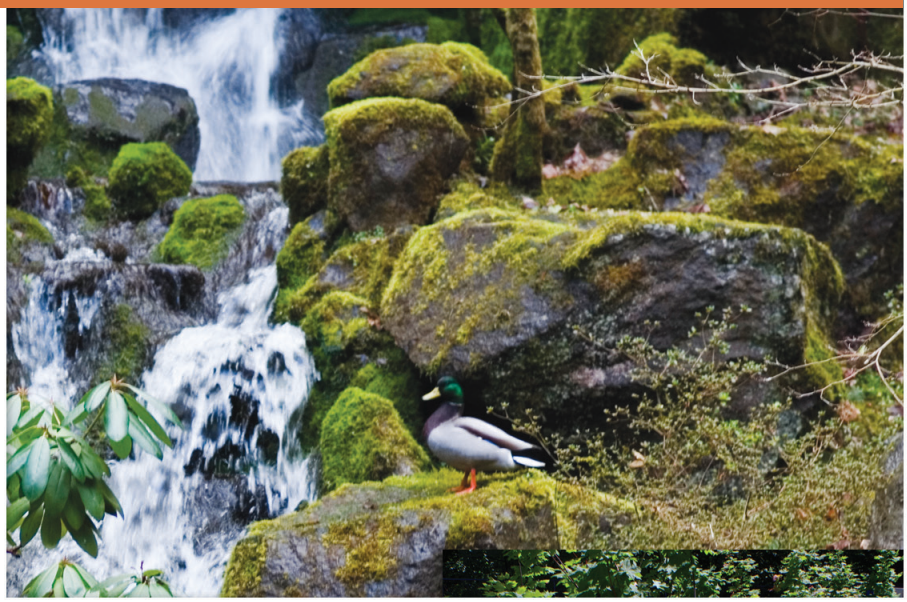
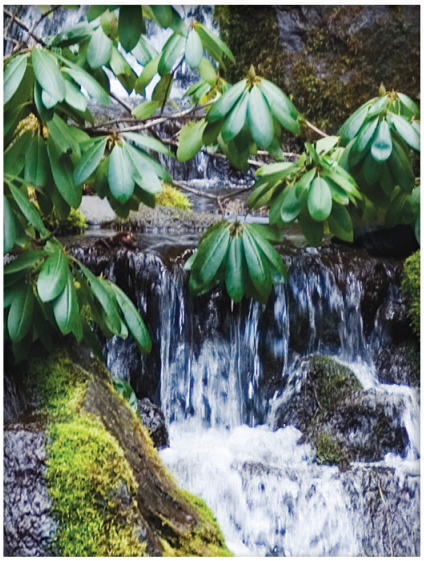
Portland Plant List





July 2010

City of Portland Bureau of
Planning and Sustainability
Sam Adams, Mayor | Susan Anderson, Director

Portland City Council

Sam Adams, *Mayor*

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Bureau of Planning and Sustainability

Susan Anderson, *Planning and Sustainability Director*

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Adopted by Portland City Council
November, 13, 1991
Effective December 13, 1991

Ordinance No. 164838

Amended May 26, 1993

Ordinance No. 166572; September 21, 1994

Ordinance No. 168154; March 19, 1997

Ordinance No. 171000; June 24, 1998;
March 23, 2004; June 2009

Re-established as administrative rule by City Council February 10, 2010
Effective July 1, 2010

Ordinance No. 183534

The Portland native plants policy was selected as a semifinalist for the **1993 Innovations in State and Local Government Awards** sponsored by the Ford Foundation and The JFK School of Government at Harvard University.

City of Portland Bureau of
Planning and Sustainability
Sam Adams, Mayor | Susan Anderson, Director

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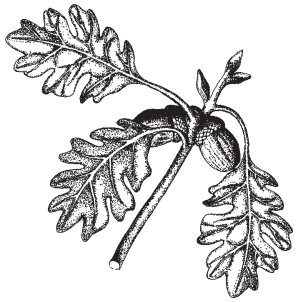

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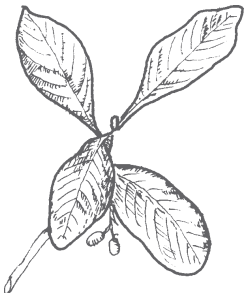
1. Introduction

THE NATIVE PLANTS LIST AND THE NUISANCE PLANTS LIST



Indian plum

The City of Portland's environmental protection efforts include a focus on ensuring the continued viability and diversity of indigenous plant and animal communities, promoting the use of plants naturally adapted to local conditions, and educating citizens about the region's natural heritage and the values and uses of native plants.

A healthy native plant community serves many important functions:

- Provides habitat and food for native wildlife;
- Preserves critical habitat for rare, threatened and endangered animals and plants;
- Enhances air quality by trapping airborne particulates;
- Enhances water quality by filtering sediments (and pollutants attached to sediments) from runoff before the water enters streams;
- Stabilizes streambanks and hillside slopes by dissipating erosive forces;
- Enhances local microclimate, and reduces water and energy needs;
- Provides a place for native plants to continue to exist;
- Provides scenic and recreational and educational values, which, in turn, enhance Portland's livability. Native plants are part of the region's heritage.

The *Portland Plant List* is comprised of two lists and supporting information: the Native Plants List and the Nuisance Plants List. Both plant lists are integral to the City of Portland's natural resource protection program and invasive species management strategy. Only those plants on the Native Plants List are allowed to be planted within the City's Environmental Overlay Zone and the Pleasant Valley Natural Resources Overlay Zone. Native plants are also encouraged to be planted in the Greenway Overlay Zone.

The plants identified on the Nuisance Plants List are prohibited from being planted within the Environmental Overlay Zone, Greenway Overlay Zone, and the Pleasant Valley Natural Resources Overlay Zone. In addition, species on the Nuisance Plant List cannot be installed in City required landscaping areas. Plants — trees, shrubs, and groundcovers — on the Nuisance Plants List may be removed in the Environmental Overlay Zone, the Greenway Overlay Zone, and the Pleasant Valley Natural Resources Overlay Zone without a land use review. Plant removal methods that result in ground disturbance may require a permit or land use review when proposed within the Environmental Overlay Zone, Greenway Overlay Zone, and the Pleasant Valley Natural Resources Overlay Zone. Herbicide application may require a permit in the Greenway Overlay Zone.

In some situations in these overlay zones, tree removal may require a permit and tree replacement. Please consult the City of Portland *Zoning Code*,[1] other City codes,[2] and City staff for more detailed analysis of applicable requirements relating to removal and installation of plants on the Nuisance Plants List.

Certain species on the Nuisance Plants List are required to be removed if found on the property, regardless of whether a land use review or building permit is submitted. These plants are currently limited in distribution; however, they spread rapidly and they are very difficult to control once they become

established. These plants are identified in the *Portland Plant List* as the Nuisance Plants List, Required Eradication List. The requirements related to these plants are found in Portland City Code in Title 29, Property Maintenance Regulations, and the related administrative rule.

There are several useful definitions in this discussion. Some of these definitions are used in the *City of Portland Invasive Plants Strategy Report 2008*, and are revised for use in the *Portland Plant List*; other definitions are terms of use.

- **Native:** Species that were likely found historically (prior to European settlement) in the Portland area. Ecologically, many of these plants are exclusive food sources for native invertebrates; thus birds and other native animals that consume them rely upon this food source.
- **Ornamental:** Commercially sold non-native plants typically used in landscape areas.
- **Nuisance:** Species that threaten the health and safety of Portland citizens and/or degrade the habitat quality of natural areas.
- **Invasive:** Species that spread at such a rate that they cause harm to human health, the environment, and /or the economy. In natural areas, invasive plants are those species that displace native plants and become the dominant species in that vegetation layer. Invasive plants can halt successional processes by limiting the establishment and the growth patterns of native species. They can deprive native invertebrates of food sources, disrupting the food chain for native wildlife.
- **Weed:** A plant that grows where it is not wanted. Ecological weeds are pests in natural areas, agricultural weeds are pests in farmed areas, landscaping weeds are pests in landscaped areas, and so on.
- **Noxious weed:** A weed designated as noxious by the Oregon Department of Agriculture.

The Oregon Department of Agriculture (ODA) has a statewide noxious weed list, including both agricultural and ecological weeds. However, some of the invasive species degrading our natural areas are not on the ODA noxious weed list. Nursery sales are regulated by ODA under administrative rule (OAR 603-052-1200). This rule prohibits import, transport, propagation or sale of select "A" and "B" state listed noxious weeds and plants on the Federal Noxious Weed List (7 C.F.R. 360.200). The City of Portland does not have jurisdiction to regulate nursery sales or agricultural commodities in Oregon, but the City can regulate the types of vegetation planted. Some of the plants on the ODA Noxious Weed List are included in the City's Nuisance Plants List; these plants would remain subject to OAR 603. The City of Portland has made managing invasive plants a priority and has established programs, regulations, and policies accordingly. In addition, the City focuses efforts on education and outreach, working with the nursery and seed industry, and other actions to prevent the spread of invasive species.

A more localized list to characterize those species that threaten the health and safety of Portland citizens and natural areas is needed. When the first *Portland Plant List* was created, it contained, in addition to the list of native plants, a list of invasive species. For more information about the history of the *Portland Plant List*, see *Appendix A*.

The City of Portland recognizes that not all non-native plants are invasive. For example, there are many non-native, ornamental garden plants that don't spread rapidly, nor do they alter ecosystem processes. Our knowledge of what is and is not invasive changes over time. The potential for a plant to be invasive can sometimes be predicted using two factors — the level of invasiveness of the plants in areas with similar geologic and climate conditions, and the reproductive methods of the plants. Although invasive potential has not been

1 www.portlandonline.com/bps/index.cfm?c=29205

2 www.portlandonline.com/index.cfm?c=27891

evaluated for all ornamental plants, some plants included here represent obvious threats. Plants identified on the Nuisance Plants List currently can or do threaten the vitality of native ecosystems. "When an invasive species colonizes a new environment, it leaves behind the natural enemies such as predators or parasites that controlled its population growth in its original home. It can quickly expand, out-competing and overwhelming native species. Native species have not evolved the necessary survival strategies to fend off unfamiliar species or diseases" (Oregon Department of Fish and Wildlife, Conservation Strategy, February 2006).

Modification of the Portland Plant List

The information in the *Portland Plant List* will be updated periodically or as needed to reflect current scientifically accepted information about the characteristics and status of plants on the Native Plants List and the Nuisance Plants List. Changes may include but are not limited to: modification of language in the body of the document, the addition or removal of plants from any list, or a re-assignment of plant ranking.

Changes proposed to the *Portland Plant List* will be made through the City's administrative rule process. Administrative rules provide a streamlined process for reviewing and making changes to technical documents such as the *Portland Plant List*. The Bureau of Planning and Sustainability (BPS) will coordinate review of potential modifications to the *Portland Plant List*. The director of BPS, or their delegate, will make the final decision on the changes to the *Portland Plant List*. Potential modifications to the listed species and ranks will be reviewed by at least three or more knowledgeable persons with botany, biology, landscape architecture, or other qualified backgrounds. BPS will also inform key stakeholders of potential changes and provide reasonable opportunity for review and comment. The public can request changes to the list or changes to the ranks at any time by sending a written request to BPS. Potential amendments might be collected over a period of time and processed in batches, depending on the nature of the changes and resource availability.

The primary source for native plant determination is the five volume set, *Flora of the Pacific Northwest*, by Hitchcock and Cronquist. In some cases, the Oregon Vascular Plant Database (OSU Herbarium) samples, the Oregon Flora Project, and the Urbanizing Flora of Portland, Oregon 1806–2008 (Occasional Paper 3 of the Native Plant Society of Oregon, 2009) by J.A. Christy, A. Kimpo, V. Marttala, P.K. Gaddis, and N.L. Christy, may also be used to determine whether plants are native to the Portland area.

How to Use the Lists

The Portland Plant List is divided into two sections: the Native Plants List (includes native plant communities, native plants in detail), and the Nuisance Plants List. These sections are summarized below.

Native Plants List

The Native Plants List has many uses, from public education and protection of our natural heritage to helping someone choose the most appropriate species for planting.

The Native Plants List is set up in several formats to assist the user. The plants are grouped into nine generalized "Native Plant Communities" for the City of Portland. Using the section "Native Plants in Detail," one can find appropriate plants for particular sites within a plant community.

The lists identify groundcovers (ferns, forbs, grasses, sedges, rushes, and other), shrubs, and trees. The Native Plants List includes the scientific name, the common name, and the associated habitat type. Of special note, tall shrubs are shrubs that resemble trees in growth, structure, or appearance but they are technically considered shrubs. Tall shrubs may not be used to meet, in any City title, the standards, criteria, or conditions of approval which require trees.

When considering development, particularly in forested areas, building materials and plant types should be evaluated. The Native Plants List indicates trees and shrubs that are "fire accelerants." Plants identified as *Fire Accelerant Y* are plants

with higher than average flammable combustion potential due to flammability chemicals present within the leaves, needles, and stems. Plants identified as *Fire Accelerant N (neutral)* are plants with average flammable combustion potential (there are no chemicals present within the stems, leaves, and needles that make it less flammable or more flammable than average).

Native Plant Communities

The Native Plant Communities section describes the nine native plant communities found within the City of Portland. The lists include information about common and rare species.

Native Plants in Detail

The Native Plants in Detail section provides specific information on each of the native plants on the Native Plants List. The list divides the plants into the following subgroups: trees, shrubs, forbs, grasses, sedges and rushes, ferns, and others. For each group, the list includes the scientific (Latin) name of the species, common name, wetland indicator status, and life history characteristics. The life history characteristics include: information on flowering, light requirements, water requirements, and habitat type (wetland, riparian, forest, forested slopes, thicket, grass and rocky). Special lists are provided for groundcovers and vines, and native plants used as food by wildlife.

Nuisance Plants List

The plants on the Nuisance Plants List are invasive; they threaten the health and vitality of native habitats, humans, and cause economic harm to public and to private landowners. Planting of these plants should be avoided and removal encouraged. The Nuisance Plants List includes the common and scientific plant names, and assigns priority ranks of A, B, C, D, and W. The ranks were developed to educate the public about the distribution of and level of invasiveness of each species. In addition, these ranks help land managers prioritize actions when there are limited resources. The ranks apply to the named species only, and include any sub-species, varieties, or cultivars of these species, unless otherwise noted.

Taxa

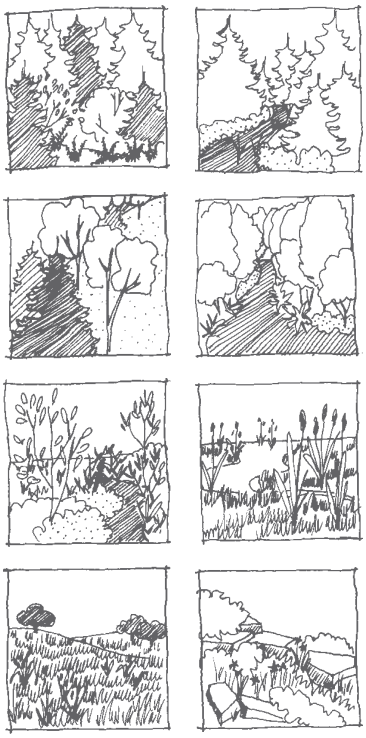
Plant names used in the *Portland Plant List* are taken primarily from Appendix III of *The Jepson Manual* (1993), and the five-volume set, *Flora of the Pacific Northwest* (1973), by Hitchcock and Cronquist. Other sources are *Flora of North America, Volume 2: Ferns and Gymnosperms* (Oxford University Press 1993), and research by the Carex Working Group and Barbara L. Wilson. Be aware that the names of some familiar species have been changed. Plant names can be determined online at with the PLANTS database[3] and by the Oregon Flora Project.[4]

3 http://plants.usda.gov

4 www.oregonflora.org

2. Native Plant Communities

This section introduces and describes the native plant communities in Portland. It can be used as a guide to select native plants for your particular situation. Use it in conjunction with the descriptions of the individual plants in the Portland Plant List when designing your landscape plans.



Choosing Native Plants

In choosing native plants for your landscape or restoration site, it is best to choose plants from the natural communities that have adapted to your particular site conditions. One of the best ways to do this is to observe the natural communities of your site or nearby, within your neighborhood. The following plant community lists represent very generalized communities.

With the Plant Community Lists as a guide, you can begin to narrow your choices and create a personal list of species suitable for your site.

The particular conditions of soil type, amount of sunlight, and amounts and seasonal patterns of rainfall and groundwater on your site will vary. The scientific term for this is "microclimate." You need to select the right plants to fit the various microclimates that may be present on your particular site. Use the information in the section "Native Plants in Detail" to select your personal list of species. The detailed information on each species can help you determine specific plants for specific locations.

Plant Communities

Plant communities are most accurately described as loose associations of species that tolerate or thrive in similar conditions and are well–adapted to particular soils, climate, moisture and landscape features. Different plant communities blend into each other, ususally without sharp boundaries.

These species associations are continually undergoing change in response to environmental changes. The type and age of plant species growing in your area can help you read the past history of environmental conditions.

Ecological Communities

An ecological community includes both the plants and animals which interact within a particular geographic area. The species within a community are interdependent. Plants rely on animals for seed dispersal and polination, and animals rely on plants for food sources and nesting structure. When you choose native plants which are compatible with the ecological conditions in your area, you help maintain or expand the ecological communities around you.

Succession

Any landscape is always undergoing a change of some kind. Sudden changes are caused by natural disturbances such as fire, flooding, or landslides. Human activities like timber harvesting and home building also cause sudden changes to plants and the landscape.

Gradual changes take place as tree seedlings grow, altering the shade and moisture conditions around them.

Disturbance

When a tree falls in the forest, or when a mudslide takes place, the hole left in the canopy overhead allows more light into the forest floor. Small slow-growing trees and the seeds of light-tolerant species which may have lain dormant can now sprout and grow quickly.

Deciduous trees like Big–leaf Maple and Red Alder respond to sunlight and grow more quickly than evergreen seedlings like Western Hemlock and Western Red Cedar. In areas where deciduous trees are dominant it is likely that some past disturbance created space for them to take hold and grow.

These deciduous trees will grow until eventually the conifers overtake them and shade them out. Conifers have an advantage over deciduous trees in our climate of cool, moist winters. Except on the coldest days, conifers can continue to photosynthesize and grow all winter long when deciduous trees have dropped their leaves. In Portland, coniferous trees grow two or three times as tall as the deciduous trees, and eventually block the sunlight for shorter trees.

In many places you may find a predominance of Douglas fir trees. These are the fastest–growing of the conifers, and tolerate light shade or full sun. Douglas fir seedlings do not grow well in dense shade. A predominance of Douglas fir generally indicates a past fire or clearcut which created a large opening in the forest.

An abundance of shade–tolerant western hemlock or grand fir indicates the forest canopy has been undisturbed for quite some time. Deciduous trees such as cottonwood or ash often indicate frequent disturbance by flood or inundation.

Variation Within Communities

Changes which have occurred in the landscape such as the loss of topsoil or development on an adjacent site may limit the ability to create or restore the same communities which existed historically on your site.

Read the introductions of each community and match the appropriate plant associations with the physical attributes of your site including soils, existing vegetation, moisture, and light. The hard edge at the perimeter of a large parking lot may require a different association of plants than is indicated by the Plant Communities Map. You need to evaluate the microclimates on your site.

Plants Are Creative and Adaptable

You may find that plants on your site and areas nearby do not fit neatly into the native plant community categories. However, you should be able to use these native plant community groupings as guidelines for plants that will be compatible with each other under similar conditions.

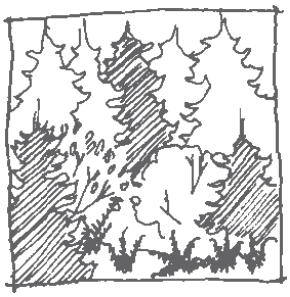
Variations in microclimate may create quite different conditions within a small area. For example, a coniferous forest may have a poorly–drained area which collects water and creates a wooded wetland or an open prairie can contain a marsh.

Remember . . .

Every plant you choose may not grow well. Have fun and experiment with different native plants from the community(ies) appropriate for your particular site.

2.1 WESTERN HEMLOCK–DOUGLAS FIR FOREST

This is the most common plant community found in the Portland area. The forest is dominated by large conifers, with a wide range of associated species of trees, understory shrubs and groundcovers. Forest Park and the Boring Lava Domes provide good examples of this community.



In this forested habitat, the most dominant or common tree species are coniferous trees such as Douglas fir, western hemlock, grand fir, and western red cedar. Deciduous trees are also found such as alder and big–leaf maple. The shrub layer is dominated by vine maple, Oregon grape, and Indian plum. Groundcover plants will vary based on how much sunlight and moisture reaches the forest floor. The dominant groundcover is sword fern. Forest soils tend to be moist and rich in humus.

At present, the remaining forested areas in Portland contain a strong deciduous component. This is more a reflection of the current successional stage resulting from recent (last 150 years) mass disturbance from logging, fires, and development.

Variations

On the plant communities map, three variations of this community are identified along a moisture gradient from moist to dry. A number of species are common throughout the gradient such as Oregon grape, sword fern, and salal but at the extremes on either end additional species are found along with the general mix. This variation is more evident in the shrub and groundcover layers and less prominent in the tree species.

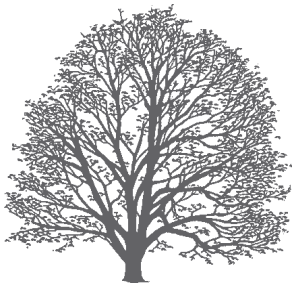
In places where the soil is well–drained, the slope is south–facing, or there are sunny conditions where the canopy is more open, the forest composition varies toward species more tolerant of dry conditions. Tree species such as madrone and garry oak may begin to appear. Species that tolerate the driest conditions within this community are indicated with a "☼" in the list below.

Along drainages or in places where the soil is poorly–drained or the slope is north–facing, the forest composition varies toward species more tolerant of moist conditions. Western red cedar and salmonberry are more common. Species that tolerate the wettest conditions—not necessarily wetland—within this community are indicated with a "🌧" in the list below.

Next to streams in the riparian areas of the west hills and Boring lava domes, more deciduous trees and moisture–tolerant plants are found. In these areas cottonwoods, willows, and red–osier dogwood begin to appear.

KEY		
		Most common species appear in bold type
		Italic type indicates species that rarely occur in this community within Portland
		Indicates species which tolerate moist conditions (but not necessarily wetland)
	☼	Indicates species which tolerate dry conditions

	Latin Name	Common Name
TREES		
	Acer macrophyllum	**Big–leaf Maple**
	Alnus rubra	**Red Alder**
	Pseudotsuga menziesii	**Douglas Fir**
	Thuja plicata	**Western Red Cedar**
	Tsuga heterophylla	**Western Hemlock**
	Abies grandis	Grand Fir
	Cornus nuttallii	Western Flowering Dogwood
	Fraxinus latifolia	Oregon Ash
	Populus balsamifera ssp. trichocarpa	Black Cottonwood
	Prunus emarginata	Bitter Cherry
	Rhamnus purshiana	Cascara
	Salix scouleriana	Scouler Willow
	Taxus brevifolia	Pacific Yew
☼	*Arbutus menziesii*	*Madrone*
	Crataegus suksdorfii	*Black Hawthorn*
☼	*Pinus ponderosa*	*Ponderosa Pine*
☼	*Quercus garryana*	*Garry Oak*



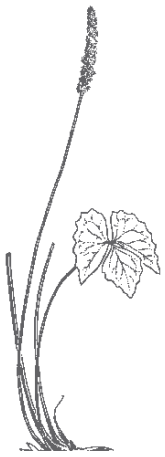
Big-leaf Maple

SHRUBS

Vine Maple

	Latin Name	Common Name
	Acer circinatum	**Vine Maple**
	Amelanchier alnifolia	**Western Serviceberry**
	Berberis nervosa	**Dull Oregon Grape**
	Cornus sericea ssp. sericea (*f.* stolonifera)	**Red–osier Dogwood**
	Corylus cornuta	**Hazelnut**
	Gaultheria shallon	**Salal**
	Holodiscus discolor	**Ocean–spray**
	Oemleria cerasiformis	**Indian Plum**
	Physocarpus capitatus	**Pacific Ninebark**
	Ribes sanguineum	**Red Currant**
	Rubus parviflorus	**Thimbleberry**
	Rubus spectabilis	**Salmonberry**
	Sambucus racemosa	**Red Elderberry**
	Symphoricarpos albus	**Common Snowberry**
	Vaccinium parvifolium	**Red Huckleberry**
	Berberis aquifolium	Tall Oregon Grape
	Euonymus occidentalis	Western Wahoo
	Lonicera hispidula	Hairy Honeysuckle
	Lonicera involucrata	Black Twinberry
	Malus fusca	Western Crabapple
	Philadelphus lewisii	Mockorange
	Prunus virginiana	Common Chokecherry
	Ribes viscosissimum	Sticky Currant
	Rosa gymnocarpa	Baldhip Rose
	Rosa nutkana var. nutkana	Nootka Rose
	Rosa pisocarpa	Swamp Rose
	Rubus ursinus var. macropetalus	Dewberry
	Salix sitchensis	Sitka Willow
	Sambucus cerulea	Blue Elderberry
	Symphoricarpos mollis	Creeping Snowberry
	Viburnum ellipticum	Oval–leaved Viburnum

		Latin Name	Common Name
SHRUBS (continued)	☼	*Ceanothus sanguineus*	*Oregon Tea–tree*
	☼	*Ceanothus velutinus var. laevigatus*	*Mountain Balm*
	🌧	*Ribes bracteosum*	*Blue Currant*
		Ribes divaricatum	*Straggly Gooseberry*
	☼	*Ribes lobbii*	*Pioneer Gooseberry*
		Rubus leucodermus	*Blackcap Raspberry*
	🌧	*Vaccinium ovatum*	*Evergreen Huckleberry*
HERBACEOUS, GRASSES, ETC.	🌧	**Achlys triphylla**	**Vanillaleaf**
	🌧	**Adiantum aleuticum**	**Northern Maidenhair Fern**
	🌧	**Asarum caudatum**	**Wild Ginger**
	🌧	**Athyrium filix–femina**	**Lady Fern**
	🌧	**Carex deweyana ssp. leptopoda**	**Dewey's Sedge**
		Dicentra formosa	**Pacific Bleedingheart**
	☼	**Elymus glaucus**	**Blue Wildrye**
	☼	**Elymus glaucus ssp. jepsonii**	**Jepson's Blue Wildrye**
		Galium aparine	**Cleavers**
		Hydrophyllum tenuipes	**Pacific Waterleaf**
		Linnaea borealis	**Twinflower**
		Moutia perfoliata	**Miner's Lettuce**
		Montia sibirica	**Candy Flower**
	🌧	**Oxalis oregana**	**Oregon Oxalis**
	🌧	**Petasites frigidus var. palmatus**	**Palmate Coltsfoot**
		Polypodium glycyrrhiza	**Licorice Fern**
		Polystichum munitum	**Sword Fern**
		Prosartes hookeri	**Hooker's Fairybells**
		Prosartes smithii	**Smith's Fairybells**
	☼	**Pteridium aquilinum**	**Bracken Fern**
		Smilacina racemosa	**Western False Solomon's Seal**
		Smilacina stellata	**Starry False Solomon's Seal**
	🌧	**Streptopus amplexifolius**	**Clasping–leaved Twisted–stalk**



Vanillaleaf

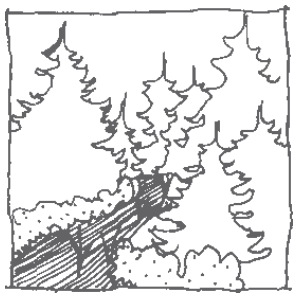
	Latin Name	Common Name
HERBACEOUS, GRASSES, ETC. (continued)	**Tellima grandiflora**	**Fringecup**
	Tiarella trifoliata v. unifoliata	**Trefoil Tiarella**
	Tolmiea menziesii	**Pig–a–back**
	Trillium ovatum	**Western Trillium**
	Vancouveria hexandra	**White Inside–out Flower**
	Viola glabella	**Stream Violet**
	Actaea rubra	Baneberry
	Adenocaulon bicolor	Pathfinder
	Agoseris grandiflora	Large–flowered Agoseris
	Anemone deltoidea	Western White Anemone
	Apocynum androsaemifolium	Spreading Dogbane
	Aquilegia formosa	Red Columbine
	Aruncus sylvester	Goatsbeard
	Aster modestus	Few–flowered Aster
	Aster subspicatus	Douglas's Aster
	Blechnum spicant	Deer Fern
	Bromus carinatus	California Brome–grass
	Campanula scouleri	Scouler's Bellflower
	Cardamine angulata	Angled Bittercress
	Carex amplifolia	Big–leaf Sedge
	Carex hendersonii	Henderson's Wood Sedge
	Cinna latifolia	Woodreed
	Circaea alpina	Enchanters Nightshade
	Coptis laciniata	Cutleaf Goldthread
	Cornus canadensis	Bunchberry
	Corydalis scouleri	Western Corydalis
	Dicentra formosa	Pacific Bleedingheart
	Disporum hookeri	Hooker Fairy–bell
	Disporum smithii	Large–flowered Fairy–bell
	Dryopteris arguta	Wood Fern
	Dryopteris expansa	Spreading Wood Fern

		Latin Name	Common Name
HERBACEOUS, GRASSES, ETC. (continued)		Epilobium angustifolium	Fireweed
		Festuca occidentalis	Western Fescue–grass
		Festuca subulata	Bearded Fescue–grass
		Fragaria vesca var. bracteata	Wood Strawberry
		Galium triflorum	Sweetscented Bedstraw
		Geum macrophyllum	Oregon Avens
		Heuchera micrantha	Smallflowered Alumroot
	☼	Hieracium albiflorum	White–flowered Hawkweed
	☼	Iris tenax	Oregon Iris
	☼	Ligusticum apiifolium	Parsley–leaved Lovage
	☼	Ligusticum grayii	Gray's Lovage
		Lilium columbianum	Columbia Lily
	🌧	Heracleum lanatum	Cow–parsnip
		Lupinus latifolius	Broadleaf Lupine
	☼	Luzula campestris var. congesta	Field Woodrush
		Luzula parviflora	Small–flowered Woodrush
	🌧	Lysichitum americanum	Skunk Cabbage
		Maianthemum dilatatum	False Lily–of–the–valley
		Mertensia platyphylla	Western Bluebells
	🌧	Mitella caulescens	Leafy Mitrewort
	🌧	Mitella pentandra	Five–stamened Mitrewort
		Monotropa uniflora	Indian-pipe
	🌧	Montia parvifolia	Streambank Springbeauty
		Nemophila menziesii	Baby Blue–eyes
	🌧	Oplopanax horridus	Devil's Club
		Osmorhiza chilensis	Mountain Sweet–root
	☼	Poa compressa	Canada Bluegrass
		Potentilla glandulosa	Sticky Cinquefoil
		Prunella vulgaris var. lanceolata	Heal–all
		Pyrola asarifolia	Wintergreen
		Satureja douglasii	Yerba Buena
	🌧	Scirpus microcarpus	Small–fruited Bullrush

	Latin Name	Common Name
HERBACEOUS, GRASSES, ETC. (continued)	Stachys cooleyea	Cooley's Hedge-nettle
	Thalictrum occidentale	Western Meadowrue
	Tiarella trifoliata	Laceflower
	Trientalis latifolia	Western Starflower
	Urtica dioica	Stinging Nettle
	Vicia gigantea	Giant Vetch
	Anemone lyallii	*Small Wind–flower*
	Anemone oregana var. felix	*Oregon Anemone*
	Boykinia occidentalis	*Slender Boykinia*
	Calypso bulbosa	*Fairy Slipper*
	Cynoglossum grande	*Pacific Hound's–tongue*
	Cypripedium montanum	*Mountain Lady–slipper*
	Cystopteris fragilis	*Brittle Bladder Fern*
	Dicentra formosa ssp. oregana	*Oregon Bleeding Heart*
	Erythronium oregonum	*Giant Fawn–lily*
	Goodyera oblongifolia	*Giant Rattlesnake–plantain*
	Gymnocarpium dryopteris	*Oak Fern*
	Lonicera ciliosa	*Trumpet Vine*
	Nothochelone nemorosa	*Turtle Head*
	Sanicula crassicaulis	*Pacific Sanicle*
	Synthyris reniformis	*Snow Queen*
	Trillium chloropetalum	*Giant Trillium*
	Viola hallii	*Hall's Violet*
	Viola sempervirens	*Evergreen Violet*

2.2 MIXED CONIFEROUS/DECIDUOUS RIPARIAN FOREST

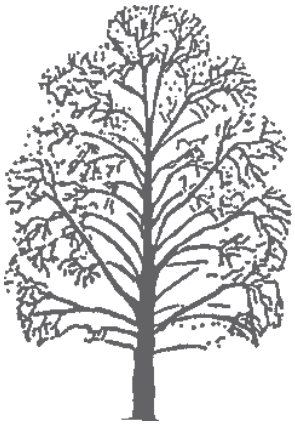
Along streams like Johnson Creek which flood periodically and have broad floodplains, a distinct mixed coniferous/deciduous community is found.



This community represents a mid–range between the narrow riparian areas and deep ravines characteristic of upper sections of streams in the west hills and the broad flood plains of the Columbia and Willamette. Western red cedars are common along with alder and bigleaf maple. Cottonwood, alder, and willows are common along the frequently flooded wet fringe on the banks of the stream. The shrub layer is dominated by red–osier dogwood, indian plum, and ninebark.

