How to Create a Streamside Vegetative Buffer Garden

Vegetative buffers help stabilize stream and pond banks, prevent erosion, slow runoff, and provide food and shelter for a wide array of wildlife.

Buffers can also be backyard gardens - inviting places to stroll while enjoying views of the stream they protect.

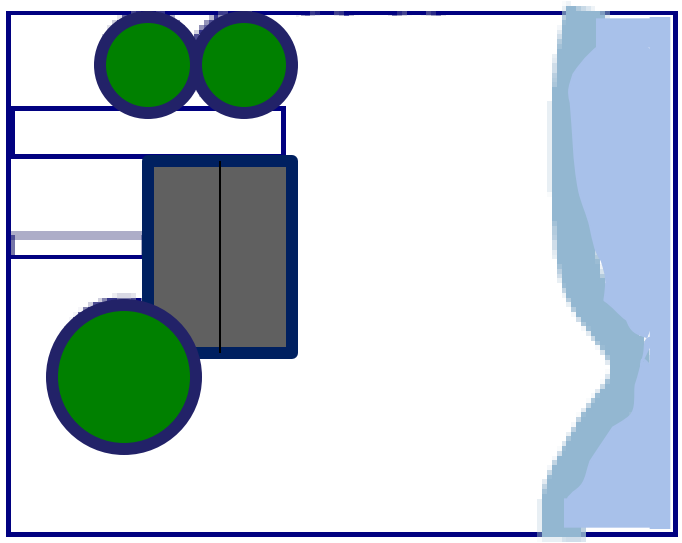
It is fun and relatively easy to create a streamside buffer garden

Designing Vegetative Buffers:

Getting Started

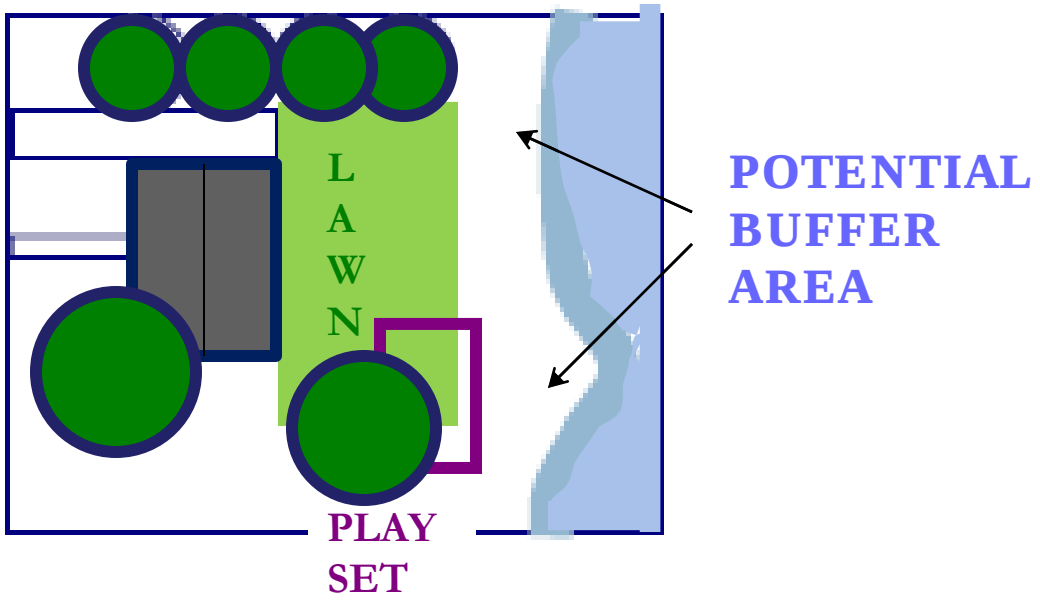
Size Up your Waterfront Buffer Garden

To design your buffer you need a property plot plan. A plot plan is usually available at town hall. Or, you can create one by measuring the distances between your house, driveway, garage, etc. and the water.

