

# WATERFRONT WISDOM — HEALTHY HABIT #3: MAINTAIN A HEALTHY LAWN AND GARDEN

As a waterfront homeowner, you have a unique opportunity to contribute to the health of your local waterway. Many activities we conduct near the waterfront, in our lawns and gardens and around our home, impact water quality. This is even more critical to riparian homeowners because runoff doesn't have far to travel before reaching the water. We can prevent water pollution by being aware that our actions DO impact water quality. We can all make a difference by practicing Healthy Habits for Clean Water.

**CHALLENGE:** Excessive aquatic plant growth, nuisance algal blooms, decreased oxygen levels, decreased aesthetics and impacts to recreation.

**CAUSE:** Excess nutrients from fertilizers and yard waste and pesticides from home lawn and garden activities can enter waterways in storm water runoff and from soil erosion.

**SOLUTION:** PROPER FERTILIZING, MOWING AND WATERING PRACTICES WILL RESULT IN A HIGH-QUALITY TURF THAT PROTECTS WATER QUALITY BY REDUCING STORM WATER RUNOFF, MINIMIZING SOIL EROSION AND IMPROVING WATER INFILTRATION INTO THE SOIL.

## WHAT YOU CAN DO

**GET A SOIL TEST:** Have your soil tested to find out which nutrients it may be lacking. Most soils tested throughout Southeast Michigan show that high levels of phosphorus are already present in the soil. Soil test kits are available through your local MSU Extension office. Soil testing should be performed about every 2-3 years, or at any site where the topsoil has been disturbed and landscape renovation is under way.

**FERTILIZE PROPERLY:** The key to minimizing off-site movement of fertilizers is to apply them at the proper rates, times and locations.

• To protect water quality, choose a fertilizer that meet these criteria:

1) Slow-release nitrogen: Natural organic fertilizer or synthetic fertilizer with 50 percent or more water-insoluble nitrogen (WIN).

2) Understand fertilizer labels:

The numbers on a bag of fertilizer refer to the percentage of primary nutrients found inside. Primary nutrients are: nitrogen (N), phosphorous (P) and potassium (K). The first number represents the percentage of nitrogen. The second number indicates the percentage of phosphorous. The last number represents the percentage of potassium. Fertilizers that protect water quality will have a middle number that is at, or close to, zero, or a formula where the N to P ratio is 5:1 or greater. For example, a fertilizer with an N-P-K ratio of 29-0-4 would qualify as an earth-friendly fertilizer.



3) Avoid weed and feed products: Choose fertilizers free of all pesticides, including herbicides.

- Calculate the area of turf to fertilize so you'll know how much product to purchase. Check the package to make sure it has the setting listed for your spreader.
- Apply the right kind of fertilizers based on whether you're fertilizing your garden or your lawn.
- Sweep excess fertilizer particles off of paved surfaces and back onto the lawn.
- Never fertilize when heavy rain is predicted.
- Lightly water after a fertilizer application (about 0.2") to move the nutrients into the root zone of the soil, but be sure not to over-water and cause runoff! To conserve water from irrigation, fertilize shortly before a light rain is forecasted (no more than 0.2").
- If you choose to fertilize only once per year—late summer or early fall is best since this is the time when the turf roots store nutrients over the winter months for future use in the spring growth season. Avoid early spring applications or when the ground is still frozen.
- Use screened compost as a top-dressing on the lawn. Compost contributes organic matter and gradually releases nutrients to the soil. The added organic matter also allows the soil to hold more moisture.
- Keep fertilizers at least 25 feet or more away from waterways.

**MOW HIGH AND LET IT LIE:** Cutting turf too short can lead to plant stress, shallow root systems and turf that is more prone to pests and weeds.

• Cut grass blades to a height of no less than three inches to promote healthy root systems and to help shade out weeds. Cut no more than the top third of the grass blade.



**Got grass?  
Mow high!**

Make your lawn easier and cheaper to maintain by mowing high—**three inches** is the rule!

The roots of your lawn grow as deep as the grass grows tall, so taller grass has deeper, healthier roots. Keep your lawn 3" or higher and never cut off more than 1/3 of the blade each time you mow. A healthy lawn tolerates hot, dry weather better—so you won't need to spend your summer watering and fertilizing.

Mow high.  
**Save time and money.**  
It's that easy.