KEY	**Most common species appear in bold type**
	Italic type indicates species that rarely occur in this community within Portland

	Latin Name	Common Name
TREES	**Acer macrophyllum**	**Big–leaf Maple**
	Alnus rubra	**Red Alder**
	Crataegus suksdorfii	**Black Hawthorn**
	Fraxinus latifolia	**Oregon Ash**
	Populus balsamifera var. trichocarpa	**Black Cottonwood**
	Populus tremuloides	**Quaking Aspen**
	Salix lucida ssp lasiandra	**Pacific Willow**
	Thuja plicata	**Western Red Cedar**
	Abies grandis	Grand Fir
	Cornus nuttallii	Western Flowering Dogwood
	Pseudotsuga menziesii	Douglas Fir
	Rhamnus purshiana	Cascara



Red Alder

	Latin Name	Common Name
TREES (continued)	Salix rigida var macrogemma	Rigid Willow
	Salix scouleriana	Scouler Willow
	Tsuga heterophylla	Western Hemlock
	Taxus brevifolia	*Pacific Yew*
SHRUBS	**Acer circinatum**	**Vine Maple**
	Amelanchier alnifolia	**Serviceberry**
	Berberis nervosa	**Dull Oregon Grape**
	Cornus sericea ssp. sericea (*f. stolonifera*)	**Red–osier Dogwood**
	Gaultheria shallon	**Salal**
	Oemleria cerasiformis	**Indian Plum**
	Physocarpus capitatus	**Pacific Ninebark**
	Rosa pisocarpa	**Swamp Rose**
	Rosa nutkana var. nutkana	**Nootka Rose**
	Rubus leucodermis	**Blackcap Raspberry**
	Rubus parviflorus	**Thimbleberry**
	Rubus spectabilis	**Salmonberry**
	Salix sessilifolia	**Soft–leaved Willow**
	Salix sitchensis	**Sitka Willow**
	Sambucus racemosa	**Red Elderberry**
	Spiraea douglasii	**Douglas Spirea**
	Symphoricarpos albus	**Common Snowberry**
	Viburnum ellipticum	**Oval–leaved Viburnum**
	Euonymus occidentalis	Western Wahoo
	Lonicera involucrata	Black Twinberry
	Prunus virginiana	Common Chokecherry
	Rubus leucodermis	Blackcap Raspberry
	Sambucus cerulea	Blue Elderberry
	Salix fluviatilis	Columbia River Willow
	Spiraea betulifolia var lucida	Shiny–leaf Spiraea

Serviceberry

	Latin Name	Common Name
SHRUBS (continued)	*Ribes bracteosum*	*Blue Currant*
	Rubus ursinus var macropetalus	*Dewberry*
	Salix hookeriana (formerly piperi)	*Piper's Willow*
HERBACEOUS, GRASSES, ETC.	**Achlys triphylla**	**Vanillaleaf**
	Adiatum aleuticum	**Northern Maiderhair Fern**
	Athyrium filix–femina	**Lady Fern**
	Carex deweyana ssp. leptopoda	**Dewey's Sedge**
	Carex obnupta	**Slough Sedge**
	Dicentra formosa	**Pacific Bleedingheart**
	Elymus glaucus ssp. jepsonii	**Jepson's Blue Wildrye**
	Equisetum arvense	**Common Horsetail**
	Equisetum hyemale	**Common Scouring–rush**
	Galium trifidum	**Small Bedstraw**
	Hydrophyllum tenuipes	**Pacific Waterleaf**
	Montia perfoliata	**Miner's Lettuce**
	Petasites frigidus var. palmatus	**Palmate Coltsfoot**
	Polypodium glycyrrhiza	**Licorice Fern**
	Polystichum munitum	**Sword Fern**
	Prosartes hookeri	**Hooker's Fairybells**
	Prosartes smithii	**Smith Fairybells**
	Pteridium aquilinum	**Bracken Fern**
	Smilacina racemosa	**Western False Solomon's Seal**
	Smilacina stellata	**Starry False Solomon's Seal**
	Tellima grandiflora	**Fringecup**
	Tolmiea menziesii	**Pig–a–back**
	Trillium ovatum	**Western Trillium**
	Trisetum canescens	**Tall Trisetum**
	Urtica dioica	**Stinging Nettle**
	Viola glabella	**Stream Violet**
	Actaea rubra	Baneberry
	Alisma plantago–aquatica var. americanum	American Water–plantain

Lady Fern

	Latin Name	Common Name
HERBACIOUS, GRASSES, ETC. (continued)	Alopecurus geniculatus	Water Foxtail
	Blechnum spicant	Deer Fern
	Carex hendersonii	Henderson's Wood Sedge
	Dicentra formosa	Pacific Bleedingheart
	Dryopteris arguta	Wood Fern
	Geum macrophyllum	Oregon Avens
	Heracleum lanatum	Cow–parsnip
	Lysichitum americanum	Skunk Cabbage
	Maianthemum dilatatum	False Lily–of–the–valley
	Mitella caulescens	Leafy Mitrewort
	Mitella pentandra	Five–stamened Mitrewort
	Montia sibirica	Candy Flower
	Oenanthe sarmentosa	Pacific Water–parsley
	Oplopanax horridus	Devil's Club
	Prunella vulgaris var. lanceolata	Heal–all
	Pyrola asarifolia	Wintergreen
	Rubus ursinus	Pacific Blackberry
	Scirpus microcarpus	Small–fruited Bulrush
	Thalictrum occidentale	Western Meadowrue
	Trientalis latifolia	Western Starflower
	Veronica americana	American Brooklime
	Aster modestus	*Few–flowered Aster*
	Boykinia occidentalis	*Slender Boykinia*
	Boykinia major	*Greater Boykinia*
	Calamagrostis canadensis	*Bluejoint*
	Carex amplifolia	*Big–leaf Sedge*
	Dicentra formosa ssp. Oregana	*Oregon Bleeding Heart*
	Dodecatheon pulchellum	*Few–flowered Shooting Star*
	Myosotis laxa	*Small–flowered Forget–me–not*
	Nothochelone nemorosa	*Turtle Head*
	Sanicula crassicaulis	*Pacific Sanicle*
	Trillium chloropetalum	*Giant Trillium*

2.3 MIXED DECIDUOUS FOREST, STEEP DRY SLOPE

On south slopes that are exposed and extremely well drained, such as Overlook Bluff, the forest community is predominantly a mixture of deciduous trees, with scattered conifers.

Garry oak and bigleaf maple are the dominant trees. Conifers do not favor the dry conditions and thin, rocky, and well–drained soils. In some areas, the tree canopy is more open, allowing a wider variety of grasses and other herbaceous plants.

KEY	**Most common species appear in bold type**
	Italic type indicates species that rarely occur in this community within Portland

	Latin Name	Common Name
TREES	**Acer macrophyllum**	**Big–leaf Maple**
	Quercus garryana	**Garry Oak**
	Alnus rubra	Red Alder
	Arbutus menziesii	Pacific Madrone
	Prunus emarginata	Bitter Cherry
	Pseudotsuga menziesii	Douglas Fir
	Rhamnus purshiana	Cascara
	Crataegus suksdorfii	*Black Hawthorn*
	Pinus ponderosa	*Ponderosa Pine*

Garry Oak

SHRUBS

Tall Oregongrape

Latin Name	Common Name
Amelanchier alnifolia	**Western Serviceberry**
Berberis aquifolium	**Tall Oregongrape**
Bromus carinatus	**California Brome–grass**
Ceanothus cuneatus	**Buckbrush**
Holodiscus discolor	**Ocean–spray**
Symphoricarpos albus	**Common Snowberry**
Symphoricarpos mollis	**Creeping Snowberry**
Berberis nervosa	Dull Oregongrape
Oemleria cerasiformis	Indian Plum
Philadelphus lewisii	Mockorange
Prunus virginiana	Chokecherry
Ribes sanguineum	Red Currant
Ribes viscosissimum	Sticky Currant
Rosa gymnocarpa	Baldhip Rose
Rosa nutkana var. nutkana	Nootka Rose
Rubus parviflorus	Thimbleberry
Sambucus cerulea	Blue Elderberry
Vaccinium parvifolium	Red Huckleberry
Ceanothus sanguineous	*Oregon Tea–tree*
Lonicera hispidula	*Hairy Honeysuckle*

HERBACIOUS, GRASSES, ETC.

California Brome–grass

Latin Name	Common Name
Bromus carinatus	**California Brome–grass**
Carex deweyana ssp. leptopoda	**Dewey's Sedge**
Carex tumulicola	**Foothill Sedge**
Clarkia amoena	**Farewell to Spring**
Elymus glaucus	**Blue Wildrye**
Festuca californica	**California Fescue**
Festuca occidentalis	**Western Fescue–grass**
Olsynium douglasii	**Grass-widows**
Polystichum munitum	**Sword Fern**
Pteridium aquilinum	**Bracken Fern**
Pyrola Picta	**White-vein pyrola**
Sanicula bipinnatafida	**Purple Sanicle**
Tiarella trifoliata v. unifoliata	**Trefoil Tiarella**
Vicia americana	**American Vetch**
Agoseris grandiflora	Large–flowered Agoseris
Apocynum androsaemifolium	Spreading Dogbane
Campanula scouleri	Scouler's Bellflower
Clematis ligusticifolia	Western Clematis
Collinsia grandiflora	Large–flowered Blue–eyed Mary
Collinsia parviflora	Small–flowered Blue–eyed Mary
Delphinium nuttallii	Nuttall's Larkspur
Epilobium angustifolium	Fireweed
Fragaria virginiana var. platypetala	Broadpetal Strawberry
Hieracium albiflorum	White–flowered Hawkweed
Ligusticum apiifolium	Parsley–leaved Lovage
Ligusticum grayii	Gray's Lovage
Melica subulata	Alaska Oniongrass
Osmorhiza chilensis	Mountain Sweet–root

	Latin Name	Common Name
HERBACIOUS, GRASSES, ETC. (continued)	Poa compressa	Canada Bluegrass
	Potentilla glandulosa	Sticky Cinquefoil
	Rubus ursinus	Pacific Blackberry
	Vicia gigantea	Giant Vetch
	Bromus vulgaris	*Columbia Brome*
	Cypripedium montanum	*Mountain Lady–slipper*
	Cystopteris fragilis	*Brittle Bladder Fern*
	Erythronium oregonum	*Giant Fawn-Lily*
	Lupinus laxiflorus	*Spurred Lupine*
	Pentagramma triangularis	*Gold–back Fern*
	Sanicula crassicaulis	*Pacific Sanicle*
	Viola adunca	*Early Blue Viole*

2.4 DECIDUOUS FORESTED WETLANDS AND FLOODPLAINS

Along the Willamette and the Columbia Rivers, the large floodplains and wetlands support a riparian community dominated by deciduous trees.

The soil ranges from loamy to sandy or gravely, and well drained but with a high water table and frequent flooding. Water saturates the soil much of the year. The dominant trees are black cottonwood, Oregon ash, various willows, and red alder, all of which can quickly recover from periodic flooding.

On higher ground which floods less frequently big–leaf maple and garry oak are common. Western red cedars appear in the transition zones between the lowlands and the forested bluffs overlooking the rivers.

This is a dynamic community that responds to periodic flooding and high disturbance; floods which can rip trees out of the ground or bury them with sediment. Plants are typically fast growing and can readily reestablish themselves after a disturbance.

KEY	**Most common species appear in bold type**
	Italic type indicates species that rarely occur in this community within Portland

	Latin Name	Common Name
TREES	**Alnus rubra**	**Red Alder**
	Crataegus suksdorfii	**Black Hawthorn**
	Fraxinus latifolia	**Oregon Ash**
	Populus balsamifera var. trichocarpa	**Black Cottonwood**
	Populus tremuloides	**Quaking Aspen**
	Salix lucida ssp. lasiandra	**Pacific Willow**
	Salix scouleriana	**Scouler Willow**

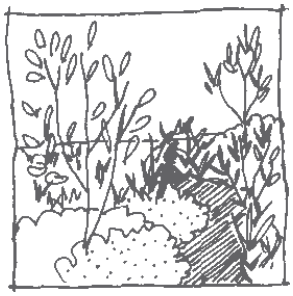
	Latin Name	Common Name
TREES (continued	Acer macrophyllum	Big–Leaf Maple
	Crataegus suksdorfii	Black Hawthorn
	Quercus garryana	Garry Oak
	Rhamnus purshiana	Cascara
	Salix rigida var. macrogemma	Rigid Willow
	Thuja plicata	*Western Red Cedar*
SHRUBS	**Amelanchier alnifolia**	**Western Serviceberry**
	Cornus sericea ssp. sericea	**Red–osier Dogwood**
	Oemleria cerasiformis	**Indian Plum**
	Physocarpus capitatus	**Pacific Ninebark**
	Rosa gymnocarpa	**Baldhip Rose**
	Rosa nutkana	**Nootka Rose**
	Salix fluviatilis	**Columbia River Willow**
	Sambucus cerulea	**Blue Elderberry**
	Sambucus racemosa	**Red Elderberry**
	Symphoricarpos albus	**Common Snowberry**
	Malus fusca	Western Crabapple
	Prunus virginiana	Common Chokecherry
	Ribes sanguineum	Red Currant
	Salix hookeriana	Piper's Willow
	Salix sessilifolia	Soft–leafed Willow
	Salix sitchensis	Sitka Willow
	Spiraea douglasii	Douglas' Spirea
	Ribes lobbii	*Pioneer Gooseberry*

	Latin Name	Common Name
HERBACIOUS, GRASSES, ETC.	**Angelica arguta**	**Sharptooth Angelica**
	Arnica amplexicaulis var. piperi	**Clasping Arnica**
	Athyrium filix–femina	**Lady Fern**
	Bromus carinatus	**California Brome–grass**
	Claytonia perfoliata or Montia perfoliata	**Miner's Lettuce**
	Cyperus aristatus	**Awned flatsedge**
	Cyperus erythrorhizos	**Red-Rooted flatsedge**
	Cyperus strigosus	**Straw-colored flatsedge**
	Elymus glaucus	**Blue Wildrye**
	Equisetum arvense	**Common Horsetail**
	Galium trifidum	**Small Bedstraw**
	Heracleum lanatum	**Cow–parsnip**
	Juncus ensifolius	**Dagger–leaf Rush**
	Montia sibirica	**Candy Flower**
	Polypodium glycrrhiza	**Licorice Fern**
	Polystichum munitum	**Sword Fern**
	Pteridium aquilinum	**Bracken**
	Ranunculus occidentalis	**Western Buttercup**
	Ranunculus uncinatus	**Little Buttercup**
	Scirpus cyperinus	**Wooly Sedge**
	Tellima grandiflora	**Fringecup**
	Urtica dioica	**Stinging Nettle**
	Vancouveria hexandra	**White Inside–out Flower**
	Alopecurus geniculatus	Water Foxtail
	Adiatum pedatum	Northern Maidenhair Fern
	Aquilegia formosa	Red Columbine
	Aruncus sylvester	Goatsbeard
	Blechnum spicant	Deer Fern
	Bromus sitchensis	Alaska Brome
	Cardamine oligosperma	Little Western Bittergrass
	Carex deweyana ssp. leptopoda	Dewey's Sedge
	Corydalis scouleri	Western Corydalis
	Dicentra formosa	Pacific Bleedingheart

	Latin Name	Common Name
HERBACIOUS, GRASSES, ETC. (continued)	Epilobium angustifolium	Fireweed
	Epilobium ciliatum spp. glandulosum	Common Willow–reed
	Epilobium ciliatum spp. watsonii	Watson's Willow–reed
	Festuca occidentalis	Western Fescue–grass
	Fragaria vesca var. bracteata	Wood Strawberry
	Fragaria vesca var. crinita	Wood Strawbery
	Gentianella amerella spp. acuta	Northern Gentian
	Geum macrophyllum	Oregon Avens
	Heuchera glabra	Smooth Alumroot
	Heuchera micrantha	Smallflowered Alumroot
	Lupinus rivularis	Stream Lupine
	Mertensia platyphylla	Western Bluebells
	Mitella pentandra	Five–stamened Mitrewort
	Oplopanax horridus	Devil's Club
	Oxalis trilliifolia	Trillium–leaved Wood–sorrel
	Petasites frigidus var. palmatus	Palmate Coltsfoot
	Pyrola asarifolia	Wintergreen
	Rubus ursinus	Pacific Blackberry
	Ranunculus flammula	Creeping Buttercup
	Ranunculus orthorhyncus	Straightbeak Buttercup
	Streptopus amplexifolius	Clasping–leaved Twisted–stalk
	Thalictrum occidentale	Western Meadowrue
	Tiarella trifoliata	Laceflower
	Trillium ovatum	Western Trillium
	Viola glabella	Stream Violet
	Aster subspicatus	*Douglas' Aster*
	Boykinia occidentalis	*Slender Boykinia*
	Chrysosplenium glechomaefolium	*Pacific Water–carpet*
	Cinna latifolia	*Woodreed*
	Dicentra formosa ssp. oregana	*Oregon Bleeding Heart*
	Festuca subuliflora	*Coast Range Fescue–grass*
	Festuca subulata	*Bearded Fescue–grass*
	Trisetum cernuum	*Nodding Trisetum*

2.5 SCRUB-SHRUB WETLANDS

Shrub wetlands occur on lake shores, on gravel bars, and in poorly drained areas. Examples are found on the edges of Smith–Bybee Lakes and Beggars–tick Marsh near Johnson Creek. The plants growing here can tolerate seasonal variation in water levels.



Growing conditions range from moist soils, to periodic flooding, to standing water. At some of these riparian or wetland edges, shrubs predominate and can form dense thickets of willows, rose, and red–osier dogwood. In other areas, these wetlands support scattered trees such as ash and cottonwood that tolerate wet soils. At the edges of shrub wetlands, or where the ground is higher and less wet, thickets may form with shrubs and groundcovers that tolerate the somewhat drier conditions.

KEY	**Most common species appear in bold type**
	Italic type indicates species that rarely occur in this community within Portland

	Latin Name	Common Name
TREES	**Alnus rubra**	**Red Alder**
	Crataegus suksdorfii	**Black Hawthorn**
	Populus tremuloides	**Quaking Aspen**
	Salix lucida ssp. lasiandra	**Pacific Willow**
	Salix scouleriana	**Scouler Willow**
	Fraxinus latifolia	Oregon Ash
	Malus fusca	Western Crabapple
	Populus balsamifera ssp. trichocarpa	Black Cottonwood
	Salix rigida var. macrogemma	*Rigid Willow*

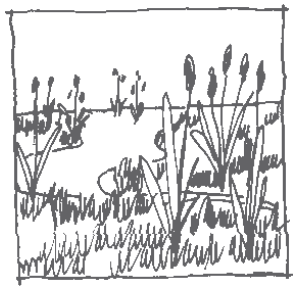
	Latin Name	Common Name
SHRUBS	**Cornus sericea ssp. sericea**	**Red–osier Dogwood**
	Physocarpus capitatus	**Pacific Ninebark**
	Rosa gymnocarpa	**Baldhip Rose**
	Rosa nutkana var. nutkana	**Nootka Rose**
	Salix fluviatilis	**Columbia River Willow**
	Salix sitchensis	**Sitka Willow**
	Sambucus racemosa	**Red Elderberry**
	Spiraea douglasii	**Douglas' Spirea**
	Trichostema lanceolatum	**Mt. Blue-Curls**
	Lonicera involucrata	Black Twinberry
	Rosa pisocarpa	Swamp Rose
	Rubus parviflorus	Thimbleberry
	Salix hookeriana	Piper's Willow
	Salix sessilifolia	Soft–leaved Willow
	Sambucus mexicana	Blue Elderberry
	Ribes divaricatum	*Straggly Gooseberry*
	Ribes lobbii	*Pioneer Gooseberry*
HERBACIOUS, GRASSES, ETC.	**Agrostis exarata**	**Spike Bentgrass**
	Agrostis scabra	**Rough Hairgrass**
	Alisma gramineum	**Narrow-leaved water plantain**
	Beckmania syzigachne	**Slough Grass**
	Carex deweyana ssp. leptopoda	**Dewey's Sedge**
	Carex obnupta	**Slough Sedge**
	Deschampsia cespitosa	**Tufted Hairgrass**
	Deschampsia elongata	**Slender Hairgrass**
	Downingia elegans	**Common Downingia**
	Eleocharis macrostachya	**Creeping Spikerush**
	Eleocharis obtusa v. obtusa	**Ovate Spikerush**
	Equisetum arvense	**Common Horsetail**
	Equisetum hyemale	**Common Scouring–rush**
	Galium trifidum	**Small Bedstraw**
	Grindelia integrifolia	**Willamette Valley Gumweed**

	Latin Name	Common Name
HERBACIOUS, GRASSES, ETC. (continued)	**Juncus acuminatus**	**Tapertip Rush**
	Juncus articulatus	**Jointed Rush**
	Juncus effusus v. pacificus	**Soft Rush**
	Juncus laccatus	**Slender Soft Rush**
	Juncus patens	**Spreading Rush**
	Leerisia oryzoides	**Rice Cutgrass**
	Navarretia intertexta	**Needle-leaf Navarretia**
	Nemophila pedunculata	**Spreading Nemophila**
	Potentilla gracilis v. gracilis	**Slender cinquefoil**
	Rumex salicifolius v. salicifolius	**Willow-leaved Dock**
	Saxifraga oregana	**Oregon Saxifrage**
	Typha latifolia	**Common Cattail**
	Urtica dioica	**Stinging Nettle**
	Veronica americana	**American Brooklime**
	Aster subspicatus	Douglas' Aster
	Bidens cernua	Nodding Beggars–tick
	Bidens frondosa	Leafy Beggars–tick
	Camassia leichtlinii	Leichtlin's Camas
	Camassia quamash	Common Camas
	Carex aperta	Columbia Sedge
	Cystopteris fragilis	Brittle Bladder Fern
	Dodecatheon dentatum	White Shooting Star
	Elymus glaucus	Blue Wildrye
	Epilobium ciliatum ssp. glandulosum	Common Willow–weed
	Galium aparine	Cleavers
	Gentiana sceptrum	Staff Gentian
	Geum macrophyllum	Oregon Avens
	Glyceria occidentalis	Northwest Mannagrass
	Juncus ensifolius	Dagger–leaf Rush
	Ligusticum apiifolium	Parsley–leaved Lovage
	Luzula campestris var. congesta	Field Woodrush
	Marah oreganus	Manroot
	Mimulus guttatus	Yellow Monkey–flower
	Oenanthe sarmentosa	Pacific Water–parsley

	Latin Name	Common Name
HERBACIOUS, GRASSES, ETC. (continued)	Oplopanax horridus	Devil's Club
	Petasites frigidus var. palmatus	Palmate Coltsfoot
	Polypodium glycyrrhiza	Licorice Fern
	Pteridium aquilinum	Bracken Fern
	Ranunculus cymbalaria	Shore Buttercup
	Ranunculus occidentalis	Western Buttercup
	Rubus ursinus	Pacific Blackberry
	Scirpus microcarpus	Small–fruited Bulrush
	Trisetum cernuum	Nodding Trisetum
	Veratrum californicum	False Hellebore
	Viola palustris	Marsh Violet
	Boykinia major	*Greater Boykinia*
	Cinna latifolia	*Woodreed*
	Circaea alpina	*Enchanter's Nightshade*
	Glyceria elata	*Fowl Mannagrass*
	Juncus bolanderi	*Bolander's Rush*
	Lindernia dubia	*Common False–pimpernel*
	Lindernia dubia var. anagallidea	*Slender False–pimpernel*
	Lathyrus polyphyllus	*Leafy–pea*
	Luzula parviflora	*Small–flowered Woodrush*
	Lysichitum americanum	*Skunk Cabbage*
	Melica subulata	*Alaska Oniongrass*
	Piperia elegans	*Elegant Rein–orchid*

2.6 MARSH

The marsh community occurs along the shores of rivers and sloughs, or in poorly–drained, low–lying areas where the ground is wet most of the year. Marsh areas occur at Beggar's Tick Marsh and around Smith–Bybee Lakes.



In this open and sunny marsh habitat, occasional trees or shrubs may appear in small groups. The level of moisture may fluctuate between winter and summer. The ground water levels are generally very near to the surface, and may be accentuated by the presence of poorly draining soils and the seasonal flooding of nearby waterways. The plants which dominate in these conditions are those which can tolerate wet soil all or most of the year.

KEY	**Most common species appear in bold type**
	Italic type indicates species that rarely occur in this community within Portland

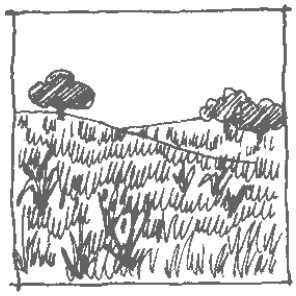
	Latin Name	Common Name
TREES	*Salix lucida ssp. lasiandra*	*Pacific Willow*
	Salix rigida var. macrogemma	*Rigid Willow*
SHRUBS	*Cornus sericea ssp. sericea*	*Red–osier Dogwood*
	Salix hookeriana	*Piper's Willow*

	Latin Name	Common Name
HERBACEOUS, GRASSES, ETC.	**Allium cernuum**	**Nodding Onion**
	Arnica amplexicaulis var. piperi	**Clasping arnica**
	Beckmania syzigachne	**Slough Grass**
	Camassia quamash	**Common Camas**
	Carex densa	**Dense Sedge**
	Carex obnupta	**Slough Sedge**
	Deschampsia cespitosa	**Tufted Hairgrass**
	Eleocharis acicularis	**Needle Spike–rush**
	Eleocharis macrostachya	**Creeping Spike–rush**
	Eriophyllum lanatum	**Woolly Sunflower**
	Glyceria elata	**Fowl Mannagrass**
	Glyceria occidentalis	**Northwest Mannagrass**
	Hordeum brachyantherum	**Meadow Barley**
	Juncus balticus	**Baltic Rush**
	Juncus effusus v. pacificus	**Soft Rush**
	Juncus ensifolius	**Dagger–leaf Rush**
	Juncus laccatus	**Slender Soft Rush**
	Juncus tenuis	**Slender Rush**
	Oenanthe sarmentosa	**Pacific Water–parsley**
	Scirpus acutus	**Hardstem Bulrush**
	Scirpus americanus	**American Bulrush**
	Sparganium emersum var. emersum	**Simplestem Bur–reed**
	Sisyrinchium angustifolium	**Blue–eyed Grass**
	Typha latifolia	**Common Cattail**
	Alisma plantago–aquatica var. americanum	American Water–plantain
	Allium amplectens	Slim–leaved Onion
	Alopecurus geniculatus	Water Foxtail
	Bidens cernua	Nodding Beggars–tick
	Bidens frondosa	Leafy Beggars–tick
	Brodiaea hyacinthina	Hyacinth Brodiaea

	Latin Name	Common Name
HERBACEOUS, GRASSES, ETC. (continued)	Camassia leichtlinii	Leichtlin's Camas
	Carex athrostachya	Slenderbeaked Sedge
	Carex stipata	Sawbeak Sedge
	Gentiana sceptrum	Staff Gentian
	Mimulus guttatus	Yellow Monkey–flower
	Montia linearis	Narrow–leaved Montia
	Myosotis laxa	Small–flowered Forget–me–not
	Nuphar luteum ssp. polysepalum	Yellow Water–lily
	Ranunculus aquatilis var. hispidulus	White Water–buttercup
	Ranunculus cymbalaria	Shore Buttercup
	Ranunculus orthorhyncus	Straightbeak Buttercup
	Scirpus microcarpus	Small–fruited Bulrush
	Veratrum californicum	False Hellebore
	Veronica americana	American Brooklime
	Angelica arguta	*Sharptooth Angelica*
	Angelica genuflexa	*Kneeling angelica*
	Boykinia major	*Greater Boykinia*
	Boykinia occidentalis	*Slender Boykinia*
	Carex aperta	*Columbia Sedge*
	Carex utriculata	*Beaked Sedge*
	Juncus bolanderi	*Bolander's Rush*
	Lotus formisissimus	*Seaside Lotus*
	Lysichitum americanum	*Skunk Cabbage*
	Plagiobothrys figuratus	*Fragrant Popcorn–flower*
	Polygonum amphibium var. emersum	*Water Smartweed*

2.7 PRAIRIE

Prairie is most common in the middle and southern Willamette Valley, although some prairies did exist within the Columbia Corridor, on Sauvie Island, and in the Tualatin Valley. A remnant prairie still exists on Elk Rock Island in the middle of the Willamette.



Historically, these areas were burned by Native Americans, which helped to maintain their open, grassy character. There are very few examples of this type of community in the Portland area.

Prairies are comprised primarily of grasses on well drained dry upland sites. If trees and shrubs are present, they are typically found singularly or in small groups and are tolerant of the shallow dry soils and sunny exposed conditions. These areas may include grassy knolls, treeless south facing slopes, and well drained grassland. The number of trees or shrubs present will depend on the depth of the soil and available moisture.

Oak savanna is a community that is no longer in existence in the Portland area. It was much like the prairie community except there were a greater number of trees present. The greater frequency of trees would likely have changed the assemblage of species growing under them but there is little information available to indicate what that assemblage may have been.

KEY	**Most common species appear in bold type**
	Italic type indicates species that rarely occur in this community within Portland

	Latin Name	Common Name
TREES	Quercus garryana	Garry Oak
	Arbutus menziesii	*Pacific Madrone*
	Pinus ponderosa	*Ponderosa Pine*
SHRUBS	Amelanchier alnifolia	Western Serviceberry
	Berberis aquifolium	Tall Oregon Grape
	Holodiscus discolor	Ocean–spray
	Philadelphia lewisii	Mockorange

	Latin Name	Common Name
SHRUBS (continued)	Ribes sanguineum	Red Flowering Currant
	Ribes viscisissimum	Sticky Currant
	Rosa gymnocarpa	Baldhip Rose
	Rosa nutkana var. nutkana	Nootka Rose
	Rubus leucodermis	Blackcap Raspberry
	Symphoricarpos albus	Common Snowberry
	Symphoricarpos mollis	Creeping Snowberry
	Viburnum ellipticum	Oval–leaved Viburnum
	Ceanothus sanguineus	*Oregon Tea–tree*
	Rubus ursinus var. macropetalus	*Dewberry*
HERBACEOUS, GRASSES, ETC.	**Achillea millefolium**	**Yarrow**
	Acnatherum lemmonii	**Lemmon's Needlegrass**
	Acnatherum occidentalis ssp. californica	**California's Needlegrass**
	Aquilegia formosa	**Red Columbine**
	Bromus carinatus	**California Brome–grass**
	Bromus vulgaris	**Columbia Brome**
	Calochortus tolmiei	**Tolmie's Mariposa**
	Cirsium hallii	**Hall's Thistle**
	Clarkia amoena	**Farewell to Spring**
	Clarkia rhomboidea	**Common Clarkia**
	Collinsia rattannii	**Rattan Collinsia**
	Coreopsis tinctoria v. atkinsonia	**Columbia Tickseed**
	Dodecatheon hendersonii	**Broad-leaved Shooting Star**
	Elymus glaucus	**Blue Wildrye**
	Festuca californica	**California Fescue**
	Festuca occidentalis	**Western Fescue–grass**
	Festuca roemeri	**Roemer's Fescue**
	Fragaria virginiana var. platypetala	**Broadpetal Strawberry**
	Fritillaria affinis	**Checker Lily**
	Koeleria macrantha	**Junegrass**

	Latin Name	Common Name
HERBACEOUS, GRASSES, ETC. (continued)	**Lathyrus nevadensis**	**Nevada Peavine**
	Lithophragma parviflorum	**Small-Flowered Prairiestar**
	Luzula campestris var. congesta	**Field Woodrush**
	Madia gracilis	**Slender Tarweed**
	Navarretia tagetina	**Northern Navarretia**
	Potentilla gracilis v. gracilis	**Slender Cinquefoil**
	Sanicula bipinnatafida	**Purple Sanicle**
	Silene antirrhina	**Sleepy Catchfly**
	Trifolium bifidum	**Pinole Clover**
	Trifolium eriocephalum	**Wooly Head Clover**
	Trifolium microcephalum	**Small-Head Clover**
	Trifolium microdon	**Thimble Clover**
	Trifolium oliganthum	**Few-Flowered Clover**
	Trifolium tridentatum	**Sand Clover**
	Trifolium variegatum	**White-Tip Clover**
	Viola praemorsa v. praemorsa	**Canary Violet**
	Agoseris grandiflora	Large–flowered Agoseris
	Allium acuminitum	Hooker's Onion
	Allium amplectens	Slim–leaved Onion
	Allium cernuum	Nodding Onion
	Anaphalis margaritacea	Pearly–everlasting
	Aster chilensis ssp. hallii	Common California Aster
	Aster subspicatus	Douglas' Aster
	Brodiaea coronaria	Harvest Brodiaea
	Brodiaea hyacinthina	Hyacinth Brodiaea
	Camassia leichtlinii	Leichtlin's Camas
	Camassia quamash	Common Camas
	Campanula scouleri	Scouler's Bellflower
	Collinsia grandiflora	Large–flowered Blue–eyed Mary
	Collinsia parviflora	Small–flowered Blue–eyed Mary
	Collomia grandiflora	Large–flowered Collomia
	Cryptantha intermedia var. grandiflora	Common Forget–me–not

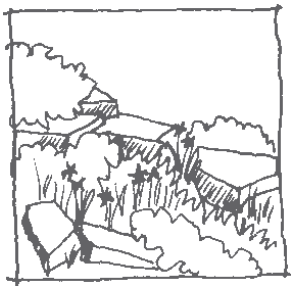
	Latin Name	Common Name
HERBACEOUS, GRASSES, ETC. (continued)	Delphinium menziesii var. pyramidale	Menzie's Larkspur
	Delphinium nuttallii	Nuttall's Larkspur
	Draba verna	Spring Whitlow–grass
	Epilobium angustfolium	Fireweed
	Epilobium paniculatum var. pan.	Tall Annual Willow Herb
	Erigeron annuus	Annual Fleabane
	Eriophyllum lanatum	Wooly Sunflower
	Erysimum capitatum ssp. capitatum	Prairie Rocket
	Eschscholzia californica	Gold Poppy
	Gilia capitata	Bluefield Gilia
	Hieracium albiflorum	White–flowered Hawkweed
	Iris tenax	Oregon Iris
	Ligusticum apiifolium	Parsley–leaved Lovage
	Linanthus bicolor	Bicolored Linanthus
	Lomatium utriculatum	Common Lomatium
	Lotus denticulatus	Meadow Lotus
	Lotus micranthus	Small–flowered Deervetch
	Lotus purshiana	Spanish Clover
	Lupinus bicolor	Two–color Lupine
	Lupinus laxiflorus	Spurred Lupine
	Lupinus micranthus	Field Lupine
	Lupinus microcarpus	Chick Lupine
	Lupinus rivularis	Stream Lupine
	Lupinus sulphureus	Sulphur Lupine
	Marah oreganus	Manroot
	Melica subulata	Alaska Oniongrass
	Montia dichotoma	Dwarf Montia
	Montia linearis	Narrow–leaved Montia
	Navarretia squarrosa	Skunkweed
	Nemophila menziesii	Baby Blue–eyes
	Oenothera biennis	Evening Primrose
	Orthocarpus hispidus	Hairy Owl–clover

	Latin Name	Common Name
HERBACEOUS, GRASSES, ETC. (continued)	Penstemon richardsonii	Cut–leaved Penstemon
	Phlox gracilis	Microsteris
	Plectritis congesta	Rosy Plectritis
	Poa annua	Annual Bluegrass
	Potentilla glandulosa	Sticky Cinquefoil
	Prunella vulgaris var. lanceolata	Heal–all
	Ranunculus occidentalis	Western Buttercup
	Rubus ursinus	Pacific Blackberry
	Sanguisorba occidentalis	Annual Burnet
	Saxifraga occidentalis var. rufidula	Western Saxifrage
	Sedum oreganum	Oregon Stonecrop
	Sedum spathulifolium	Spatula–leaf Stonecrop
	Selaginella densa	Compact Selaginella
	Sidalcea campestris	Meadow Sidalcea
	Sisyrinchium angustifolium	Blue–eyed Grass
	Solidago canadensis	Goldenrod
	Tonella tenella	Small–flowered Tenella
	Verbena hastata	Wild Hyssop
	Vicia americana	American Vetch
	Vicia gigantea	Giant Vetch
	Viola adunca	Early Blue Violet
	Allium acuminitum	*Hooker's Onion*
	Aster curtus	*White–topped Aster*
	Cystopteris fragilis	*Brittle Bladder Fern*
	Dichelostemma congestum	*Northern Saitas*
	Erigeron decumberns var. decumbens	*Willamette Daisy*
	Erigeron philadelphicus	*Philadelphia Fleabane*
	Erysimum capitatum ssp. capitatum	*Prairie Rocket*
	Fritillaria affinis	*Checker Lily*
	Madia sativa	*Chile Tarweed*
	Pentagramma triangularis	*Gold–back Fern*
	Poa howellii	*Howell's Bluegrass*

	Latin Name	Common Name
HERBACEOUS, GRASSES, ETC. (continued)	*Sanicula crassicaulis*	*Pacific Sanicle*
	Saxifraga integrifolia	*Swamp Saxifrage*
	Sidalcea nelsoniana	*Nelson's Checker–mallow*
	Triodanis perfoliata	*Venus'–looking–glass*
	Xanthium spinosum	*Spiny Cocklebur*
	Xanthium strumarium	*Common Cocklebur*
	Eriophyllum lanatum	*Woolly Sunflower*

2.8a ROCKY OUTCROPS, DRY

Where basalt lies at the surface only a few plants can take hold in the rocky conditions. These places are characterized by rocky outcrops, cliffs, or small boulder fields.



Volcanic eruptions have left remnant basalt outcroppings on Rocky Butte and Mt. Tabor. In exposed, south–facing outcrops such as the southwest side of Elk Rock Island, the conditions can be hot and dry, and only plants adapted to droughty conditions can thrive. Because of the lack of soil cover, there are no trees and almost no shrubs. The plants that exist take hold on rocks, in cracks and crevices, or along the edges where soil is thin. These plants can tolerate nutrient–poor conditions. The ground tends to be hot in the summer and is generally dry much of the year.

