

Hedgerows

Long Skinny Forests



What is a Hedgerow?

A narrow vegetated strip comprised of native trees, shrubs, grasses or groundcovers designed to buffer adjacent land uses and benefit native wildlife. A functioning hedgerow should be a minimum of 10' wide and as long as possible. Native shrub hedgerows 15' wide are common along rural Whatcom county waterways. A good hedgerow is a valuable asset: it can make a stock-proof barrier, provide shelter, enhance the landscape and benefit wildlife. New hedgerows that link with existing ones or other habitats like a forest or waterway will be particularly valuable.

Hedgerows in History

Hedgerow is an old English term that refers to narrow planting strips that grow as field borders, fence lines and waterways. In the Northwest this ancient design method is being expanded to incorporate a diverse number of plant species with a wide variety of functions. Europeans have planted and meticulously maintained hedgerows for hundreds of years to define field boundaries, and to enclose or exclude animals. Hedgerows were also a convenient place to dispose of rocks and other field debris and eventually were a good source of fuel for fire and even some harvestable timber for construction.

During WWII , the “crazy quilt pattern” of hedgerows caused problems for allied troops. They were so problematic, in fact, that their presence led to the development of the “Tankdozer”. The historic art of hedge “laying” declined after WWII due to many factors such as the availability of labor, the introduction of machines to cut hedges, wire fences and changes in agriculture that placed emphasis on production from larger fields.

In the US, hedgerows date back to the Homestead Act and to the dust bowl days of the 1930s. Hedgerows in the Midwest were planted primarily as windbreaks. In California hedgerows are commonly used to enhance fruit, vegetable and nut production. They are used today as refuge for pollinators and beneficial insects.

Hedgerows are making a comeback! In Whatcom County hedgerows are commonly used along waterways to improve both water quality and fish habitat.





How to Design a Hedgerow

Designing a hedgerow is both a science and an art. Choose species that provide the desired function (shade, songbird habitat etc.). Choose species that will grow in your sites conditions (soil type, soil moisture, light conditions etc.). But also choose species that you like! Mix them together like a flower bouquet to maximize function and aesthetics.

- Decide what functions you want: Water quality? Wildlife? Border? Pollination?
- List the species that will help with those functions.
- List the species that you like.
- Think diversity: tall growing, short growing, fast, slow, evergreen, deciduous, fruit, flowers, fall color, etc.
- Plan on 3' to 5' shrub spacing, 8' to 10' tree spacing and 18" perennial flower spacing.
- Measure the area determine how many plants you will need.
- Create a planting plan with preferred species and spacing. Mix up the species to achieve maximum function.

How to Plant a Hedgerow

Planting a hedgerow is no different than any other type of landscaping and also can be similar to a stream habitat restoration planting.

- Small bare root plants are inexpensive and easy to plant. Supply is limited to the winter dormant season.
- Potted plants can be planted later in the spring or earlier in the fall. They may be larger than bare root plants but also more expensive.
- Site preparation prior to planting is important. Mow the grass, blackberries or whatever else is there in the late summer or fall prior to planting. Treat this competitive vegetation with herbicide, heavy mulch, physical removal or by other means.
- Under most conditions soil amendments and fertilizers are not needed for native plants.
- Plant directly into native soil. Follow good planting techniques.
- Mulch is optional but really helps with weed control and moisture retention.
- If your site is adjacent to a field with Meadow voles or a stream with Beaver, consider "blue tube" type seedling protectors to prevent damage.

Maintaining a Hedgerow

Hedgerows grow quickly. Unlike most landscape features little or no maintenance will be required after the first few years. Controlling competitive vegetation the first few years is critical to hedgerow establishment.

- Keep grass and other vegetation mowed around your hedgerow plants.
- Treat blackberries and other noxious weeds with herbicide or physically remove them.
- Watch for animal damage (voles, beaver, deer).
- Over the years watch for blackberries or other noxious weeds trying to establish along the edge of your hedgerow.
- Once your plants are established and growing on their own, just leave it alone and enjoy the birds.



Hedgerows For Pollinators

Plant native tree, shrub or perennial hedgerows as field or garden borders to attract native pollinators and increase crop production. Native bees are more efficient than imported honeybees and are active at much lower temperatures. All they need is a little space for habitat and a hedgerow is an ideal place.

Benefits of a Hedgerow for Pollinators

- Many insects, birds and small critters beneficial to gardeners and farmers are found in hedgerows. They help pollinate over 75% of flowering plants and nearly 75% of crops.
- Native plants in hedgerows serve as sources of nectar and pollen for adult pollinators and provide habitat for nesting and larvae production.
- Hedgerows provide shelter and overwintering for many pollinators.
- Plant early, mid and late season blooming plants to provide consistent forage.
- Mix in native flowering perennials.
- A hedgerow around 1/3 of a commercial berry field may eliminate the need for commercial honeybee colonies.



