
ENVIRONMENTAL Fact Sheet



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WD-SP-2

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Proper Lawn Care within the Protected Shoreland

Helping the Environment Starts within Your Own Backyard

How you care for your lawn can have a dramatic impact on the ecosystem in and around your waterbody, not to mention the demands upon your time and resources.

The following describes the restrictions on fertilizer use imposed by the New Hampshire Shoreland Water Quality Protection Act (SWQPA) and many tips on how to maintain a healthy and yet low-impact (and low-maintenance) lawn.

Fertilizers and the Shoreland Water Quality Protection Act

Fertilizers can contaminate surface and groundwater. The phosphorus and nitrogen in fertilizers are nutrients that not only promote grass growth, but also promote excessive growth of algae in surface waters. This reduces clarity of the water and ultimately threatens survival of fish and other aquatic life (see [WD-BB-3 Lake Eutrophication](#)). Since phosphorus is the nutrient that can most adversely effect New Hampshire's waterbodies and coastal areas, proper use and application of fertilizer is extremely important.

The SWQPA prohibits the use of all fertilizers except limestone within 25 feet of the reference line of public waters. Twenty-five feet beyond the reference line, low phosphate, slow release nitrogen fertilizer or limestone may be used (see fact sheet [WD-SP-4 Shorelands Jurisdictional](#)).

Common Lawn Care Mistakes

Water: Grass does need water, but improper watering can cause problems for a lawn, such as diseases and shallow root structure. A shallow root structure may not be able to hold on to the soil during runoff and is liable to cause an ongoing erosion problem. A healthy lawn requires one good soaking of up to an inch of water per week.

Fertilizer: Quick release fertilizers and pesticides can produce a green lawn in a short time. They may also, however, disturb the natural chemical and biological balance of the lawn. The SWQPA only allows for the use of slow release, low phosphate fertilizer within the protected shoreland.

Mowing: One of the most neglected components of an otherwise healthy lawn is the lawn mower. If the tips of the grass have a jagged or uneven tip after mowing, the lawn mower blade is dull and must be sharpened.

Thatch: Grass clippings do not contribute to thatch accumulation. Thatch is a layer of undecomposed stems and roots that accumulates near the soil surface. According to a study by the University of Michigan, the rate at which thatch accumulates is determined by the type and vigor of the grass in the lawn. A thatch-prone bluegrass sod given abundant water and fertilizer forms thatch more rapidly than other grasses given less care. Cutting back on fertilizer and watering less frequently may reduce thatch.

Proper Lawn Care within the Protected Shoreland

1. Aerate the soil. Soil can naturally contain clay or be packed down. In these circumstances it is difficult for water and air to penetrate the soil. The best method of aerating utilizes a machine that removes small cylindrical cores of soil from the lawn allowing it to receive proper amounts of water and nutrients.
 2. Test the pH of your soil. Plants are happiest and grow the best with a soil pH between 5 and 7. You can have your soil tested by UNH soils lab for a small fee. They will explain how to properly balance your soil pH.
 3. Leave the grass clippings on the lawn. This is the best and most efficient way to fertilize your lawn. It will cut your mowing time by an average of 38% and will reduce the amount of solid waste in landfills. It also naturally adds nutrients like nitrogen and potassium.
 4. A single application of slow release, low phosphate fertilizer at the beginning of fall is adequate in most cases. Fertilizer may be applied no closer than 25 feet from the reference line.
 5. Maintain your grass at 2 inches or more of height. The longer the grass, the deeper the roots. Deeper roots enable the grass to tap into a large volume of nutrients and moisture. Also the longer grass will shade and discourage weeds and helps a lawn survive heat and drought. Never cut more than one third of the height of the grass.
 6. Keep a healthy well distributed stand of trees to keep grass from the full heat of the sun for too long. Seed mixes are available that are tolerant of lower light conditions. A shaded lawn requires less watering because grass is shielded from the sun's heat and will resist drying during the summer.
- Alternative: Use ground cover as an alternative to grass. Ground cover can be hardier than grass, usually has a longer root system, and often stays green without the use of fertilizers.

Expanding the Size of Existing Lawns

Before expanding the size of existing lawns, always refer to the [NHDES Shoreland Program webpage](#) and the [Vegetation Management for Water Quality](#) fact sheet to determine if your project requires a shoreland impact permit.