

Landscaping



The Vermont and New York Master Gardener Programs, supported by the University of Vermont and Cornell Extension and Lake Champlain Sea Grant, support the objectives of the Lake Champlain Management Plan and Basin Program. This factsheet is intended to help prevent or reduce pollution coming from residences within the Lake Champlain Basin.

Development on open land and in wooded areas has increased the area covered by buildings, paved surfaces, and turf. This development causes increased runoff that carries contaminants. This phenomenon occurs more rapidly after a storm. Storm sewers carry most runoff untreated into surface or groundwaters, where it poses a serious threat to our water quality. Gardeners can help reduce the runoff problems by reducing the volume of water leaving their property. Lawn and garden runoff and eroded sediments can also be a source of phosphorus, a nutrient that poses important threats to Lake Champlain.



Water flow

Start by watching the pattern of water flow on and around the garden and lawn. Does overflow run off in a heavy rain, carrying soil with it, exposing plant roots? Does the water penetrate to plant roots when watering, or does it run uselessly down the sidewalk, driveway, or alley and into the storm drains?

Making landscape choices

Your landscape choices can improve the beauty of the garden and the water quality of streams, rivers, lakes, and groundwater. Properly selected plants or landscaping features can reduce runoff and minimize the amount of pesticides and fertilizers applied to lawns and gardens. Plant selection, turf areas, types of walks and decks, and control of water flow affect water quality in nearby streams and in Lake Champlain.



Selecting plants with needs that match what the site can provide will minimize maintenance, enhance plant health, and reduce the need for fertilizers and pesticides.

Turf choices

Turf can remain an integral part of the landscape without being a heavy user of water, fertilizer, and pesticides. Good quality turf can be maintained with limited use of chemicals. When a new lawn or renovation is planned, select turfgrass types and varieties that are low-maintenance and disease-resistant. It is not wise to grow grass:

- in dense shade with shallow tree roots
- where maintenance is difficult (under low branches, on steep hillsides, etc.)
- where intense traffic tramples all vegetation and compacts the soil

The **lake-friendly gardening** strategy for landscaping is to plant low-maintenance, disease-resistant species and varieties, and follow xeriscaping principles.

Plant selection

All plants have their own special requirements in terms of sunlight, moisture, temperature range, soil type, and fertility needs. A plant living in less than optimum conditions will not be as healthy as it could be under ideal conditions.

If you decide to reduce the area devoted to lawns, use ground covers such as bearberry, vinca, shrubbery, borders, and trees. These types of plants help to:

- give an increased sense of space
- reduce home heating and cooling costs by blocking

the cold winds of winter and providing shade in the summer

- encourage birds, many of which are natural predators of bothersome insects, by providing nesting sites and creating wildlife habitat
- reduce the use of chemicals (properly selected and planted woody plants generally require less chemical applications)
- reduce the amount of water needed
- allow for more time to enjoy the garden, because less time must be spent maintaining it

Selecting walkways

Concrete and asphalt seal the land—eliminating infiltration and causing runoff in areas that could otherwise soak up the water. Following are some paving surfaces that can offer permeability as well as durability.

Modular pavers

In moderate traffic areas where turfgrass is desired, modular pavers can be used. This category includes stone, brick, and lattice paving blocks. They can be used on any well-drained soils and must be placed on a base of crushed stone or sand. To further camouflage these blocks, soil can be placed in open spaces between bricks and grass seeds sown. Maintenance is similar to rest of the lawn.



Wood decking

A low deck, with a 2-inch x 6-inch board surface, serves as an attractive and functional ground surface. Heights can vary to make a yard more interesting and to suit the terrain. Properly designed decking constructed with appropriate material (either cedar, redwood, or treated wood) will last a long time. Spaces between the

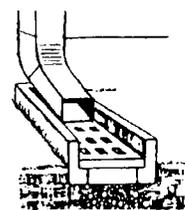
boards allow for the easy infiltration of rainwater. Decks generally shade out most weed growth. About 1/2 to 3/4 of an inch of pea gravel, 2 to 3 inches deep, will allow for infiltration of water and reduce erosion under the deck.

Stones or gravel

Stones or gravel can make attractive surfaces. Be sure to use porous sheeting (sometimes referred to as “landscape fabric”) underneath to help stabilize gravel and to control weeds while permitting water infiltration.

Controlling runoff

Think about the ultimate destination of rainwater. Runoff from roofs and paved surfaces can be deflected onto and spread over well-drained soil where infiltration occurs. Encourage retention and infiltration by doing the following:



- Use gravel or modular pavers installed in low-lying areas where runoff may be detained, allowing it to infiltrate the soil more efficiently.
- Use gravel seepage pits or a series of infiltration beds underlain by either a gravel or tile drainage system.
- Along driveways and pathways, use gravel trenches or curtain drain (a type of drain used to collect and divert shallow groundwater away from foundations, driveways, leachfields, etc.).
- Use terracing to allow heavy rains to soak into the soil rather than run off and cause erosion.
- Direct runoff across vegetated surface.

Remember: Runoff contains the sediment, nutrients, and other materials that pose important threats to our waterways and to Lake Champlain.

Master Gardener Program

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