PRACTICAL TIPS FOR HOME AND YARD

TO IMPROVE WATER QUALITY

EGLE

MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

Did you know many of our streams and lakes have been polluted? And the cause often starts right where you live?

Water pollution begins when development changes the natural environment. When the natural vegetation is replaced with streets, rooftops, and driveways this greatly decreases the amount of water soaking into the soil. Since the water can't soak into the ground anymore significantly more water runs off the land to streams and lakes.

How does rainwater get from street to stream?

The storm sewer inlets, found in your parking lots and streets, allow water to drain into a network of underground pipes. Most storm sewers are designed to remove water quickly during a storm carrying any pollutants found on the land. These storm sewers do not go to a sewage treatment plant but flow directly to streams and lakes.

Water draining into a storm sewer. Photo by Ralph Reznick.

Where do these pollutants come from and how do they affect our streams and lakes?

Sediment, can come from wherever there is bare soil or dirty concrete. When it rains, the soil is carried to the nearest waterway. The sediment can:

- cover the gravel on the bottom of the stream that fish use for spawning and is also habitat for aquatic insects, which are food for fish;
- cause cloudy water, blocking sunlight needed for aquatic plants to grow;
- carry other substances such as fertilizers or pesticides to the water.

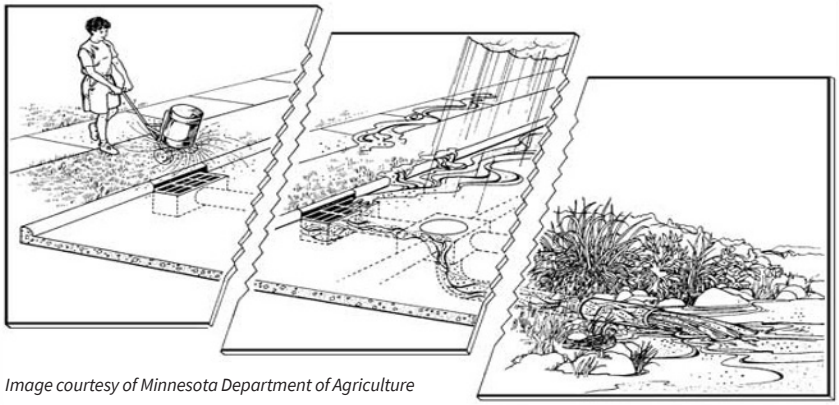

Image courtesy of Minnesota Department of Agriculture

Nutrients, mainly phosphorus and nitrogen, can come from many sources. Fertilizers, pet wastes, improperly functioning septic tanks, grass clippings, leaves and other yard wastes are all sources of nutrients. Certain levels of nutrients naturally occur in our waters. When more nutrients are added, excessive algae and other aquatic plants grow.

Many products used in and around the home contain toxic ingredients. Household cleaners, paints, pesticides and automotive products such as oil. Gas and antifreeze can all be toxic to aquatic plants and animals.

It really doesn't matter whether you live in the city or the country…whether your home is large or small…whether you have a lot of money to invest in your yard or just a little. You can help protect our streams and lakes.

YARD CARE

- Keep your grass at least three inches high. Taller grass has deeper roots, so it tolerates dry conditions.
- Use a mulching mower and leave grass clippings on your lawn. They will decompose, providing nitrogen for your lawn.
- Keep grass clippings and leaves away from storm drains, gutters, ditches, lakes and streams.
- Compost leaves and other yard trimmings. Compost will gradually release nutrients to your lawn, and helps retain moisture in the soil.
- Test your soil before applying fertilizer. Some soils already contain enough phosphorus for plant growth.
- Use no-phosphorus fertilizers, especially near water.
- Do not apply fertilizers or pesticides before or during rain, or near a river, lake or drainage ditch.
- Use slow release fertilizers on sandy soils or steep slopes where the potential for runoff is high.
- Calibrate your applicator before applying pesticides or fertilizers. As equipment ages annual adjustments may be needed.
- Allow thick vegetation such as trees, shrubs, and ground covers to grow along waterways to slow runoff and soak up pollutants.
- Select plants that have low requirements for water, fertilizers, and pesticides. Native plants that are adapted to local conditions are best.
- Animal wastes contain nutrients as well as bacteria. Pick up after your pets and dispose of the wastes in the toilet, garbage or bury it in your yard.
- Maintain or create vegetated low areas, or swales, near the roads and other areas where rain water collects to allow it to soak into the ground.
- Direct gutters and downspouts to vegetated or gravel areas to allow the rainwater to soak into the ground. Splash blocks also help reduce erosion.

- Sweep paved areas instead of hosing them down.
- Use permeable paving surfaces such as wood decks, bricks or interlocking stones to let rainwater soak into the ground.
- Seed bare soil and cover it with mulch as soon as possible. Install and maintain adequate soil erosion control measures any time soils are exposed.
- Use non-chemical methods to eliminate insects and other pests.

A planted depression that collects rainwater runoff to allow it to soak into the ground. Photo by Leslie Kellman.

HAZARDOUS HOUSEHOLD PRODUCTS

- Store all potentially polluting material inside or under cover.
- Take prevention and containment measures for leaks and spills from outdoor storage tanks and during refueling.
- Do not wash paintbrushes, scrub buckets, rags, etc. onto the ground or into a storm drain.

SEPTIC SYSTEM CARE

- Pump out your septic system every three to five years for a three-bedroom house with a 1,000-gallon tank. Smaller tanks should be pumped more often.
- Use household chemicals sparingly. Some may kill the bacteria that breakdown the waste in your septic system.
- Know the location of your septic drainfield. Keep vehicles off it. Don't plant trees and shrubs close by. Don't cover the drainfield with a hard surface such as concrete, asphalt, or decks.
- Use less water to avoid overloading your septic system, use low-flow fixtures and repair dripping faucets.
- Use your kitchen garbage disposal sparingly or not at all. Heavy use adds large amounts of solids, which shorten the time between septic tank pumpings.

VEHICLE CARE

- Wash cars, boats, and other vehicles on the lawn so the water can soak into the ground.
- Use little or no detergent to wash your vehicle. High pressure washing reduces the need for soap and reduces the amount of water needed.
- Keep cars tuned up and in good operating condition. Check for drips and repair immediately to keep oils off the pavement.
- Use kitty litter or other absorbent material on oil or other leaks and dispose of it in a waste container.
- Recycle used motor oil by taking it to a service station or local recycling center. Do not dump used motor oil down storm drains or onto the ground.

COMMUNITY ACTION

- Get involved in storm drain stenciling activities. Stenciling reminds people to keep pollutants away from storm drains
- Participate in clean-up activities near your local waterway.
- Write or call your elected representatives to express your concerns and encourage legislation to protect water resources.
- Get involved in local planning and zoning decisions and storm water management plans.
- Encourage your local officials to develop erosion and sediment control ordinances.
- Help educate people in your community about how they can help protect water quality. Get your community groups involved.

DO YOUR PART!

To learn more about nonpoint source pollution and what can be done to protect our water resources, visit our website *www.michigan.gov/nps* or contact a Nonpoint Source Program staff member by calling 517-284-5567.

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