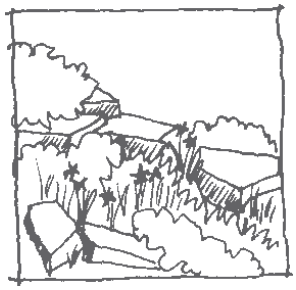
KEY	**Most common species appear in bold type**
	Italic type indicates species that rarely occur in this community within Portland

	Latin Name	Common Name
SHRUBS	Spiraea betulifolia var. lucida	Shiny–leaf Spiraea
	Arctostaphylos columbiana	*Hairy Manzanita*
	Arctostaphylos uva–ursi	*Kinnikinnick*
HERBACEOUS, GRASSES, ETC.	**Elymus glaucus**	**Blue Wildrye**
	Allium cernuum	Nodding Onion
	Aquilegia formosa	Red Columbine
	Campanula rotundifolia	Round–leaf Bluebell
	Gilia capitata	Bluefield Gilia

	Latin Name	Common Name
HERBACEOUS, GRASSES, ETC. (continuted)	Lomatium utriculatum	Common Lomatium
	Lotus purshiana	Spanish Clover
	Montia dichotoma	Dwarf Montia
	Montia linearis	Narrow-leaved Montia
	Penstemon richardsonii	Cut-leaved Penstemon
	Phlox gracilis	Microsteris
	Rubus ursinus	Pacific Blackberry
	Saxifraga occidentalis var. rufidula	Western Saxifrage
	Sedum oreganum	Oregon Stonecrop
	Sedum spathulifolium	Spatula-leaf Stonecrop
	Selaginella densa	Compact Selaginella
	Tonella tenella	Small-flowered Tenella
	Allium acuminitum	*Hooker's Onion*
	Cystopteris fragisil	*Brittle Bladder Fern*
	Dichelostemma congestum	*Northern Saitas*
	Erysimum capitatum ssp. capitatum	*Prairie Rocket*
	Fritillaria affinis	*Checker Lily*
	Pentagramma triangularis	*Gold-back Fern*

2.8b ROCKY OUTCROPS, WET

Similar to Rocky Outcrops, Dry (see 8A), these places are characterized by rocky outcrops, cliffs, or small boulder fields, but the ground is moist or wet much of the year.



The plants that can exist here take advantage of moisture seeps or high groundwater accessible through cracks in the basalt. In protected, forested areas where the slope is north or east–facing, the ground remains cool year–round.

Because of the lack of soil cover, there are no trees and almost no shrubs. The plants that exist here take hold on rocks, in cracks and crevices, or along the edges where soil is thin. These plants can tolerate nutrient–poor conditions.

KEY	**Most common species appear in bold type**
	Italic type indicates species that rarely occur in this community within Portland

	Latin Name	Common Name
SHRUBS	Spiraea betulifolia var. lucida	Shiny–leaf Spiraea
HERBACEOUS, GRASSES, ETC.	**Adiantum aleuticum**	**Northern Maidenhair Fern**
	Dryopteris arguta	**Wood Fern**
	Aquilegia formosa	Red Columbine
	Cardamine angulata	Angled Bittercress
	Claytonia perfoliata	Miner's lettuce
	Collinsia parviflora	Small–flowered Blue–eyed Mary
	Collomia heterophylla	Varied–leaf Collomia
	Comandra umbellata var. californica	Bastard Toad–flax

	Latin Name	Common Name
HERBACEOUS, GRASSES, ETC. (continuted)	Delphinium leucophaeum	Pale Larkspur
	Delphinium menziesii var. pyramidale	Menzies' Larkspur
	Dodecatheon dentatum	White Shooting Star
	Elymus glaucus	Blue Wildrye
	Eriogonum cf. nudum	Barestem Buckwheat
	Festuca roemeri	Roemer's Fescue
	Fritillaria affinis	Checker Lily
	Gilia capitata	Bluefield Gilia
	Heuchera glabra	Smooth Alumroot
	Heuchera micrantha	Smallflowered Alumroot
	Lotus purshiana	Spanish Clover
	Melica bulbosa	Oniongrass
	Mimulus alsinoides	Chickweed Monkey–flower
	Mimulus guttatus	Yellow Monkey–flower
	Montia linearis	Narrow–leaved Montia
	Montia parvifolia	Streambank Springbeauty
	Penstemon serrulatus	Cascade Penstemon
	Rubus ursinus	Pacific Blackberry
	Saxifraga ferruginea	Rusty Saxifrage
	Saxifraga integrifolia	Swamp Saxifrage
	Saxifraga mertensiana	Merten's Saxifrage
	Saxifraga nuttallii	Nuttall's Saxifrage
	Saxifraga occidentalis var. rufidula	Western Saxifage
	Sedum oreganum	Oregon Stonecrop
	Sedum spathulifolium	Spatula–leaf Stonecrop
	Selaginella douglasii	Douglas' Selaginella
	Bolandra oregana	*Bolandra*
	Centaurium muhlenbergii	*Muhlenberg's Centaury*
	Cystopteris fragilis	*Brittle Bladder Fern*
	Montia dichotoma	*Dwarf Montia*
	Nothochelone nemorosa	*Turtle Head*
	Orobanche uniflora	*Naked Broomrape*
	Sullivantia oregana	*Sullivantia*

3. Native Plants in Detail

This section provides illustrated descriptions of woody plants and tables summarizing the features of herbaceous plants historically found in the City of Portland. The list includes several plants known to occur within the Urban Growth Boundary or not more than ten miles from Portland. The plants are expected to occur within the City based on the presence of suitable habitat, the judgment of local botanical experts, the range of maps of the Oregon Flora Project, the publication Urbanizing Flora of Portland, Oregon 1806–2008, *or the range descriptions found in Hitchcock and Cronquist's* Flora of the Pacific Northwest *(1973).*

The plants are divided into the following groups:

Trees (with illustrations)

- Evergreens
- Deciduous
- Silhouettes (illustration)

Shrubs (with illustrations)

- Including tall arborescent shrubs, i.e. those equal to or greater than 15 ft. tall

Herbaceous

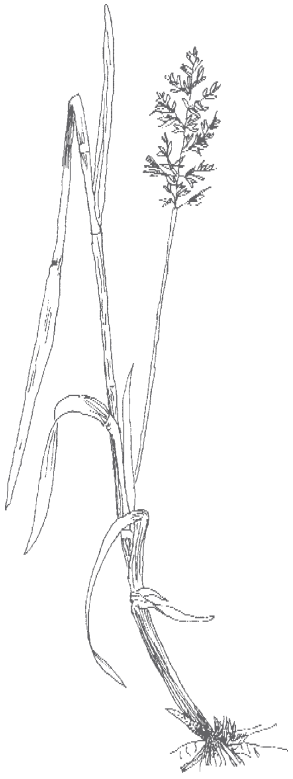
- Forbs
- Grasses
- Sedges, Rushes
- Ferns
- Other

The following additional special lists are also included:

- Groundcovers and Vines
- Native Plants Used as Food by Wildlife

Habitat Types

Habitat types are indicated for both the illustrated plant descriptions and in the tables. The habitat types are wetland, riparian, forest, forested slopes, thicket, grass and rocky. "Wetland" includes all forms of wetlands found in Portland. "Riparian" includes the riparian areas along the Willamette and Columbia Rivers, and other streams in Portland. "Forest" refers to upland forested areas with little or no slope. "Forested slopes" refers to steeply sloping upland forests such as the west hills and various buttes found in Portland. "Thicket" refers to edges of forests and meadows and includes hedgerows and clumps of vegetation that may be found in meadows. "Grass" refers to open areas or meadows. It may also include clearings in forested areas. "Rocky" refers to rocky upland areas, and may include outcrops and cliffs.



The information on habitat types is intended to provide general guidance for appropriate planting locations; certain plants, however, have highly specialized habitats which may make them appropriate for use only in specific areas of the city. For example, the Columbia River Willow (*Salix exigua var. columbiana*) normally occurs only along the mainstems of the Willamette and Columbia Rivers and is not appropriate for use in all "wetland" or "riparian" habitats throughout the city. For this reason, it may be helpful to consult with City staff, local botanists, or references such as those listed in the "Resources" section when preparing a planting plan.

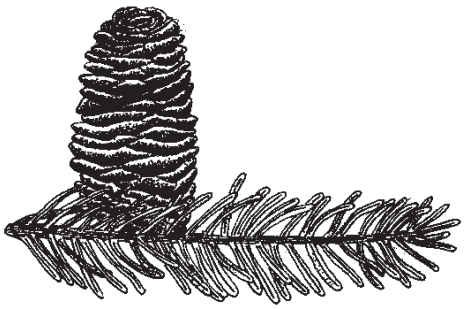
Sources of Native Plants

Native plants can be acquired through many nurseries in the Portland area. Occasionally, particularly for large orders or less common plants, growers will need time to propagate and raise plants before they are ready for installation. For this reason, growers may need advance notice of plant orders and project timelines should allow adequate time to fill such orders. For additional information about native plants, see the "Resources" section.

3.1 EVERGREEN TREES

Grand Fir *Abies grandis*

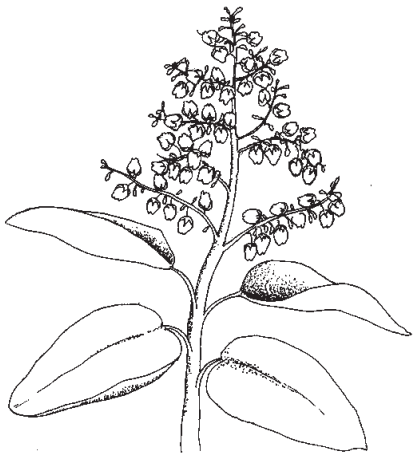
The Grand Fir is the only native fir that is common in the lower elevations (below 2500') of Western Oregon. Its needles are arranged in flat sprays on opposite sides of the twig, and when crushed have a tangerine—like fragrance. Grand Fir is able to reproduce in dense shade and young seedlings may be found growing in the understory of Doug Fir forests.



Mature height: 150 ft.	**Mature spread**: 40 ft.
10 yr. height: 30 ft.	**10 yr. spread:** 20 ft.
Growth rate: Medium	
Conditions: Full sun to full shade, moist to seasonally wet soil	
Relocate success: Medium	
Availability: High (bare root, container)	
Habitat type(s): Wetland, Riparian, Forest, Forest slope	

Pacific Madrone *Arbutus menziesii*

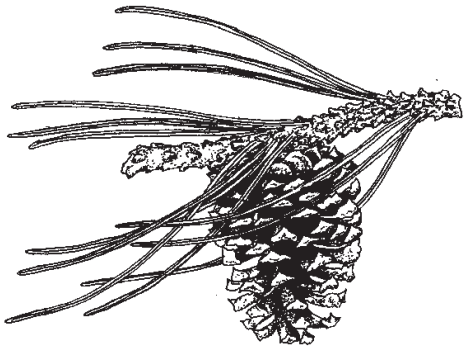
The only broadleaf evergreen among the native trees of the Pacific Northwest, the Pacific Madrone is commonly found in forest openings or edges. It has attractive, peeling bark and clusters of creamy white, fragrant, bell—shaped flowers in the spring. The red—orange berries appear in the fall and persist into the early winter. The berries were a food source for the Northwest Indians, and are attractive to many species of birds.



Mature height: 50 ft.	**Mature spread**: 50 ft.
10 yr. height: 6 ft.	**10 yr. spread:** 6 ft.
Growth rate: Very slow	
Conditions: Full sun, dry soil	
Relocate success: Low	
Availability: High (seed, container)	
Habitat type(s): Forest	

Ponderosa Pine *Pinus ponderosa*

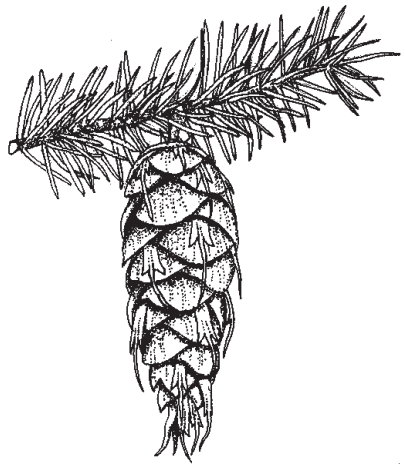
The name of this tree refers to the large size they attain at maturity. Ponderosa pines do best in sunny, dry locations and they are one of the most common evergreens in Eastern Oregon. While the bark on young trees is dark gray, with age it becomes orange and scaled like pieces in a jigsaw puzzle. The 6"–9" needles are arranged in bundles of three.



Mature height: 200 ft.	**Mature spread**: 30 ft.
10 yr. height: 50 ft.	**10 yr. spread:** 20 ft.
Growth rate: Fast	
Conditions: Full sun, dry soil	
Relocate success: Medium	
Availability: High (seed, container)	
Habitat type(s): Forest slope	

Douglas Fir *Pseudotsuga menziesii*

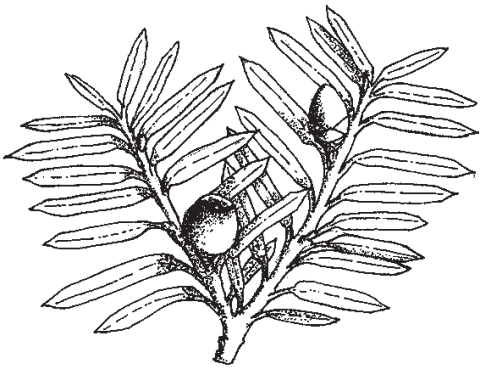
The Douglas Fir is the most common evergreen in the Pacific Northwest, where it had been widely harvested for timber and Christmas trees. A fast growing tree that requires some sunlight to reproduce, the Doug Fir can form dense stands in disturbed areas in only 50 years. The 3"–4" cone hangs down from the branches and has a very distinctive 3—pronged scale under each bract.



Mature height: 200 ft.	**Mature spread**: 60 ft.
10 yr. height: 40 ft.	**10 yr. spread:** 20 ft.
Growth rate: Very fast	
Conditions: Full to part sun, dry, moist or seasonally wet soil	
Relocate success: High	
Availability: High (seed, bare root, container)	
Habitat type(s): Forest, Forest slope	

Pacific Yew *Taxus brevifolia*

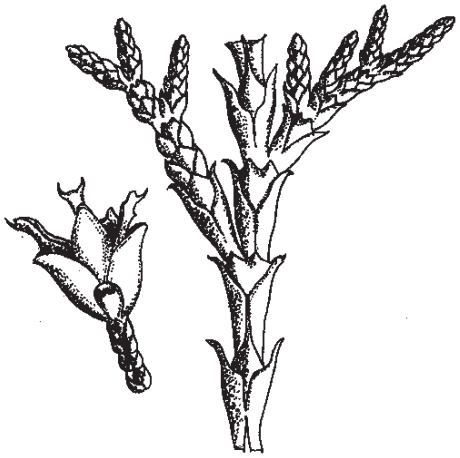
The Pacific Yew can be found as a small tree or a large shrub, usually in the shady understory of the canopy formed by taller trees. It tends to have an irregular shape with spreading, pendulous branches. Its 3/4" needles are flat with pointed tips and are dark green above and pale green below. The sparse fruit, which is attractive to birds, is a 1/4 fleshy red cup with a single dark seed inside.



Mature height: 40 ft.	**Mature spread**: 30 ft.
10 yr. height: 10 ft.	**10 yr. spread:** 10 ft.
Growth rate: Medium	
Conditions: Full sun to full shade, moist to seasonally wet soil	
Relocate success: Medium	
Availability: Medium (seed, container)	
Habitat type(s): Riparian, Forest, Forest slope	

Western Red Cedar *Thuja plicata*

Found mainly in the moist, lower elevations of the Pacific Northwest, Western Red Cedar can live to be 1000 years old. As the tree ages, its trunk becomes wide and fluted at the base, and tapers at the tip. Its stringy, reddish bark was used by the Northwest Indians for basketry and clothing. The branchlets are made up of flat sprays of overlapping scales, with tiny 1/2" cones that look like small rosebuds.



Mature height: 100 ft.	**Mature spread**: 30 ft.
10 yr. height: 30 ft.	**10 yr. spread:** 20 ft.
Growth rate: Medium	
Conditions: Full to part sun, moist to seasonally wet soil	
Relocate success: High	
Availability: High (seed, bare root, container)	
Habitat type(s): Wetland, Riparian, Forest, Forest slope	

Western Hemlock *Tsuga heterophylla*

The Western Hemlock is commonly found in the lower elevations below 3000' west of the Cascades. Young trees have attractive feathery foliage and the tip of the central leader often droops. The needles are short and vary in size from 1/4" to 3/4", with a white band on the underside. The light brown, papery cones are only about 1" long and may be produced in great quantities.

Mature height: 150 ft.	**Mature spread**: 40 ft.
10 yr. height: 40 ft.	**10 yr. spread:** 20 ft.
Growth rate: Fast	
Conditions: Full sun to full shade, moist to seasonally wet soil	
Relocate success: Medium	
Availability: High (seed, bare root, container)	
Habitat type(s): Riparian, Forest, Forest slope	

3.2 DECIDUOUS TREES

Big—leaf Maple *Acer macrophyllum*

With huge 8—12" leaves, the Big—leaf Maple is not easily confused with any other maple. In the spring 4—6" long clusters of many, small yellow flowers hang from the ends of the twigs. By mid—summer, these clusters are replaced with chains of large, fuzzy, double—winged samaras. When grown in the open, the Big—leaf Maple will form a broad, spreading canopy and a short stout trunk.

Mature height: 90 ft.	**Mature spread**: 75 ft.
10 yr. height: 35 ft.	**10 yr. spread:** 25 ft.
Growth rate: Fast	
Conditions: Full to part sun, moist to seasonally wet soil	
Relocate success: Medium	
Availability: High (seed, bare root, container)	
Habitat type(s): Forest, Forest slope	

Red Alder *Alnus rubra*

In areas where fire or logging has destroyed Doug Fir forests, Red Alder often colonizes in vigorous stands. Frequently flooded landscapes are also a favorite habitat for Red Alder. Since Red Alder cannot grow in deep shade, conifers usually replace the alders in time. Red alders have a smooth, gray bark that is often covered by large patches of a white lichen.

Mature height: 100 ft.	**Mature spread**: 40 ft.
10 yr. height: 40 ft.	**10 yr. spread:** 20 ft.
Growth rate: Very fast	
Conditions: Full to part sun, dry, moist to seasonally wet soil	
Relocate success: High	
Availability: High (seed, bare root, container)	
Habitat type(s): Riparian, Forest, Forest slope	

Western Flowering Dogwood *Cornus nuttallii*

Often found in the shade of conifers or in forest clearings, the Western Flowering Dogwood provides a beautiful display of large white blooms in mid—spring. What might be confused for petals are actually the creamy white bracts which surround the many tiny greenish true flowers in the center. Fall color for this tree ranges from orange to purple.

Mature height: 40 ft.	**Mature spread**: 20 ft.
10 yr. height: 20 ft.	**10 yr. spread:** 10 ft.
Growth rate: Medium	
Conditions: Part sun to full shade, moist to seasonally wet soil	
Relocate success: Low	
Availability: High (seed, container)	
Habitat type(s): Forest, Forest slope	

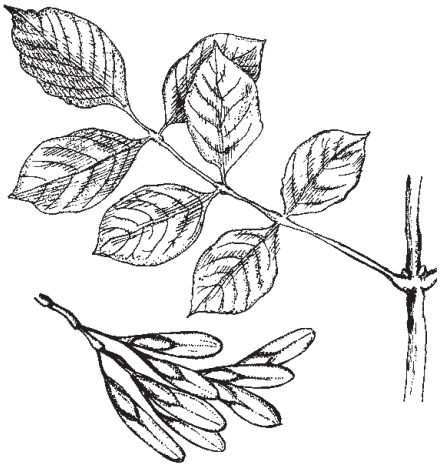
Black Hawthorn *Crataegus suksdorfii*

Northwest natives had medicinal and utilitarian uses for many parts of the Black Hawthorn tree. The small, seedy fruits are appealing to birds, and the tree often grows in a multi—stemmed form that makes an ideal thicket for nests. The upland and wetland varieties are nearly identical and distinguished mainly by subtle differences in the clusters of small white flowers that appear in the spring.

Mature height: 35/45 ft.	**Mature spread**: 25 ft.
10 yr. height: 25 ft.	**10 yr. spread:** 15/25 ft.
Growth rate: Medium	
Conditions: Part sun to full shade, moist to seasonally wet soil OR Full sun to full shade, dry to seasonally wet soil	
Relocate success: High	
Availability: High (seed, bare root, container) OR Low (bare root, container)	
Habitat type(s): Wetland, Riparian OR Riparian, Forest, Forest slope, Thicket	

Oregon Ash *Fraxinus latifolia*

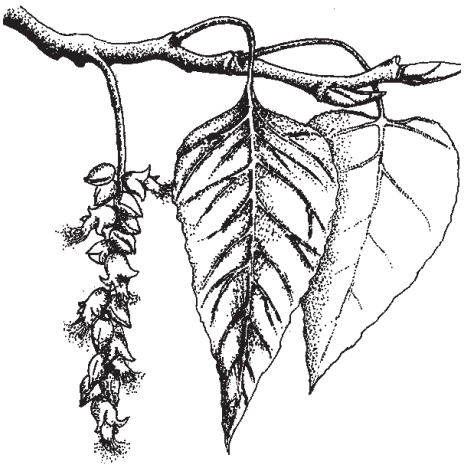
The Oregon Ash is often found growing in dense stands on soils that are very wet for part of the year. The seeds occur in clusters of single samaras on female trees, and are produced in especially large quantities at 3–5 year intervals. It is common for Oregon Ash leaves to display a brown, blotchy spotting by mid—summer. This condition does not seriously damage the tree.



Mature height: 75 ft.	**Mature spread**: 25 ft.
10 yr. height: 30 ft.	**10 yr. spread:** 15 ft.
Growth rate: Medium	
Conditions: Full to part sun, moist to seasonally wet soil	
Relocate success: Medium	
Availability: High (seed, bare root, container)	
Habitat type(s): Wetland, Riparian	

Black Cottonwood *Populus balsamifera ssp. trichocarpa*

Many of the rivers in the Northwest are lined with stands of Black Cottonwood. This is the tallest native broadleaf trees, having a very thick, straight trunk with branches appearing only on the upper portion. The triangular leaves are glossy green on top and much paler underneath. In the early spring, the sticky, amber—colored buds have a sweet, spicy scent. In the late summer, cotton—like tufts of seed are spread by the wind.



Mature height: 175 ft.	**Mature spread**: 40 ft.
10 yr. height: 50 ft.	**10 yr. spread:** 20 ft.
Growth rate: Very fast	
Conditions: Full to part sun, dry, moist to seasonally wet soil	
Relocate success: High	
Availability: High (seed, bare root, container)	
Habitat type(s): Wetland, Riparian	

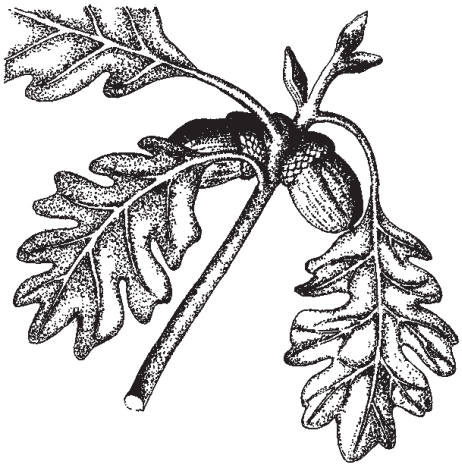
Bitter Cherry *Prunus emarginata*

The fragrant white flowers of the Bitter Cherry appear in the spring and are often visited by bees. The pollinated flowers develop into small (1/2") red fruits with a single, hard seed inside. The fruit is not palatable for humans, but is favorite of birds, particularly the Cedar Waxwing. The grey or reddish bark has many horizontal pores, and was used as a basket material by the Northwest natives.

Mature height: 30 ft.	**Mature spread**: 20 ft.
10 yr. height: 20 ft.	**10 yr. spread:** 15 ft.
Growth rate: Medium	
Conditions: Full to part sun, moist to seasonally wet soil	
Relocate success: Medium	
Availability: Medium (seed, container)	
Habitat type(s): Riparian, Forest slope, Thicket	

Garry Oak *Quercus garryana*

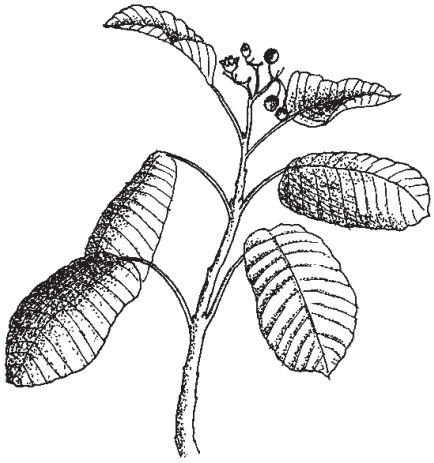
The broad, stout form of the Garry Oak is a common profile in the open grasslands and dry hillsides of the Northwest. It is a very long lived tree (500 years), and produces large acorns that provide food for many small animals, deer and woodpeckers. Old trees may have hollow branches or trunks that provide nesting sites for birds, squirrels and other small animals.



Mature height: 65 ft.	**Mature spread**: 45 ft.
10 yr. height: 10 ft.	**10 yr. spread:** 8 ft.
Growth rate: Very slow	
Conditions: Full sun, dry soil	
Relocate success: Low	
Availability: High (seed, container)	
Habitat type(s): Forest, Forest slope	

Cascara *Rhamnus purshiana*

Since Cascara prefers a shady, moist condition, it is often found growing as an understory tree with Vine Maple and Red Alder. The 1/4" black berries, while not especially tasty for humans, are attractive to raccoons and a variety of birds. The bark was used medicinally by Northwest natives and continues to be harvested for its laxative properties.



Mature height: 30 ft.	**Mature spread**: 25 ft.
10 yr. height: 15 ft.	**10 yr. spread:** 10 ft.
Growth rate: Slow	
Conditions: Part sun to full shade, moist to seasonally wet soil	
Relocate success: Medium	
Availability: High (seed, bare root, container)	
Habitat type(s): Riparian, Forest, Forest slope	

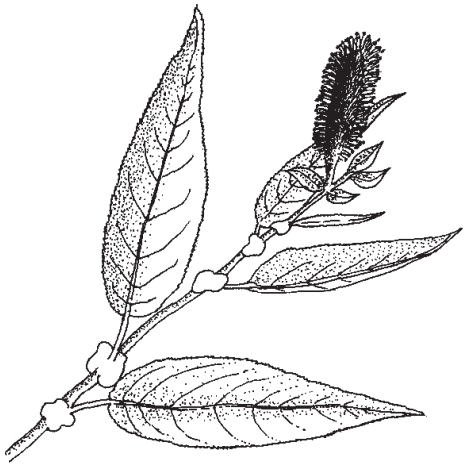
Pacific Willow *Salix lucida ssp. lasiandra*

One of the tallest native willows, Pacific Willow is found growing along rivers and stream where its roots can easily reach subsurface water. The leaves are dark and glossy above, and appear white underneath. The pale yellow female catkins are 3–4" long and appear in the spring when the tree begins to leaf out.

Mature height: 40 ft.	**Mature spread**: 30 ft.
10 yr. height: 30 ft.	**10 yr. spread:** 20 ft.
Growth rate: Fast	
Conditions: Full to part sun, moist, seasonally to perennially wet soil	
Relocate success: High	
Availability: High (seed, bare root, container)	
Habitat type(s): Wetland, Riparian	

Rigid Willow *Salix rigida var. macrogemma*

The Rigid Willow is found both as a broad, spreading shrub with thick branches or as a small tree that has a short trunk and heavy branches that form wide canopy. The yellowish green young branches are strong and pliable and make a valuable material for basket weaving. The leaves eventually become dark and glossy.



Mature height: 30 ft.	**Mature spread**: 20 ft.
10 yr. height: 15 ft.	**10 yr. spread:** 10 ft.
Growth rate: Fast	
Conditions: Full to part sun, Moist, seasonally wet to perennially wet soil	
Relocate success: High	
Availability: Low (bare root, container)	
Habitat type(s): Wetland, Riparian	

Scouler Willow *Salix scouleriana*

The Scouler Willow is native to many moist woodland and meadow areas of North America. Its young leaves are covered with many fine hairs which make them feel soft like felt. The leaves eventually become smooth and shiny, with only a few rust—colored hairs on the underside. Scouler Willow is able to resprout from fire damaged stumps and often reseeds itself in areas that have been recently burned.

Mature height: 40 ft.	**Mature spread**: 40 ft.
10 yr. height: 30 ft.	**10 yr. spread:** 30 ft.
Growth rate: Fast	
Conditions: Full to part sun, moist to seasonally wet soil	
Relocate success: High	
Availability: Medium (bare root, container)	
Habitat type(s): Wetland, Riparian, Forest	

3.3 NATIVE TREE LIST

Scientific Name	Common Name	Fire Accelerant? * +	Indicator Status	Habitat Type						
				Wetland	Riparian	Forest	F. Slope	Thicket	Grass	Rocky
Abies grandis	Grand Fir	Y	FACU-	●	●	●	●			
Acer macrophyllum	Big-leaf Maple	N	FACU			●	●			
Alnus rubra	Red Alder	N	FAC		●	●	●			
Arbutus menziesii	Madrone	N				●				
Cornus nuttallii	Western Flowering Dogwood	N				●	●			
Crataegus suksdorfii	Black Hawthorn	N	FAC	●	●	●	●	●		
Fraxinus latifolia	Oregon Ash	N	FACW	●	●					
Pinus ponderosa	Ponderosa Pine	Y	FACU-			●	●			
Populus balsamifera sp. trichocarpa	Black Cottonwood	N	FAC	●	●					
Populus tremuloides	Quaking Aspen	N		●	●					
Prunus emarginata	Bitter Cherry	N	FACU		●		●	●		
Pseudotsuga menziesii	Douglas Fir	Y	FACU			●	●			
Pyrus ***(see Malus)***		N								
Quercus garryana	Garry Oak	N				●	●		●	
Rhamnus purshiana	Cascara	N	FAC-		●	●	●			
Salix lucida sp. lasiandra	Pacific Willow	N	FACW+	●	●					
Salix rigida v. macrogemma	Rigid Willow	N	OBL	●	●					
Salix scouleriana	Scouler Willow	N	FAC	●	●	●				
Taxus brevifolia	Pacific Yew	Y	NI		●	●	●			
Thuja plicata	Western Red Cedar	Y	FAC	●	●	●	●			
Tsuga heterophylla	Western Hemlock	Y	FACU-		●	●	●			

KEY

**Fire Accelerant Y: plans with higher than average flammable combustion potential due to flammability chemicals present within the leaves, needles, and stems; Fire accelerant N (neutral): plants with average flammable combustion potential (There are no chemicals present within the stems, leaves, and needles that make it less flammable or more flammable than average).*

+ Riccardi, et al. In Press. Quantifying physical characteristics of wildland fuels in the Fuel Characteristic Classification System. Canadian Journal of Forest Research.

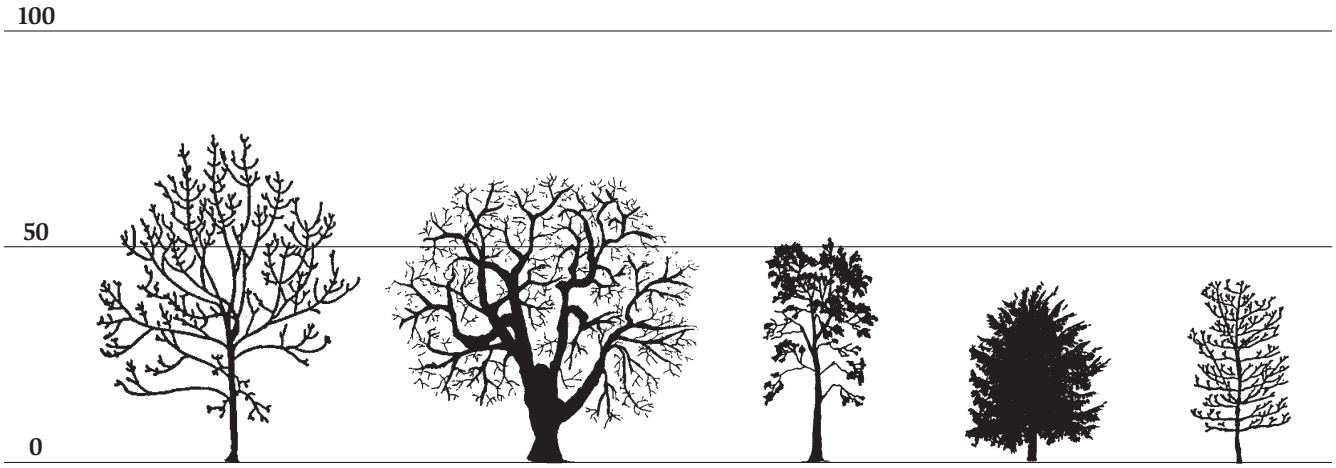
INDICATOR STATUS

Obligate Wetland (OBL) *almost always occur in wetlands*
Facultative wetland (FACW) *occur in wetlands 67%–99% of the time*
Facultative (FAC) *equally likely to occur in wetlands or non-wetlands*
Facultative Upland (FACU) *occur wetlands only 1%–33% of the time*
Obligate Upland (UPL) *almost never, under natural conditions, occur in wetlands in the Northwest*
No indicator (NI) *no status*
A positive (+) sign *the plant occurs more frequently in wetlands, at the higher end of the wetland status category range*
A negative (–) sign *the plant occurs less frequently in wetlands, at the lower end of the wetland status category range*

● ***HABITAT***

WETLAND *all forms of wetlands*
RIPARIAN *stream and river shorelines and bottomlands*
FOREST *flat or mildly rolling forests*
FOREST SLOPE *steeply sloping upland forests such as in the West Hills or East Buttes*
THICKET *forest edges, hedgerows, clumps of vegetation in meadows*
GRASS *open areas, meadows*
ROCKY *rocky upland areas and cliffs*

3.4 TREE SILHOUETTES



Fraxinus latifolia
Oregon Ash — 75’

Quercus garryana
Garry Oak — 65’

Arbutus mensiesii
Madrone — 50’

Taxus brevifolia
Pacific Yew — 40’

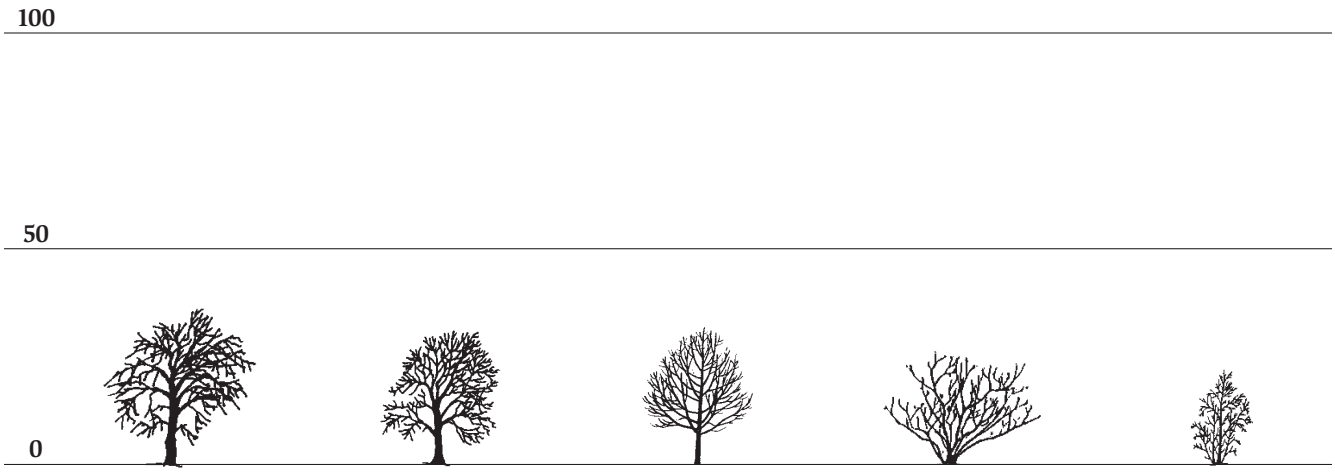
Cornus nutlallii
Western Flowering Dogwood — 40’

Pseudotsuga menziesii
Douglas Fir — 200'+

Pinus ponderosa
Ponderosa Pine — 200’

Populus balsamifera ssp. trichocarpa
Black Cottonwood — 175’

Tsuga heterophylla
Western Hemlock — 150’



Crataegus suksdorfii
Black
Hawthorne — 35’

Malus fusca
Western
Crabapple — 30’

Rhamnus purshiana
Cascara — 30’

Acer circinatum
Vine Maple — 25’

Prunus virginiana
Common
Chokecherry — 20’

Abies grandis
Grand Fir — 150’

Thuja plicata
Western Red Cedar — 100’

Alnus rubra
Red Alder — 100’

Acer macrophyllum
Big Leaf Maple — 90’

3.5 ARBORESCENT SHRUBS

Vine Maple *Acer circinatum*

The form of the Vine Maple varies widely according to the amount of sunlight it receives. In the shady understory of conifers it takes on an open, loose shape as it spreads its branches like a 'vine' seeking sunlight. In the open, it is a small multi—stemmed tree. The leaves of the Vine Maple are one of the brights spots of fall color in the native landscape, ranging from yellow to brilliant red.