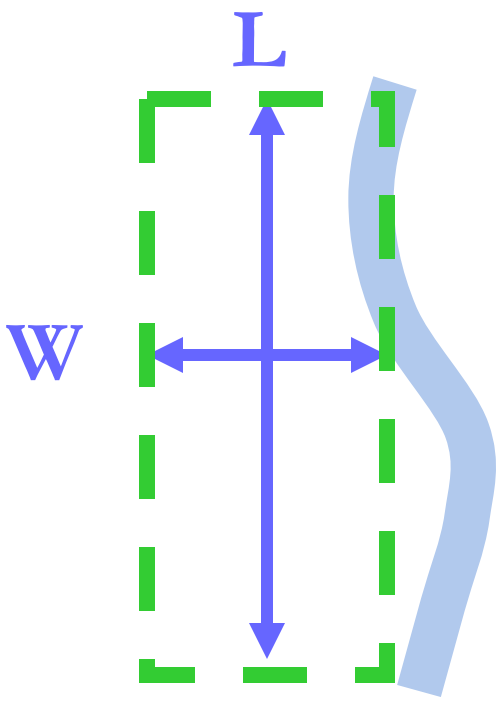


On the plot plan, roughly sketch how much lawn you need for family activities. Draw in existing trees and landscaping.

The remaining yard area, adjacent to the water, is your potential buffer garden.

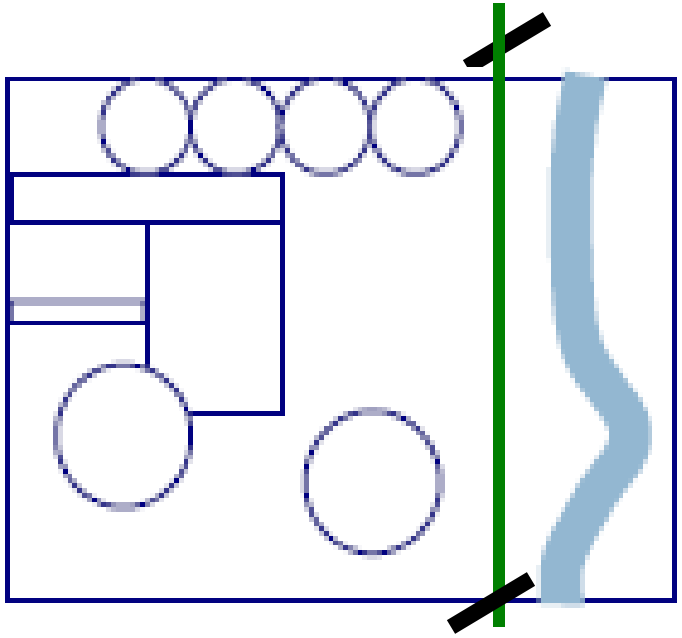


To determine the best size for your buffer garden consider how long of an area is available along the water, and how wide of an area is available.



LENGTH is important. Wildlife travel the length of waterfront corridors seeking food and shelter. Try to create a buffer garden along the entire length of the water on your property.

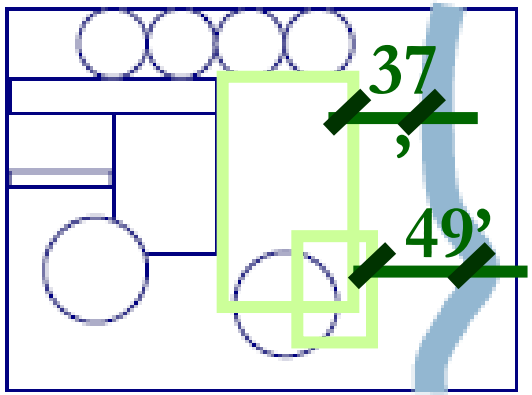
Foot paths through the buffer can provide you with access and views of the water.



WIDTH is also important. The wider the buffer the more effectively it will:

- intercept and filter runoff
- stabilize the soil to prevent erosion, and
- support wildlife

Conservationists recommend a 35 foot wide buffer, but a narrower buffer is better than no buffer at all!



