

## Pre- and Post-planting Tips

- Before planting a buffer garden, remove any invasive plants such as purple loosestrife or phragmites and competing vegetation. (First, contact your local conservation or inland/wetlands commission to see if local permits are required.)
- Choose native plants for the buffer garden. Native plants survive with little care and are resistant to most diseases and insects.
- Keep the buffer garden natural, not “manicured.” Fallen leaves and twigs help the buffer break down pollutants and soak up water. The woody debris that falls into the water provides hiding places and resting pools for fish. Cut large trees that might fall from a steep bank if they are likely to pull the riverbank with it, but leave the root system in place.
- After planting the buffer garden with trees and shrubs, cover the bare soil with less-competitive cool-season grasses to hold it in place and discourage weeds while the plants become established — or use properly installed sediment and erosion controls such as silt fencing and straw bales. Check their effectiveness after every rain storm.

## About HVA

HVA is the only nonprofit organization dedicated to protecting water and land in our entire Housatonic River valley, covering 2,000-square-miles from the Berkshires to Long Island Sound.

For more information about our many programs, to become a member or to volunteer call 800-TEAM-HVA



Protecting Your Backyard

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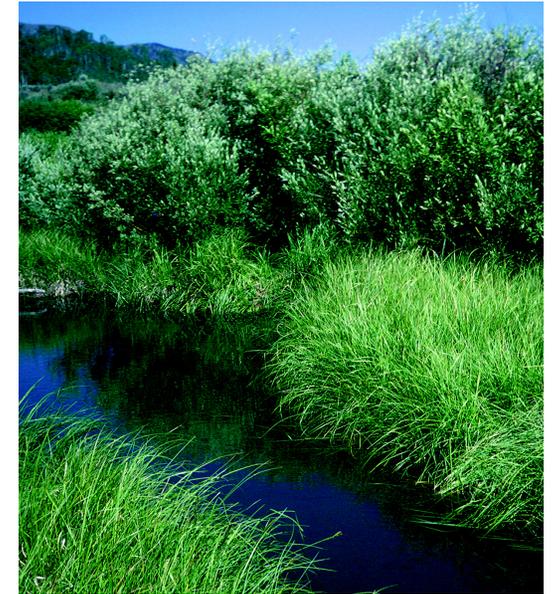
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### WEBSITE

[www.hvatoday.org](http://www.hvatoday.org)

### FOR MORE INFORMATION:

<http://berkshireplanning.org/4/1/#buf>  
[www.crjc.org/riparianbuffers.htm](http://www.crjc.org/riparianbuffers.htm)  
<http://www.mass.gov/dfwele/river/rivfstoc.htm>  
<http://www.parker-river.org/buffers/buffergardens.pdf>  
<http://www.massnativeplants.org/>



## Protecting Your Water's Edge

**A** buffer along your waterfront property is an easy and common sense way to protect your most valuable asset — your backyard water's edge.

It helps protect the environment by preventing pollution from reaching the water. And a clean waterway protects your property values, too.

According to the U.S. Environmental Protection Agency, runoff from lawns, roads and rooftops is the *number-one cause of pollution* of our waterways. This means the extra fertilizer from your lawn, oil and gas from your driveway and roads, soil from building sites, litter, pesticides, sand and salt are polluting our rivers and lakes more than any other source.

HVA'S BUFFER GARDEN PROGRAM IS FUNDED THROUGH THE GENEROSITY OF

Massachusetts Environmental Trust  
Massachusetts Riverway Program  
Berkshire Garden Club  
Berkshire Environmental Fund

### PHOTOGRAPHS

COURTESY OF THE NATIONAL RESOURCE CONSERVATION SERVICE.

### DIAGRAM INSIDE LEFT PANEL

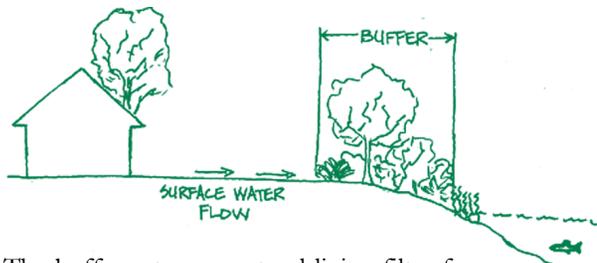
COURTESY OF THE PARKER RIVER CLEAN WATER ASSOCIATION

### CENTER DIAGRAM

COURTESY OF THE CONNECTICUT RIVER WATERSHED COUNCIL

## What is a waterfront buffer garden?

A waterfront buffer is an area of trees, shrubs and wildflowers (planted or natural) along a riverbank or lakeshore. It is called a “buffer” because it protects the water from pollutants and disturbances from our activities.



