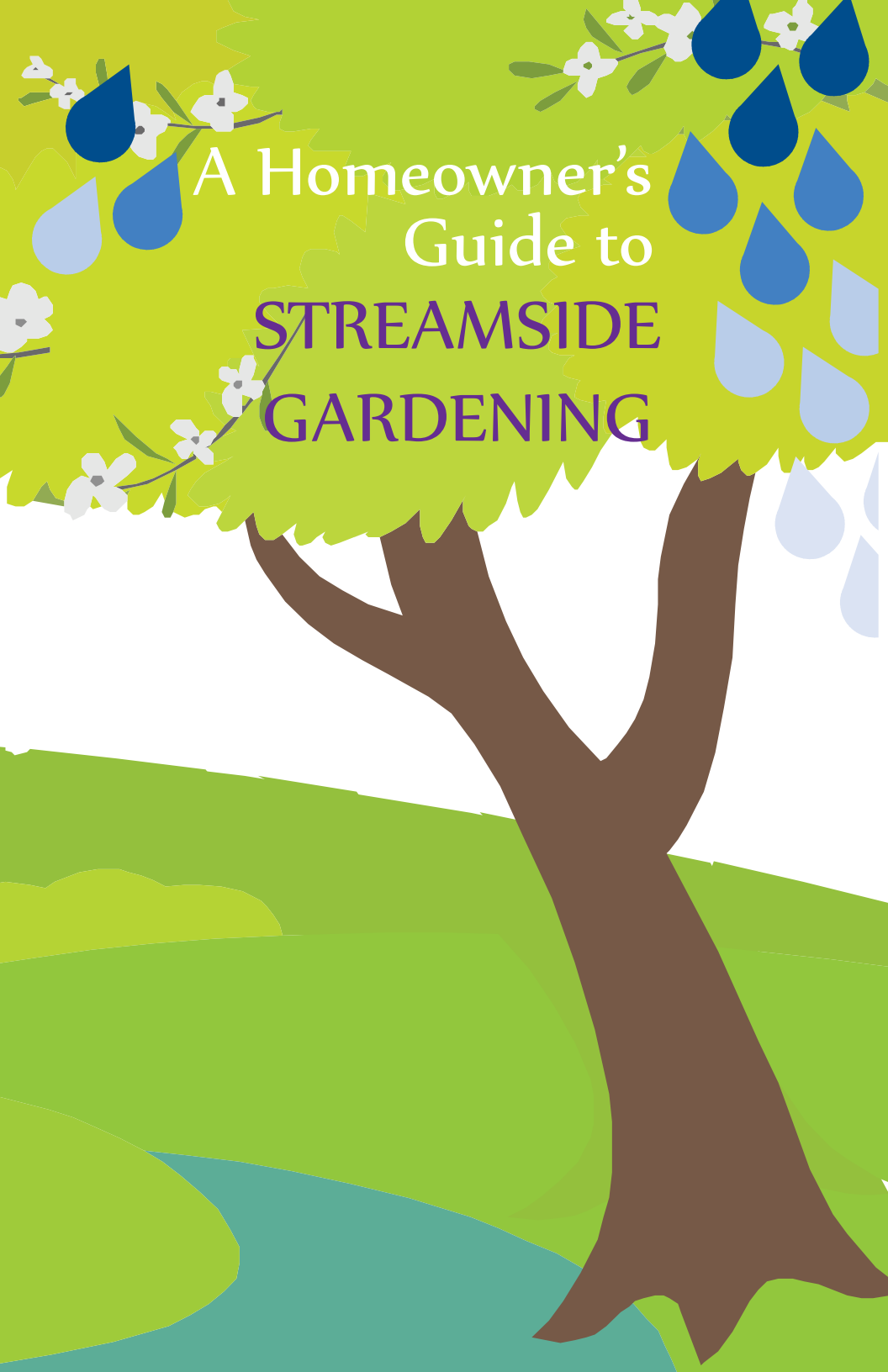
A Homeowner's Guide to STREAMSIDE GARDENING



Streamside Gardening

A healthy streamside garden is full of birds, frogs, butterflies, and other wildlife. It helps provide important habitat for fish and aquatic life. This guide will help you enhance the habitat that already exists on your property, and improve water quality.

Springfield lies between the McKenzie and Willamette rivers. Some major local tributaries of these rivers are South Cedar Creek, the Q-Street Floodway, the Springfield Mill Race, and Gray Creek. Numerous smaller channels also meander through our town, making their way through backyards and urban areas and eventually flowing into the McKenzie or Willamette River.