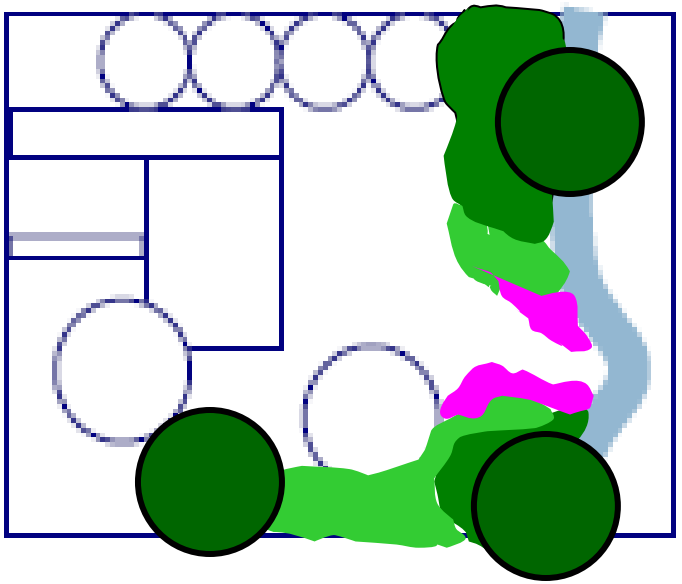
Designing Vegetative Buffers:

Designing for Everyday Beauty and Pleasure

If you are like most people your property has access to the water on your property because you enjoy *the sight and sound of the water.*

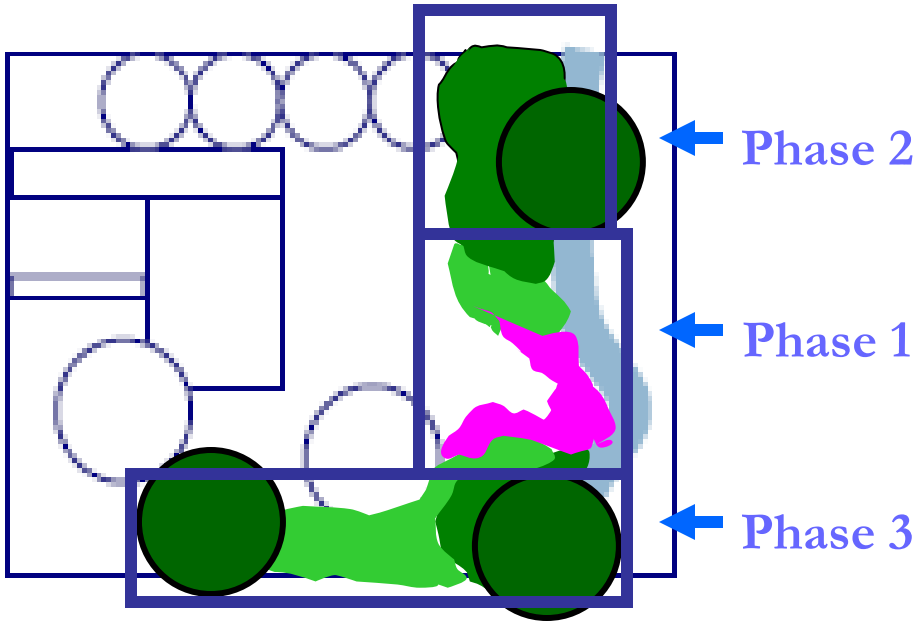
Your buffer garden should preserve and enhance this relationship with the water. It should also include plants with shapes, blooms, colors and odors that are pleasing to you as well as the local birds, bees, butterflies, and aquatic life.

TO START, sketch a design on your plot plan showing where you want trees, shrubs, flowers, ornamental grasses and ferns. Also sketch in walking paths and views of the water.