Species for Pollinators

- Willows
- Roses
- Pacific Crabapple
- Salmonberry
- Black Twinberry
- Red Osier Dogwood
- Perennial flowers
- Many others



Size and Location

Plant adjacent to any crop field or garden.

- 5' wide minimum
- 1-2 row minimum
- Greater width and diversity will result in more and different kinds of pollinators



Hedgerows For Clean Water

Plant native tree or shrub Hedgerows along streams, ditches and other waterways as an attractive way to improve water quality and wildlife habitat.

Benefits of a Water Edge Hedgerow

- Shade will reduce water temperatures making a more hospitable environment for aquatic animals.
- Shade will control noxious weeds such as Reed canarygrass improving streamflow and drainage.
- Hedgerows increase infiltration and decrease the rate of surface water runoff.
- A 10' wide hedgerow can reduce sediment in surface runoff by 60-70%.
- Hedgerows will trap and utilize nutrients that might escape nutrient management systems.
- Hedgerows will act as a buffer for agricultural chemical applications.
- Terrestrial insects, leaves and fruit from the hedgerow will provide forage for fish and other aquatic creatures.



Species for Water Quality

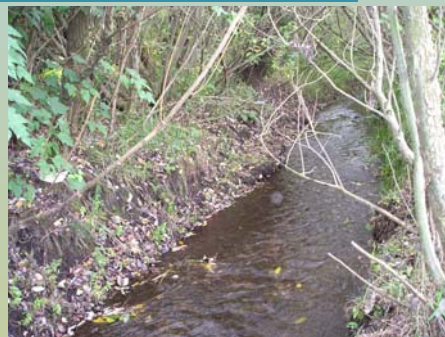
- Willows
- Pacific Ninebark
- Red Osier Dogwood
- Black Twinberry
- Douglas Spiraea
- Red Elderberry
- Western Red Cedar
- Sitka Spruce
- Pacific Crabapple
- Many others



Size and Location

Plant along any kind of waterway and plant close to the waters edge.

- 10' to 15' wide minimum
- 2 or 3 rows
- 3' to 5' shrub spacing
- 8' to 10' tree spacing





Hedgerows As a Border



Hedgerows can be used as an inexpensive and attractive means to define a property boundary, field border, road buffer, or as a buffer of different land uses. They become a nearly maintenance free “living fence”.

Benefits of a Border Hedgerow

- Hedgerows provide a visual screen and reduce noise.
- Once mature, hedgerows can serve as livestock fencing.
- Hedgerows can make a good windbreak for farms and reduce heating costs for structures.
- Hedgerows beautify the landscape with foliage, blooms, fruit and fall color.
- Open fields are inhospitable to many native songbirds.
- Hedgerows liven up the landscape by filling it with birds and bird songs.
- Hedgerows are much more attractive and functional than common borders of tall grass and non-native Blackberries.



Species for Delineating a Border

- Cascara
- Shore Pine
- Willows
- Red Osier Dogwood
- Roses
- Western Red Cedar
- Pacific Crabapple
- Douglas Hawthorn
- Many others



Size and Location

- 5' wide minimum
- At least 1 staggered row
- 3' to 5' shrub spacing
- 8' to 10' tree spacing

Balance the width of the hedgerow with adjacent land uses and the desired end result. The wider the hedgerow the more effective screening, windbreak and wildlife benefit.





H"edge"rows For Wildlife



Hedgerows are like long skinny forests. Due to their narrowness and structural diversity, they closely mimic the edge of a forest where the greatest number of bird, insect and mammal species are found.

Benefits of a Hedgerow for Wildlife

- Hedgerows provide concentrated food, shelter and space in small areas for large variety of bird, insect and mammal species.
- They provide islands of sanctuary in areas of grassland, cropland or development.
- Hedgerows also improve habitat for salmon and other aquatic species by providing shade, woody debris, and terrestrial insects (fish food).
- Along waterways hedgerows also improve bank integrity, protecting aquatic life from fine sediments.



Species for Wildlife

- Cascara
- Serviceberry
- Shore Pine
- Willows
- Red Osier Dogwood
- Roses
- Western Red Cedar
- Pacific Crabapple
- Black Twinberry
- Beaked Hazelnut
- Many others



Size and Location

- Minimum of 1 row
- Wider is better
- Think diversity, multiple plant species benefit multiple wildlife species
- Plant evergreen and deciduous
- Plant tall and short



Published with support from the Centennial Clean Water Fund under the authority of the WA State Dept. of Ecology