Your choices can have an impact on water quality. Reducing or eliminating pesticide use, picking up after pets, and fixing leaky vehicles are just a few of the ways that you can help to reduce the amount of pollution that is washed into streams. Planting native vegetation in your riparian area provides flood and erosion control, wildlife habitat, and pollution filtration. It can also enhance the value of your property.

Many of our urban waterways in Springfield are impaired, and a large portion of these are on private property. As a streamside homeowner, you can improve water quality and riparian habitat. Both the McKenzie and Willamette rivers are too warm - which can harm fish and other wildlife. Preserving and improving native streamside vegetation is the most effective way to minimize thermal pollution.

Many plants, including sword fern, grow along streams in Oregon and make beautiful streamside landscaping plants.

Step 1:
Observe & Identify Your Riparian Area

Start by observing your yard, the stream bank and flows. What plants and animals do you see? What kinds of animals do you want to attract? Are there areas of bare soil that could erode away? Note which areas are wet, dry, sunny, or shady.

Your riparian area begins at the stream's edge and extends up to 75 feet from the stream bank, depending on your site. Examine the area and identify any sensitive habitat or features you would like to preserve. Also consider where property lines and underground utilities are located. If you plan on digging, by law, you must call 811 for underground locates; it's free.

Step 2:
Design Planting Area & Select Plants

Measure the area to be planted. Measure the length and width, then multiply them together to get the total area.

Length (ft) x Width (ft) = Planting Area (ft^2)

Next, calculate the number of plants needed to prevent erosion, filter pollutants, and shade the water. Shading the stream is especially important because it cools the water. Fish require cold water for migration, spawning, and raising young. Plantings along riparian areas encourage water to soak into the ground during heavy winter rains, preventing flooding and allowing water to be slowly released into the stream.

Planting Area (ft^2) x 0.01 = Number of trees

Planting Area (ft^2) x 0.05 = Number of shrubs

You can start with a small part of the riparian area and add to it in phases, or plant the entire site at one time. Consider starting with a canopy of trees to provide shade.

Now you are ready to choose the plants you want for your site. Planting trees, shrubs, and herbaceous (perennials and annuals that are smaller and non-woody) plants will provide a variety of habitat for wildlife. Be sure to plant an assortment of species, as this can help prevent pests and disease and provides habitat diversity.

Plant only native riparian plants in the riparian area along the stream. Since they are already adapted to our climate, they require little maintenance. They also provide the best habitat for native butterflies, birds, and other wildlife. Please see the plant list at the end of this guide for ideas. Some local nurseries and garden centers carry native plants. Wholesale nurseries that specialize in natives are another option - call first to make an appointment.

Keep in mind the amount of light and the soil conditions that are present at your site. The top of bank will be drier than areas near the stream, so plan accordingly. It may be useful to sketch out a design for your riparian buffer - including trees, shrubs, and ground covers. Willows, alders, and dogwoods stabilize stream banks and can be started from cuttings. These work great for the area nearest your stream - sedges and rushes are also suitable for this area.

Step 3:
Preparing Your Site for Planting

The first step is to remove invasive and non-native species that you would like to replace with plants native to Springfield.

Cut and pull invasive and non-native plants. It is best if the entire root system of the plant can be removed. Weed cloth can also be effective for some species. Invasive plants are hardy and tend to take over quickly. It is important to plant natives as soon as possible after invasives are removed to prevent them from coming back. Regular cutting, mowing, and pulling before plants go to seed can be an effective way to control invasive plants. Dispose of seeds and roots where they cannot re-establish.

Blackberries can invade a streamside garden, so be sure to maintain the area. See **A Homeowner's Guide to Common Invasive Plants** for more information.

Armenian (Himalayan) blackberry
Rubus armeniacus

Step 4: Planting and Maintenance

Now for the fun part - planting the site! Use your planting plan, and adapt it if necessary. Don't forget to note the amount of light and soil conditions each of your plants prefers.

Place mulch around each of your plantings to suppress weeds and hold in moisture. If you have deer, beaver, or other plant eaters in your area, place a guard around young trees and shrubs to protect them from grazing.

Congratulations, you have created a streamside garden on your property that provides habitat for native species and improves water quality! Now all you have to do is maintain it. Plants will need to be watered during dry weather until they are established (the first one or two summers), especially those at the top of bank. Weed the area regularly to keep invasive species under control. The use of chemical pesticides and fertilizers is highly discouraged - use mulch and compost instead. Remove trash that floats into your section of the stream.

