



“HELP KEEP  
OUR LOCAL  
WATERS  
CLEAN AND  
HEALTHY

– LAWNS AND  
LANDSCAPES”

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Management Team*

*[Following are excerpts from a  
MassDEP Guide for Lawns and  
Landscapes in Your Watershed]*

## How does lawn care affect you and your environment?

Your property is part of a watershed, an area of land from which all the surface water and groundwater flows from higher elevations downhill to a common body of water.

It's hard to imagine that a green, flourishing lawn could pose a threat to the environment. However, the fertilizers and pesticides you apply to your lawn are potential pollutants. If you improperly or excessively apply these chemicals, they can wash off your property and end up in ponds, bays, reservoirs, and other waters. Excess nitrogen and phosphorus, two key ingredients in fertilizer, may cause these waters to become overgrown with unsightly and foul-smelling algae and weeds. This overgrowth may result in fish kills, the pollution of shellfish beds and swimming beaches, and the lowering of waterfront property value. In addition, pesticides and nitrogen, which can dissolve in water, have the potential to contaminate groundwater - a source of drinking water.

Watering your lawn helps move pollutants downslope to water bodies and unnecessarily drains your drinking water supply and rivers and ponds during the drier summer months. The summer is a critical period for fish; stream flow and lake levels are at their lowest and water temperatures are at their highest. Drought impacts are often intensified by the watering of lawns.

## Designing your landscape

By first determining the natural conditions of your property, you can choose plantings that are adapted to your soil, moisture levels, and amount of sunlight. This planning can reduce or eliminate the need for lime, fertilizers, and irrigation.

- Have your soil tested for nutrient content and acidity (pH) at the University of Massachusetts Soil Testing Laboratory. Call 413-545-2311.
- Determine which areas of your property tend to be dry or wet and which areas are sunny or shady. You can draw a simple map that describes the conditions on your property to help you plan your landscape and choose appropriate plantings.

## Choosing grasses and other plants

- Select plants according to your property's natural conditions and group plants with similar needs to minimize unnecessary watering and fertilization.
- Select a grass variety that is best suited to the conditions on your property and in New England. In most areas of Massachusetts, tall fescue is the most suitable grass. It is drought tolerant, resistant to disease and pests, and can often survive New England winters.
- For shady and less fertile areas, fine fescues such as red fescue are a good choice.
- Use a blend of grass seeds to make your lawn more tolerant of pests and resistant to disease.

## Watering your landscape

It is natural for your grass to turn yellowish during hot, dry spells. This is a normal state called dormancy, which a healthy lawn can withstand. If you choose to water your lawn:

- Water in the early morning to prevent the growth of fungi and minimize evaporation.
- Water deeply and infrequently. Deeper watering encourages the roots of grass to grow long and healthy, allowing your lawn to survive drier periods and saving money on your water bill.
- Most lawns need less than one inch of water to saturate grass roots 4-6 inches in length. Place an empty coffee can in the watering area and measure the amount of water in the can to determine when you have watered enough.

## Mowing your lawn

Proper mowing is one of the most important ways to maintain a healthy lawn.

- Mow only when the grass is dry to get a clean cut and minimize the spread of disease.
- Mow grass to a height of 2-3 inches. The longer the grass, the more water is retained and the longer the roots of your lawn will be, making it stronger and more tolerant. Keeping your grass longer also may allow it to outcompete weeds, reducing the need for herbicides.
- Mow frequently, cutting no more than a third of the height of the grass at a time. Cutting more grass than this at one time and mowing infrequently can damage your grass.
- Sharpen your mower blade to avoid damaging grass blades. Mower blades should be sharpened once a year and touched up after every 10 hours of mowing.

## Fertilizing your landscape

Grass clippings contain high amounts of nitrogen, a key ingredient in fertilizer. Use your grass clippings by leaving them on your lawn. It may be all the fertilizer you need, and it will save you time and money.

Clippings are approximately 85 percent water, so they usually decompose within a week and will not smother your lawn. The easiest and most common way to spread clippings is called mulching; mulching mowers cut the grass into smaller pieces and then blow them back onto your lawn. If your soil test and

the plants you have chosen demand that you apply fertilizer in addition to your clippings:

- Use organic or slow-release fertilizers; these types are less likely to wash off your lawn than inorganic or fast-release fertilizers
- Fertilize in the fall, but beware of weather patterns. Although some rainfall is helpful in distributing fertilizer, a heavy downpour will wash the fertilizer off your lawn and into nearby waters.
- Be careful not to apply more than recommended amount of fertilizer. Too much fertilizer can burn the grass, damage the soil, and attract pests.

## Protecting your landscape from pests

Although pesticides appear to be a good solution for lawn and garden pests, there are drawbacks to pesticide use for you, your landscape, and the environment. Pesticides, by definition, are toxic substances which may pose risks to people, pets, and wildlife. There are many alternatives to pesticide use, such as beneficial insects like ladybugs and spiders, beneficial parasites like nematodes, and certain beneficial bacteria.

If you decide to use a pesticide, choose one that is selective for a specific pest. Many pesticides are non-selective and may kill desirable insects and plants. Whether you choose chemical pesticides or biological alternatives, carefully follow the product instructions.

### Contact information

For more information on stormwater topics, visit the Town webpage  
<https://www.plymouth-ma.gov/engineering/pages/stormwater>

Additional guidance is available at the U. S. Environmental Protection Agency website  
[www.epa.gov/nps](http://www.epa.gov/nps)

Massachusetts Department of Environmental Protection stormwater website also provides helpful information about reducing impacts of runoff on brooks, lakes and marine waters.

Lake and watershed groups in Town also offer stormwater guides on their websites.