It all adds up to better water quality. And that means water that is fun and safe to swim in, live by, and enjoy.

For additional tips about how to protect Minnesota’s waterways at home visit the Minnesota Department of Agriculture’s Web site at www.mda.state.mn.us and click on the Water and Land section’s Lawn Care and Water Quality pages.

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