Mature height: 25 ft.	**Mature spread**: 20 ft.
10 yr. height: 15 ft.	**10 yr. spread:** 10 ft.
Growth rate: Medium	
Conditions: Full sun to full shade, moist to seasonally wet soil	
Relocate success: Medium	
Availability: High (seed, bare root, container)	
Habitat type(s): Forest, Forest slope	

Western Crabapple *Malus fusca*

The Western Crabapple has interesting features from spring to fall. In the spring, small pinkish white fragrant blossoms hang in clusters. By mid—summer, 3/4" long crabapples appear. The fruits, which are quite sour but appealing to birds and animals, turn yellow in the fall. The leaves also provide fall color, with shades of orange and bright red.

Mature height: 30 ft.	**Mature spread**: 35 ft.
10 yr. height: 15 ft.	**10 yr. spread:** 15 ft.
Growth rate: Medium	
Conditions: Full to part sun, moist to seasonally wet soil	
Relocate success: Medium	
Availability: Medium (seed, container)	
Habitat type(s): Wetland, Riparian, Forest	

Common Chokecherry *Prunus virginiana*

The Common Chokecherry is found in many parts of North America in various forms. In the spring it produces 3–5" long clusters of showy white flowers. The edible fruits are dark purple or black, and are very sour. They may be used for jam or wine. Bear, birds and small animals also eat the fruits, and deer and elk graze on the young foliage.

Mature height: 20 ft.	**Mature spread**: 15 ft.
10 yr. height: 15 ft.	**10 yr. spread:** 12 ft.
Growth rate: Medium	
Conditions: Full to part sun, dry, moist to seasonally wet soil	
Relocate success: Medium	
Availability: High (seed, bare root, container)	
Habitat type(s): Riparian, Forest, Thicket	

Columbia River Willow *Salix fluviatilis*

The Columbia River Willow is found only on the banks of the Columbia River and on lower reaches of the Willamette River. The young branches have many fine hairs which give them a silky appearance. The mature foliage is light green. The yellow female catkins which appear in early summer are 3–4" long.

Mature height: 20 ft.	**Mature spread**: 20 ft.
10 yr. height: 15 ft.	**10 yr. spread:** 15 ft.
Growth rate: Fast	
Conditions: Full to part sun, moist, seasonally wet to perennially wet soil	
Relocate success: High	
Availability: Low (bare root, container)	
Habitat type(s): Wetland, Riparian	

Piper's Willow *Salix hookeriana*

Piper's Willow is found both as a densely—branched shrub, and as a short—trunked tree with a few thick limbs from which arise many branches. The leaves are broad at the tip and narrow at the base, and are either silvery or glossy green above, with a silvery white underside. Piper's Willow commonly occurs in seaside conditions and is tolerant of wind and salt spray.

Mature height: 20 ft.	**Mature spread**: 20 ft.
10 yr. height: 15 ft.	**10 yr. spread:** 15 ft.
Growth rate: Fast	
Conditions: Full to part sun, moist, seasonally wet to perennially wet soil	
Relocate success: High	
Availability: Medium (bare root, container)	
Habitat type(s): Wetland, Riparian	

Soft—leaved Willow *Salix sessilifolia*

The Soft—leaved Willow is found next to water, and spreads rapidly by putting up new shoots from its extensive root system. This suckering habit allows it to form thickets. Soft—leaved Willow has hairy twigs and leaves, and is found in some if the same areas as the Columbia River Willow. In fact, the two willows sometimes hybridize.

Mature height: 25 ft.	**Mature spread**: 25 ft.
10 yr. height: 25 ft.	**10 yr. spread:** 25 ft.
Growth rate: Fast	
Conditions: Full to part sun, moist, seasonally wet to perennially wet soil	
Relocate success: High	
Availability: Low (seed, bare root, container)	
Habitat type(s): Wetland, Riparian	

Sitka Willow *Salix sitchensis*

Sitka Willow is also called 'silky willow' because the undersides of its leaves are covered with long, whitish silk hairs. The tops of the leaves are bright green. Sitka Willow is one of the more common Northwest willows. Ir is considered to be a 'pioneer' species because it adapts readily to disturbed situations and can tolerate difficult conditions.

Mature height: 25 ft.	**Mature spread**: 25 ft.
10 yr. height: 25 ft.	**10 yr. spread:** 25 ft.
Growth rate: Fast	
Conditions: Full to part sun, moist to seasonally wet soil	
Relocate success: High	
Availability: Medium (bare root, container)	
Habitat type(s): Wetland, Riparian	

3.6 NATIVE ARBORESCENT SHRUB LIST

Scientific Name	Common Name	Fire Accelerant? * +	Indicator Status	Habitat Type						
				Wetland	Riparian	Forest	F. Slope	Thicket	Grass	Rocky
Acer circinatum[a]	Vine Maple	N	FAC-			●	●		●	
Malus fusca[a]	Western Crabapple	N	FACW		●	●		●		
Prunus virginiana[a]	Common Chokecherry	N	FACU		●	●		●		
Salix fluviatilis[a]	Columbia River Willow	N	OBL	●	●					
Salix hookeriana[a]	Piper's Willow	N	FACW	●	●					
Salix sessilifolia[a]	Soft-leaved Willlow	N	FACW	●	●					
Salix sitchensis[a]	Sitka Willow	N	FACW	●	●					

KEY

Plants with an [a] are arborescent (tree-like) shrubs. These shrubs may not be used to meet Title 33 or Title 34 standards, criteria, or conditions of approval which require trees.

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GRASS *open areas, meadows*
ROCKY *rocky upland areas and cliffs*

3.7 SHRUBS

Western Serviceberry *Amelanchier alnifolia*

The Western Serviceberry is covered with compact clusters of 1" white flowers from April to June. The flowers are soon replaced with 1/4" reddish fruits, that turn nearly black when they are ripe in August. The edible fruits are sweet and very appealing to many birds. The leaves of the Western Serviceberry (also called 'Saskatoon') turn yellow in the fall.

Mature height: 4–12 ft.

Growth rate: Medium

Conditions: Full sun to part sun, dry, moist to seasonally wet soil

Relocate success: High

Availability: High (seed, bare root, container)

Habitat type(s): Forest, Forest slope, Thicket

Hairy Manzanita *Arctostaphylos columbiana*

This evergreen shrub is not common in Portland. It usually has an erect form but may sometimes be found with a sprawling habit. The dark reddish bark on large, old branches becomes papery and flakes off, to reveal smooth, lighter colored bark underneath. The name manzanita means 'little apple' in Spanish, referring to the shape of the red or brown 1/4" fruits of this plant. The clusters of many tiny pink urn-shaped flowers appear from May to July,

Mature height: 6–8 ft.

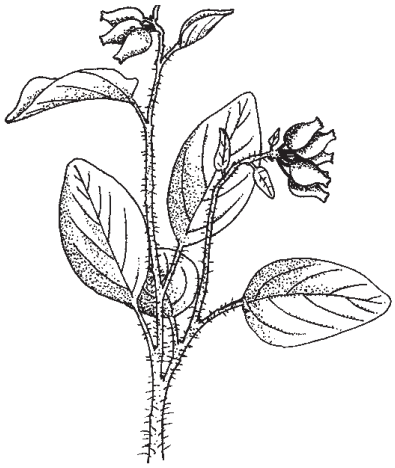
Growth rate: Slow

Conditions: Full sun, dry to moist soil

Relocate success: Medium

Availability: Medium (seed, container)

Habitat type(s): Grass, Rocky



Kinnikinnick *Arctostaphylos uva-ursi*

Kinnikinnick (also known as 'Common Bearberry'), is an evergeen trailing plant that forms a dense ground cover. It has the same type of urn-shaped flowers found on Hairy Manzanita and Pacific Madrone. On Kinnikinnick, the tiny flowers are white to pink, and appear from April to June. They mature in late fall into small red or orange berries that persist into winter.

Mature height: 5–8 inches

Growth rate: Fast

Conditions: Full sun, dry to moist soil

Relocate success: Medium

Availability: High (seed, container)

Habitat type(s): Grass, Rocky

Tall Oregon Grape *Berberis aquifolium*

The stiff, evergreen leaves of the Tall Oregon Grape look somewhat like holly leaves, with sharp prickly scalloped edges. The form of this plant can be either compact and dense in full sun, or more open in the shade. Bright, fragrant yellow clusters of small flowers appear from March to June. The edible, but tart, dusty blue berries hang look like clusters of miniature grapes.

Mature height: 5–6 ft.

Growth rate: Medium

Conditions: Full sun to part sun, dry to moist soil

Relocate success: Medium

Availability: High (seed, container)

Habitat type(s): Forest, Forest slope

Dull Oregon Grape *Berberis nervosa*

The leaves of the Dull Oregon Grape, while similar to those of Tall Oregon Grape, usually have 9–19 leaflets. The Tall Oregon Grape has only 5–9 leaflets. The upright clusters of fragrant yellow flowers appear from March to June, emerging from the center of the plant. The leaves are generally arranged in a circular fashion around a central stem, and may take on a reddish color in the winter.

Mature height: 2 ft.

Growth rate: Medium

Conditions: Full sun to part sun, dry to moist soil

Relocate success: Medium

Availability: High (seed, container)

Habitat type(s): Forest, Forest slope

Oregon Tea-tree *Ceanothus sanguineus*

The Oregon Tea-tree is not common in Portland. It is an upright shrub with reddish bark and reddish flower stems. These features account for the other common name of this plant 'Redstem Ceanothus'. A deciduous shrub, Oregon Tea-tree has fragrant clusters of many tiny white flowers that appear at the tips of its branches in June. This plant is well-adapted to disturbed conditions, and is able to improve soil by fixing nitrogen through its roots.

Mature height: 2–6 ft.

Growth rate: Medium

Conditions: Full sun to part sun, dry soil

Relocate success: Low

Availability: Medium (seed, container)

Habitat type(s): Forest, Forest slope, Thicket, Grass

Mountain Balm *Ceanothus velutinus var. laevigatus*

Mountain Balm is not common in Portland. It is an evergreen ceanothus, with green bark and a spreading form. Its leaves are very sticky and shiny on top, and soft underneath. The fragrant plumes of tiny white flowers appear from June to August, and are arranged along the sides of the branches. Mountain Balm is also called 'Snowbrush', and is able to colonize in burned areas because its seeds are fire-resistant and can remain dormant for many years.

Mature height: 2–6 ft.

Growth rate: Medium

Conditions: Full sun, dry to moist soil

Relocate success: Low

Availability: Low (seed)

Habitat type(s): Forest,Thicket, Grass

Red-osier Dogwood *Cornus sericea ssp. sericea*

An extensive system of spreading roots helps Red-osier Dogwood form large, dense thickets along moist stream banks. This deciduous shrub is easy to recognize in the winter by the bright red bark on its twigs. It has 1–3" flat, circular clusters of small white flowers from May to July. The inedible, bitter berries are appealing to birds, and range in color from dark blue to almost white with a bluish tint.

Mature height: 6–18 ft.

Growth rate: Very fast

Conditions: Full sun to part sun, moist, seasonally wet to perennially soil

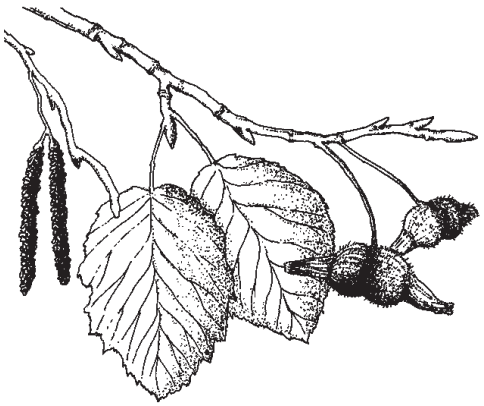
Relocate success: High

Availability: High (seed, bare root, container)

Habitat type(s): Wetland, Riparian,Thicket

Hazelnut *Corylus cornuta*

The Hazelnut, or 'Beaked Hazelnut', as it is sometimes called, has an edible seed that is a favorite food of squirrels. The nuts are found in clusters of 2–3 at the tips of branches, and are enclosed in fuzzy, pointed beak-like husks. In the spring, before the leaves come out, the male flowers, called catkins, appear in 1–2" pale yellow chains. The leaves turn pale yellow in the fall.



Mature height: 3–12 ft.

Growth rate: Fast

Conditions: Full sun to full shade, moist soil

Relocate success: High

Availability: High (seed, container)

Habitat type(s): Forest, Forest slope,Thicket

Western Wahoo *Euonymus occidentalis*

Western Wahoo has large oblong leaves that occur in pairs, and have very fine serration along the edge. In May and June, small flowers appear in group of 3–4. The flowers are greenish, mottled with red or purple. Another common name for this plant is 'Burning Bush', referring to the red and yellow coloration of its foliage in the fall. (Note: 'Burning Bush' is also sometimes applied to Euonymus alatus, a non-native ornamental shrub.)

Mature height: 8–15 ft.

Growth rate: Medium

Conditions: Part sun to full shade, moist soil

Relocate success: Low

Availability: Low (container)

Habitat type(s): Riparian, Forest

Salal *Gaultheria shallon*

Salal is an evergreen shrub that may form dense patches in drier coniferous forests. The flowers are urn-shaped and range from white to pinkish. Salal blooms from May to July and the reddish flower stalks bend so that the loose 6-inch clusters of flowers are oriented in one direction. The leaves are egg-shaped and alternate, thick and leathery but shiny. The dark purple to black berries are edible but often bland. The berries attract birds.

Mature height: 1–5 ft.

Growth rate: Medium

Conditions: Part sun to full shade, dry to moist soil

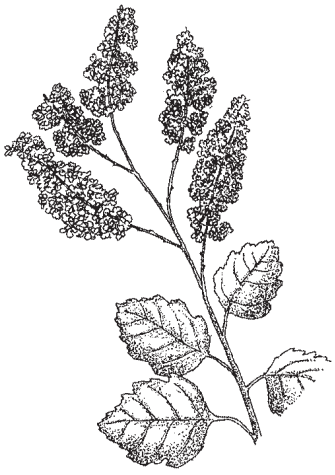
Relocate success: Medium

Availability: High (seed, container)

Habitat type(s): Forest, Forest slope

Ocean-spray *Holodiscus discolor*

A large, vase-shaped shrub with arching branches, Oceanspary produces large foamy white clusters of tiny flowers from June to August. In the fall and winter, the long clusters can often be found still hanging down from the branches. The wood of Oceanspray is very hard, and becomes even harder when heated over a fire. It has been used for many purposes including fish hooks, nails and knitting needles.



Mature height: 8–12 ft.

Growth rate: Fast

Conditions: Full sun to full shade, dry, moist to seasonally wet soil

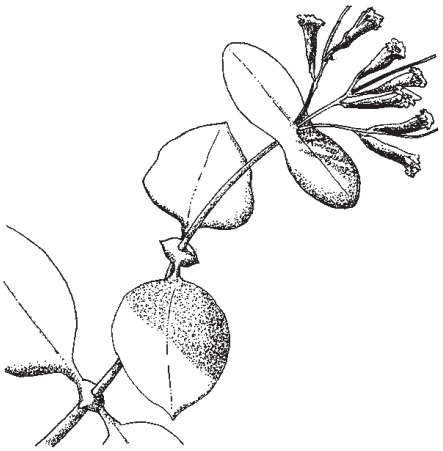
Relocate success: High

Availability: High (seed, bare root, container)

Habitat type(s): Forest, Forest slope, Thicket

Hairy Honeysuckle *Lonicera hispidula*

Hairy Honeysuckle is usually a trailing or sometimes climbing vine, that has a 1" long trumpet shaped flowers from June to August. The flowers range from pink to purple, and usually occur atop a pair of leaves that have fused to look almost like a single rounded leaf. The branches are covered with many fine hairs. While the orangish-red berries are eaten by birds, they are not edible for humans and may be somewhat poisonous.



Mature height: 12 ft.

Growth rate: Fast

Conditions: Full to part sun, dry soil

Relocate success: Medium

Availability: Medium (container)

Habitat type(s): Forest, Thicket

Black Twinberry *Lonicera involucrata*

The common name of the Black Twinberry refers to the pairs of shiny black berries that can be found hanging near the base of the leaves. The pairs of yellow, tubular flowers are about 3/4" long and appear from April to August. The bracts which surround the flowers and later the berries, are red to purple, and form a shape like a shallow cup.

Mature height: 8–12 ft.

Growth rate: Fast

Conditions: Full to part sun, moist to seasonally wet soil

Relocate success: High

Availability: High (seed, bare root, container)

Habitat type(s): Wetland, Riparian, Grass

Indian Plum *Oemlaria cerasiformis*

One of the first native shrubs to flower in the early spring, Indian Plum produces 2–3" hanging chains of delicate greenish white flowers. The flowers appear just as the bright green new leaves are appearing. The small oval fruit, a favorite with birds, is intially yellow-gold, and turns a dull bluish-black as it ripens in late summer. In the open, Indian Plum may form a large, dense shrub while in the shade it may be more open and sprawling.

Mature height: 8–15 ft.

Growth rate: Fast

Conditions: Full sun to full shade, dry to moist soil

Relocate success: High

Availability: High (seed, bare root, container)

Habitat type(s): Riparian, Forest, Forest slope, Thicket

Mockorange *Philadelphus lewisii*

The common name of the Mockorange refers to the beautiful white, sweetly fragrant blossoms which appear in abundance in late spring and early summer. The 1" flowers are in large clusters at the ends of the twigs, and are eventually replaced by clusters of 1/4" woody seed capsules. Mockorange is widely used as an ornamental garden shrub.

Mature height: 6–12 ft.

Growth rate: Fast

Conditions: Full sun to full shade, dry to moist soil

Relocate success: High

Availability: High (seed, bare root, container)

Habitat type(s): Forest, Forest slope, Thicket

Pacific Ninebark *Physocarpus capitatus*

Pacific Ninebark is easily recognized by its habit of shedding its reddish bark in peeling vertical strips on the older wood and twigs. The common name refers to a popular notion that there are nine layer of thin bark on the stems. Ninebark has small white flowers in 2–3" rounded cluster from May to June. As the flowers mature, they form clusters of reddish seed capsules that dry out and turn brown by late summer.

Mature height: 6–12 ft.

Growth rate: Fast

Conditions: Part sun, moist to seasonally wet soil

Relocate success: High

Availability: High (seed, bare root, container)

Habitat type(s): Riparian, Forest, Thicket

Blue Currant *Ribes bracteosum*

The Blue Currant is not common in Portland. It produces long (7–12") upright clusters of white or greenish-white flowers in the spring. As these flowers develop into berries over the summer, the clusters bend down. The berries are bluish black and have a dusty white coating. Their flavor is variable, sometimes sweet and other times inedible. Yellow glands on the leaves and twigs of the Blue Currant produce a strong scent that is reflected in its other common name 'Stink Currant'.

Mature height: 8–10 ft.

Growth rate: Medium

Conditions: Part sun to full shade, moist to seasonally wet soil

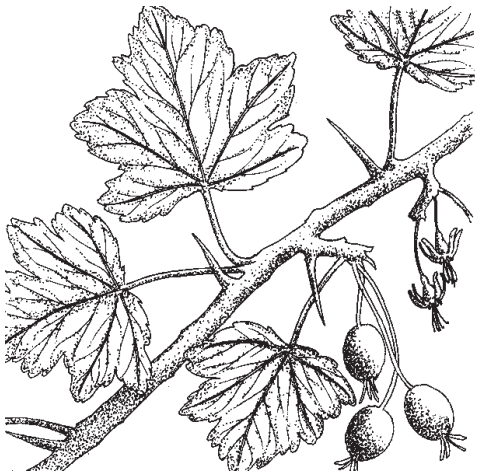
Relocate success: Medium

Availability: Low (container)

Habitat type(s): Riparian, Forest

Straggly Gooseberry *Ribes divaricatum*

The Straggly Goosberry is not common in Portland. It is also called Wild Gooseberry. It has smooth, 1/2" purple berries that are edible, and which usually occur in small cluster of 2 to 4. The flowers may be green or purple and are about 1/5" across. Straggly Gooseberry has no thorns except for a few at the point where the leaf attaches to the twig.



Mature height: 3–9 ft.

Growth rate: Medium

Conditions: Full to part sun, moist soil

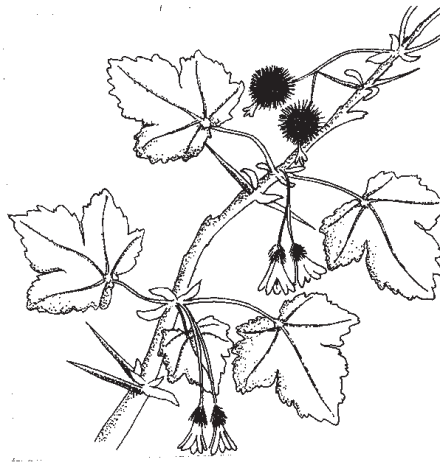
Relocate success: Medium

Availability: Low (seed, container)

Habitat type(s): Forest, Forest slope

Pioneer Gooseberry *Ribes lobbii*

Pioneer Gooseberry is not common in Portland. It is also known as 'Gummy Gooseberry' because it has hairy, sticky berries and sticky stems and leaves. There are usually 3 long spines at the point where the leaves attach to the stems, as well as spines along the stems. The large oval fruits, green in the early summer and maturing to a reddish brown, are ornamental but not edible by humans. From April to June, Pioneer Gooseberry has 1" red and white fischia-like flowers.



Mature height: 4 ft.

Growth rate: Medium

Conditions: Full to part sun, dry to moist soil

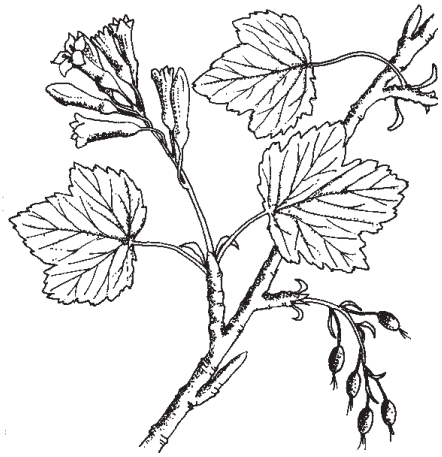
Relocate success: Medium

Availability: Low (container)

Habitat type(s): Forest, Thicket, Grass

Red Currant *Ribes sanguineum*

The flowers of the Red Currant may range in color from pale pink to deep red. They begin to appear in March and are a source of early food for hummingbirds. The individual flowers of Red Currant are small (1/3"), but they occur in many 2–4" clusters of 10–20 flowers, to produce a very beautiful display. The round blue-black berries are almost always completely eaten by birds before the end of summer.



Mature height: 3–9 ft.

Growth rate: Medium

Conditions: Full to part sun, dry to moist soil

Relocate success: Medium

Availability: High (seed, bare root, container)

Habitat type(s): Riparian, Forest, Forest slope, Thicket, Grass

Sticky Currant *Ribes viscosissimum*

Like the Pioneer Gooseberry, the Sticky Gooseberry has sticky stems, leaves and berries. The two plants can be told apart, however, by the lack of spines on the Sticky Gooseberry. The 3/4" flowers are greenish white or may have a pink tinge. The appear in June and July in rounded clusters of 6–12 flowers. The black berries are sparse and are not palatable to humans, but are probably appealing to birds.

Mature height: 8–10 ft.

Growth rate: Medium

Conditions: Full sun to full shade, dry to moist soil

Relocate success: Medium

Availability: Low (seed, container)

Habitat type(s): Riparian, Forest

Baldhip Rose *Rosa gymnocarpa*

The fragrant, pale pink or rose flowers of the Baldhip Rose are 1/2–3/4" across and appear in May and June. They are usually single, and occur at the tips of the branches. The fruit of the Baldhip Rose is a small, pear-shaped orange or scarlet 'hip' which has lost the leaf-like sepals that are normally found attached to mature rosehips. Baldhip Rose may have many soft spines or no spines, especially on new growth.

Mature height: 3–5 ft.

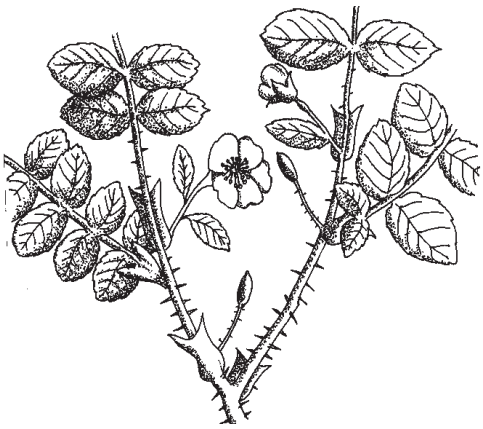
Growth rate: Medium

Conditions: Part sun to full shade, dry, moist to seasonally wet soil

Relocate success: Medium

Availability: High (seed, bare root, container)

Habitat type(s): Forest, Forest slope



Nootka Rose *Rosa nootkana var. nutkana*

The Nootka Rose has large (2") showy light pink to deep rose flowers that start to appear in May. They almost always occur singly on the tips of branches. The large curved thorns on the Nootka Rose often appear in pairs at the base of the leaves. By mid-summer, the fruits have matured, forming large scarlet or purplish hips that stay on the plants throughout winter providing food for animals.

Mature height: 4–10 ft.

Growth rate: Medium

Conditions: Full to part sun, dry, moist to seasonally wet soil

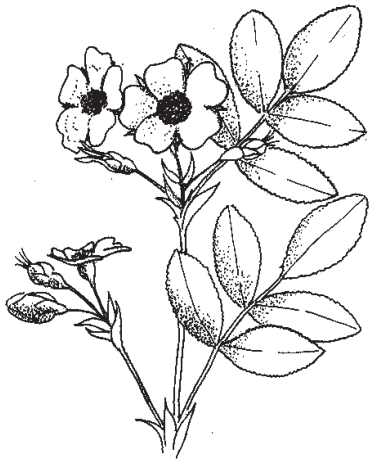
Relocate success: Medium

Availability: High (seed, bare root, container)

Habitat type(s): Forest slope

Swamp Rose *Rosa pisocarpa*

The Swamp Rose is also called the 'Clustered Rose' because its flowers usually occur in groups of 3–20. The pink flowers are about 1–1-1/2" across. Like the Nootka Rose, the Swamp Rose often has pairs of thorns where the leaves attach to the stems. Its fruits are clusters of small purplish pear-shaped hips.



Mature height: 4–10 ft.

Growth rate: Medium

Conditions: Full to part sun, moist to seasonally wet soil

Relocate success: Medium

Availability: High (bare root, container)

Habitat type(s): Riparian, Forest slope

Dewberry *Rubus ursinus var. macropetalus*

The Dewberry is a low growing, but widely spreading plant that can trail extensively. It has tough, curved spines and a three-part leaf. Dewberry is the only native blackberry in the Portland area. The flowers are either male or female and occur on separate plants. Both are required to produce fruit. The shiny black fruit is about 1/2" long and ripens in August. It is delicious and a favorite of birds, bears and deer.

Mature height: 1–1-1/2 ft. and up to 18 ft. long

Growth rate: Fast

Conditions: Full sun to full shade, dry, moist to seasonally wet soil

Relocate success: High

Availability: Low (seed, container)

Habitat type(s): Riparian, Forest, Forest slope

Thimbleberry *Rubus parvifloruss*

The leaves of the Thimbleberry are large (up to 5" across) and are covered with very fine hairs which make them feel velvety to the touch. There are no thorns. As the leaves emerge in the spring, Thimbleberry produces stems with multiple large (1–2") white flowers that have crinkly petals like tissue paper. The red berries look like raspberries, and their flavor is quite variable, from very sweet to bland, depending on the particular growing conditions.

Mature height: 3–6 ft.

Growth rate: Medium

Conditions: Full sun to full shade, dry, moist to seasonally wet soil

Relocate success: High

Availability: High (seed, bare root, container)

Habitat type(s): Riparian, Forest, Forest slope

Salmonberry *Rubus spectabilis*

Salmonberry produces a yellow or reddish fruit, that is very delicate and is easily crushed. Like its relative the Thimbleberry, the fruit of the Salmonberry can range from very tasty to poor, depending on the local conditions and the individual plant. Salmonberry flowers are 1–2" across and vary from pink to magenta. They appear singly or in small groups from March to April, either just before or along with the new leaves, and ripen into fruit by July.

Mature height: 4–10 ft.

Growth rate: Fast

Conditions: Part sun to full shade, moist soil

Relocate success: High

Availability: High (seed, bare root, container)

Habitat type(s): Riparian

Blue Elderberry *Sambucus cerulea*

Blue Elderberry is an important source of food for a number of creatures. Deer eat the young shoots and leaves, and the fruits are consumed by squirrels, chipmunks and many species of birds. The large flattened clusters of small white flowers appears on the Blue Elderberry from May to July. They are soon replaced by clusters of blue berries with a whitish bloom that ripen in September.

Mature height: 10–20 ft.

Growth rate: Fast

Conditions: Full to part sun, dry, moist to seasonally wet soil

Relocate success: High

Availability: High (seed, bare root, container)

Habitat type(s): Riparian, Forest

Red Elderberry *Sambucus racemosa*

The Red Elderberry, like the Blue Elderberry, is important to many wildlife species. Its clusters of fragrant white flowers provide nectar for butterflies and bees, and the many small red berries are eaten by birds. The Red Elderberry can be distinguished from the Blue Elderberry by the color of its fruit, and by the more rounded clusters of flowers. Both have hollow stems and can grow to the size of a small tree,

Mature height: 10–20 ft.

Growth rate: Fast

Conditions: Full sun to full shade, moist to seasonally wet soil

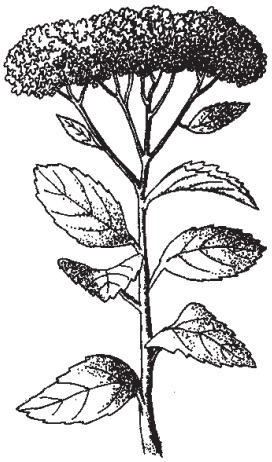
Relocate success: High

Availability: High (seed, bare root, container)

Habitat type(s): Riparian, Forest, Forest slope

Shiny-leaf Spiraea *Spiraea betulifolia var. lucida*

The tiny, white or pink flowers of Shiny-leaf Spiraea appear in July and August in flat clusters that form a dense crown on top of the plant. This plant has a considerable range of habitat, being found all the way from sea level to nearly 10,000 ft. elevation. It seems to be at home in the dry shade at the edge of conifer forests or in open, sunny wet places as well.



Mature height: 1–3 ft.

Growth rate: Medium

Conditions: Full to part sun, dry, moist to seasonally wet soil

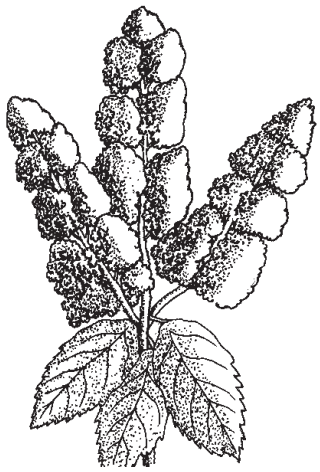
Relocate success: Medium

Availability: Medium (seed, container)

Habitat type(s): Riparian, Thicket, Rocky

Douglas's Spiraea *Spiraea douglasii*

Douglas's Spiraea, or Hardhack, forms very dense stands in marshy areas or along stream banks throughout much of the Pacific Northwest. It flowers from July to August, with upright plumes of many tiny bright pink flowers. These plumes dry and often remain on the plants through the winter. The leaves can be quite variable in size, and often have a pale underside.



Mature height: 3–6 ft.

Growth rate: Fast

Conditions: Full to part sun, dry, moist to seasonally wet soil

Relocate success: High

Availability: High (seed, bare root, container)

Habitat type(s): Wetland, Riparian, Thicket

Common Snowberry *Symphoricarpos albus*

Common Snowberry can be found growing in a wide variety of conditions. It leaves have a bluish green color, but may look very different from plant to plant, depending on the local conditions. Often they are roughly oval, but in deep shade they may be irregular and lobed. The small white or pink bell-shaped flowers appear in April to June in small groups at the tips of the branches. The round white berries, which are poisonous to humans, are a source of winter food for birds.

Mature height: 1–3 ft.

Growth rate: Fast

Conditions: Full sun to full shade, dry, moist to seasonally wet soil

Relocate success: High

Availability: High (seed, bare root, container)

Habitat type(s): Forest, Forest slope, Thicket

Creeping Snowberry *Symphoricarpos mollis*

The Creeping Snowberry spreads by trailing across the ground and sending out new roots from along its stem. It has small pink or white flowers and round white berries that are very similar to the more upright shrub, Common Snowberry. The Creeping Snowberry has solid, hairy twigs while those of the Common Snowberry are smooth and hollow.

Mature height: 1–2 ft.

Growth rate: Fast

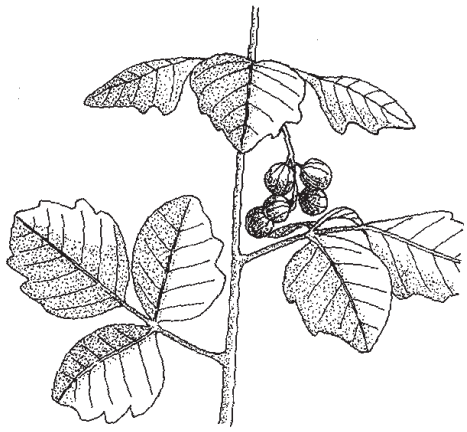
Conditions: Full sun to full shade, dry soil

Relocate success: High

Availability: High (seed, container)

Habitat type(s): Forest, Thicket

Poison Oak *Rhus diversiloba*



Because it can be so variable, Poison Oak is sometimes difficult to identify. It has a three-part leaf that is shiny with a reddish tint when it first emerges in early spring. It becomes completely green by early summer, when the clusters of attractive, tiny white flowers appear. Poison Oak is an aggressive plant, and can appear as a compact, dense shrub is open sunny locations, or as a climbing vine reaching up into the trees in a shady area.

NOTE: This plant is on the nuisance plant list.

Mature height: 1–6 ft.

Growth rate: Fast

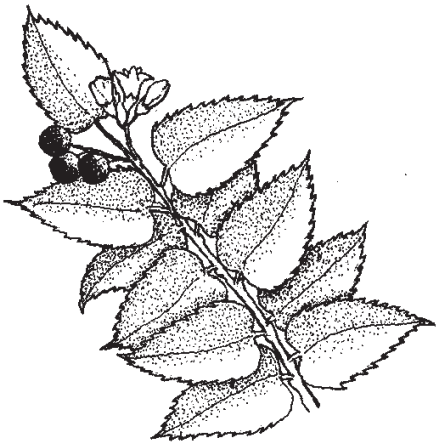
Conditions: Full to part sun, dry to moist soil

Relocate success: High

Availability: Low (container)

Habitat type(s): Forest, Forest slope, Grass

Evergreen Huckleberry *Vaccinium ovatum*



This evergreen shrub has shiny, leathery pointed leaves that are about 3/4" long and arranged quite closely in a rather horizontal manner along the twigs. The pink bell shaped flowers are small (1/4") and appear in clusters of 3–10 from April through July. The shiny, dark blue berries are very sweet, and are said to taste best after a frost. In the shade, Evergreen Huckleberry will tend to have a more open form than when grown in the open.

Mature height: 3–8 ft.

Growth rate: Medium

Conditions: Full sun to full shade, dry to moist soil

Relocate success: Low

Availability: High (seed, bare root, container)

Habitat type(s): Forest

Red Huckleberry *Vaccinium parvifolium*

The Red Huckleberry is a deciduous shrub with bright green leaves that is most commonly found in the Oregon Coast Ranges. It has 1/2" round berries that are bright reddish orange, and relatively tart when compared to the Evergreen Huckleberry. The berries, which look like salmon eggs, were once used as fishing bait. It has pale yellowish to pinkish bell shaped flowers that appear in April to June at the bases of the leaves.

Mature height: 3–8 ft.

