



**City of Newton, Massachusetts**  
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## NATURALLY VEGETATED BUFFERS

### WHAT ARE NATURALLY VEGETATED BUFFERS ?

A natural vegetated buffer is a protective wooded border between a waterbody and human activity or landscapes, such as lawns or pavement. They are "living filters." They capture a lot of the sediment, pollutants, and nutrients that travel through them with stormwater. Natural physical, chemical, and biological processes in buffers trap and transform these pollutants, protecting the health of our waterbodies and waterways.

### THE BENEFITS OF BUFFERS

Vegetated buffers have a combination of physical, biological and chemical processes that trap stormwater and sediments and breakdown pollutants such as excess nutrients and toxicants.

- **Buffers Reduce Stormwater Runoff.** Vegetated buffers disperse and slow down the flow of surface waters, extend retention times, reduce erosion, and increase infiltration. The stems of plants and leaf litter within the buffer physically slow the pace of surface runoff. Buffers can reduce local flooding.
- **Buffers Capture Pollution.** The slower the movement of water, the less power it has to erode soil and carry sediment. As the velocity of runoff is slowed, the debris and sediment that is traveling in runoff gets filtered out. The longer that runoff is in contact with the soil, the more time plants and soil microorganisms have to absorb and transform pollution into less harmful forms. Lots of pollutants adhere to sediment, so the more sediment that is trapped, the greater the reduction in pollution.
- **Buffers Provide Wildlife Habitat.** Vegetated buffers create and protect valuable wildlife habitat and wildlife corridors. They provide food, shelter, breeding, hunting, and nesting habitat for a wide variety of wildlife.
- **Buffers Provide Benefits to Home Owners.** A mix of trees, shrubs and herbaceous plants can provide privacy. Attractively vegetated buffers with mature vegetation can provide increased property values. Mature trees provide shade in the summer and allow solar rays through bare branches in the winter, making homes more comfortable and inexpensive to maintain. Vegetated buffers also provide seasonal charm, from fern fiddleheads in spring, to wildflowers in summer, to fruit-bearing shrubs in fall. Such diversity will likely attract wildlife, allowing homeowners to enjoy birds, butterflies, amphibians, reptiles, and mammals.

### CREATING BUFFERS

Installing a naturally vegetated buffer can be as easy as converting a strip of lawn near a waterbody to a border of native shrubs and flowers, and letting nature do the rest. Planting native vegetation near wetlands can be done without a conservation permit, as long as the installers ensure that erosion doesn't occur while the newly planted (and disturbed) area is becoming established. Native plants are adapted to thrive in local conditions and they provide much needed food and habitat for native wildlife. Following is a list of native plants commonly used in buffer zone plantings.

<b>Scientific Name</b>	<b>Common Name</b>	<b>Habit</b>	<b>Sun</b>	<b>Water</b>
<i>Acer rubrum</i>	Red maple, Scarlet maple	Tree	Sun, Part-shade	Moist
<i>Acer saccharinum</i>	Silver maple	Tree	Sun, Shade, Part-shade	Moist
<i>Adiantum pedatum</i>	Maidenhair Fern	Fern	Shade, Part-shade	Moist
<i>Anemone canadensis</i>	Canadian anemone	Herb	Shade, Part-shade	Moist
<i>Campanulastrum americanum</i>	American bellflower	Herb	Part-shade	Moist
<i>Cercis canadensis</i>	Eastern redbud, Redbud	Tree	Shade, Part-shade	Moist
<i>Conoclinium coelestinum</i>	Blue boneset, Mistflower	Herb	Sun, Part-shade	Moist
<i>Cornus alternifolia</i>	Alternateleaf dogwood,	Shrub	Shade, Part-shade	Moist
<i>Eutrochium purpureum</i>	Purple joeypyeweed	Herb	Sun, Shade, Part-shade	Moist
<i>Kalmia latifolia</i>	Mountain laurel, Calico bush, Kalmia	Shrub	Part-shade	Moist
<i>Malus coronaria</i>	Sweet crabapple, American crab	Tree	Part-shade	Moist
<i>Matteuccia struthiopteris</i>	Ostrich fern	Herb, Fern	Shade, Part-shade	Moist
<i>Nyssa sylvatica</i>	Blackgum, Black tupelo	Tree	Sun, Shade, Part-shade	Moist
<i>Osmunda claytoniana</i>	Interrupted fern	Herb, Fern	Shade	Moist
<i>Quercus coccinea</i>	Scarlet oak, Red oak	Tree	Sun	Moist
<i>Rhododendron arborescens</i>	Smooth azalea, Sweet azalea	Shrub	Part-shade	Moist
<i>Rudbeckia laciniata</i>	Cutleaf coneflower	Herb	Sun, Shade, Part-shade	Moist
<i>Symphotrichum novae-angliae</i>	New England aster	Herb	Part-shade	Moist
<i>Tsuga canadensis</i>	Eastern hemlock	Tree	Shade, Part-shade	Moist
<i>Acer saccharum</i>	Northern sugar maple	Tree	Sun, Shade, Part-shade	Moist, Dry
<i>Aquilegia canadensis</i>	Eastern red columbine	Herb	Shade, Part-shade	Moist, Dry
<i>Asclepias tuberosa</i>	Butterflyweed, Butterfly milkweed	Herb	Sun, Part-shade	Moist, Dry
<i>Betula lenta</i>	Sweet birch, Black birch	Tree	Shade, Part-shade	Moist, Dry
<i>Cornus florida</i>	Flowering dogwood	Tree	Shade, Part-shade	Moist, Dry
<i>Pinus strobus</i>	Eastern white pine	Tree	Sun, Shade, Part-shade	Moist, Dry
<i>Prunus serotina</i>	Black cherry	Tree	Sun, Shade, Part-shade	Moist, Dry
<i>Prunus virginiana</i>	Chokecherry	Tree	Sun, Shade, Part-shade	Moist, Dry
<i>Quercus alba</i>	White oak	Tree	Sun, Shade, Part-shade	Moist, Dry
<i>Rudbeckia hirta</i>	Black-eyed Susan	Herb	Sun, Shade, Part-shade	Moist, Dry
<i>Thuja occidentalis</i>	Arborvitae, Northern white cedar	Tree	Sun, Shade, Part-shade	Moist, Dry
<i>Tilia americana</i>	American basswood, Am. linden	Tree	Sun, Shade, Part-shade	Moist, Dry
<i>Vaccinium angustifolium</i>	Lowbush blueberry	Shrub	Sun, Shade, Part-shade	Moist, Dry
<i>Ilex opaca</i>	American holly, Christmas holly	Tree	Sun, Shade, Part-shade	Wet, Dry
<i>Amelanchier canadensis</i>	Servicberry, Shadblow, Juneberry	Tree	Sun, Shade, Part-shade	Wet, Moist
<i>Claytonia caroliniana</i>	Carolina springbeauty	Herb	Part-shade	Wet, Moist
<i>Lobelia cardinalis</i>	Cardinal flower	Herb	Sun, Shade, Part-shade	Wet, Moist
<i>Osmunda cinnamomea</i>	Cinnamon fern	Herb, Fern	Sun, Shade, Part-shade	Wet, Moist
<i>Osmunda regalis</i>	Royal fern	Herb, Fern	Shade, Part-shade	Wet, Moist
<i>Rhododendron maximum</i>	Great laurel, Rosebay rhododendron	Shrub	Part-shade	Wet, Moist
<i>Gaylussacia baccata</i>	Black huckleberry	Shrub	Sun, Shade, Part-shade	Wet, Moist, Dry

Contact the Newton Conservation Office with any questions.