The buffer acts as a natural living filter for rainfall runoff, trapping sediment, debris and pollutants before they enter the waterway. By



allowing water to soak into the ground, wells are recharged and flooding is reduced. The plant roots hold soil in place, controlling erosion, which can cloud the water and harm aquatic habitats.

Because they shade the water’s edge, trees and shrubs keep water temperatures cooler, thereby providing better habitat for healthy amphibian, fish and other aquatic life.

Buffer gardens provide food and habitat for wildlife. Seasonal blooms and autumn color give homeowners beautiful views along the water’s edge attracting butterflies and birds — and a measure of privacy by screening views of those on the water as they look to the shoreline.

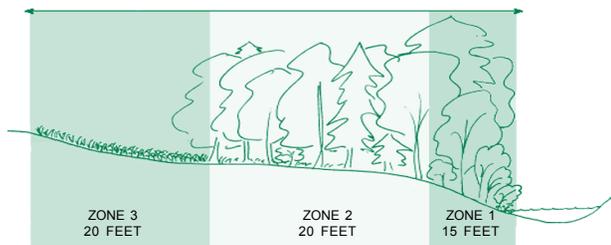


## How to plant your buffer garden

### How buffers work

A buffer strip garden consists of three distinct planting zones, each performing different but related tasks. Together these zones create a low-cost, low-maintenance system to protect and restore the shoreline environment.

The recommended width of a functional buffer is 55 feet, divided as seen in the diagram below: Generally a narrower buffer is less effective. However, you may reduce the width of the buffer if your lot is small or has few pollution, sedimentation, and runoff problems.



### Planting Zone 1

The first buffer zone runs from the waterline to 15 feet inland. This zone uses trees and shrubs with dense and thick root systems to hold the soil, stabilize the bank, and reduce soil erosion. In addition, the plants shade the water’s edge, reducing water temperatures. They provide shelter, food, and nesting areas for birds plus act as windbreaks and snow traps to keep soil moisture near optimum levels for longer periods. Plants in Zone 1 are primarily trees, with some wetland shrubs along the shoreline.

#### Trees

Eastern hemlock	<i>Tsuga canadensis</i>
Ginkgo	<i>Ginkgo biloba</i> (not native)
Heritage birch	<i>Betula nigra</i> “Heritage”
Sycamore	<i>Platanus occidentalis</i>
Green ash	<i>Fraxinus pennsylvanica</i>
Honeylocust	<i>Gleditsia triacanthos</i>
Pin oak	<i>Quercus palustris</i>

### Planting Zone 2

The second buffer zone consists of a 20-foot-wide band of small trees and shrubs. The roots of the plants help control erosion, trap nutrient pollutants such as fertilizers, and catch chemical pollution such as pesticides both from runoff and flooding.

#### Small trees and shrubs

Serviceberry	<i>Amelanchier spp.</i>
Nannyberry	<i>Viburnum lentago</i>
Red osier dogwood	<i>Comus stolonifera</i>
Red-twig dogwood	<i>Comus alba</i>
Winterberry	<i>Ilex verticillata</i>
Rosebay rhododendron	<i>Rhododendron maximum</i>
Swamp azalea	<i>Rhododendron viscosum</i>
Swamp rose	<i>Rosa palustris</i>
Sweet Pepper Bush	<i>Clethra alnifolia</i>
Pussywillow	<i>Salix discolor</i>
Highbush blueberry	<i>Vaccinium corymbosum</i>

### Planting Zone 3

The third buffer zone is also 20 feet wide and consists of herbaceous plants designed to slow and filter runoff as it enters the buffer system, as well as to trap some of the pollutants in their



root systems. By slowing down the runoff, the Zone 3 plants allow the plants in Zone 2 to further trap and filter the contaminants. Using flowering perennials in Zone 3 provides beauty as well as pollution control.

#### Perennials

Yarrow	<i>Achillia spp.</i>
Japanese iris	<i>Iris ensata</i>
Royal fern	<i>Osmunda regalis</i>
Swamp rose mallow	<i>Hibiscus moscheutos</i>
Joe-Pye weed	<i>Eupatorium spp.</i>
Meadowsweet	<i>Filipendula palmata</i>
Turtlehead	<i>Chelone glabra</i>
Eualia grass	<i>Miscanthus sinensis</i>
Daylily	<i>Hemerocallis spp.</i>