Growth rate: Medium

Conditions: Part sun to full shade, dry to moist soil

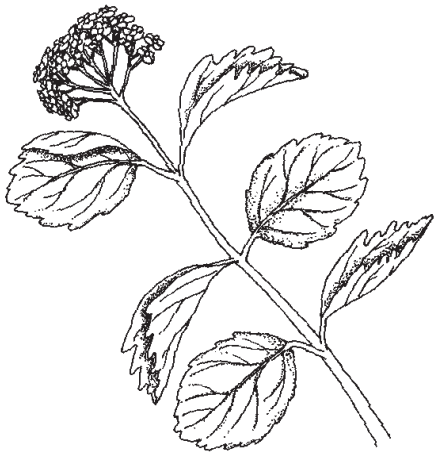
Relocate success: High

Availability: High (seed, bare root, container)

Habitat type(s): Forest, Forest slope

Oval-leaved Viburnum *Viburnum ellipticum*

The small white flowers of the Oval-leaved Viburnum appear in April and May, in 1–2" clusters. Its leaves are oval but have a toothed or serrate upper edge. The small rounded fruit is bright red or orange, and has a slightly tart, acidic flavor. They are quite attractive in the fall along with the bronzy coloration of the leaves.



Mature height: 3–8 ft.

Growth rate: Medium

Conditions: Part sun to full shade, dry to moist soil

Relocate success: Medium

Availability: Low (seed)

Habitat type(s): Forest, Thicket

3.8 NATIVE SHRUB LIST

Scientific Name	Common Name	Fire Accelerant? * +	Indicator Status	Habitat Type						
				Wetland	Riparian	Forest	F. Slope	Thicket	Grass	Rocky
Amelanchier alnifolia	Western Serviceberry	N	FACU			●	●	●		
Arctostaphylos columbiana	Hairy Manzanita	Y							●	●
Arctostaphylos uvaursi	Kinnikinnick	Y	FACU-						●	●
Berberis aquifolium	Tall Oregongrape	Y				●	●			
Berberis nervosa	Dull Oregongrape	Y				●	●			
Ceanothus cuneatus		Y				●	●	●		
Ceanothus sanguineus	Oregon Tea-tree	Y	UPL			●	●	●	●	
Ceanothus velutinus v. laevigatus	Mountain Balm	Y				●		●	●	
Cornus sericea sp. sericea	Red-osier Dogwood	N	FACW	●	●			●		
Corylus cornuta	Hazelnut	N	FACU			●	●	●		
Euonymus occidentalis	Western Wahoo	N			●	●				
Gaultheria shallon	Salal	Y	FACU			●	●			
Holodiscus discolor	Ocean-spray	N				●	●	●		
Lonicera hispidula	Hairy Honeysuckle	N				●		●		
Lonicera involucrata	Black Twinberry	N	FAC+	●	●				●	
Mahonia (see Berberis)										
Oemleria cerasiformis	Indian Plum	N	FACU		●	●	●	●		
Philadelphus lewisii	Mockorange	N				●	●	●		
Physocarpus capitatus	Pacific Ninebark	N	FACW-		●	●		●		
Rhus (see Toxicodendron)										

KEY

**Fire Accelerant Y: plans with higher than average flammable combustion potential due to flammability chemicals present within the leaves, needles, and stems; Fire accelerant N (neutral): plants with average flammable combustion potential (There are no chemicals present within the stems, leaves, and needles that make it less flammable or more flammable than average).*

+ Riccardi, et al. In Press. Quantifying physical characteristics of wildland fuels in the Fuel Characteristic Classification System. Canadian Journal of Forest Research.

INDICATOR STATUS

Obligate Wetland (OBL) *almost always occur in wetlands*
Facultative wetland (FACW) *occur in wetlands 67%–99% of the time*
Facultative (FAC) *equally likely to occur in wetlands or non-wetlands*
Facultative Upland (FACU) *occur wetlands only 1%–33% of the time*
Obligate Upland (UPL) *almost never, under natural conditions, occur in wetlands in the Northwest*
No indicator (NI) *no status*
A positive (+) sign *the plant occurs more frequently in wetlands, at the higher end of the wetland status category range*
A negative (–) sign *the plant occurs less frequently in wetlands, at the lower end of the wetland status category range*

● ***HABITAT***

WETLAND *all forms of wetlands*
RIPARIAN *stream and river shorelines and bottomlands*
FOREST *flat or mildly rolling forests*
FOREST SLOPE *steeply sloping upland forests such as in the West Hills or East Buttes*
THICKET *forest edges, hedgerows, clumps of vegetation in meadows*
GRASS *open areas, meadows*
ROCKY *rocky upland areas and cliffs*

Scientific Name	Common Name	Fire Accelerant? * +	Indicator Status	Habitat Type						
				Wetland	Riparian	Forest	F. Slope	Thicket	Grass	Rocky
Ribes bracteosum	Blue Currant	N	FAC		●	●				
Ribes divaricatum	Straggly Gooseberry	N	FAC			●	●			
Ribes lobbii	Pioneer Gooseberry	N				●		●	●	
Ribes sanguineum	Red Currant	N			●	●	●	●	●	
Ribes viscosissimum	Sticky Currant	N	FAC		●	●				
Rosa gymnocarpa	Baldhip Rose	N	FACU			●	●			
Rosa nutkana v. nutkana	Nootka Rose	N	FAC				●			
Rosa pisocarpa	Swamp Rose	N	FAC		●		●			
Rubus leucodermis	Blackcap Raspberry	N				●	●	●		
Rubus ursinus v. macropetalus	Dewberry	N	NI		●	●	●			
Rubus parviflorus	Thimbleberry	N	FAC-		●	●	●			
Rubus spectabilis	Salmonberry	N	FAC+		●					
Sambucus cerulea	Blue Elderberry	N	FACU		●	●				
Sambucus racemosa	Red Elderberry	N	FACU		●	●	●			
Spiraea betulifolia v. lucinda	Shiny-leaf Spiraea	N	FAC		●			●		●
Spiraea douglasii	Douglas's Spiraea	N	FACW	●	●			●		
Symphoricarpos albus	Common Snowberry	N	FACU			●	●	●		
Symphoricarpos mollis	Creeping Snowberry	N				●		●		
Vaccinium ovatum	Evergreen Huckleberry	Y				●				
Vaccinium parvifolium	Red Huckleberry	N				●	●			
Viburnum ellipticum	Oval-leaved Viburnum	N				●		●		

KEY

**Fire Accelerant Y: plans with higher than average flammable combustion potential due to flammability chemicals present within the leaves, needles, and stems; Fire accelerant N (neutral): plants with average flammable combustion potential (There are no chemicals present within the stems, leaves, and needles that make it less flammable or more flammable than average).*

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A negative (–) sign *the plant occurs less frequently in wetlands, at the lower end of the wetland status category range*

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GRASS *open areas, meadows*
ROCKY *rocky upland areas and cliffs*

3.9 HERBACEOUS FORBS (Table continues across on page 3.9-2 ⟶)

Latin name	Common name	Mature height	FLOWERS														
			Showy	Color	Notes	J	F	M	A	M	J	J	A	S	O	N	D
Achillea millefolium	Yarrow	8"–20"	●	White	Flat white flower head 2"–4" across				■	■	■	■	■	■	■		
Achlys triphylla	Vanillaleaf	8"–16"	●	White	A spike of tiny white flowers atop a single large flat leaf					■							
Actaea rubra	Baneberry	1'–3'	●	White	Dense rounded to spiky clusters of many tiny white flowers				■	■	■						
Adenocaulon bicolor	Pathfinder	1'–3'		White	Tiny white flowers, sparse on thin stems												
Agoseris grandiflora	Large-flowered Agoseris																
Alisma gramineum	Narrow-leaved Water Plantain																
Allium acuminitum	Hooker's Onion	6"–12"	●	Pink	Brilliant rose, showy, in upright round clusters of up to 25 flowers					■	■	■					
Allium amplectens	Slim-leafed Onion																
Allium cernuum	Nodding Onion	6"–18"	●	White Pink	Pink to white in nodding umbrella shaped clusters					■	■	■	■				
Amsinckia intermedia	Fireweed Fiddleneck																
Anaphalis margaritacea	Pearly-everlasting	1'–2'	●	White Yellow	Flat, white flower head 2"–4" across, remain after dry						■	■					
Anemone deltoidea	Western White Anemone	4"–12"	●	White	1.5"–2" showy white bracts, solitary on long stalks				■	■	■	■					
Anemone lyallii	Small Wind-flower																

KEY

● ***SHOWY***
Flowers are visible at some point during the year

LIFE CYCLE
A *Annual*
B *Biennial*
EP *Evergreen perennial*
P *Perennial*

X **TE** *State or federally listed as Threatened or Endangered*

● ***LIGHT***
FULL SUN *tolerates unshaded full exposure*
PARTIAL SUN *tolerates some sun and shade*
FULL SHADE *tolerates fully shaded conditions*

● ***MOISTURE***
DRY *tolerates dry conditions*
MOIST *tolerates moist conditions*
SEAS WET *tolerates seasonally wet conditions*
PERNL WET *tolerates perennially wet conditions*
SUB *tolerates submerged conditions*

	Life cycle	LIGHT			MOISTURE					Te	HABITAT							Wetland indicator status
		Full sun	Part sun	Full shade	Dry	Moist	Seas. wet	Pernl. wet	Sub		Wet land	Riparian	Forest	Forest slope	Thicket	Grass land	Rocky	
	P	●			●											●		FACU
	P		●	●		●							●	●				
	P		●	●		●							●	●				
	P		●	●		●							●	●				
														●		●		
		●	●				●	●	●		●							
	P	●			●											●	●	
																●		
	P	●			●												●	
																●		
	P	●			●											●		
	P		●	●		●							●	●				
													●	●				

● *HABITAT*
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WETLAND INDICATOR STATUS
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3.9 HERBACEOUS FORBS (Table continues across on page 3.9-4 ⟶)

Latin name	Common name	Mature height	FLOWERS														
			Showy	Color	Notes	J	F	M	A	M	J	J	A	S	O	N	D
Anemone oregana var. felix	Oregon Anemone	4"–12"	●	Blue Purple Pink					■	■	■	■					
Angelica arguta	Sharptooth Angelica																
Arnica amplexicaulis var. piperi	Clasping Arnica									■	■	■					
Artemisia douglasiana	Douglas's Sagewort																
Artemisia lindleyana	Columbia River mugwort																
Aster curtus	White-topped Aster												■	■			
Aster oregonensis	Oregon White-topped Aster																
Aster modestus	Few-flowered Aster	12"–40"	●	Purple	Violet or purple flowers with yellow centers							■	■				
Aster subspicatus	Douglas' Aster	8"–40"	●	Blue Purple	Blue to purple 1" flowers with yellow centers								■	■			
Bergia texana	Texas Bergia																
Bidens cernua	Nodding Beggar's-tick	6"–48"	●	Yellow	6–8 yellow petals with brown to golden centers							■	■	■			
Bidens frondosa	Leafy Beggars-tick																
Bidens vulgata	Western Beggar's-tick																
Bolandra oregana	Bolandra																
Boykinia major	Greater Boykinia	1'–3'		White	1/3" white 5 petals in loose groups on upright stems					■	■	■	■	■			

KEY

● ***SHOWY***
Flowers are visible at some point during the year

LIFE CYCLE
A *Annual*
B *Biennial*
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● ***LIGHT***
FULL SUN *tolerates unshaded full exposure*
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DRY *tolerates dry conditions*
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	Life cycle	LIGHT			MOISTURE					Te	HABITAT							Wetland indicator status
		Full sun	Part sun	Full shade	Dry	Moist	Seas. wet	Pernl. wet	Sub		Wet land	Riparian	Forest	Forest slope	Thicket	Grass land	Rocky	
	P		●	●		●				X			●	●				FACU
											●	●				●		FACW
											●	●	●					FACW
											●	●						FACW
											●	●						OBL
	P	●					●			X	●					●		
													●					
	P	●	●			●	●						●	●				FAC+
	P	●				●					●	●	●		●	●		FACW
										X	●	●						OBL
	A	●				●	●	●			●							FACW+
											●							FACW+
											●							FACW+
										X	●	●					●	FACW
	P	●	●	●		●	●	●			●	●				●		FACW

● *HABITAT*
WETLAND *all forms of wetlands*
RIPARIAN *stream and river shorelines and bottomlands*
FOREST *flat or mildly rolling forests*
FOREST SLOPE *steeply sloping upland forests such as in the West Hills or East Buttes*
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3.9 HERBACEOUS FORBS (Table continues across on page 3.9-6 ⟶)

Latin name	Common name	Mature height	FLOWERS														
			Showy	Color	Notes	J	F	M	A	M	J	J	A	S	O	N	D
Boykinia occidentalis	Slender Boykinia	6"–24"	●	White	1/3" white 5 petals in loose groups on upright stems				■	■	■	■	■	■			
Brodiaea coronaria	Harvest Brodiaea	8"–14"	●	Purple	Loose clusters of progressively opening 1" vase shaped flowers purple with a darker stripe on petals and with center							■	■	■			
Brodiaea howellii	Howell's Brodiaea																
Brodiaea hyacintha	Hyacinth Brodiaea	12"–28"															
Calochortus tolmiei	Tolmie's Mariposa																
Calypso bulbosa	Fairy Slipper																
Camassia leichtlinii	Leichtlin's Camas	12"–30"	●	Blue Purple	Violet to blue flowers 2"–3" diameter with yellow center, 5 to many on upright stalk with only 1–3 open at a time				■	■	■						
Camassia quamash	Common Camas	8"–30"	●	Blue Purple	Violet to blue flowers 2"–3" diameter with yellow center, 5 to many on upright stalk with only 1–3 open at a time				■	■	■						
Campanula rotundifolia	Round-leaf Bluebell	6"–32"	●	Blue Purple	Nodding bell shaped 1"–2" single or 2–15 in loose clusters atop thin wiry stema					■	■	■					

KEY

● ***SHOWY***
Flowers are visible at some point during the year

LIFE CYCLE
A *Annual*
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P *Perennial*

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	Life cycle	LIGHT			MOISTURE					Te	HABITAT							Wetland indicator status
		Full sun	Part sun	Full shade	Dry	Moist	Seas. wet	Pernl. wet	Sub		Wet land	Riparian	Forest	Forest slope	Thicket	Grass land	Rocky	
	P		●	●		●	●	●			●	●	●					FAC
	P	●			●											●		
															●	●		
	P	●			●	●										●		FACU
		●	●		●	●									●	●	●	
													●	●				FAC+
	P	●	●				●				●					●		FACW–
	P	●	●				●				●					●		FACW
	P	●			●												●	FACU+

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WETLAND *all forms of wetlands*
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3.9 HERBACEOUS FORBS (Table continues across on page 3.9-8 ⟶)

Latin name	Common name	Mature height	FLOWERS														
			Showy	Color	Notes	J	F	M	A	M	J	J	A	S	O	N	D
Campanula scouleri	Scouler's Bellflower	4"–16"	●	White	Very pale lavender flowers appear almost white: 1/2" bell shaped with petals curved back and long style sticking out from center					■	■	■					
Centaurium muhlenbergii	Muhlenberg's Centaury																
Cerastium arvense	Field Chickweed	2"–20"	●	White	5 notched petals per flower												
Cardamine angulata	Angled Bittercress																
Cardamine occidentalis	Western Bittercress																
Cardamine oligosperma	Little Western Bittercress																
Cardamine penduliflora	Willamette Valley Bittercress																
Cardamine pensylvanica	Pennsylvania Bittercress																
Cardamine pulcherrima var. tenella	Slender Toothwort																
Castilleja levisecta	Golden Indian-paintbrush																
Chamomilla suaveolens	Pineapple Weed																
Chrysosplenium glechomaefolium	Pacific Water-carpet																
Cimicifuga elata	Tall Bugbane																
Circae alpina	Enchanter's Nightshade																
Cirsium hallii	Hall's Thistle																
Clarkia amoena	Farewell to Spring	24"															

KEY

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		Full sun	Part sun	Full shade	Dry	Moist	Seas. wet	Pernl. wet	Sub		Wet land	Riparian	Forest	Forest slope	Thicket	Grass land	Rocky	
	P	●	●	●	●								●	●	●	●		
											●					●	●	FACW
	P	●			●											●		FACU
											●	●	●				●	FACW
											●					●		FACW+
											●	●	●			●		FAC
											●	●						OBL
											●		●					FACW
													●	●				
										X						●		
																●		FACU
												●	●					OBL
										X			●		●	●		
											●		●	●				FAC+
		●			●											●		
		●			●										●	●		

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3.9 HERBACEOUS FORBS (Table continues across on page 3.9–10 ⟶)

Latin name	Common name	Mature height	FLOWERS														
			Showy	Color	Notes	J	F	M	A	M	J	J	A	S	O	N	D
Clarkia rhomboidea	Common Clarkia																
Claytonia perfoliata	Miner's lettuce	2"–12"	●	White	Tiny white flowers in loose clusters above flat disk like leaves			■	■	■							
Clematis ligusticifolia	Western Clematis	50'	●	White	Numerous clusters of small creamy white flowers					■	■	■	■				
Collinsia grandiflora	Large-flowered Blue-eyed Mary																
Collinsia parviflora	Small-flowered Blue-eyed Mary	2"–16"	●	White Blue	1/2" 2-lipped flowers upper lip white 2-lobed, lower lip blue 3-lobed				■	■	■						
Collinsia rattannii	Rattan Collinsia								■	■	■						
Collomia grandiflora	Large-flowered Collomia																
Collomia heterophylla	Varied-lead Collomia																
Comandra umbellata var. californica	Bastard Toad-flax																
Conyza canadensis var. glabrata	Horseweed																
Coptis laciniata	Cutleaf Goldthread																
Coreopsis tinctoria v. atkinsoniana	Columbia Tickseed	40"															
Cornus canadensis	Bunchberry	4"–8"	●	White Green	1" diameter, 4 white petal-like bracts surrounding greenish center					■	■	■					
Corydalis scouleri	Western Corydalis	2'–4'	●	Pink	Numerous 1" tubular flowers in long spike-like clusters atop stem				■	■							

KEY

● ***SHOWY***
Flowers are visible at some point during the year

LIFE CYCLE
A *Annual*
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● ***MOISTURE***
DRY *tolerates dry conditions*
MOIST *tolerates moist conditions*
SEAS WET *tolerates seasonally wet conditions*
PERNL WET *tolerates perennially wet conditions*
SUB *tolerates submerged conditions*

	Life cycle	LIGHT			MOISTURE					Te	HABITAT							Wetland indicator status
		Full sun	Part sun	Full shade	Dry	Moist	Seas. wet	Pernl. wet	Sub		Wet land	Riparian	Forest	Forest slope	Thicket	Grass land	Rocky	
		●			●										●	●		
	A	●	●	●		●	●					●	●	●	●	●	●	FAC
	P	●	●	●	●	●							●	●	●			FAC–
																●	●	
	A	●			●	●	●									●	●	
		●	●		●	●										●	●	
																●		
													●		●	●	●	
													●		●	●	●	UPL
																●		FACU
													●					FAC
		●	●		●	●	●	●			●	●						
	P		●	●		●							●					FAC
	P		●	●		●						●	●					FAC+

● *HABITAT*

WETLAND *all forms of wetlands*
RIPARIAN *stream and river shorelines and bottomlands*
FOREST *flat or mildly rolling forests*
FOREST SLOPE *steeply sloping upland forests such as in the West Hills or East Buttes*
THICKET *forest edges, hedgerows, clumps of vegetation in meadows*
GRASS *open areas, meadows*
ROCKY *rocky upland areas and cliffs*

WETLAND INDICATOR STATUS

Obligate Wetland (OBL) *almost always occur in wetlands*
Facultative wetland (FACW) *occur in wetlands 67%–99% of the time*
Facultative (FAC) *equally likely to occur in wetlands or non-wetlands*
Facultative Upland (FACU) *occur wetlands only 1%–33% of the time*
Obligate Upland (UPL) *almost never, under natural conditions, occur in wetlands in the Northwest*
No indicator (NI) *no status*
A positive (+) sign *the plant occurs more frequently in wetlands, at the higher end of the wetland status category range*
A negative (–) sign *the plant occurs less frequently in wetlands, at the lower end of the wetland status category range*

3.9 HERBACEOUS FORBS (Table continues across on page 3.9-12 ⟶)

Latin name	Common name	Mature height	FLOWERS													
			Showy	Color	Notes	J	F	M	A	M	J	J	A	S	O	N	D
Cryptantha intermedia var. grandiflora	Common Forget-me-not																
Cynoglossum grande	Pacific Hound's-tonque	1'–3'	●	Blue Purple	1/2" blue to violet flower with white center			■	■								
Delphinium menziesii var. pyramidale	Menzies' Larkspur	8"–20"	●	Purple	Intense deep-blue to purple tubular flowers with long spur, some may have white upper petals, 1"–2" long, in loose terminal clusters				■	■							
Delphinium nuttallii	Nuttall's Larkspur	1'–3'	●	Blue Purple	Deep purplish-blue with light blue lower petals tubular flowers with a long spur					■	■						
Dicentra formosa	Pacific Bleedingheart	8"–18"	●	Pink	Drooping pinkish-purple heart shaped flowers 3/4" in clusters of 5–15 atop stems				■	■	■						
Dicentra formosa sp. oregana	Oregon Bleedingheart	8"–18"	●	White					■	■	■						
Dichelostemma congesta	Northern Saitas	1"–3"	●	Pink Purple	Clusters of pinkish to purplish flowers on 1/2" stalks												
Disporum hookeri	Hooker Fairy-bell	1'–3'	●	White	Creamy white nodding bell-shaped 3/4" usually in groups of 1–3				■	■	■						
Disporum smithii	Large-flowered Fairy-bell	1'–3'	●	White	Creamy white nodding bell-shaped 1"					■	■						

KEY

● ***SHOWY***
Flowers are visible at some point during the year

LIFE CYCLE
A *Annual*
B *Biennial*
EP *Evergreen perennial*
P *Perennial*

X **TE** *State or federally listed as Threatened or Endangered*

● ***LIGHT***
FULL SUN *tolerates unshaded full exposure*
PARTIAL SUN *tolerates some sun and shade*
FULL SHADE *tolerates fully shaded conditions*

● ***MOISTURE***
DRY *tolerates dry conditions*
MOIST *tolerates moist conditions*
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	Life cycle	LIGHT			MOISTURE					Te	HABITAT							Wetland indicator status
		Full sun	Part sun	Full shade	Dry	Moist	Seas. wet	Pernl. wet	Sub		Wet land	Riparian	Forest	Forest slope	Thicket	Grass land	Rocky	
																●		
	P		●	●		●							●	●	●			
	P	●	●		●	●	●									●	●	
	P	●	●		●	●				X						●		
	P		●	●		●						●	●	●				FACU
	P		●	●		●				X		●	●	●				
	P	●			●											●	●	
	P		●	●		●							●	●				
	P		●	●		●							●	●				

● *HABITAT*
WETLAND *all forms of wetlands*
RIPARIAN *stream and river shorelines and bottomlands*
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3.9 HERBACEOUS FORBS (Table continues across on page 3.9-14 ⟶)

Latin name	Common name	Mature height	FLOWERS														
			Showy	Color	Notes	J	F	M	A	M	J	J	A	S	O	N	D
Dodecatheon dentatum	White Shooting Star	3"–16"	●	White	1" White flowers with petals that stream back like a comet's trail, 1–2 on tall wiry stems above leaves			■	■	■	■						
Dodecatheon hendersonii	Broad-Leaved Shooting Star	8"–15"						■	■	■	■						
Dodecatheon pulchellum	Few-flowered Shooting Star	3"–20"	●	Pink	1.5" pink to magenta flowers with yellow centers, petals stream back like a comet's trail, 1–2 on tall wiry stems above leaves			■	■	■	■						
Downingia elegans	Common Downingia							■	■	■	■						
Draba verna	Spring Whitlow-grass																
Epilobium angustfolium	FIreweed	3'–8'	●	Pink Purple	Rose purple flowers 1"–2" long on tall spikes						■	■	■	■			
Epilobium ciliatum ssp. glandulosum	Common Willow-weed																
Epilobium ciliatum ssp. watsonii	Watson's Willow-weed																
Epilobium paniculatum var. paniculatum	Tall Annual Willow Herb																
Equisetum arvense	Common Horsetail	1'–2'															
Equisetum hyemale	Common Scouring-rush	2'–4'															
Equisetum telemateia	Giant Horsetail																
Erigeron annus	Annual Fleabane																

KEY

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	Life cycle	LIGHT			MOISTURE					Te	HABITAT							Wetland indicator status
		Full sun	Part sun	Full shade	Dry	Moist	Seas. wet	Pernl. wet	Sub		Wet land	Riparian	Forest	Forest slope	Thicket	Grass land	Rocky	
	P		●	●		●						●			●		●	FAC–
		●	●		●											●	●	
	P		●	●		●					●							FACW
		●	●			●	●	●			●							
																●	●	
	P	●			●	●					●	●	●		●	●		FACU+
											●	●	●			●		FACW
											●	●	●			●		FACW–
													●			●		UPL
	P	●	●			●	●	●			●	●						FAC
	P	●	●			●	●	●			●	●						FACW
											●	●				●		FACW
																●		FACU+

● *HABITAT*
WETLAND *all forms of wetlands*
RIPARIAN *stream and river shorelines and bottomlands*
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3.9 HERBACEOUS FORBS (Table continues across on page 3.9-16 ⟶)

Latin name	Common name	Mature height	FLOWERS														
			Showy	Color	Notes	J	F	M	A	M	J	J	A	S	O	N	D
Erigeron decumbens var. decumbens	Willamette Daisy																
Erigeron philadelphicus	Philadelphia Fleabane	8"–28"	●	White Pink Purple	Petals are actually ray flowers with yellow disk flowers in center												
Eriogonum cf. nudum	Barestem Buckwheat																
Eriophyllum lanatum	Wooly Sunflower	6"–12"	●	Yellow	1" sunflower like flowers with 9–11 petals, single on long stalks above wooly gray leaves					■	■	■	■				
Erysium capitatum ssp. capitatum	Prairie Rocket	1'–3'	●	Yellow	4 Petals yellow to orange 1" across clustered around stem, fragrant					■	■	■	■				
Erythronium oregonum	Giant Fawn-lily	6"–12"	●	White	Single 2" flowers with petals bent back, nodding, single to a stem				■	■							
Eschscholzia californica	Gold Poppy	8"–18"	●	Orange	2" saucer shaped flowers with 4 petals, solitary atop long stems					■	■	■	■	■			
Fragaria vesca var. bracteata	Wood Strawberry	3"–8"	●	White	3/4" five petals with yellow centers					■	■						
Fragraria vesca var. crinita	Wood Strawberry																
Fragraria virginiana var. platypetala	Broadpetal Strawberry	2"–5"	●	White	3/4" flowers with 5 white petals and yellow centers				■	■							

KEY

● ***SHOWY***
Flowers are visible at some point during the year

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	Life cycle	LIGHT			MOISTURE					Te	HABITAT							Wetland indicator status
		Full sun	Part sun	Full shade	Dry	Moist	Seas. wet	Pernl. wet	Sub		Wet land	Riparian	Forest	Forest slope	Thicket	Grass land	Rocky	
										X						●		
	P	●	●			●	●									●		FACU
																	●	
	P	●			●												●	
	B	●			●											●	●	
	P	●	●		●	●							●	●				
	P	●			●	●										●		
	P	●	●		●	●						●	●			●		
												●	●			●		
	P	●	●		●	●							●			●		FACU

● *HABITAT*
WETLAND *all forms of wetlands*
RIPARIAN *stream and river shorelines and bottomlands*
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3.9 HERBACEOUS FORBS (Table continues across on page 3.9-18 ⟶)

Latin name	Common name	Mature height	FLOWERS														
			Showy	Color	Notes	J	F	M	A	M	J	J	A	S	O	N	D
Fritillaria affinis	Checker Lily	1'–2'	●	Purple	Dark purple mottled with greenish yellow, bell-shaped nodding to 1.5", in terminal clusters of 2–5 flowers				■	■	■						
Galium aparine	Cleavers																
Galium trifidum	Small Bedstraw																
Galium triflorum	Sweetscented Bedstraw																
Gentiana sceptrum	Staff Gentian	8"–20"	●	Blue	1"–1.5" tubular flowers which open to reveal dark green specks inside						■	■	■	■			
Gentianella amarella ssp. acuta	Northern Gentian																
Geranium bicknellii	Bicknell's Geranium																
Geum macrophyllum	Oregon Avens	1'–3'	●	Yellow	3/4" flowers with five yellow petals either single or in small clusters at branch tips					■	■	■					
Gilia capitata	Bluefield Gilia	1'–3'	●	Blue	Many 1/4" flowers in dense balls at tips of stems						■	■					
Gnaphalium palustre	Marsh Cudweed																

KEY

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	Life cycle	LIGHT			MOISTURE					Te	HABITAT							Wetland indicator status
		Full sun	Part sun	Full shade	Dry	Moist	Seas. wet	Pernl. wet	Sub		Wet land	Riparian	Forest	Forest slope	Thicket	Grass land	Rocky	
	P	●	●		●	●										●	●	
													●	●	●	●		FACU
											●							FACW+
													●	●				FACU
	P	●				●	●	●			●	●						OBL
												●	●					FACW–
													●					
	P	●			●	●					●	●	●			●		FACW–
	A	●			●	●										●	●	
											●					●		FAC+

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3.9 HERBACEOUS FORBS (Table continues across on page 3.9-20 ⟶)

Latin name	Common name	Mature height	FLOWERS													
			Showy	Color	Notes	J	F	M	A	M	J	J	A	S	O	N	D
Goodyera oblongifolia	Giant Rattlesnake-plantain	6"–18"	●	White	Greenish-white small flowers scattered along a single spike; flowers tend to be oriented more on one side than the other							■	■				
Gratiola ebracteata	Bractless Hedge-hyssop																
Grindelia integrifolia	Willamette Valley Gumweed																
Habenaria dilatata	White Bog-orchid																
Heracleum lanatum	Cow-parsnip	3'–9'	●	White	4"–10" flat clusters of many small white flowers atop thick stems					■	■						
Heterocodon rariflorum	Heterocodon																
Heuchera glabra	Smooth Alumroot																
Heuchera micrantha	Smallflowered Alumroot	1'–2'	●	White	Numerous very small flowers in open clusters					■	■	■					
Hieracium albiflorum	White-flowered Hawkweed	2'–4'	●	White	A dozen or more 1/2" white flowers along a slender stem							■	■				
Hydrophyllum tenuipes	Pacific Waterleaf	1'–3'	●		Greenish-white to lavender small bell-shaped in terminal clusters about 2" across					■	■						
Hypericum anagalloides	Bog Saint John's Wort																

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	Life cycle	LIGHT			MOISTURE					Te	HABITAT							Wetland indicator status
		Full sun	Part sun	Full shade	Dry	Moist	Seas. wet	Pernl. wet	Sub		Wet land	Riparian	Forest	Forest slope	Thicket	Grass land	Rocky	
	EP		●	●	●	●							●					FACU–
											●	●						OBL
		●	●		●	●	●	●			●	●						
											●							FACW+
	P	●	●	●		●	●				●	●	●			●		FAC+
																●		FAC
												●	●				●	
	P	●	●			●						●	●				●	
	P	●			●								●			●		
	P	●	●	●		●							●	●				
											●	●				●		OBL

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3.9 HERBACEOUS FORBS (Table continues across on page 3.9-22 ⟶)

Latin name	Common name	Mature height	FLOWERS														
			Showy	Color	Notes	J	F	M	A	M	J	J	A	S	O	N	D
Hypericum formosum var. scouleri	Western Saint John's Wort																
Impatiens capensis	Orange Balsam																
Impatiens ecalcarata	Spurless Balsam																
Iris tenax	Oregon Iris	10"–20"	●	White Yellow Blue Purple	Usually blue or purple, color range includes yellow to white				■	■	■						
Lathyrus nevadensis	Nevada Peavine								■	■	■						
Lathyrus polyphyllus	Leafy-pea																
Ligusticum apiifolium	Parsley-leaved Lovage	18"–60"	●	White	Compound umbel					■	■						
Ligusticum grayii	Gray's Lovage	24"	●	White Purple	Compound umbel							■	■	■			
Lilium columbianum	Columbia Lily	2'–4'	●	Orange	Deep orange with red or purple spots; tepals cuved backwards; 2–20 flowers on long pedicels						■	■					
Limosella aquatica	Mudwort																
Linanthus bicolor	Bicolored Linanthus																
Linaria canadensis var. texana	Wild Toadflax																
Lindernia dubia	Common False-pimpernel																
Lindernia dubia var. anagallidea	Slender False-pimpernel																
Linnaea borealis	Twinflower	4"–7"	●	Pink	Trumpet-like, in pairs on y-shaped, upright stalk, fragrant							■	■				

KEY

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		Full sun	Part sun	Full shade	Dry	Moist	Seas. wet	Pernl. wet	Sub		Wet land	Riparian	Forest	Forest slope	Thicket	Grass land	Rocky	
											●					●		FAC–
											●	●						FACW
											●	●						FACW
	P	●	●		●	●							●		●	●		
		●	●		●	●												
													●		●			
	P	●	●		●	●	●						●	●	●	●		
	P	●	●		●	●	●							●		●		
	P	●	●			●							●	●	●	●		FAC
											●	●						OBL
																●		
											●					●		
											●	●						OBL
											●	●						OBL
	EP		●	●	●	●							●	●				FACU–

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Facultative Upland (FACU) *occur wetlands only 1%–33% of the time*
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3.9 HERBACEOUS FORBS (Table continues across on page 3.9-24 ⟶)

Latin name	Common name	Mature height	FLOWERS														
			Showy	Color	Notes	J	F	M	A	M	J	J	A	S	O	N	D
Listera caurina	Western Twayblade																
Listera cordata	Heart-leafed Listera																
Lithophragma parviflorum	Small-flowered Prairiestar																
Lomatium utriculatum	Common Lomatium	12"	●	Yellow	Up to 15 compact heads of small bright yellow flowers make up compound umbel			■	■	■	■	■	■				
Lonicera ciliosa	Trumpet Vine	15'–20'	●	Orange	Bright orange trumpet-shaped flowers cluster just above a pair of fused leaves					■	■	■					
Lotus denticulatus	Meadow Lotus																
Lotus formosissimus	Seaside Lotus	12"–18"	●	Yellow Purple	Wing petal lavender					■							
Lotus micranthus	Small-flowered Deervetch																
Lotus purshiana	Spanish Clover																
Lupinus bicolor	Two-color Lupine	4"–18"	●	White Blue	Flowers blue and white, pea-like, small, in short cluster				■	■	■						
Lupinus latifolius	Broadleaf Lupine	24"	●	Blue Purple	Pea-like, whorls form loose racemes					■	■	■					
Lupinus laxiflorus	Spurred Lupine	18"–30"	●	Blue Purple	Pea-like, racemes 3"–8" long					■	■	■					

KEY

● ***SHOWY***
Flowers are visible at some point during the year

LIFE CYCLE
A *Annual*
B *Biennial*
EP *Evergreen perennial*
P *Perennial*

X **TE** *State or federally listed as Threatened or Endangered*

● ***LIGHT***
FULL SUN *tolerates unshaded full exposure*
PARTIAL SUN *tolerates some sun and shade*
FULL SHADE *tolerates fully shaded conditions*

● ***MOISTURE***
DRY *tolerates dry conditions*
MOIST *tolerates moist conditions*
SEAS WET *tolerates seasonally wet conditions*
PERNL WET *tolerates perennially wet conditions*
SUB *tolerates submerged conditions*

	Life cycle	LIGHT			MOISTURE					Te	HABITAT							Wetland indicator status
		Full sun	Part sun	Full shade	Dry	Moist	Seas. wet	Pernl. wet	Sub		Wet land	Riparian	Forest	Forest slope	Thicket	Grass land	Rocky	
											●		●	●				FACU
											●		●	●				FACU
		●	●		●											●	●	
	P	●			●												●	
	P		●	●		●							●					
																●		
	P		●			●	●	●			●					●		FACW+
																●		
														●			●	
	A	●			●											●		
	P	●	●			●										●		
	P	●	●		●											●		

● ***HABITAT***
WETLAND *all forms of wetlands*
RIPARIAN *stream and river shorelines and bottomlands*
FOREST *flat or mildly rolling forests*
FOREST SLOPE *steeply sloping upland forests such as in the West Hills or East Buttes*
THICKET *forest edges, hedgerows, clumps of vegetation in meadows*
GRASS *open areas, meadows*
ROCKY *rocky upland areas and cliffs*

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3.9 HERBACEOUS FORBS (Table continues across on page 3.9-26 ⟶)