Downed logs in streams can provide basking habitat for the Western pond turtle, which is a threatened species of the Willamette Valley. Downed logs and branches also provide places for amphibians and reptiles to reproduce, find shelter, hibernate, and feed.

Native trees and shrubs do not need pruning. Allow branches to hang over the water - this will help cool the water, which makes your stream ideal habitat for fish. Downed logs and branches are great cover for fish. Snags also provide important habitat for birds. Allow leaves to accumulate on the ground. Inspect your plantings, and replace plants that do not survive, or add to what you've already created.

Snags are great habitat for birds. Dead branches and cavities provide important places for wildlife to raise young.

ENJOY YOUR BEAUTIFUL STREAMSIDE GARDEN

Ready to plant your own streamside garden? Remember to give us a call when you finish. To show our appreciation of your hard work, we have a Clean Water Gardens recognition package waiting for you! This is only available to Springfield residents. Call us at 541.726.3694 or email WaterResources@springfield-or.gov

Native Plants for Riparian Areas

This list will help you get started. This is not a complete list of plants, and some plants may be more difficult to find than others. Call or visit local nurseries to see what is available.

Plant Name	Light	Soil	E/D*	Notes
Trees				
Big Leaf Maple	Full/partial sun	Wet/dry	D	Large tree to 90 ft, good for shade, great for birds
Red Alder	Full sun	Wet/moist	D	Fast growing to 80 ft
Black Cottonwood	Full sun/partial shade	Wet/moist	D	Large tree to 100 ft
Pacific Crabapple	Full/partial sun	Wet/moist	D	Shrub to tree. Do not confuse with domestic fruit trees
Wester Red Cedar	Sun/shade	Moist	E	Slow growing, large tree
Shrubs				
Snowberry	Sun/shade	Moist/dry	D	Pink flowers, provides cover, attracts hummingbirds & butterflies
Vine Maple	Sun/shade	Moist	D	Spreads, showy fall foliage
Pacific Willow	Sun/shade	Wet/moist	D	Excellent for bank stabilization
Red Osier Dogwood	Full/partial sun	Wet/moist	D	Thicket-forming, important food source
Tall Oregon Grape	Sun/partial shade	Moist/dry	E	Showy yellow flowers & purple berries
Osoberry	Sun/shade	Moist/dry	D	Spreads, up to 16 ft tall
Mock Orange	Full/partial sun	Moist/dry	D	Showy, aromatic flowers
Douglas Spirea	Full/partial sun	Wet/moist	D	Spreads, attracts butterflies, dense habitat for bird nesting
Pacific Ninebark	Full/partial sun	Wet/moist	D	Spreads, attracts butterflies, seeds provide food for birds

* E = evergreen & D = deciduous

Plant Name	Light	Soil	E/D*	Notes
Shrubs cont. Red-flowering Currant	Full sun	Moist/dry	D	Spread, flowers attract hummingbirds & butterflies
Western Serviceberry	Full sun	Wet/dry	D	Small tree/large shrub to 10 ft, berries attract songbirds
Herbaceous/ground cover Sword Fern	Sun/shade	Moist/dry	E	Good ground cover
Maidenhair Fern	Partial/full shade	Moist	D	Good ground cover
Oregon Wood Sorrel	Partial/full shade	Moist	D	Spreads, excellent ground cover
Cow Parsnip	Sun/partial shade	Moist	D	Great for butterflies
Piggyback Plant	Partial/full shade	Moist	D	Beautiful leaves, butterflies
Bleeding Heart	Full/partial sun	Moist	D	Spreads, up to 1.5 ft tall
False Solomon's Seal	Partial Sun/shade	Moist	D	Up to 15 in. tall, light fragrance, attracts birds
Wild Ginger	Shade	Moist	E	Spreads, ground cover w/ showy flowers
Fringecup	Partial sun/shade	Moist/dry	D	Pretty small flowers
Stream Violet	Partial shade	Moist	D	Yellow flowers, host to butterfly larvae
Grass/sedge/rush Slough Sedge	Sun/partial shade	Wet	E	Spreads, great for birds
Tufted Hairgrass	Sun/partial shade	Moist	D	Beautiful blooms
Dagger-leaf Rush	Sun/shade	Wet	D	Round seedheads

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