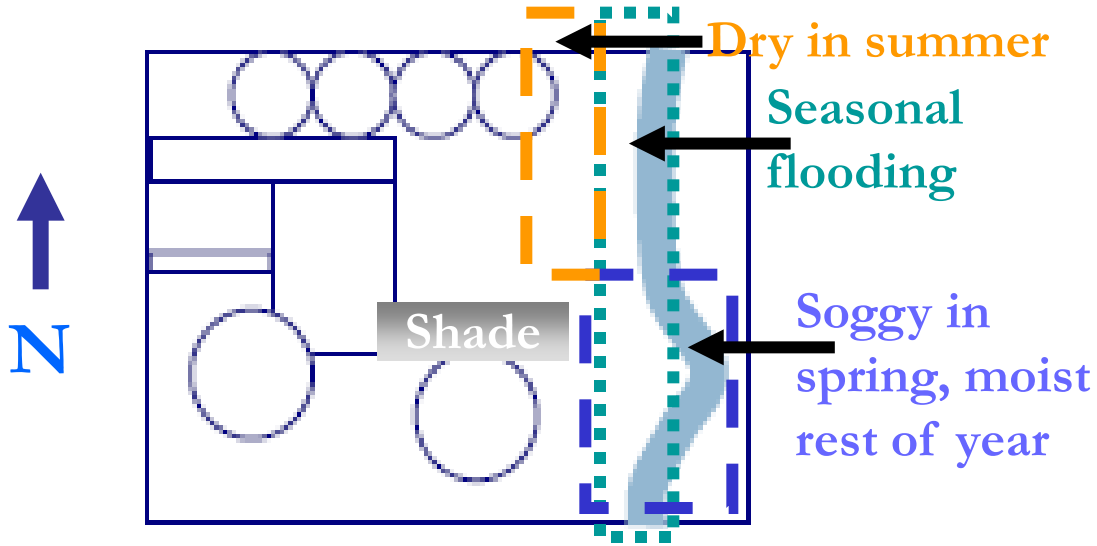
A good way to preserve views to the water is to plant shorter plants along the paths, and larger plants at the outer “frame” of view.

If you have limited time or budget, start small. Plant as much buffer garden next to the water as possible, and in subsequent years add more plantings to lengthen, or widen, your buffer garden.



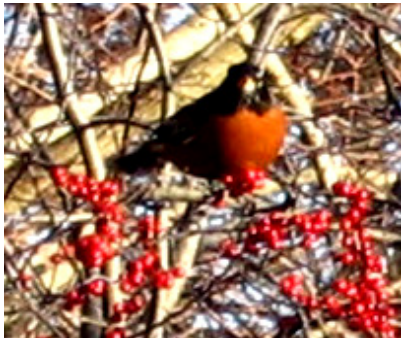
Before deciding what to plant, consider the environmental conditions in the buffer garden.

You will need an idea of the soil moisture, acidity, and fertility, and of light conditions. Note how wet or dry the planting area is, and how sunny or shady it is. Also note areas that are seasonally wet or flooded, and/or seasonally dry and hot.



When choosing plants that fit your plan and garden conditions, consider species native to southern New England first. They are adapted to our climate and are tolerant of the local soils and pests.

Native plants also attract native wildlife. The flowers, fruit, and cover they provide are often essential to native bird and butterfly survival.

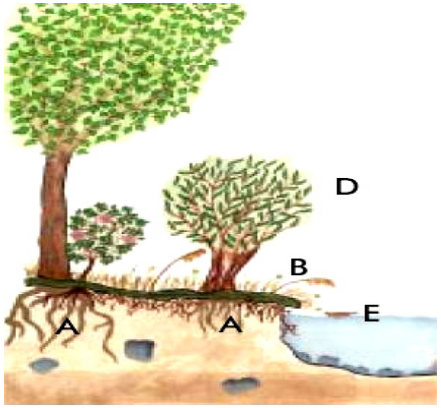


Diversify your buffer garden by choosing a variety of trees, shrubs, grasses and flowering perennials. A mixture of plant heights and colors will add visual interest …

Before planting a buffer garden.

After planting a buffer garden

…and different plant types work together to better protect the stream. Tree and shrub roots grow deeply, preventing undermining of banks. Perennials and meadow grasses intercept runoff and help keep soil from eroding.