Latin name	Common name	Mature height	FLOWERS														
			Showy	Color	Notes	J	F	M	A	M	J	J	A	S	O	N	D
Lupinus lepidus	Prairie Lupine	8"–16"	●	White Blue Purple	Pea-like flowers usually blue, sometimes white; banner petals bend backwards and usually different color (darker or lighter) from the wings and keels						■	■	■				
Lupinus micranthus	Field Lupine																
Lupinus microcarpus	Chick Lupine																
Lupinus polyphyllus	Large-leaved Lupine	2'–5'	●	Blue Purple	Pea-like in dense upright clusters up to 16" long					■	■						
Lupinus rivularis	Stream Lupine																
Lupinus sulphureus	Sulphur Lupine																
Lycopus americanus	Cut-leaved Bugleweed																
Lycopus uniflorus	Northern Bugleweed																
Lysimachia ciliata	Fringed Loosestrife																
Lysimachia thyrsiflora	Tufted Loosestrife																
Lystichum americanum	Skunk Cabbage	1'–5'	●	Yellow	Small greenish-yellow flowers on fleshy spike are hooded by large showy yellow bract		■	■	■								
Madia sativa	Chile Tarweed																
Madia glomerata	Cluster Tarweed	2"–10"		Yellow	Yellow ray and disk flowers in small clusters							■	■				

KEY

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	Life cycle	LIGHT			MOISTURE					Te	HABITAT							Wetland indicator status
		Full sun	Part sun	Full shade	Dry	Moist	Seas. wet	Pernl. wet	Sub		Wet land	Riparian	Forest	Forest slope	Thicket	Grass land	Rocky	
	P	●			●											●		
																●		
																●		
	P	●	●			●	●									●		FAC+
												●	●					FACU
																●		
											●	●						OBL
											●	●						OBL
											●					●		FACW+
											●							OBL
	P	●	●	●		●	●	●			●	●						OBL
																●		
	A	●			●											●		FACU+

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3.9 HERBACEOUS FORBS (Table continues across on page 3.9-28 ⟶)

Latin name	Common name	Mature height	FLOWERS														
			Showy	Color	Notes	J	F	M	A	M	J	J	A	S	O	N	D
Madia gracilis	Slender Tarweed											■	■				
Maianthemum dilatatum	False Lily-of-the-valley	4"–16"	●	White	Small, 4-part flowers in terminal cylindrical cluster					■	■	■					
Marah oreganus	Manroot																
Mentha arvensis var. glabrata	Field Mint	8"–36"	●	White Pink Purple	Tight clusters of small, 1/4" cup-shaped flowers, pinkish-lavender, sometimes whitish							■	■				
Menyanthes trifoliata	Buckbean																
Mertensia platyphylla	Western Bluebells																
Mimulus alsinoides	Chickweed Monkey-flower																
Mimulus guttatus	Yellow Monkey-flower	3"–30"	●	Yellow	Yellow, sometimes with dots of brown or purple; 2-lipped tubular, large 1"–1.5", resemble snap-dragons				■	■	■	■	■	■			
Mimulus moschatus	Musk-flower	3"–10"		Yellow	Yellow, funnel-like, with dark lines or spots, 3/4" long						■	■	■	■			

KEY

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	Life cycle	LIGHT			MOISTURE					Te	HABITAT							Wetland indicator status
		Full sun	Part sun	Full shade	Dry	Moist	Seas. wet	Pernl. wet	Sub		Wet land	Riparian	Forest	Forest slope	Thicket	Grass land	Rocky	
		●	●		●											●	●	
	P		●	●		●	●						●	●				FAC
															●	●		
	P	●	●			●	●					●						FACW–
											●					●		OBL
												●	●					
											●	●					●	OBL
	A	●	●			●	●				●	●				●	●	OBL
	P		●	●		●	●				●	●						FACW+

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3.9 HERBACEOUS FORBS (Table continues across on page 3.9-30 ⟶)

Latin name	Common name	Mature height	FLOWERS													
			Showy	Color	Notes	J	F	M	A	M	J	J	A	S	O	N	D
Mitella caulescens	Leafy Mitrewort	8"–16"	●	Green	Small, 1/8" snow-flake-like petals form cup-like flower; separately arranged on 10" floral stem; flowers from top to bottom				■	■							
Mitella pentandra	Five-stamened Mitrewort	8"–16"	●	Green	Small, saucer-shaped, blossoming upward, petals dissected into thread-like segments						■	■					
Moehringia macrophylla	Bigleaf Sandwort																
Monotropa uniflora	Indian-pipe																
Montia dichotoma	Dwarf Montia																
Montia diffusa	Branching Montia																
Montia fontana	Water Chickweed																
Montia linearis	Narrow-leaved Montia																
Montia parvifolia	Streambank Springbeauty	4"–12"	●	White Pink	Small, 5-petalled white or pink with pink veins. Mall open cluster 3–8 on top of stem					■	■	■					
Montia sibirica	Candy Flower	4"–16"	●	White Pink	5-Petalled, on stalks, many cluster of 1–3					■	■	■	■				

KEY

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	Life cycle	LIGHT			MOISTURE					Te	HABITAT							Wetland indicator status
		Full sun	Part sun	Full shade	Dry	Moist	Seas. wet	Pernl. wet	Sub		Wet land	Riparian	Forest	Forest slope	Thicket	Grass land	Rocky	
	P		●	●		●	●						●	●		●		
	P		●	●		●	●					●	●	●		●		FAC
													●	●				
													●					FACU
											●					●	●	FAC
										X			●					
											●	●				●	●	OBL
													●			●	●	
	P	●	●			●					●		●				●	FACW–
	A		●	●		●						●	●	●	●	●		FACW

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3.9 HERBACEOUS FORBS (Table continues across on page 3.9-32 ⟶)

Latin name	Common name	Mature height	FLOWERS														
			Showy	Color	Notes	J	F	M	A	M	J	J	A	S	O	N	D
Myosotis laxa	Small-flowered Forget-me-not	2"–12"	●	Blue	Small, petals fused into short tube spreading into 5 lobes; several to many flowers in loose racemes						■	■	■	■			
Navarretia intertexta	Needle-Leaf Navarretia										■	■	■	■			
Navarretia tagetina	Northern Navarretia										■	■	■	■			
Navarretia squarrosa	Skunkweed																
Nemophila menziesii	Baby Blue-eyes	6"–10"	●	White Blue	White 5-pettaled flowers with blue veins				■	■	■						
Nemophila parviflora	Small-flowered Nemophila																
Nemophila pedunculata	Spreading Nemophila																
Nothochelone nemorosa	Turtle Head	16"–30"	●	Pink Blue Purple	1"–1.25" long tubular, pinkish-purple to bluish purple, glandular hairy on outside							■	■				
Oenanthe sarmentosa	Pacific Water-parsley	1'–3'	●	White	Tiny white flowers in umbels, 5–20 compact clusters						■	■					
Oenothera biennis	Evening Primrose	2'–4'	●	Yellow	Flowers open in evening-fragrant-showy, golden yellow, purplish pink buds							■	■	■			

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		Full sun	Part sun	Full shade	Dry	Moist	Seas. wet	Pernl. wet	Sub		Wet land	Riparian	Forest	Forest slope	Thicket	Grass land	Rocky	
	A	●	●			●	●	●			●	●						OBL
		●	●			●	●	●			●					●		
		●	●								●							
																●		
	A	●	●			●								●	●			
														●	●			
		●	●			●	●	●			●	●						
	P		●	●	●	●								●			●	
	P	●	●				●	●	●		●	●						OBL
	B	●			●	●										●		FACU

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3.9 HERBACEOUS FORBS (Table continues across on page 3.9-34 ⟶)

Latin name	Common name	Mature height	FLOWERS														
			Showy	Color	Notes	J	F	M	A	M	J	J	A	S	O	N	D
Oplopanax horridus	Devil's Club	3'–10'	●	White Green	Small whitish flowers in pyramidal terminal cluster, or spiky raceme					■	■	■					
Orobanche uniflora	Naked Broomrape																
Orthocarpus hispidus	Hairy Owl-Clover																
Osmorhiza chilensis	Mountain Sweet-root	1'–3'		White Green	Small, inconspicuous greenish-white, in few-flowered compound umbels				■	■	■	■					
Oxalis oregana	Oregon Oxalis	2"–8"	●	White Pink	White or pinkish with pink or red veins, 1/2"–3/4", 5-petalled				■	■							
Oxalis suksdorfii	Western Yellow Oxalis	2"–6"	●	Yellow	Similar to oxalis oregana but yellow												
Oxalis trilliifolia	Trillium-leaved Wood-sorrel																
Penstemon ovatus	Broad-leaved Penstemon	18"–30"	●	Blue Purple	Deep blue-purple,tubular flowers with hairy inflorescence					■	■						
Penstemon richardsonii	Cut-leaved Penstemon	1'–2'	●	Purple	Bright lavender, tubular						■	■					
Penstemon serrulatus	Cascade Penstemon	10"–24"	●	Blue Purple	Dark blue to purple flowers, tubular, 1" long, in large terminal cluster						■	■	■				

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		Full sun	Part sun	Full shade	Dry	Moist	Seas. wet	Pernl. wet	Sub		Wet land	Riparian	Forest	Forest slope	Thicket	Grass land	Rocky	
	P		●	●		●	●					●	●	●	●			FAC+
																	●	FACU
																●		FACU–
	P		●	●	●	●							●	●				
	P		●	●		●							●	●				
	P		●	●		●							●					
												●	●	●		●		FAC+
	P	●	●		●	●						●						
	P	●	●		●												●	
	P	●	●			●					●					●	●	FACU

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3.9 HERBACEOUS FORBS (Table continues across on page 3.9-36 ⟶)

Latin name	Common name	Mature height	FLOWERS														
			Showy	Color	Notes	J	F	M	A	M	J	J	A	S	O	N	D
Petasites frigidus var. palmatus	Sweet Coltsfoot	4"–18"	●	White Pink Purple	Several to many white or pinkish-purple, cup-shaped heads stand erect on upright stem			■	■	■	■						
Phacelia nemoralis	Shade Phacelia																
Phlox gracilis	Microsteris	3"–10"	●	Pink	Small, inconspicuous; 5 lobes spread from 1/2" tube; in pairs or single on end of stem				■	■	■	■					
Piperia elegans	Elegant Rein-orchid	1'–2'	●	White Green	Characteristic orchid type flower with spur and column, fragrant					■	■						
Piperia unalascensis	Alaska Rein-orchid																
Plagiobothrys figuratus	Fragrant Plagiobothrys																
Platanthera stricta	Slender Bog-orchid																
Plectritis congesta	Rosy Plectritis	4"–18"	●	Pink	Round balls of bright pink flowers on simple or few-branched upright stem				■	■							
Polygonum aviculare	Doorweed																
Polygonum douglasii	Douglas' Knotweed																
Polygonum douglasii ssp. spergulariiforme	Fall Knotweed																
Polygonum hydropiperoides	Common Waterpepper																

KEY

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	Life cycle	LIGHT			MOISTURE					Te	HABITAT							Wetland indicator status
		Full sun	Part sun	Full shade	Dry	Moist	Seas. wet	Pernl. wet	Sub		Wet land	Riparian	Forest	Forest slope	Thicket	Grass land	Rocky	
	P	●	●	●		●	●				●	●	●			●		FACW–
													●		●			
	A	●	●		●	●										●	●	FACU
	P		●	●	●	●						●			●	●		FACW
													●	●				FAC
																●		FACW
											●							FACW+
	A	●	●			●	●									●	●	FACU
											●	●				●		FACW–
												●				●		FACU
												●						
											●							OBL

● *HABITAT*
WETLAND *all forms of wetlands*
RIPARIAN *stream and river shorelines and bottomlands*
FOREST *flat or mildly rolling forests*
FOREST SLOPE *steeply sloping upland forests such as in the West Hills or East Buttes*
THICKET *forest edges, hedgerows, clumps of vegetation in meadows*
GRASS *open areas, meadows*
ROCKY *rocky upland areas and cliffs*

WETLAND INDICATOR STATUS
Obligate Wetland (OBL) *almost always occur in wetlands*
Facultative wetland (FACW) *occur in wetlands 67%–99% of the time*
Facultative (FAC) *equally likely to occur in wetlands or non-wetlands*
Facultative Upland (FACU) *occur wetlands only 1%–33% of the time*
Obligate Upland (UPL) *almost never, under natural conditions, occur in wetlands in the Northwest*
No indicator (NI) *no status*
A positive (+) sign *the plant occurs more frequently in wetlands, at the higher end of the wetland status category range*
A negative (–) sign *the plant occurs less frequently in wetlands, at the lower end of the wetland status category range*

3.9 HERBACEOUS FORBS (Table continues across on page 3.9-38 ⟶)

Latin name	Common name	Mature height	FLOWERS														
			Showy	Color	Notes	J	F	M	A	M	J	J	A	S	O	N	D
Polygonum polygaloides ssp. kelloggii	Kellogg's Knotweed																
Polygonum nuttallii	Nutall's Knotweed																
Polygonum persicaria	Lady's Thumb																
Potentilla glandulosa	Sticky cinquefoil	1'–2'	●	Yellow	Pale to deep yellow petals, flowers easily overlooked					■	■	■	■				
Potentilla gracilis v. gracilis	Slender Cinquefoil									■	■	■	■				
Potentilla palustris	Marsh cinquefoil																
Prosartes hookeri	Hooker's Fairybells																
Prosartes smithii	Smith's Fairybells																
Prunella vulgaris var. lanceolata	Heal-all	4"–16"	●	Purple	Spike-like cluster of small flowers, spike squarish in section					■	■	■					
Pyrola asarifolia	Wintergreen	6"–16"	●	Pink	Pink to rosy-red cup-shaped flowers tilt downward						■	■	■				
Pyrola picta	White-Vein Pyrola										■	■	■				
Ranunculus alismaefolius	Water-plaintain Buttercup																
Ranunculus cymbalaria	Shore Buttercup																
Ranunculus flammula	Creeping Buttercup																
Ranunculus macounii var. oreganus	Macoun's Buttercup																

KEY

● ***SHOWY***
Flowers are visible at some point during the year

LIFE CYCLE
A *Annual*
B *Biennial*
EP *Evergreen perennial*
P *Perennial*

X **TE** *State or federally listed as Threatened or Endangered*

● ***LIGHT***
FULL SUN *tolerates unshaded full exposure*
PARTIAL SUN *tolerates some sun and shade*
FULL SHADE *tolerates fully shaded conditions*

● ***MOISTURE***
DRY *tolerates dry conditions*
MOIST *tolerates moist conditions*
SEAS WET *tolerates seasonally wet conditions*
PERNL WET *tolerates perennially wet conditions*
SUB *tolerates submerged conditions*

	Life cycle	LIGHT			MOISTURE					Te	HABITAT							Wetland indicator status
		Full sun	Part sun	Full shade	Dry	Moist	Seas. wet	Pernl. wet	Sub		Wet land	Riparian	Forest	Forest slope	Thicket	Grass land	Rocky	
											●	●				●		FAC
																●		
											●							FACW
	P	●	●		●	●							●			●		FAC–
		●	●		●	●										●		
											●							OBL
			●	●	●	●							●	●	●			
		●	●	●		●							●	●	●			
	P	●	●			●						●				●		FACU+
	EP		●	●		●	●					●	●					FACU
		●	●		●								●	●	●			
											●	●						FACW
											●	●						OBL
											●	●						FACW
											●					●		OBL

● *HABITAT*
WETLAND *all forms of wetlands*
RIPARIAN *stream and river shorelines and bottomlands*
FOREST *flat or mildly rolling forests*
FOREST SLOPE *steeply sloping upland forests such as in the West Hills or East Buttes*
THICKET *forest edges, hedgerows, clumps of vegetation in meadows*
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3.9 HERBACEOUS FORBS (Table continues across on page 3.9-40 ⟶)

Latin name	Common name	Mature height	FLOWERS														
			Showy	Color	Notes	J	F	M	A	M	J	J	A	S	O	N	D
Ranunculus occidentalis	Western Buttercup	4"–18"	●	Yellow	Yellow, usually 5 petals, several flowers at end of long stalk				■	■							
Ranunculus orthorhyncus	Straightbeak Buttercup																
Ranunculus pensylvanicus	Pennsylvania Buttercup																
Ranunculus scleratus	Celery-leaved Buttercup																
Ranunculus uncinatus	Little Buttercup																
Rorippa columbiae	Columbia Cress																
Rubus ursinus	Pacific Blackberry	6"–12"	●	White Pink	Flowers 1.5"–2" across, male and female flowers on separate plants					■	■	■					
Rumex obtusifolius	Bitter Dock																
Rumex occidentalis	Western Dock	3'–6'		Green	Many very small flowers on an upright stalk up to 6' tall												
Rumex salicifolius v. salicifolius	Willow-leaved Dock 2																
Rupertia physodes	California Tea																
Sagina decumbens ssp. occidentalis	Western Pearlwort																
Sagittaria latifolia	Wapato	1'–3'	●	White	White, in several whorls of 3" long, narrow terminal cluster							■	■	■			
Sanguisorba occidentalis	Annual Burnet	8"–30"		Green													
Sanicula bipinnatafida	Purple Sanicle																

KEY

● ***SHOWY***
Flowers are visible at some point during the year

LIFE CYCLE
A *Annual*
B *Biennial*
EP *Evergreen perennial*
P *Perennial*

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● ***LIGHT***
FULL SUN *tolerates unshaded full exposure*
PARTIAL SUN *tolerates some sun and shade*
FULL SHADE *tolerates fully shaded conditions*

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DRY *tolerates dry conditions*
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SUB *tolerates submerged conditions*

	Life cycle	LIGHT			MOISTURE					Te	HABITAT							Wetland indicator status
		Full sun	Part sun	Full shade	Dry	Moist	Seas. wet	Pernl. wet	Sub		Wet land	Riparian	Forest	Forest slope	Thicket	Grass land	Rocky	
	P	●	●			●					●				●	●		FAC
											●	●				●		FACW–
											●	●						FACW
											●	●						OBL
												●				●		FAC
										X	●	●				●		OBL
	P	●	●		●	●						●	●	●	●	●	●	FACU
																●		FAC
	P	●				●	●				●					●		FACW+
		●	●			●	●				●							
																●		
																●		FACU+
	P	●	●				●	●	●		●							OBL
	A	●	●		●	●	●									●		
		●	●		●											●	●	

● *HABITAT*
WETLAND *all forms of wetlands*
RIPARIAN *stream and river shorelines and bottomlands*
FOREST *flat or mildly rolling forests*
FOREST SLOPE *steeply sloping upland forests such as in the West Hills or East Buttes*
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3.9 HERBACEOUS FORBS (Table continues across on page 3.9-42 ⟶)

Latin name	Common name	Mature height	FLOWERS														
			Showy	Color	Notes	J	F	M	A	M	J	J	A	S	O	N	D
Sanicula crassicaulis	Pacific Sanicle	1'–3'		Yellow	Small yellow, sometimes purple-tinged; in small compact, rounded clusters on long stalks suspended by leafy bracts					■	■						
Satureja douglasii	Yerba Buena	6"–10"		White	White, 5-lobed tube						■	■					
Saxifraga ferruginea	Rusty Saxifrage																
Saxifraga integrifolia	Swamp Saxifrage	6"–18"	●	White	White, in tight clusters on stalks which are pubescent below				■	■	■	■					
Saxifraga nuttallii	Nuttall's Saxifrage																
Saxifraga occidentalis var. rufidula	Western Saxifage																
Saxifraga oregana	Oregon Saxifrage																
Scoliopus hallii	Oregon Fetid Adder's-tongue																
Scrophularia californica	California Figwort	2'–5'		Purple	Brownish to maroon flowers in loose panicles, small 1/2", 2-lipped, easily overlooked												
Sedum oreganum	Oregon Stonecrop	3"–6"	●	Yellow	Bright yellow, pointed, 5-petalled flowers, bunched on flowering stem							■	■				

KEY

● ***SHOWY***
Flowers are visible at some point during the year

LIFE CYCLE
A *Annual*
B *Biennial*
EP *Evergreen perennial*
P *Perennial*

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PARTIAL SUN *tolerates some sun and shade*
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DRY *tolerates dry conditions*
MOIST *tolerates moist conditions*
SEAS WET *tolerates seasonally wet conditions*
PERNL WET *tolerates perennially wet conditions*
SUB *tolerates submerged conditions*

	Life cycle	LIGHT			MOISTURE					Te	HABITAT							Wetland indicator status
		Full sun	Part sun	Full shade	Dry	Moist	Seas. wet	Pernl. wet	Sub		Wet land	Riparian	Forest	Forest slope	Thicket	Grass land	Rocky	
	P	●	●		●	●							●	●				
	P		●			●							●					
												●					●	FAC
	P	●	●			●					●					●	●	NI
											●		●	●			●	OBL
																●	●	FAC
		●	●			●	●				●						●	
													●					
	P	●	●			●	●				●							FACW–
	EP	●	●		●	●											●	

● ***HABITAT***
WETLAND *all forms of wetlands*
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3.9 HERBACEOUS FORBS (Table continues across on page 3.9-44 ⟶)

Latin name	Common name	Mature height	FLOWERS														
			Showy	Color	Notes	J	F	M	A	M	J	J	A	S	O	N	D
Sedum spathulifolium	Spatula-leaf Stonecrop	3"–8"	●	Yellow	Pale yellow, pointed, 5-petalled flowers, distinguished from s. Oreganum by completely separate individual flower petals					■	■						
Senecio bolanderi var. harfordii	Bolander's Groundsel																
Sidalcea campestris	Meadow Sidalcea	2'–6'	●	White Pink	White to pale-pink 5-petalled flowers on tall, hairy stems						■	■	■				
Sidalcea nelsoniana	Nelson's Checker-mallow																
Silene antirrhina	Sleepy Catchfly																
Sisyrinchium angustifolium	Blue-eyed Grass	8"–20"	●	Blue Purple	Dark purple with yellow anthers					■	■	■					
Smilacina racemosa	Western False Solomon's Seal	1'–3'	●	White	Panicle of small cream-white flowers					■	■						
Smilacina stellata	Starry False Solomon's Seal	8"–24"	●	White	Star-like, few, in short terminal cluster					■	■						
Solanum nigrum	Garden Nightshade																
Solidago canadensis	Canada Goldenrod	1'–5'	●	Yellow	Small yellow ray flowers in dense pyramidal clusters								■	■			
Spiranthes romanzoffiana	Ladies-tresses																
Stachys cooleyae	Cooley's Hedge-nettle																

KEY

● ***SHOWY***
Flowers are visible at some point during the year

LIFE CYCLE
A *Annual*
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● ***LIGHT***
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DRY *tolerates dry conditions*
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SUB *tolerates submerged conditions*

	Life cycle	LIGHT			MOISTURE					Te	HABITAT							Wetland indicator status
		Full sun	Part sun	Full shade	Dry	Moist	Seas. wet	Pernl. wet	Sub		Wet land	Riparian	Forest	Forest slope	Thicket	Grass land	Rocky	
	EP	●	●		●	●											●	
													●	●				
	P	●	●		●	●				X						●		NI
										X						●		FAC
		●			●											●		
	P	●	●			●	●				●					●		FACW–
	P		●	●		●					●		●	●	●			FAC–
	P		●	●		●							●	●	●	●		FAC–
																●		FACU
	P	●			●											●		FACU
											●					●		FACW
											●	●						FACW

● *HABITAT*
WETLAND *all forms of wetlands*
RIPARIAN *stream and river shorelines and bottomlands*
FOREST *flat or mildly rolling forests*
FOREST SLOPE *steeply sloping upland forests such as in the West Hills or East Buttes*
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3.9 HERBACEOUS FORBS (Table continues across on page 3.9-46 ⟶)

Latin name	Common name	Mature height	FLOWERS														
			Showy	Color	Notes	J	F	M	A	M	J	J	A	S	O	N	D
Stachys ajugoides var. rigida	Great Betony																
Stachys palustris var. pilosa	Swamp Hedge-nettle																
Stellaria crispa	Crisped Starwort																
Streptopus amplexifolius	Clasping-leaved Twisted-stalk	18"–36"		White	Greenish-white, bell-shaped												
Sullivantia oregana	Sullivantia																
Synthyris reniformis	Snow Queen	2"–6"		Blue Purple	Blue-violet, bell-shaped												
Tellima grandiflora	Fringecup	1'–2'	●	White Green	Greenish-white to reddish; small frilly petals, 5–10 lobes; arranged in linear raceme				■	■	■						
Teucrium canadense var. occidentale	Wood Sage																
Thalictrum occidentale	Western Meadowrue	18"–36"	●	Yellow Purple	Male and female flowers on separate plants; male-masses of hanging yellow stamen, female-greenish-white or purplish, inconspicuous burr-like heads of naked ovaries				■	■	■	■					
Tiarella trifoliata	Laceflower	8"–16"	●	White	Tiny, delicate, white or pinkish nodding flowers on slender branching stems					■	■	■	■				

KEY

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	Life cycle	LIGHT			MOISTURE					Te	HABITAT							Wetland indicator status
		Full sun	Part sun	Full shade	Dry	Moist	Seas. wet	Pernl. wet	Sub		Wet land	Riparian	Forest	Forest slope	Thicket	Grass land	Rocky	
											●	●				●		FACW
											●					●		FACW+
											●					●		FAC+
	P		●	●		●						●	●	●				FAC–
										X		●					●	
	P		●			●							●	●	●			
	P		●	●	●	●							●	●				
											●	●						FAC+
	P		●	●		●						●	●			●		FACU
	P		●	●		●						●	●	●				FAC–

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3.9 HERBACEOUS FORBS (Table continues across on page 3.9-48 ⟶)

Latin name	Common name	Mature height	FLOWERS													
			Showy	Color	Notes	J	F	M	A	M	J	J	A	S	O	N	D
Tiarella trifoliata v. unifoliata	Trefoil Tiarella									■	■	■	■				
Tolmiea menziesii	Pig-a-back	12"–30"	●	Purple	Brownish-purple 4-petalled tube-like flowers on one-sided raceme				■	■	■	■	■				
Tonella tenella	Small-flowered Tonella																
Trichostema lanceolatum	Mt. Blue-Curls																
Trientalis latifolia	Western Starflower	4"–8"	●	White Pink	White to pink to rose, star-like; 5–9 petals					■	■						
Trifolium bifidum	Pinole Clover									■	■						
Trifolium eriocephalum	Wooly Head Clover									■	■						
Trifolium microcephalum	Small-Head Clover									■	■						
Trifolium microdon	Thimble Clover									■	■						
Trifolium oliganthum	Few-Flowered Clover									■	■						
Trifolium tridentatum	Sand Clover									■	■						
Trifolium variegatum	White-tip Clover									■	■						
Trillium chloropetalum	Giant Trillium	1'–2'	●	White Yellow Purple Green	Greenish-white, yellow or purple flowers, 3-petalled, sessile			■	■	■	■						
Trillium ovatum	Western Trillium	6"–16"	●	White	White; 3 large petals up to 2" with 6 yellow anthers			■	■	■	■						
Triodanis perfoliata	Venus'–looking-glass																

KEY

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	Life cycle	LIGHT			MOISTURE					Te	HABITAT							Wetland indicator status
		Full sun	Part sun	Full shade	Dry	Moist	Seas. wet	Pernl. wet	Sub		Wet land	Riparian	Forest	Forest slope	Thicket	Grass land	Rocky	
				●	●	●						●	●	●	●			
	P		●	●		●						●	●	●				FAC
																●	●	
		●				●										●	●	
	P		●	●	●	●							●	●				FAC–
		●			●											●	●	
		●			●											●		
		●			●											●		
		●			●											●		
		●			●											●		
		●			●											●		
	P		●	●		●							●	●				
	P		●	●		●						●	●	●				FACU
																	●	UPL

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Obligate Upland (UPL) *almost never, under natural conditions, occur in wetlands in the Northwest*
No indicator (NI) *no status*
A positive (+) sign *the plant occurs more frequently in wetlands, at the higher end of the wetland status category range*
A negative (–) sign *the plant occurs less frequently in wetlands, at the lower end of the wetland status category range*

3.9 HERBACEOUS FORBS (Table continues across on page 3.9-50 ⟶)

Latin name	Common name	Mature height	FLOWERS														
			Showy	Color	Notes	J	F	M	A	M	J	J	A	S	O	N	D
Trisetum canescens	Tall Trisetum																
Urtica dioica	Stinging Nettle	2'–8'		Green	Tiny greenish in numerous, dense drooping clusters in the leaf axils					■	■						
Vancouveria hexandra	White Inside-out Flower	8"–18"	●	White	Small, white; sepals and petals bend backward and flare, open panicles on long, slender stalks					■	■	■					
Veratrum californicum	False Hellebore	4'–8'	●	White Green	Star-shaped, pale green, numerous on lateral spreading branches and upright terminal clusters						■	■	■				
Verbena hastata	Wild Hyssop	1'–3'	●	Pink Purple	Many small flowers held above leaves on a spike								■				
Veronica americana	American Brooklime	6"–24"	●	Blue Purple	Small blue to violet, saucer-shaped; in long, loose clusters along stem					■	■	■	■				
Vicia americana	American Vetch	6"–30"		Purple	Pea-like flowers in pairs on short stalks					■	■	■					
Vicia gigantea	Giant Vetch	1'–4'	●	Blue Purple	Blue to reddish-purple pea-like flowers in dense, one-sided clusters of 20–50 flowers					■	■	■					

KEY

● ***SHOWY***
Flowers are visible at some point during the year

LIFE CYCLE
A *Annual*
B *Biennial*
EP *Evergreen perennial*
P *Perennial*

X **TE** *State or federally listed as Threatened or Endangered*

● ***LIGHT***
FULL SUN *tolerates unshaded full exposure*
PARTIAL SUN *tolerates some sun and shade*
FULL SHADE *tolerates fully shaded conditions*

● ***MOISTURE***
DRY *tolerates dry conditions*
MOIST *tolerates moist conditions*
SEAS WET *tolerates seasonally wet conditions*
PERNL WET *tolerates perennially wet conditions*
SUB *tolerates submerged conditions*

	Life cycle	LIGHT			MOISTURE					Te	HABITAT							Wetland indicator status
		Full sun	Part sun	Full shade	Dry	Moist	Seas. wet	Pernl. wet	Sub		Wet land	Riparian	Forest	Forest slope	Thicket	Grass land	Rocky	
			●	●	●	●	●	●				●	●					
	P		●	●		●					●	●	●	●				FAC+
	P		●	●	●	●						●	●	●		●		
	P	●	●			●	●	●			●	●				●		FACW+
	P	●	●			●				X	●					●		FAC+
	P	●	●					●			●	●				●		OBL
	P	●	●		●	●							●			●		FAC
	P		●		●	●							●					

● *HABITAT*
WETLAND *all forms of wetlands*
RIPARIAN *stream and river shorelines and bottomlands*
FOREST *flat or mildly rolling forests*
FOREST SLOPE *steeply sloping upland forests such as in the West Hills or East Buttes*
THICKET *forest edges, hedgerows, clumps of vegetation in meadows*
GRASS *open areas, meadows*
ROCKY *rocky upland areas and cliffs*

WETLAND INDICATOR STATUS
Obligate Wetland (OBL) *almost always occur in wetlands*
Facultative wetland (FACW) *occur in wetlands 67%–99% of the time*
Facultative (FAC) *equally likely to occur in wetlands or non-wetlands*
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3.9 HERBACEOUS FORBS (Table continues across on page 3.9-52 ⟶)

Latin name	Common name	Mature height	FLOWERS													
			Showy	Color	Notes	J	F	M	A	M	J	J	A	S	O	N	D
Viola adunca	Early Blue Violet	3"–6"	●	Blue Purple	Small flowers; showy white beards and dark purple guide lines usually mark the lower 3 petals; lowest petal projects backward into a short, curved spur					■	■	■					
Viola glabella	Stream Violet	4"–9"	●	Yellow	Small flowers, 3 lower petals with purple lines; flowers grow from upper leaf axils				■	■	■	■					
Viola hallii	Hall's Violet	4"–6"	●	White Yellow Purple	Upper petals purple or blue, lower petals yellow or cream					■	■	■					
Viola howellii	Howell's Violet																
Viola palustris	Marsh Violet																
Viola praemorsa v. praemorsa	Canary Violet																
Viola sempervirens	Evergreen Violet	2"–5"	●	Yellow	Pale yellow, lower 3 petals with purple lines				■	■	■						
Whipplea modesta	Yerba de Selva																
Xanthium spinosum	Spiny Cocklebur																
Xanthium strumarium	Common Cocklebur																

KEY

● ***SHOWY***
Flowers are visible at some point during the year

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FULL SHADE *tolerates fully shaded conditions*

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SUB *tolerates submerged conditions*

	Life cycle	LIGHT			MOISTURE					Te	HABITAT							Wetland indicator status
		Full sun	Part sun	Full shade	Dry	Moist	Seas. wet	Pernl. wet	Sub		Wet land	Riparian	Forest	Forest slope	Thicket	Grass land	Rocky	
	P	●	●	●	●	●										●		FAC
	P		●	●		●					●	●	●	●				FACW+
	P	●	●			●							●	●		●		FAC
													●			●		
											●					●		OBL
		●			●											●		
	EP		●	●		●	●						●	●				
													●					
																●		FACU
																●		FAC

● *HABITAT*
WETLAND *all forms of wetlands*
RIPARIAN *stream and river shorelines and bottomlands*
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FOREST SLOPE *steeply sloping upland forests such as in the West Hills or East Buttes*
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A negative (–) sign *the plant occurs less frequently in wetlands, at the lower end of the wetland status category range*

3.10 HERBACEOUS GRASSES (Table continues across on page 3.10-2 ⟶)

Latin name	Common name	Mature height	Life cycle	Light			
				Full sun	Part sun	Full shade	
Acnatherum lemmonii	Lemmon's Needlegrass			●			
Acnatherum occidentalis ssp. californica	California Needlegrass			●			
Agrostis exarata	Spike Bentgrass			●	●		
Agrostis scabra	Rough Hairgrass			●	●		
Alopecurus geniculatus	Water Foxtail	6"–24"		●			
Beckmannia syzigachne	Slough Grass	3'	A	●			
Bromus carinatus	California Brome-grass	2'–3'	P	●			
Bromus sitchensis	Alaska Brome						
Bromus vulgaris	Columbia Brome	2'–4'	P	●	●	●	
Cinna latifolia	Woodreed						
Danthonia californica	California Oat-grass	1"–12"	P	●			
Deschampsia cespitosa	Tufted hairgrass	18"–48"	P	●			
Deschampsia elongata	Slender Hairgrass			●	●		
Echinochloa crusgalli	Large Barnyard-grass						
Elymus glaucus	Blue Wildrye	2'–4'	P	●		●	
Elymus glaucus ssp. jepsonii	Jepson's Blue Wildrye				●		
Festuca californica	California Fescue	24–36"		●	●		
Festuca roemeri	Roemer's Fescue	10"–40"	P	●			
Festuca occidentalis	Western Fescue-grass	10"–40"	P	●		●	
Festuca subulata	Bearded Fescue-grass	20"–40"	P	●	●	●	
Festuca subuliflora	Coast Range Fescue-grass	20"–40"		●	●	●	

KEY

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- **P** *Perennial*

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● ***LIGHT***
- **FULL SUN** *tolerates unshaded full exposure*
- **PARTIAL SUN** *tolerates some sun and shade*
- **FULL SHADE** *tolerates fully shaded conditions*

● ***MOISTURE***
- **DRY** *tolerates dry conditions*
- **MOIST** *tolerates moist conditions*
- **SEAS WET** *tolerates seasonally wet conditions*
- **PERNL WET** *tolerates perennially wet conditions*
- **SUB** *tolerates submerged conditions*

	Moisture					Te	Habitat							Wetland indicator status
	Dry	Moist	Seas wet	Pernl wet	Sub		Wetland	Riparn	Forest	Forest slope	Thicket	Grass land	Rocky	
	●											●	●	
	●											●	●	
		●	●	●			●	●						
		●	●	●			●	●						
		●	●	●			●							OBL
		●	●	●			●							OBL
	●	●						●	●			●		
								●	●			●		
	●	●										●		UPL
							●	●	●			●		FACW
	●	●						●				●	●	FACU
		●	●	●			●							FACW
	●	●	●	●			●	●						FACW
							●	●						FACW
	●	●							●	●	●	●	●	FACU
	●	●							●	●	●	●		
	●								●	●		●		
	●										●	●	●	
	●	●						●	●					
	●	●						●	●					FACU+
		●						●	●			●		