Rouge River A joint project of the Wayne County Department of Environmental Management, the Wayne County Department of Public Works, and the Wayne County Department of Public Safety. For more information, call (800) 225-3183 or check our website at: [www.waynecounty.com](http://www.waynecounty.com). This ad was adapted from the HomeAid® National Council and is a listing of fact by the Rouge River Watershed Plan Watershed Council.

- Mulch grass clippings back onto the lawn where they'll quickly break down and provide free nutrients and organic matter to the soil. Clippings that are returned to the lawn all season can contribute up to 25 percent of a lawn's seasonal fertilizer needs. The additional organic matter in the soil also will help it to retain moisture.
- Avoid mowing directly to the edge of lakes and streams. Grass clippings can get into the water and add excess nutrients as they break down. Having turf grass directly at the edge of a lake or stream also can exacerbate erosion problems. Long grass or other vegetation at the water's edge will help to filter pollutants in runoff,

- prevent erosion and improve habitat for wildlife.
- Keep mower blades sharp—dull blades will tear the grass blade which provides opportunities for turf diseases.
- Sweep excess grass clippings off hard or paved surfaces and back onto the lawn to prevent them from getting washed into waterways.



**WATER WISELY:** Excess watering not only wastes money, but can create runoff from your property allowing more pollutants to get into area waterways through leaching or by soil erosion.

- Only give your lawn the amount of water it can actually use—which is the area limited to the root zone of the turf. Actively growing turf only needs about 0.5 to 1.5 inches of water per week. Use a rain gauge to help determine how much water your irrigation system distributes.
- Light, frequent watering supports healthy grass which naturally resists pests and disease. The consistent moisture in the soil will keep beneficial microorganisms active and minimize stress to the grass. Watering deeply and infrequently actually wastes water because the water will soak into the soil beyond the root zone of

the plant and the saturated soil will cause runoff from your property!

- The best time to water is between noon and 4 p.m. during the heat of the day when the turf is under the most stress.
- Learn to adapt in hot weather. Turf in hot, dry weather will have shorter roots, so modify your watering plan accordingly. Remember, water that infiltrates beyond the plant's root zone does not go to the plant and wastes precious water resources.
- Direct sprinklers away from impervious surfaces (driveways, patios, sidewalks) as this will waste water and cause runoff.

### PESTICIDE USE RECOMMENDATIONS:

- Practice Integrated Pest Management (IPM). This approach utilizes a system of strategies to keep pests, including insects, weeds and diseases to acceptable levels (since you can't realistically eliminate all pests). This approach minimizes disruption to the environment and promotes the reduced input of pesticides. Fundamental to IPM is the concept of "Know what the problem is before you apply pesticides."

- Make sure that you pick a product that matches your specific pest problem and apply it according to the label's instructions.
- When possible, limit pesticide use by spot-treating problem areas rather than using blanket treatments.
- Keep products off of hard or paved surfaces, such as driveways and sidewalks.

**MULCH IT:** Spread mulch, such as compost, wood chips, shredded leaves, or shredded bark around trees and plants. Mulch helps to retain moisture in the soil by reducing evaporation. It also cuts down on weeds and moderates the temperature of the soil.



**DIVERSIFY:** Incorporating a diversity of plants into your landscape will naturally inhibit disease and pests, and greatly improves habitat for wildlife. Try using a variety of native plant species—they attract beneficial insects that will keep away pests.

**CORE AERATE:** Aeration with a coring machine will promote a healthy, dense lawn by improving the ability for air, water and nutrients to reach the root zone of the turf. This will result in increased root growth and improved drainage. The fall is a great time to aerate given soil conditions at that time of year. This aerating schedule will minimize damage to your turf that may otherwise occur if aerating is done in the spring.

*This publication has been provided to you by:*

**Oakland County's 24-Hour Pollution Hotline: 248-858-0931**

**Call if you witness contamination in lakes, rivers or streams, discharges from pipes, sewage on the ground or in surface water, or a large number of dead fish in waterways.**

Funding for this project was provided by the Rouge River National Wet Weather Demonstration Project (funded, in part, by U. S. Environmental Protection Agency Grants #XP995743-08)

*Some graphics and photos provided by: Oakland County Water Resources Commissioner's Office, Michigan Sea Grant, MSU Extension, U. S. Fish and Wildlife Service, Macomb County Public Works Office Rain Garden Project, Wayne County Department of Environment, Huron River Watershed Council, City of Troy, Bloomfield Township and Environmental Consulting & Technology, Inc. A special thank you to Judy Graham of Orchard Lake for the use of her yard for some photos.*



Publication design by Environmental Consulting & Technology, Inc.