A Natural Buffer
Agriculture and Agri-Food Canada,
http://www.agr.gc.ca/index_e.php

Tree Roots Holding the Bank
www.dnr.state.md.us/forests/anacostia/anacostia.html

Designing Vegetative Buffers:

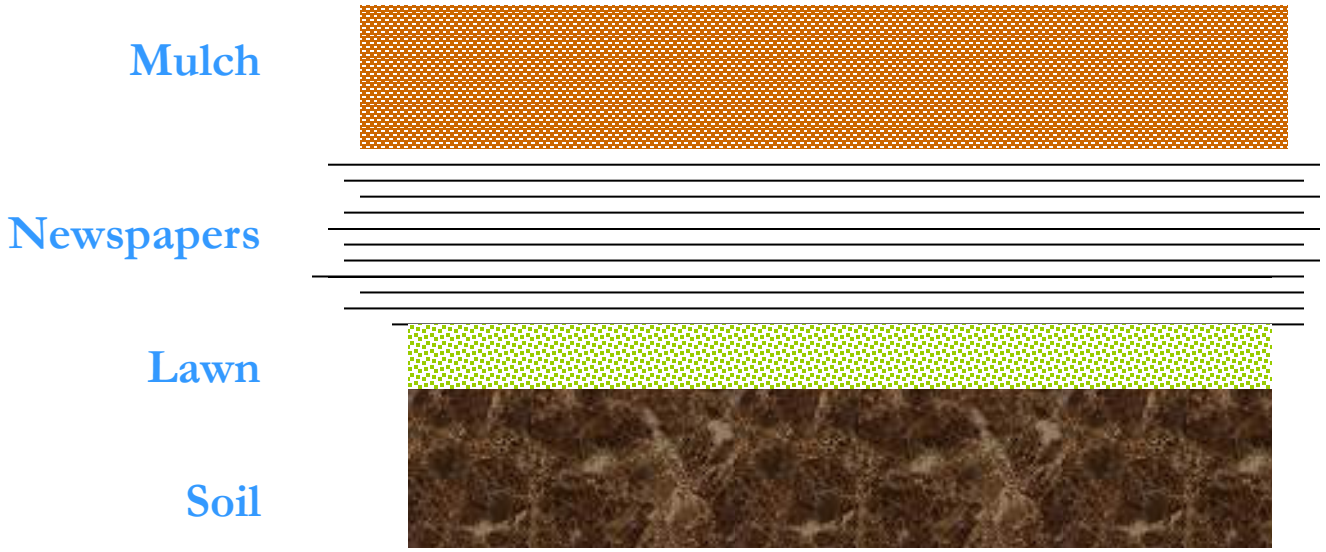
Implementing Your Design

Using your design sketch, mark out the planting areas either by eye or with a measuring tape. Stakes, flags, flagging tape or temporary spray paint can be useful when marking out the various planting areas of your buffer garden.

To prepare the buffer garden for planting that is already in lawn, you will need to clear the lawn, and turn the soil. You may also choose to lay down a layer of mulch before you plant, although it can be added afterwards.

If you are planting an area that was lawn, and it is flat, you can use a sod-stripper or rototiller…

… or you can use a smothering technique. To smother, lay a thick layer of newspapers (up to 12 sheets!) on the grass and cover with 4-6” of mulch. Grass can also be smothered by covering it completely with black plastic or cardboard until it turns brown and dies (this takes some time).

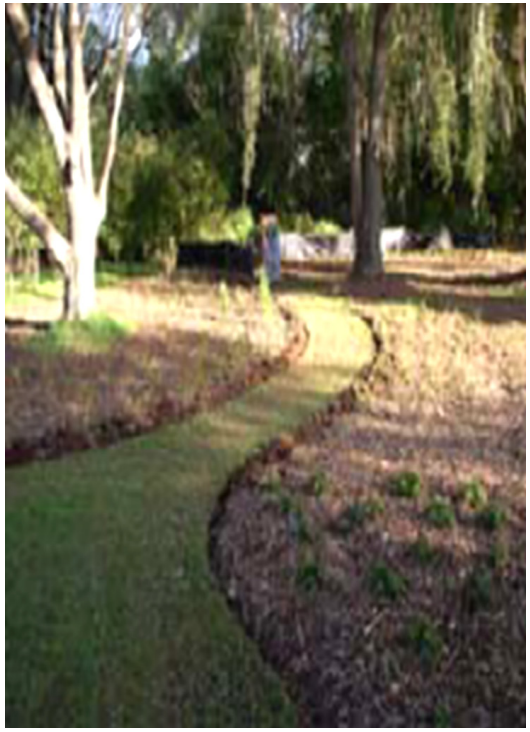


Also make sure to look for and remove any non-native invasive plants since they can overrun your new garden (to learn more about invasives go to www.hort.uconn.edu/cipwg/).