● *HABITAT*
WETLAND *all forms of wetlands*
RIPARIAN *stream and river shorelines and bottomlands*
FOREST *flat or mildly rolling forests*
FOREST SLOPE *steeply sloping upland forests such as in the West Hills or East Buttes*
THICKET *forest edges, hedgerows, clumps of vegetation in meadows*
GRASS *open areas, meadows*
ROCKY *rocky upland areas and cliffs*

WETLAND INDICATOR STATUS
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Facultative wetland (FACW) *occur in wetlands 67%–99% of the time*
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Facultative Upland (FACU) *occur wetlands only 1%–33% of the time*
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No indicator (NI) *no status*
A positive (+) sign *the plant occurs more frequently in wetlands, at the higher end of the wetland status category range*
A negative (–) sign *the plant occurs less frequently in wetlands, at the lower end of the wetland status category range*

3.10 HERBACEOUS GRASSES (Table continues across on page 3.10-4 ⟶)

Latin name	Common name	Mature height	Life cycle	Light			
				Full sun	Part sun	Full shade	
Glyceria elata	Fowl Mannagrass	3'–4'	P	●	●	●	
Glyceria occidentalis	NW Mannagrass	2'–3'	P	●	●		
Hordeum brachyantherum	Meadow Barley	1'–3'	P	●			
Koeleria macrantha	Junegrass			●			
Leersia oryzoides	Rice Cutgrass			●	●		
Luzula campestris var. congesta	Field Woodrush	4"–24"	P	●	●		
Luzula parviflora	Small-flowered Woodrush						
Melica bulbosa	Oniongrass	12"–30"	P	●			
Melica geyeri	Geyer's Oniongrass	12"–40"	P	●	●		
Melica subulata	Alaska Oniongrass	12"–40"	P	●	●		
Olsynium douglasii	Grass-Widows			●	●		
Panicum capillare	Old-witch Grass						
Paspalum distichum	Knotgrass						
Poa grayana	Gray's Bluegrass						
Poa howellii	Howell's Bluegrass						
Poa compressa	Canada Bluegrass	8"–16"	A	●	●		
Trisetum cernuum	Nodding Trisetum						

KEY

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	Moisture					Te	Habitat							Wetland indicator status
	Dry	Moist	Seas wet	Pernl wet	Sub		Wetland	Riparn	Forest	Forest slope	Thicket	Grass land	Rocky	
		●	●	●			●	●						FACW+
		●	●	●	●		●							OBL
		●	●				●	●				●		NI
												●		
			●	●	●		●							
	●	●							●		●	●		NI
									●	●	●			FAC-
	●												●	FACU
	●								●	●				
	●	●							●		●			
	●	●												
							●	●						FACU+
														FACW
								●				●		FACU
												●		
		●							●			●		FACU+
							●	●	●					FACU

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WETLAND *all forms of wetlands*
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3.11 HERBACEOUS SEDGES AND RUSHES (Table continues across on page 3.11-2 ⟶)

Latin name	Common name	Mature height	Life cycle	Light			
				Full sun	Part sun	Full shade	
Carex amplifolia	Big-leaf Sedge	24”–42	P	●	●		
Carex aperta	Columbia Sedge	20”–38”	P	●	●		
Carex aquatilis var. dives	Sitka Sedge	10”–46”	P	●	●		
Carex arcta	Clustered Sedge	8”–18”	P	●	●		
Carex athrostachya	Slenderbeaked Sedge	24”	P	●			
Carex canescens	Gray Sedge	18’	P	●	●		
Carex cusickii	Cusick’s Sedge	30”	P	●			
Carex densa	Dense Sedge	20”	P	●			
Carex deweyana ssp. leptopoda	Dewey’s Sedge	8”–48”	P	●	●		
Carex hedersonii	Henderson’s Wood Sedge	12”–40”	P	●	●		
Carex obnupta	Slough Sedge	2’–5’	P	●	●		
Carex retrorsa	Knot-sheath Sedge	1’–5’	P	●			
Carex utriculata	Beaked Sedge	1’–3’	P	●	●		
Carex stipata	Sawbeak Sedge	10”–30”	P	●	●		
Carex tumulicola	Foothill Sedge			●			
Carex vesicaria	Inflated Sedge	12”–38”	P	●	●		
Carex vulpinoidea	Fox Sedge	1”–3”	P	●			
Cyperus aristatus	Awned Flatsedge			●			
Cyperus erythrorhizos	Red-Rooted Flatsedge			●			
Cyperus strigosus	Straw-Colored Flatsedge			●			
Eleocharus acicularis	Needle Spikerush			●			

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	Moisture					Te	Habitat							Wetland indicator status
	Dry	Moist	Seas wet	Pernl wet	Sub		Wetland	Riparn	Forest	Forest slope	Thicket	Grass land	Rocky	
		●	●				●	●	●					FACW+
		●	●	●			●	●						FACW
			●	●			●							OBL
		●	●				●	●				●		OBL
		●	●				●					●		FACW
		●	●				●	●	●			●		FACW+
			●	●			●	●						OBL
			●				●							OBL
		●					●	●	●	●				FACU
		●	●				●	●	●	●				FAC
			●	●	●		●	●				●		OBL
				●	●		●							OBL
				●	●		●							OBL
				●	●		●							OBL
	●											●		
			●	●	●		●							OBL
			●	●			●							
		●	●	●			●							
		●	●	●			●							
		●	●	●			●							
			●	●	●		●	●						

● *HABITAT*

WETLAND *all forms of wetlands*
RIPARIAN *stream and river shorelines and bottomlands*
FOREST *flat or mildly rolling forests*
FOREST SLOPE *steeply sloping upland forests such as in the West Hills or East Buttes*
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3.11 HERBACEOUS SEDGES AND RUSHES (Table continues across on page 3.11-4 ⟶)

Latin name	Common name	Mature height	Life cycle	Light		
				Full sun	Part sun	Full shade
Eleocharis macrostachya	Creeping Spikerush	1”–2”	EP	●		
Eleocharis obtusa v. obtusa	Ovate Spikerush			●		
Juncus acuminatus	Tapertip Rush			●		
Juncus articulatus	Jointed Rush			●		
Juncus balticus	Baltic Rush	4”–40”	EP	●		
Juncus bolanderi	Bolander’s Rush	6”–24”	EP	●		
Juncus bufonius	Toad Rush	6”–1’	A	●		
Juncus effusus v. pacificus	Soft Rush	1’–3’	EP	●		
Juncus ensifolius	Dagger-leaf Rush	6”–20”	EP	●		
Juncus laccatus	Slender Soft Rush	1’–3’	EP	●		
Juncus oxymeris	Pointed Rush	6”–24”	EP	●		
Juncus patens	Spreading Rush			●	●	
Juncus tenuis	Slender Rush	6”–20”	EP	●		
Scirpus acutus	Hardstem Bulrush	3’–9’	EP	●	●	
Scirpus americanus	American Bulrush	6”–40”	EP	●	●	
Scirpus cyperinus	Wooly Sedge			●		
Scirpus microcarpus	Small-fruited Bulrush	2’–4’	EP	●	●	
Scirpus tabernaemonti	Softstem Bulrush	3’–9’	EP	●	●	
Trichostema lanceolatum	Mt. Blue-Curls			●		

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	Moisture					Te	Habitat							Wetland indicator status
	Dry	Moist	Seas wet	Pernl wet	Sub		Wetland	Riparn	Forest	Forest slope	Thicket	Grass land	Rocky	
			●	●	●		●	●						OBL
			●	●	●		●	●						OBL
		●	●	●			●							
		●	●	●			●							
			●	●	●		●							FACW+
			●	●	●		●	●						OBL
			●				●					●		FACW
		●	●	●	●		●							FACW
			●	●	●		●	●						FACW
		●	●	●	●		●							FACW
			●	●	●		●	●						FACW+
		●	●	●				●						
		●	●	●			●							FACW-
				●	●		●	●						OBL
				●	●		●							OBL
		●	●	●	●		●	●						
				●	●		●	●	●			●		OBL
				●	●		●	●						OBL
		●										●	●	

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WETLAND *all forms of wetlands*
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3.12 HERBACEOUS FERNS (Table continues across on page 3.12-2 ⟶)

Latin name	Common name	Mature height	Life cycle	Light			
				Full sun	Part sun	Full shade	
Adiantum aleuticum	Northern Maidenhair Fern	1'–2'	P		●	●	
Athyrium filix–femina	Lady Fern	2'–4'	P	●	●	●	
Blechnum spicant	Deer Fern	1'–3'	EP		●	●	
Botrychium multifidum	Leathery Grape–fern	6"–15"	EP				
Cystopteris fragilis	Brittle Bladder Fern	4"–12"	P	●	●		
Dryopteris arguta	Wood Fern	18"–2'	EP	●	●		
Dryopteris expansa	Spreading Wood Fern	2'–3'	P		●	●	
Gymnocarpium dryopteris	Oak Fern	6"–16"	P		●	●	
Pentagramma triangularis	Gold–back Fern	3"–12"	EP	●	●		
Polypodium glycyrrhiza	Licorice Fern	8"–20"	EP		●	●	
Polystichum munitum	Sword Fern	2'–5'	EP		●	●	
Pteridium aquilinium	Bracken Fern	1'–9'	P	●	●	●	

KEY

LIFE CYCLE
- **A** *Annual*
- **B** *Biennial*
- **EP** *Evergreen perennial*
- **P** *Perennial*

X **TE** *State or federally listed as Threatened or Endangered*

● ***LIGHT***
- **FULL SUN** *tolerates unshaded full exposure*
- **PARTIAL SUN** *tolerates some sun and shade*
- **FULL SHADE** *tolerates fully shaded conditions*

● ***MOISTURE***
- **DRY** *tolerates dry conditions*
- **MOIST** *tolerates moist conditions*
- **SEAS WET** *tolerates seasonally wet conditions*
- **PERNL WET** *tolerates perennially wet conditions*
- **SUB** *tolerates submerged conditions*

	Moisture					Te	Habitat							Wetland indicator status
	Dry	Moist	Seas wet	Pernl wet	Sub		Wetland	Riparn	Forest	Forest slope	Thicket	Grass land	Rocky	
		●						●	●	●			●	FAC
		●	●	●				●	●					FAC
		●	●				●	●	●					FAC+
		●					●	●	●	●		●		FAC
	●	●							●	●	●		●	FACU
	●	●							●				●	
		●	●					●	●	●				
		●							●					FAC
	●												●	
		●	●					●	●	●	●		●	
	●	●							●	●	●			FACU
	●	●							●		●	●		FACU

● *HABITAT*
WETLAND *all forms of wetlands*
RIPARIAN *stream and river shorelines and bottomlands*
FOREST *flat or mildly rolling forests*
FOREST SLOPE *steeply sloping upland forests such as in the West Hills or East Buttes*
THICKET *forest edges, hedgerows, clumps of vegetation in meadows*
GRASS *open areas, meadows*
ROCKY *rocky upland areas and cliffs*

WETLAND INDICATOR STATUS
Obligate Wetland (OBL) *almost always occur in wetlands*
Facultative wetland (FACW) *occur in wetlands 67%–99% of the time*
Facultative (FAC) *equally likely to occur in wetlands or non-wetlands*
Facultative Upland (FACU) *occur wetlands only 1%–33% of the time*
Obligate Upland (UPL) *almost never, under natural conditions, occur in wetlands in the Northwest*
No indicator (NI) *no status*
A positive (+) sign *the plant occurs more frequently in wetlands, at the higher end of the wetland status category range*
A negative (–) sign *the plant occurs less frequently in wetlands, at the lower end of the wetland status category range*

3.13 OTHER HERBACEOUS (Table continues across on page 3.13-2 ⟶)

Latin name	Common name	Mature height	Form	FLOWERS														
				Showy	Color	Notes	J	F	M	A	M	J	J	A	S	O	N	D
Azolla filiculoides	Duckweed	F	A															
Brasenia schreberi	Water-shield	F	A	●	Purple	Single 1" purple flowers rising on thin stalks above leaf							■	■	■			
Callitriche hetrophylla	Different-leaf Water-starwart	F/s	A															
Cephalanthera austiniae	Phantom Orchid	10"	M			Cannot be cultivated												
Ceratophyllum demersum	Coontail	S	A															
Corallorhiza maculata	Pacific Coral-root	12"	M															
Corallorhiza mertensiana	Coral-root	12"	M															
Corallorhiza striata	Striped Coral-root	12"	M															
Elatine triandra	Three-stamen Waterwort	2"	E															
Howellia aquatils	Howellia	F/s	A															
Lemna minor	Water Lentil (duckweed)	F	A															
Ludwigia palustris	False Loosestrife	6"	E															
Nuphar luteum ssp. polysepalum	Yellow Water-lily	F	A	●	Yellow	Brilliant yellow or reddish tinged, cup-shaped blossoms, 3–4" wide, floating					■	■	■	■				
Polygonum amphibium var. emersum	Water Smartweed	6"–12"	A	●	Pink	Bright pink, small but showy; oblong terminal spikes							■	■	■			

KEY

MATURE HEIGHT
Height above water if emergent
- **f** *floating*
- **s** *submerged*

FORM
- **a** *aquatic*
- **c** *clubmoss*
- **e** *emergent*
- **m** *mycorrhizal*

● ***SHOWY***
Flowers are visible at some point during the year

X **TE** *State or federally listed as Threatened or Endangered*

LIFE CYCLE
- **A** *Annual*
- **B** *Biennial*
- **EP** *Evergreen perennial*
- **P** *Perennial*

● ***LIGHT***
- **FULL SUN** *tolerates unshaded full exposure*
- **PARTIAL SUN** *tolerates some sun and shade*
- **FULL SHADE** *tolerates fully shaded conditions*

● ***MOISTURE***
- **DRY** *tolerates dry conditions*
- **MOIST** *tolerates moist conditions*
- **SEAS WET** *tolerates seasonally wet conditions*
- **PERNL WET** *tolerates perennially wet conditions*
- **SUB** *tolerates submerged conditions*

	Life cycle	LIGHT			MOISTURE					Te	HABITAT							Wetland indicator status
		Full sun	Part sun	Full shade	Dry	Moist	Seas. wet	Pernl. wet	Sub		Wet land	Riparian	Forest	Forest slope	Thicket	Grass land	Rocky	
											●							OBL
	P	●							●		●							OBL
											●					●		OBL
													●	●				
	P	●							●		●							OBL
													●	●				UPL
													●	●				
													●	●				FACU
											●	●						OBL
										X	●							OBL
	A	●	●						●		●							OBL
											●	●						OBL
	P	●	●					●	●		●							OBL
	P	●	●					●	●		●							OBL

● *HABITAT*
WETLAND *all forms of wetlands*
RIPARIAN *stream and river shorelines and bottomlands*
FOREST *flat or mildly rolling forests*
FOREST SLOPE *steeply sloping upland forests such as in the West Hills or East Buttes*
THICKET *forest edges, hedgerows, clumps of vegetation in meadows*
GRASS *open areas, meadows*
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No indicator (NI) *no status*
A positive (+) sign *the plant occurs more frequently in wetlands, at the higher end of the wetland status category range*
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3.13 OTHER HERBACEOUS (Table continues across on page 3.13-4 ⟶)

Latin name	Common name	Mature height	Form	FLOWERS														
				Showy	Color	Notes	J	F	M	A	M	J	J	A	S	O	N	D
Polygonum punctatum	Dotted Smartweed	10"–40"	A															
Potamogeton crispus	Curled Pondweed	F/s	A															
Potamogeton natans	Broad-leaved Pondweed	F/s	A															
Ranunculus aquatilis var. hispidulus	White Water-buttercup	F/s	A															
Selaginella douglasii	Douglas' Selaginella	1"	C															
Sparganium emersum var. emersum	Simplestem Bur-reed	8"–40"	A/e		Green	Tiny, greenish in obvious globular heads, 2–4 along stalk												
Spirodela polyrhiza	Great Duckweed	F	A															
Typha latifolia	Common Cattail	4"–10"	E	●	Brown	Brown; tiny in terminal cylindrical spike up to 12" long						■	■	■	■			
Utricularia vulgaris	Common Bladderwort	S	A															

KEY

MATURE HEIGHT
Height above water if emergent
- **f** *floating*
- **s** *submerged*

FORM
- **a** *aquatic*
- **c** *clubmoss*
- **e** *emergent*
- **m** *mycorrhizal*

● ***SHOWY***
Flowers are visible at some point during the year

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LIFE CYCLE
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● ***MOISTURE***
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	Life cycle	LIGHT			MOISTURE					Te	HABITAT							Wetland indicator status
		Full sun	Part sun	Full shade	Dry	Moist	Seas. wet	Pernl. wet	Sub		Wet land	Riparian	Forest	Forest slope	Thicket	Grass land	Rocky	
	A	●	●				●	●		X	●							OBL
											●							OBL
											●							OBL
											●							OBL
													●	●			●	
	P	●	●					●	●		●							OBL
											●							OBL
	P	●	●				●	●	●		●							OBL
											●					●		OBL

● *HABITAT*
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3.14 USING NATIVE GROUND COVERS AND VINES

Ground covers play an important ecological role in the landscape because they help prevent erosion and maintain soil moisture and temperature.

In general, plants that have a tendency to spread widely while remaining relatively low are good candidates for use as ground covers. Some vining plants are also suitable for ground covers since, in the absence of something to climb on, they will stay low to the ground. There are many native plants which are well-suited for use as ground covers. In many situations where lawn would traditionally be planted, you can instead plant a mixture of low growing native species to reduce maintenance, create more visual interest, and improve biodiversity and habitat value. Select plants which are naturally adapted to the environmental conditions of your site. If you have a shady area, select plants which are native to moist, shady forest conditions.

Look at plants that are already growing on your site or on sites that have similar conditions to see if there are particular species that are covering large areas. The objective of a ground cover is to form a blanket on top of the soil. For some species, this is accomplished by spreading via roots or runners from individual plants. For other species, this happens when they produce large quantities of seed that rapidly colonize an area. If site conditions are not favorable, the plants will not spread or reproduce sufficiently to act as ground covers. The following list provides the names of a variety of native plants that could be used as ground covers. Think about combining a number of different plants in the same area. You may discover, over time, that one or two of the plants are more successful and have become the dominant ground cover.

3.15 GROUND COVERS

Latin name	Common name	Mature height	LIGHT			MOISTURE				
			Full sun	Part sun	Full shade	Dry	Moist	Seas. wet	Pernl. wet	Sub
Forbs										
Achlys triphylla	Vanillaleaf	8"–16"		●	●		●			
Cornus canadensis	Bunchberry	4"–8"		●	●		●			
Fragaria vesca var. bracteata	Wood Strawberry	3"–8"	●	●		●	●			
Fragraria virginiana var. platypetala	Broadpetal Strawberry	2"–5"	●	●		●	●			
Linnaea borealis	Twinflower	4"–7"		●	●	●	●			
Maianthemum dilatatum	False Lily-of-the-valley	4"–16"		●	●		●	●		
Oxalis oregana	Oregon Oxalis	2"–8"		●	●		●			
Petasites frigidus var. palmatus	Sweet Coltsfoot	4"–18"	●	●	●		●	●		
Potentilla glandulosa	Sticky cinquefoil	12"–24"	●	●		●	●			
Sedum oreganum	Oregon Stonecrop	3"–6"	●	●		●	●			
Tellima grandiflora	Fringecup	12"–24"		●	●	●	●			
Tolmiea menziesii	Pig-a-back	12"–30"		●	●		●			
Vancouveria hexandra	White Inside-out Flower	8"–18"		●	●	●	●			
Viola adunca	Early Blue Violet	3"–6"	●	●	●	●	●			
Viola glabella	Stream Violet	4"–9"		●	●		●			
Viola hallii	Hall's Violet	4"–6"	●	●			●			
Viola sempervirens	Evergreen Violet	2"–5"		●	●		●	●		

KEY

● ***LIGHT***
FULL SUN *tolerates unshaded full exposure*
PARTIAL SUN *tolerates some sun and shade*
FULL SHADE *tolerates fully shaded conditions*

● ***MOISTURE***
DRY *tolerates dry conditions*
MOIST *tolerates moist conditions*
PERNL WET *tolerates perennially wet conditions*
SUB *tolerates submerged conditions*

Latin name	Common name	Mature height	LIGHT			MOISTURE				
			Full sun	Part sun	Full shade	Dry	Moist	Seas. wet	Pernl. wet	Sub
Grasses										
Achlys triphylla	Vanillaleaf	8"–16"		●	●		●			
Cornus canadensis	Bunchberry	4"–8"		●	●		●			
Fragaria vesca var. bracteata	Wood Strawberry	3"–8"	●	●		●	●			
Fragraria virginiana var. platypetala	Broadpetal Strawberry	2"–5"	●	●		●	●			
Linnaea borealis	Twinflower	4"–7"		●	●	●	●			
Maianthemum dilatatum	False Lily-of-the-valley	4"–16"		●	●		●	●		
Oxalis oregana	Oregon Oxalis	2"–8"		●	●		●			
Petasites frigidus var. palmatus	Sweet Coltsfoot	4"–18"	●	●	●		●	●		
Potentilla glandulosa	Sticky cinquefoil	12"–24"	●	●		●	●			
Sedum oreganum	Oregon Stonecrop	3"–6"	●	●		●	●			
Tellima grandiflora	Fringecup	12"–24"		●	●	●	●			
Tolmiea menziesii	Pig-a-back	12"–30"		●	●		●			
Vancouveria hexandra	White Inside-out Flower	8"–18"		●	●	●	●			
Viola adunca	Early Blue Violet	3"–6"	●	●	●	●	●			
Viola glabella	Stream Violet	4"–9"		●	●		●			
Viola hallii	Hall's Violet	4"–6"	●	●			●			
Viola sempervirens	Evergreen Violet	2"–5"		●	●		●	●		

KEY

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Latin name	Common name	Mature height	LIGHT			MOISTURE				
			Full sun	Part sun	Full shade	Dry	Moist	Seas. wet	Pernl. wet	Sub
Rushes and Sedges										
Carex amplifolia	Big-leaf Sedge	24"–42	●	●			●	●		
Carex aperta	Columbia Sedge	20"–38"	●	●			●	●	●	
Carex aquatilis var. dives	Sitka Sedge	10"–46"	●	●				●	●	
Carex arcta	Clustered Sedge	8"–30"	●	●				●	●	
Carex athrostachya	Slenderbeaked Sedge	4"–24"	●				●	●		
Carex deweyana	Dewey's Sedge	8"–48"	●	●		●	●			
Carex hedersonii	Henderson's Wood Sedge	12"–40"	●	●				●	●	●
Carex lynbyei var. robusta	Lyngby's Sedge	8"–40"	●	●					●	●
Carex obnupta	Slough Sedge	24"–60"	●	●					●	●
Carex praticola	Meadow Sedge	12"–28"	●	●			●	●	●	
Carex rostrata var. utriculata	Beaked Sedge	12"–60"	●	●					●	●
Carex stipata	Sawbeak Sedge	10"–40"	●	●					●	●
Carex vesicaria	Inflated Sedge	12"–38"	●	●					●	●
Eleocharis acicularis	Needle Spike-rush	4"–8"	●					●	●	●
Eleocharis macrostachya	Creeping Spike-rush	24"–36"	●					●	●	●
Juncus balticus	Baltic Rush	4"–40"	●				●	●	●	●
Juncus bolanderi	Bolander's Rush	6"–24"	●					●	●	●
Juncus effusus	Common Rush	10"–50"	●				●	●	●	●
Juncus ensifolius	Dagger-leaf Rush	6"–24"	●					●	●	●
Juncus tenuis	Slender Rush	6"–28"	●				●	●	●	
Scirpus acutus	Hardstem Bulrush	36"–72"	●	●					●	●
Scirpus americanus	American Bulrush	6"–40"	●	●					●	●
Scirpus microcarpus	Small-fruited Bulrush	24"–48"	●	●					●	●
Scirpus tabernaemont	Softstem Bulrush	36"–108"	●	●					●	●
Shrubs										

KEY

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DRY *tolerates dry conditions*
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Latin name	Common name	Mature height	LIGHT			MOISTURE				
			Full sun	Part sun	Full shade	Dry	Moist	Seas. wet	Pernl. wet	Sub
Arctostaphylos uva-ursi	Kinnikinnick	5"–8"	●			●	●			
Berberis nervosa	Dull Oregongrape	2'	●	●		●	●			
Gaultheria shallon	Salal	12"–60"		●	●	●	●			
Rubus ursinus var. macropetalus	Dewberry	1'–1.5'	●	●	●	●	●	●		
Vines										
Lonicera ciliosa	Trumpet Vine	18'	●			●	●		●	
Lonicera hispidula	Hairy Honeysuckle	15'	●	●	●		●	●		
Marah oreganus	Manroot	12'	●	●			●	●		
Ribes laxiflorum	Western Black Currant	3'–21'	●	●	●	●	●		●	●
Rubus ursinus	Pacific Blackberry	15'–18'		●	●		●	●	●	
Toxicodendron diversilobum	Poison Oak	3'–10'	●	●	●		●	●	●	

KEY

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3.16 NATIVE PLANTS USED AS FOOD BY WILDLIFE

INFORMATION FROM THE OREGON DEPARTMENT OF FISH AND WILDLIFE

Please refer to the wildlife key that follows the tables. Numbers in columns indicate the number of wildlife species or species groups that use each plant.

This is not an exclusive list.

Common Name	Latin Name	Water Birds	Upland Birds	Song Birds	Medium and Large Mammals	Small Mammals	Hoofed Mammals
Trees							
Grand Fir	Abies grandis		1	1	3	2	1
Vine Maple	Acer circinatum	2	9	6	1	2	
Bigleaf Maple	Acer macrophyllum	2	9	6	1	1	
Red Alder	Alnus Rubra	2	6	1	2		
Pacific Madrone	Arbutus menziesii	2	1	1			
Pacific Dogwood	Cornus nutallii	1	4	15	6	2	2
Black Hawthorn (upland)	Crataegus suksdorfii	1	3	5	7	1	
Oregon Ash	Fraxinus latifolia	1	6	1			
Western Crabapple	Malus fusca	3	17	9	3	1	
Black Cottonwood	Populus balsamifera	2	2	1	5	1	
Bitter Cherry	Prunus emarginata	3	21	11	2		
Common Chokecherry	Prunus virginiana	3	21	11	2	2	
Douglas Fir	Pseudotsuga menziesii		1	3	3	3	2
Garry Oak	Quercus garryana	1	5	18	6	2	2
Cascara	Rhamnus purshiana	1	6	2	2	1	
Willow species	Salix species		1	1	3	1	2
Western Red Cedar	Thuja plicata	1	6	5	3	1	
Western Hemlock	Tsuga heterophylla	1	4	3	1	1	

WILDLIFE SPECIES KEY

Water Birds (seeds, young plants)	Ducks (many species), Geese (several species)
Upland Birds (buds, fruit, needles, seeds)	Grouse (2 species), Pheasant, Dove, Quail, Pigeon
Song Birds (buds, fruit, needles, seeds)	Blackbird (2 species), Bunting, Chat, Chickadee (2 species), Cowbird, Crossbill, Crow, Finch (2 species), Flicker, Grosbeak (2 species), Jay (3 species), Junco, Kinglet (2 species), Lark, Nutcracker, Nuthatch, Phoebe, Robin, Siskin, Sparrow (many species), Tanager, Thrush (2 species), Towhee, Waxwing, Woodpecker (several species), Wren (several species)
Medium and Large Mammals (bark, foliage, seeds, fruit)	Bear, Beaver, Coyote, Opossum, Rabbit (2–3 species), Raccoon, Skunk (2 species), Squirrel (3 species)
Small Mammals (bark, fruit, seeds)	Chipmunk, Mice (many species)
Hoofed Mammals (foliage, twigs)	Deer, Elk

Common Name	Latin Name	Water Birds	Upland Birds	Song Birds	Medium and Large Mammals	Small Mammals	Hoofed Mammals
Shrubs							
Western Serviceberry	Amelanchier alnifolia	2	15	4	3	2	
Hairy Manzanita	Arctostaphylos columbiana	1	2	1	2	1	
Kinnikinnick	Arctostaphylos uva-ursi	2	1				
Tall Oregongrape	Berberis aquifolium	1	4	1	1	1	
Dull Oregongrape	Berberis nervosa	1	4	1	1	1	
Red-osier Dogwood	Cornus sericea	1	4	15	6	2	2
Hazelnut	Corylus cornuta	1	2	4	2	1	
Salal	Gaultheria shallon	2	4	2			
Ocean-spray	Holodiscus discolor	+	+	+	+	+	+
Black Twinberry	Lonicera involucrata	+	+	+	+	+	+
Indian Plum	Oemleria cerasiformis	+	+	+	+	+	+
Pacific Ninebark	Physocarpus capitatus	+	+	+	+	+	+
Common Chokecherry	Prunus virginiana	3	21	11	2		
Gooseberry	Ribes lobbii	1		4	5	4	1
Wild Rose	Rosa nutkana	3	6	5	1	2	
Salmonberry	Rubus spectabilis	4	22	7	1	2	
Trailing Blackberry	Rubus ursinus	4	22	7	1	2	
Red Elderberry	Sambucus racemosa	3	24	2	2	2	
Blue Elderberry	Sambucus mexicana	3	24	3	2	2	
Douglas's Spiraea	Spiraea douglasii	+	+	+	+	+	+
Common Snowberry	Symphoricarpos albus	3	9	3	2	2	
Creeping Snowberry	Symphoricarpos mollis	3	9	3	2	2	
Poison Oak	Toxicodendron diversilobum	3	21	2			
Alaska Blueberry	Vaccinium alaskaense	2	15	6	2	1	
Red Huckleberry	Vaccinium parvifolium	2	15	6	2	1	

WILDLIFE SPECIES KEY

Water Birds (seeds, young plants)	Ducks (many species), Geese (several species)
Upland Birds (buds, fruit, needles, seeds)	Grouse (2 species), Pheasant, Dove, Quail, Pigeon
Song Birds (buds, fruit, needles, seeds)	Blackbird (2 species), Bunting, Chat, Chickadee (2 species), Cowbird, Crossbill, Crow, Finch (2 species), Flicker, Grosbeak (2 species), Jay (3 species), Junco, Kinglet (2 species), Lark, Nutcracker, Nuthatch, Phoebe, Robin, Siskin, Sparrow (many species), Tanager, Thrush (2 species), Towhee, Waxwing, Woodpecker (several species), Wren (several species)
Medium and Large Mammals (bark, foliage, seeds, fruit)	Bear, Beaver, Coyote, Opossum, Rabbit (2–3 species), Raccoon, Skunk (2 species), Squirrel (3 species)
Small Mammals (bark, fruit, seeds)	Chipmunk, Mice (many species)
Hoofed Mammals (foliage, twigs)	Deer, Elk

Common Name	Latin Name	Water Birds	Upland Birds	Song Birds	Medium and Large Mammals	Small Mammals	Hoofed Mammals
Ground Cover							
Baneberry	Actaea rubra	1	1				
Red Columbine	Aquilegia formosa	1	5	1	1		
Nodding Beggars-tick	Bidens cernua	1	2	1			
California Brome-grass	Bromus carinatus	1	3	7		1	1
Water Sedge	Carex aquatilis	14	2	5	3	1	1
Gray Sedge	Carex canescens	14	2	5	3	1	1
Cusick's Sedge	Carex cusickii	14	2	5	3	1	1
Inland Sedge	Carex interior	14	2	5	3	1	1
Slough Sedge	Carex obnupta	14	2	5	3	1	1
Beaked Sedge	Carex rostrata	14	2	5	3	1	1
Miner's Lettuce	Claytonia perfoliata	2	10				
Fireweed	Epilobium angustifolium	1	1				
Barestem Buckwheat	Eriogonum nudum	2	3	9	1		
Western Fescue-grass	Festuca occidentalis	4	1				
Bearded Fescue-grass	Festuca subulata	4	1				
Coast Range Fescue-grass	Festuca subuliflora	4	1				
Wood Strawberry	Fragaria vesca	3	6	4	2	1	
Bicknell's Geranium	Geranium bicknellii	2	1	1	1		
Baltic Rush	Juncus balticus	+	+	+	+	+	+
Dagger-leaf Rush	Juncus ensifolius	+	+	+	+	+	+
Seaside Lotus	Lotus formosissimus	3					
Spanish Clover	Lotus purshiana	3					
Two-color Lupine	Lupinus bicolor	1	1	1	1	1	
Prairie Lupine	Lupinus lepidus	1	1	1	1	1	
Field Lupine	Lupinus micranthus	1	1	1	1	1	
Chick Lupine	Lupinus microcarpus	1	1	1	1	1	
Stream Lupine	Lupinus rivularis	1	1	1	1	1	
Sulfur Lupine	Lupinus sulphureus	1	1	1	1	1	
Skunk Cabbage	Lysichiton americanum	1	2				
Wood-sorrel	Oxalis trilliifolia	3	5	1	1		

WILDLIFE SPECIES KEY

Water Birds (seeds, young plants)	Ducks (many species), Geese (several species)
Upland Birds (buds, fruit, needles, seeds)	Grouse (2 species), Pheasant, Dove, Quail, Pigeon
Song Birds (buds, fruit, needles, seeds)	Blackbird (2 species), Bunting, Chat, Chickadee (2 species), Cowbird, Crossbill, Crow, Finch (2 species), Flicker, Grosbeak (2 species), Jay (3 species), Junco, Kinglet (2 species), Lark, Nutcracker, Nuthatch, Phoebe, Robin, Siskin, Sparrow (many species), Tanager, Thrush (2 species), Towhee, Waxwing, Woodpecker (several species), Wren (several species)
Medium and Large Mammals (bark, foliage, seeds, fruit)	Bear, Beaver, Coyote, Opossum, Rabbit (2–3 species), Raccoon, Skunk (2 species), Squirrel (3 species)
Small Mammals (bark, fruit, seeds)	Chipmunk, Mice (many species)
Hoofed Mammals (foliage, twigs)	Deer, Elk

Common Name	Latin Name	Water Birds	Upland Birds	Song Birds	Medium and Large Mammals	Small Mammals	Hoofed Mammals
Ground Cover (continued)							
Canada Bluegrass	Poa compressa	1	3	7	1		
Gray's Bluegrass	Poa grayana	1	3	7	1		
Howell's Bluegrass	Poa howellii	1	3	7	1		
Water Smartweed	Polygonum amphibium	19	1	12	2	1	
Doorweed	Polygonum aviculare	3	3	13	1	2	1
Douglas' Knotweed	Polygonum douglasii	3	3	13	1	2	1
Nutalls' Knotweed	Polygonum nuttallii	3	3	13	1	2	1
Dotted Smartweed	Polygonum punctatum	19	1	12	2	1	
Sticky Cinquefoil	Potentilla glandulosa	1	2	1	1		
Marsh Cinquefoil	Potentilla palustris	1	2	1	1		
Water-plantain Buttercup	Ranunculus alismaefolius	1	3	1	3	1	
Shore Buttercup	Ranunculus cymbalaria	1	3	1	3	1	
Creeping Buttercup	Ranunculus flammula	1	3	1	3	1	
Straightbeak Buttercup	Ranunculus orthorhyncus	1	3	1	3	1	
Pennsylvania Buttercup	Ranunculus pennsylvanicus	1	3	1	3	1	
Bitter Dock	Rumex obtusifolius	1	3	8	1	1	1
Western Dock	Rumex occidentalis	1	3	8	1	1	1
Wapato	Sagittaria latifolia	15					
Hardstem Bulrush	Scirpus acutus	20	1	3			
Pale Great Bulrush	Scirpus heterochaetus	20	1	3	1		
Small-fruited Bulrush	Scirpus microcarpus	20	1	3	1		
Olney's Bulrush	Scirpus olneyi	20	1	3			
Simplestem Bur-reed	Sparganium emersum	11		1			
Lesser Cattail	Typha angustifolia	3	1				
Common Cattail	Typha latifolia	3	1				
Viola species	Violets	3	1	1	1		

WILDLIFE SPECIES KEY

Water Birds (seeds, young plants)	Ducks (many species), Geese (several species)
Upland Birds (buds, fruit, needles, seeds)	Grouse (2 species), Pheasant, Dove, Quail, Pigeon
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Medium and Large Mammals (bark, foliage, seeds, fruit)	Bear, Beaver, Coyote, Opossum, Rabbit (2–3 species), Raccoon, Skunk (2 species), Squirrel (3 species)
Small Mammals (bark, fruit, seeds)	Chipmunk, Mice (many species)
Hoofed Mammals (foliage, twigs)	Deer, Elk

4. Nuisance Plants in Detail

The plants on the Nuisance Plants List are invasive; they threaten the health and vitality of native habitats, humans, and cause economic harm to public and to private landowners. Planting of these plants should be avoided and removal encouraged.