CT Invasive Plant Working Group; http://www.hort.uconn.edu/cipwg/

On a steep bank leading to water, clearing vegetation can be a bit trickier. A bank full of invasive shrubby material, such as bittersweet, whose roots are holding the bank, should be removed more gradually, while new native plant material is being introduced and establishes a foothold. You will have the monitor invasive growth more frequently, since you haven't removed it all at once.

Now you are ready to plant!



Designing Vegetative Buffers:

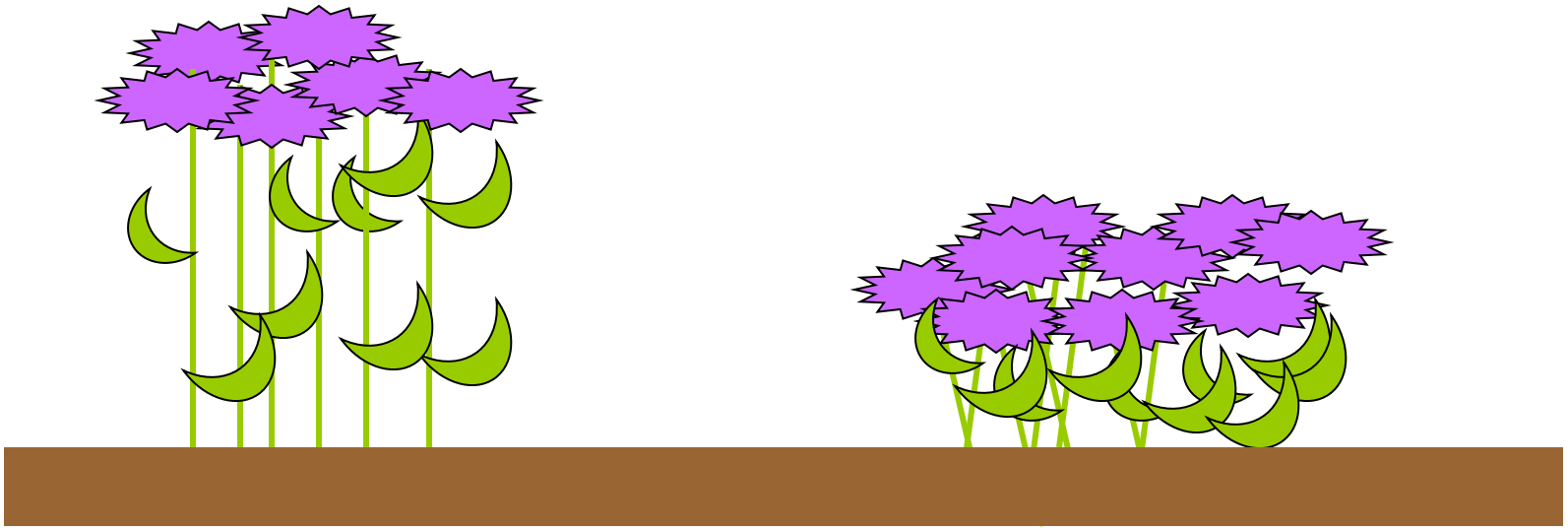
Care and Maintenance of Your Buffer Garden

As with any garden, once you have planted you need to keep it well watered and weeded the first 2 to 3 years.

If you have used mulch you will need to renew it, probably once a year, until your plants are big enough to shade out the weeds.

Although many native plants require no care, if you choose you can prune shrubs and trees, and cut back or divide grasses and perennials.

For example, cutting wildflowers like Joe Pye Weed down nearly to the ground in June, means that once they flower in August they will stand at 2-4', rather than 5-7'.



Alternatively, you can let your buffer garden go wild!

Among other things, that would probably provide more shelter for wildlife.

Either way, as you enrich your garden, your garden will nurture you!