The plants on the Nuisance Plants List are species that threaten the health and vitality of native plant and animal communities, humans, and the economy. Most of the non-native plants on this list exist or have been found in Portland or in the four-county metropolitan region. The introduction to the *Portland Plant List* provides a description of code requirements related to the Nuisance Plants List. Please consult the City of Portland Zoning Code, other City codes, and City staff for more detailed analysis of applicable requirements relating to the prohibition on planting, and the required removal of plants on the Nuisance Plants List.

The provisions related to plants on the Nuisance Plants List apply to the named species on the Nuisances Plants List, and includes any sub-species, varieties, or cultivars of these species, unless otherwise noted. The Nuisance Plants List identifies each plant as tree, shrub, herbaceous, or aquatic. Herbaceous plants are non-woody plant species such as groundcovers, ferns, forbs, sedges, rushes, grasses and other plants.

Impacts

Invasive plant species have an impact on human and wildlife health and safety, water quality, biodiversity, fish and wildlife habitat, tree cover, fire risk, and the economy, as summarized in the paragraphs below. The City of Portland is committed to reducing these impacts to the highest degree possible within the limits of public resources and jurisdictional authority. The City also works to facilitate cooperation toward this end among citizens, developers, and land stewards.

To successfully prevent and minimize the spread of invasive species, it is important to understand where they come from and how they have become problematic. All of the plants on the Nuisance Plants List are non-native species; some were intentionally introduced, while others arrived incidentally. It is easy to transport plants. For example, non-native or ornamental plants can be purchased and installed in gardens. Vehicles can track plant seeds on tires. Humans can track seeds on their shoes, and livestock and pets can transport seed on their fur or feet. Many plant seeds or plant parts (e.g. knotweed rhizomes or shoots) are dispersed by wind and water. Animals may eat seeds and deposit them. Knowing how plants reproduce and spread is very helpful in preventing the vector distribution and controlling populations once established.

While many non-native plants introduced into this region have reproduced rapidly, not all non-native plants become invasive. When plants are no longer in their native environment, they enter new relationships within the ecological communities they occupy. Sometimes, they cause very little disruption to the systems they enter, while at other times they cause great disturbance. These detrimental impacts my take years to become noticeable, or they may quickly become evident. Additionally, many native invertebrates have co-evolved over many millennia, and many invertebrates need specific or a very few species for their food. If native plants are lost, these invertebrates may disappear from an infested area. This is why it is important from an ecological perspective to track and classify the aggressiveness of invasive plants.

Human and Wildlife Health and Safety

Humans and animals can be seriously impacted by invasive plants when they come into contact with the plants or eat the plants. For example, Paterson's curse (*Echium plantagineum*) contains pyrolizidine alkaloids; these alkaloids are poisonous to grazing animals. Humans handling the plant may incur mild to severe skin irritation and hay fever. Giant hogweed (*Heracleum mantegazzianum*) exudes a sap that sensitizes the skin to ultraviolet radiation. With exposure to the sun, severe burns can result in blisters and scars. If giant hogweed is burned and smoke is inhaled, it can cause burns in the respiratory tract.

Water Quality

Typically in the Pacific Northwest, native plant roots extend deep into the soil. Many species have extensive roots that bind the soils and reduce erosion. A diversity of plants provides a diversity of root structures and depths, and therefore, better erosion control. Monocultures homogenize root systems and provide poor erosion control. When erosion occurs, sediment is released into streams and increases stream turbidity, which in turn, impairs water quality.

For example, English ivy (*Hedera helix*) is an invasive, non-native groundcover plant that is prevalent in the City of Portland. English ivy provides little root structure to bind and hold the soil. While the expansive spread of English ivy provides an appearance of a plant holding soil strongly, the opposite is true. The roots are easily disturbed and eroded. In addition, English ivy often climbs into trees and envelops them, reducing tree strength and health and longevity, which in turn can affect soil stability and stream shading.

Some plants, such as Japanese knotweed (*Polygonum cuspidatum*) and Himalayan or Armenian blackberry (*Rubus discolor or Rubus armeniacus*), form monocultures that prevent trees from establishing. This reduces tree cover and shade in streamside environments. Without this tree cover, the water temperature in the stream increases. Higher water temperatures are associated with lower dissolved oxygen which adversely affects aquatic macroinvertebrates and native fish populations.

Biodiversity

Invasive plants are the second largest threat to biodiversity (behind habitat loss) and they are one of the primary factors that lead to a species listing under the Endangered Species Act *(City of Portland Invasive Plants Strategy Report 2008)*.

Invasive plants spread quickly, and can displace or prevent the growth of native plants. Invasive plants can, as noted already, form monocultures. This can exacerbate the decline of native plant communities, and impair the overall complexity and resilience of the ecosystem. According to the International Convention on Biological Diversity, "Invasive alien species are one of the greatest threats to biodiversity.[1]"

Fish and Wildlife Habitat

Invasive plants can outcompete and displace native plants that provide food and cover for native wildlife. With a loss of habitat, a change in land use, and encroachment of invasive species, the native animals no longer have the appropriate food and habitat available to them. Non-native animals may come into these areas and displace native animals. Aquatic plants such as hydrilla (*Hydrilla verticillata*) and Eurasian watermilfoil (*Myriphyllum spicatum*) form dense mats of vegetation that clog waterways and create stagnant water that provides breeding grounds for mosquitoes. Invasive aquatic plants can clog irrigation ditches and intake pipes, and negatively impact recreation activities such as swimming, boating, fishing and water skiing.

Invasive Plants of Portland

Butterfly bush
Buddleia davidii

Garlic mustard
Alliaria petiolata

Gorse
Ulex europaeus

Purple loosestrife
Lythrum salicaria

1 www.csiro.au/news/global-biodiversity.html

Invasive Plants of Portland

Common hawkweed
Hieracium vulgatum

Giant hogweed
Heracleum mantegazzianum

Yellow flag iris
Iris pseudacorus

Tree Cover

As noted above, invasive plants can reduce tree health and longevity. For example, English ivy (*Hedera helix*) can grow so extensively that it can weigh down trees, causing them to fall down (especially during ice storms) or making them more susceptible to blow down. Invasive plants can also reduce the growth of trees. Garlic mustard (*Alliaria petiolata*) reduces the presence of soil fungi that form mycorrhizal associations with plants. Soil mycorrihizae allow plant roots to access more soil moisture and lack of soil mycorrihizae has been documented to inhibit the growth of tree seedlings, which may prevent future forest regeneration. Less tree cover develops because seedlings don't get established. Seedlings and saplings also have a difficult time establishing when dense cover is created by invasive plants because the invasive plants can prevent sunlight from reaching the ground.

Fire

Invasive plants can create fuel sources for wildfires. Plants such as Traveler's joy (*Clematis vitalba*) can spread quickly and form layers or thickets of vegetation. The monocultures can also increase the frequency of wildfires. For example, cheatgrass (*Bromus tectorum*) is an invasive plant that becomes dry and is more likely to catch fire. Gorse (*Ulex europaeus*) contains high levels of natural oils that make the plant highly flammable. The City of Bandon fire on September 26, 1936 is attributed to gorse. According to news reports, when the winds shifted, fire spread from the forest to the town and "the town's abundant gorse exploded into an inferno.[2]" Even dead plants can be problematic. English ivy (*Hedera helix*), for example, can become a conduit for fire to reach the tree canopy, and threaten nearby structures. Invasive plants contributed to the wildfire that occurred in 2001 on the Willamette Bluffs in Portland. A spark from a passing train ignited the slope covered with Himalayan or Armenian blackberry (*Rubus discolor or Rubus armeniacus*) and Scotch broom (*Cytisus scoparius*); as a result of the fire, 43 acres burned.

Economy

Jurisdictions at the local, state, and federal level, as well as non-profit community organizations, are increasing their efforts to control invasive plants and animals. The Oregon Invasive Species Council estimates the cost of invasive plants and animals to the U.S. economy is $120 million a year in lost crop and livestock efforts, property value damage, and reduced export potential. The Oregon Department of Agriculture estimates that 21 invasive species reduce personal income by $83 million per year.

Increasing prevention and early detection efforts limits the introduction and spread of invasive plants and the costly removal efforts related to them. The U.S. Congress Office of Technology Assessment states that one dollar spent on weed control efforts prevents $17 in costs for future control efforts. When early detection and removal efforts are not implemented, the plants spread quickly and widely. The costs of invasive plant removal become tremendous; eradication may not be possible at that point, and the habitat impacts become large scale. In early detection efforts, to borrow and modify a cliché, "an ounce of prevention is worth more than a pound of cure."

The statistics in these two paragraphs are from the Oregon Department of Agriculture, Economic Analysis of Containment Programs, Damages, and Production Losses from Noxious Weeds in Oregon, 2000.

2 Oregon History Project; http://bit.ly/aQTUZ3

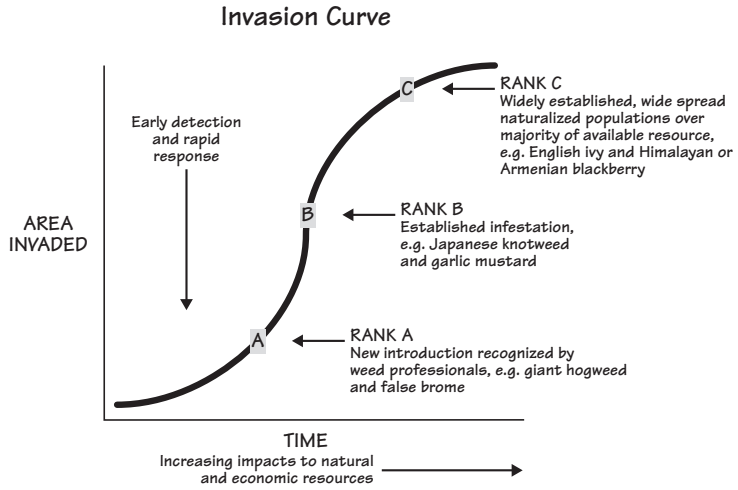
Ranks

Each plant on the Nuisance Plants List is assigned a rank. The ranks are defined below and describe the relative invasiveness of the plant species, and the current distribution in the region.

Preventing the introduction of invasive species is the best way to avoid an infestation. Limiting the planting of invasive species and educating people about the impacts of invasive species are two effective means to keep invasive plants from spreading to and from public and private lands. One use of the Nuisance Plants List is to educate people such as property owners and other individuals, land managers, commercial plant growers and sellers, and landscapers about which species are invasive. The benefits of preventing plant introductions applies to new invasive plants or existing invasive plants which may be transported to new areas. It is important to know that the Nuisance Plants List is not a "final" list; the list will change as new information about plants is identified. When other species become invasive in the future, the list will change to reflect that.

Early detection and rapid response invasive species management programs aim to control new plant invasions before they become large infestations. The premise is that once an infestation covers a large area, it is more difficult and to eradicate, and the native plant community has to be re-established. Controlling small populations of invasive plants before they become more widespread is a very cost effective way to prevent the spread of invasive plants.

The graph called an Invasion Curve is included here to illustrate how the area of infestation expands over time. When a plant is just arriving in an area, it is at the low point of the Invasion Curve; this is the best time to identify plants as invasive and to remove them. As the plant spreads over time, the distribution increases substantially and rapidly, becoming widely distributed and established. At this later point in the curve, landowners and other individuals are often more aware of the plant and can recognize it more readily, but it is so well established that a great deal of time and expense is involved in removing it.



The City of Portland emphasizes prevention of introduction and prevention of movement of invasive plants. When new invasive plants are found, then the City emphasizes the early detection and eradication of invasive plants that are not yet widespread. Ranks provide a tool to prioritize management actions related to plants. In brief, plants that are locally abundant and well distributed are identified with rank C and D, while those plants that are not as abundant are identified with rank A and B. Rank A plants are a top priority for control and removal, while rank D plants currently pose less threat to ecological functions than the others. Some of the Watch (rank W) plant species have not yet been observed in the region but are invasive in similar habitats elsewhere, and are of concern should they become established here. In addition, some of the plants are harmful to humans or wildlife, and the economy.

How to Use Ranks with Invasive Plant Management Priorities

Invasive plant management strategies vary; two important factors are the size of land to manage and the resources available. Decisions may be made site by site. Ranking plants provides a method to prioritize management of invasive plants with available resources. There are generally two approaches to consider; maintaining existing conditions and enhancing existing conditions.

Maintaining Existing Conditions

Given limited resources and/or large management areas, invasive plant management efforts may need to be limited to maintaining existing conditions to prevent further habitat degradation. Maintenance of existing conditions can be accomplished in two ways; removing small patches of invasive species and preventing new invasive species from arriving.

- **Removing Small Patches of Invasive Species**

  If the site contains a native plant community and there are small patches of invasive plants, then the small patches of invasive plants should be removed to prevent further degradation of site conditions. When the native plant community is present, then removal of small patches of invasive species can be conducted without re-planting native species because the native species will likely re-colonize within the small patch of invasive species removed.

- **Preventing New Invasive Species from Arriving**

  If the site is monitored to prevent new invasive species from arriving, consult the Nuisance Plants List to determine which species are currently limited in distribution (rank A and rank B). It is important to prevent the establishment of rank A and rank B species because they are very difficult to remove once they become established.

  If the site lacks rank C species, then site monitoring should also prevent the establishment of these species. However, many urban sites may already be dominated by rank C species. Removal of large patches of rank C species should not be conducted unless it can be followed up with a site re-vegetation plan that includes multiple years of monitoring and maintenance. Follow up re-vegetation efforts, including monitoring and maintenance, are needed because without it, the invasive species will likely re-colonize the area.

Enhance Existing Conditions

If there are sufficient resources to remove invasive plants and re-establish the native plant community, then site management efforts can be aimed at removing larger patches of invasive species. Typically, these will be rank C species on the Nuisance Plants List. Converting sites from degraded conditions (i.e. predominantly covered with invasive species) to a higher quality habitat condition (i.e. one dominated by native plants) will likely take 3–5 years (or more) of monitoring and follow up maintenance to completely remove invasive plants and establish a native plant community. Sites with large amounts of invasive species will probably never be entirely free from invasive species; however, if the native trees and shrubs can be established over a 3–5 year period such that they are taller than nearby invasive species, then the site can be deemed “free to grow” and a native canopy will likely develop with limited future maintenance.

Definitions

Eradication — Eradication is the removal of the entire nuisance plant — including the above ground portion of the plant, and the roots, shoots and seeds of the plant. The eradication provisions apply to those plants on the Nuisance Plants List, Required Eradication List.

Invasive — Species that spread at such a rate that they cause harm to human health, the environment, and /or the economy. In natural areas, invasive plants are those species that displace native plants and become the dominant species in that vegetation layer. Invasive plants can halt successional processes by limiting the establishment and the growth patterns of native species.

Nuisance Plant Removal — Removal may entail actions such as the removal of: roots, the above ground portion of the plant, and/or the seeds of the plants such that existing non-nuisance and/or newly installed plants are able to grow and survive. The non-nuisance plants are maintained free of nuisance plants. The City's nuisance plants are identified on the Nuisance Plants List.

Ranks

A — These species are known to be invasive. These species are known to occur but are not widely distributed in the region. Distribution is limited to a few sites. They spread rapidly and they are difficult to control once they become widespread.

B — These species are known to be invasive. These species are known to occur in the region. They are more abundant and widely distributed than A; however, the distribution is still limited to patches or specific habitats. Distribution is not as widespread as C plants. These species can spread rapidly and are difficult to control once they become widespread.

C — These species are known to be invasive. These species are widely distributed and abundant throughout the region. Their distribution is already very extensive throughout the natural areas and they are difficult to control once they become widespread. These plants are considered ubiquitous.

D — These species are known to be less aggressive than A, B, and C species. These species are known to occur in the region. These plants persist in the ecosystems with native species and therefore, have less impact on the system than the A, B, and C species.

W — Watch species. Species occurrence and distribution should be monitored for presence and/or to determine the level of invasiveness in the region.

Region

The region includes the four counties of Multnomah, Clackamas, Washington in Oregon, and Clark County in Washington. The cities within those counties are also included. Clark, Multnomah, Clackamas, and Washington Counties are part of the Four County Cooperative Weed Management Area.

4.1 NUISANCE PLANTS LIST

Scientific Name	Common Name	Rank	Plant Type
Rank A Plants			
Acroptilon repens	Russian knapweed	A	Herbaceous
Brachypodium sylvaticum	False brome	A	Herbaceous
Carduus pycnocephalus and Carduus tenuiflorus	Italian thistle or slender flowered thistle	A	Herbaceous
Carex pendula	Pendant sedge	A	Herbaceous
Cortaderia jubata	Jubata grass	A	Herbaceous
Echium plantagineum	Paterson's curse	A	Herbaceous
Heracleum mantegazzianum	Giant hogweed	A	Herbaceous
Hieracium aurantiacum	Orange hawkweed	A	Herbaceous
Hieracium pratense (H. cespitosum)	Meadow hawkweed (formerly listed as Yellow hawkweed)	A	Herbaceous
Impatiens glandulifera	Policemen's helmet	A	Herbaceous
Lamiastrum galeobdolon	Yellow archangel	A	Herbaceous
Ludwigia hexapetala (Jussiaea uruguayensis)	Water primrose	A	Aquatic
Onopordum acanthium	Scotch thistle	A	Herbaceous
Phalaris aquatica	Harding grass	A	Herbaceous
Phragmites australis (introduced var. only)	Common reed	A	Herbaceous
Phytolacca americana	Pokeweed	A	Shrub
Pueraria lobata	Kudzu	A	Herbaceous
Silybum marianum	Blessed milk thistle	A	Herbaceous
Tamarix ramosissima	Salt cedar	A	Shrub
Ulex europaeus	Gorse	A	Shrub
Utricularia inflata	Swollen bladderwort	A	Aquatic
Verbena bonariensis	Tall verbena	A	Herbaceous

CITY RANKS (CLASSIFICATIONS) ARE DEFINED AS FOLLOWS:

A — *These species are known to be invasive. These species are known to occur but are not widely distributed in the region. Distribution is limited to a few sites. They spread rapidly and they are difficult to control once they become widespread.*

B — *These species are known to be invasive. These species are known to occur in the region. They are more abundant and widely distributed than A; however, the distribution is still limited to patches or specific habitats. Distribution is not as widespread as C plants. These species can spread rapidly and are difficult to control once they become widespread.*

C — *These species are known to be invasive. These species are widely distributed and abundant throughout the region. Their distribution is already very extensive throughout the natural areas and they are difficult to control once they become widespread. These plants are considered ubiquitous.*

D — *These species are known to be less aggressive than A, B, and C species. These species are known to occur in the region. These plants persist in the ecosystems with native species and therefore, have less impact on the system than the A, B, and C species.*

W — *Watch species. Species occurrence and distribution should be monitored for presence and/or to determine the level of invasiveness in the region.*

Note: *Resources for documentation/determination of the ranks includes input from the Oregon Flora Project, the Emerald Chapter of the Native Plant Society of Oregon list, The Nature Conservancy Global Compendium of Weeds, the NatureServe Invasiveness ranking, the noxious weed lists for Oregon, Washington, California, and Idaho, and documented natural area invasions. Metro, the 4 County CWMA, and the Oregon Department of Agriculture, Noxious Weed Control Program also provided comments on the list.*

Scientific Name	Common Name	Rank	Plant Type
Rank B Plants			
Abutilon theophrasti	Velvetleaf	B	Herbaceous
Acer platanoides	Norway maple	B	Tree
Ailanthus altissima	Tree-of-heaven	B	Tree
Alliaria petiolata	Garlic mustard	B	Herbaceous
Amorpha fruticosa	Indigo bush	B	Shrub
Buddleja (Buddleia) davidii	Butterfly bush	B	Shrub
Centaurea stoebe ssp. micranthus (Centaurea biebersteinii)	Spotted knapweed	B	Herbaceous
Centaurea diffusa	Diffuse knapweed	B	Herbaceous
Chondrilla juncea	Rush skeletonweed	B	Herbaceous
Daphne laureola	Spurge laurel	B	Shrub
Egeria densa	S. American waterweed	B	Aquatic
Fallopia bohemica	Bohemian knotweed	B	Herbaceous
Hieracium laevigatum	Smooth hawkweed	B	Herbaceous
Hieracium pilosella	Mouse-ear hawkweed	B	Herbaceous
Hieracium vulgatum (H.lachanelii)	Common hawkweed	B	Herbaceous
Iris pseudacorus	Yellow flag	B	Herbaceous
Juncus effusus v. effusus	European soft rush	B	Herbaceous
Linaria dalmatica ssp. dalmatica	Dalmation toadflax	B	Herbaceous
Lunaria annua	Money plant	B	Herbaceous
Lythrum portula	Spatula leaf purslane	B	Herbaceous
Lythrum salicaria	Purple loosestrife	B	Herbaceous
Myriophyllum aquaticum	Parrots feather	B	Aquatic
Polygonum convolvulus	Climbing bindweed	B	Herbaceous
Polygonum cuspidatum (Fallopia cuspidata)	Japanese knotweed	B	Herbaceous
Polygonum polystachyum (Persicaria wallachii)	Himalayan knotweed	B	Herbaceous
Polygonum sachalinense (Fallopia sachalinensis)	Giant knotweed	B	Herbaceous
Populus alba	White poplar	B	Tree
Ranunculus ficaria (formerly listed as Chelidonium majus)	Lesser celandine	B	Herbaceous
Solanum nigrum	Garden nightshade	B	Herbaceous

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Rank C Plants

Scientific Name	Common Name	Rank	Plant Type
Arctium minus	Common burdock	C	Herbaceous
Arrhenatherum elatius	Tall oatgrass	C	Herbaceous
Betula pendula	Cutleaf birch	C	Tree
Bromus tectorum	Cheatgrass	C	Herbaceous
Callitriche stagnalis	Pond water starwort	C	Aquatic
Centaurea pratensis (Centaurea debeauxii ssp. thuillieri)	Meadow knapweed	C	Herbaceous
Cirsium arvense	Canada thistle	C	Herbaceous
Cirsium vulgare	Common thistle	C	Herbaceous
Clematis vitalba	Traveler's joy	C	Herbaceous
Conium maculatum	Poison-hemlock	C	Herbaceous
Convolvulus arvensis	Field morning-glory	C	Herbaceous
Convolvulus sepium	Lady's-nightcap	C	Herbaceous
Crataegus monogyna	English hawthorn	C	Tree
Cytisus scoparius	Scotch broom	C	Herbaceous
Daucus carota	Queen Anne's lace	C	Herbaceous
Dipsacus fullonum	Common teasel	C	Herbaceous
Foeniculum vulgare	Fennel	C	Herbaceous
Geranium lucidum	Shining geranium	C	Herbaceous
Geranium robertianum	Robert geranium	C	Herbaceous
Geum urbanum	European avens	C	Herbaceous
Hedera helix	English ivy	C	Herbaceous
Hedera hibernica	Irish ivy	C	Herbaceous
Hypericum perforatum	St. John's wort	C	Herbaceous
Hypochaeris radicata	Spotted cat's ear	C	Herbaceous
Ilex aquifolium	English holly	C	Tree/shrub
Impatiens capensis	Spotted touch-me-not	C	Herbaceous
Lactuca serriola	Prickly lettuce	C	Herbaceous
Lapsana communis	Nipplewort	C	Herbaceous
Leucanthemum vulgare	Oxeye daisy	C	Herbaceous
Ligustrum vulgare	Privet	C	Shrub
Lotus corniculatus	Bird's foot trefoil	C	Herbaceous
Melissa officinalis	Lemon balm	C	Herbaceous
Melilotus alba	Sweetclover	C	Herbaceous

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Rank C Plants (continued)

Scientific Name	Common Name	Rank	Plant Type
Mentha pulegium	Penny royal	C	Herbaceous
Myriophyllum spicatum	Eurasian watermilfoil	C	Aquatic
Nymphaea odorata	Fragrant water lily	C	Aquatic
Parentucellia viscosa	Yellow glandweed	C	Herbaceous
Phalaris arundinacea	Reed canarygrass	C	Herbaceous
Potamogeton crispus	Curly leaf pondweed	C	Aquatic
Potentilla recta	Sulphur cinquefoil	C	Herbaceous
Prunus avium	Sweet cherry	C	Tree
Prunus laurocerasus	English laurel	C	Tree
Prunus lusitanica	Portugal laurel	C	Shrub
Ranunculus repens	Creeping buttercup	C	Herbaceous
Robinia pseudoacacia	Black locust	C	Tree
Rosa eglanteria	Sweetbriar rose	C	Herbaceous
Rosa multiflora	Multiflora rose	C	Herbaceous
Rubus discolor (armeniacus)	Himalayan (Armenian) blackberry	C	Shrub
Rubus laciniatus	Evergreen blackberry	C	Herbaceous
Senecio jacobaea	Tansy ragwort	C	Herbaceous
Silene coronaria	Rose campion	C	Herbaceous
Sisymbrium officinale	Hedge mustard	C	Herbaceous
Solanum dulcamara	Bittersweet nightshade	C	Herbaceous
Sonchus arvensis, S. asper, and S. oleraceus	Perennial sowthistle	C	Herbaceous
Taeniatherum caput-medusa	Medusahead	C	Herbaceous
Tanacetum vulgare	Common tansy	C	Herbaceous
Trifolium arvense	Hare's foot clover	C	Herbaceous
Trifolium pratense	Red clover	C	Herbaceous
Trifolium repens	White clover	C	Herbaceous
Trifolium subterraneum	Subterraneum clover	C	Herbaceous
Verbascum blattaria	Moth mullein	C	Herbaceous
Verbascum thapsus	Common mullein	C	Herbaceous
Vicia cracca	Tufted vetch	C	Herbaceous
Vicia villosa	Hairy vetch	C	Herbaceous
Vinca major	Periwinkle (large leaf)	C	Herbaceous
Vinca minor	Periwinkle (small leaf)	C	Herbaceous

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Scientific Name	Common Name	Rank	Plant Type
Rank D Plants			
Aegopodium podagraria	Goutweed	D	Herbaceous
Agrostis alba	Redtop bentgrass	D	Herbaceous
Agrostis tenuis	Colonial bentgrass	D	Herbaceous
Agrostis stolonifera	Creeping bentgrass	D	Herbaceous
Agropyron repens	Quackgrass	D	Herbaceous
Alopecuris pratensis	Meadow foxtail	D	Herbaceous
Anthoxanthum odoratum	Sweet vernalgrass	D	Herbaceous
Bromus diandrus	Ripgut	D	Herbaceous
Chicorium intybus	Chicory	D	Herbaceous
Festuca arundinacea	Tall fescue	D	Herbaceous
Euphorbia lathyrus	Mole plant	D	Herbaceous
Holcus lanatus	Velvet grass	D	Herbaceous
Houttuynia cordata	Chameleon plant	D	Herbaceous
Lactuca (Mycelis) muralis	Wall lettuce	D	Herbaceous
Linaria vulgaris	Yellow toadflax	D	Herbaceous
Lolium multiflorum	Annual ryegrass	D	Herbaceous
Lolium perenne	Perennial ryegrass	D	Herbaceous
Lotus uliginosus	Greater bird's foot trefoil	D	Herbaceous
Phleum pratense	Timothy	D	Herbaceous
Poa annua	Annual bluegrass	D	Herbaceous
Ranunculus acris	Meadow or tall buttercup	D	Herbaceous
Rorippa nasturtium-aquaticum (Nasturium officinale)	European watercress	D	Aquatic
Secale cerale	Cultivated rye	D	Herbaceous
Silene latifolia (Lychnis alba)	White campion	D	Herbaceous
Sorbus aucuparia	European mountain ash	D	Tree
Ulmus pumila	Siberian elm	D	Tree
Utricularia vulgaris	Common bladderwort	D	Aquatic
Vicia sativa	Common vetch	D	Herbaceous

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Scientific Name	Common Name	Rank	Plant Type
Rank W Plants			
Ampelopsis brevipedunculata	Porcelainberry	W	Herbaceous
Arum italicum	Italian arum	W	Herbaceous
Arundinaria gigantea	Canebreak bamboo	W	Shrub
Aucuba japonica	Spotted laurel	W	Shrub
Butomus umbellatus	Flowering rush	W	Herbaceous
Cardaria draba	White top or hoary cress	W	Herbaceous
Carduus acanthoides	Plumeless thistle	W	Herbaceous
Carduus nutans	Musk thistle	W	Herbaceous
Centaurea calcitrapa	Purple starthistle	W	Herbaceous
Centaurea iberica	Iberian starthistle	W	Herbaceous
Centaurea jacea	Brown knapweed	W	Herbaceous
Centaurea solstitialis	Yellow starthistle	W	Herbaceous
Cortaderia selloana	Pampas grass	W	Herbaceous
Crocosmia crocosmiiflora	Montbretia	W	Herbaceous
Cytisus monspessulanas	French broom	W	Herbaceous
Cytisus striatus	Portugese broom	W	Herbaceous
Euphorbia esula	Leafy spurge	W	Herbaceous
Euphorbia oblongata	Oblong or eggleaf spurge	W	Herbaceous
Galium odoratum	Sweet woodruff	W	Herbaceous
Hydrilla verticillata	Hydrilla	W	Aquatic
Laburnum watereri	Golden chain tree	W	Tree
Lamium maculatum	White nancy	W	Herbaceous
Lathyrus latifolius	Perennial peavine	W	Herbaceous
Lysimachia nummularia	Creeping jenny	W	Herbaceous
Melilotus officinalis	Yellow sweetclover	W	Herbaceous
Nymphoides peltata	Yellow floatingheart	W	Aquatic
Parthenocissus quinquefolia	Virginia creeper	W	Herbaceous
Paulownia tomentosa	Princess tree	W	Tree
Petasites japonicus	Sweet coltsfoot	W	Herbaceous
Phyllostachys atrovaginata	Incense bamboo	W	Herbaceous
Phyllostachys heteroclada	Water bamboo	W	Herbaceous
Phyllostachys nidularia	Big-node bamboo	W	Herbaceous
Sasa palmata	Broadleaf bamboo	W	Herbaceous

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Rank W Plants (continued)

Scientific Name	Common Name	Rank	Plant Type
Sasa veitchii	Kuma bamboo	W	Herbaceous
Sorghum halepense	Johnson grass	W	Herbaceous
Solanum sarrachoides	Hairy nightshade	W	Herbaceous
Trifolium hybridum	Alsike clover	W	Herbaceous

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4.2 REQUIRED ERADICATION LIST

Scientific Name	Common Name	Rank	ODA Rank
Rank A Plants			
Acroptilon repens	Russian knapweed	A	B
Brachypodium sylvaticum	False brome	A	B and T
Carduus pycnocephalus and Carduus tenuiflorus	Italian thistle or slender flowered thistle	A	B
Cortaderia jubata	Jubata grass	A	B
Echium plantagineum	Paterson's curse	A	A
Heracleum mantegazzianum	Giant hogweed	A	A
Hieracium aurantiacum	Orange hawkweed	A	A
Hieracium pratense (H. cespitosum)	Meadow hawkweed (formerly listed as Yellow hawkweed)	A	A
Impatiens glandulifera	Policemen's helmet	A	B
Onopordum acanthium	Scotch thistle	A	B
Phragmites australis (introduced var. only)	Common reed	A	A
Pueraria lobata	Kudzu	A	A
Silybum marianum	Blessed milk thistle	A	B
Tamarix ramosissima	Salt cedar	A	B and T
Ulex europaeus	Gorse	A	B

Ranks = City of Portland ranks are identified. If the plant is not on the Oregon Department of Agriculture (ODA) noxious weed list then the "ODA Rank" column will be blank. If the plant is on the ODA noxious weed list, the ODA rank is identified.

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Note: *Resources for documentation/determination of the ranks includes input from the Oregon Flora Project, the Emerald Chapter of the Native Plant Society of Oregon list, The Nature Conservancy Global Compendium of Weeds, the NatureServe Invasiveness ranking, the noxious weed lists for Oregon, Washington, California, and Idaho, and documented natural area invasions. Metro, the 4 County CWMA, and the Oregon Department of Agriculture, Noxious Weed Control Program also provided comments on the list.*

See the administrative rules for the Nuisance Plants Required Removal Program for additional information on the required removal of plants on the Nuisance Plants List, Required Eradication List.

5. Resources

Web Sites

Backyard Habitat Certification Program at Three Rivers Land Conservancy
www.trlc.org/BYHCP

Backyard Habitat Certification Program at Audubon Society of Portland
www.audubonportland.org/backyardwildlife/backyardhabitat

Center for Invasive Plant Management
www.weedcenter.org

City of Portland, Bureau of Environmental Services, Invasive Plant Management Strategy
www.portlandonline.com/bes/index.cfm?c=45696

City of Portland, Bureau of Environmental Services, Naturescaping for Clean Rivers
www.portlandonline.com/bes/index.cfm?c=32142

City of Portland, Parks and Recreation, Integrated Pest Management Strategy
www.portlandonline.com/parks/index.cfm?c=dicjg

East Multnomah Soil and Water Conservation District
www.emswcd.org/index.php

Four County Cooperative Weed Management Area
www.4countycwma.org

Native Plant Nurseries
www.plantnative.org/nd_or.htm

Oregon Department of Agriculture, Plant Division, Noxious Weed Control
www.oregon.gov/ODA/PLANT/WEEDS/lists.shtml

Oregon Invasive Species Council
www.oregon.gov/OISC/index.shtml

Oregon Invasives Hot Line
Call 1-866-Invader or go to www.oregoninvasiveshotline.org to report a suspected invasive species. The reports for the Portland area are sent directly to BES EDRR staff.

PLANTS database
www.plants.usda.gov

Pringle Creek Watershed Council
Guide for Using Willamette Valley Native Plants Along Your Stream
www.marionswcd.net/downloads/education/native_plantings/native_planting_guide_along_streams.pdf

The Flora of North America
www.efloras.org/flora_page.aspx?flora_id=1

The Nature Conservancy
www.nature.org/wherewework/northamerica/states/oregon/

The Oregon Flora Project
www.oregonflora.org

Washington Flora
www.washington.edu/burkemuseum/collections/herbarium/index.php

Western Invasives Network
www.westerninvasivesnetwork.org/pages/cwmapage.php?cwma=fourcounty

West Multnomah Soil and Water Conservation District
www.westmultconserv.org

Books

Flora of the Pacific Northwest: An Illustrated Manual (1973)
Authors: C. Leo Hitchcock and Arthur Cronquist

Landscaping for Wildlife in the Pacific Northwest (2003)
Author: Russell Link

Northwest Weeds: The Ugly and Beautiful Villains of Fields, Gardens, and Roadsides (1990)
Author: Ronald J. Taylor

Plants of the Pacific Northwest Coast: Washington, Oregon, British Columbia, and Alaska (2004)
Authors: Jim Pojar and Andy MacKinnon

Urbanizing Flora of Portland, Oregon, 1806–2008 (2009)
Authors: J. A. Christy, A. Kimpo, V. Marttala, P. K. Gaddis, and N. L. Christy

Wildflowers of the Pacific Northwest (2006)
Authors: Mark Turner and Phyllis Gustafson
www.pnwflowers.com

Appendix A

History

In February 1986, the Greenway Plant List was developed in consultation with local ecologists, biologists, and naturalists. Later that year, this list was adapted for the Columbia River Corridor area. Use of native plants from the Greenway Plant List first became a requirement within the Willamette River Greenway Overlay Zones, though provisions were included to allow non-native plants. When the Environmental Overlay Zones were first adopted in 1989 for the Columbia River Corridor, planting only native plants became a requirement within the Environmental Overlay Zones. The native plants on the Greenway Plant List were primarily focused on the geographic areas within the Willamette River Greenway Zones and the Environmental Overlay Zones. Thereafter, a Technical Advisory Committee (TAC) was established to review and expand the list beyond these geographic areas so the list included plants found throughout the City of Portland.

As part of that review, the TAC identified the need to create categories for native, nuisance, and prohibited plants. The TAC expanded and renamed the list, now called the "Portland Plant List," to include native and nuisance plants found throughout the City. The *Portland Plant List* was adopted by the Portland City Council on November 13, 1991. At the time of adoption, the *Portland Plant List* contained native plants and nuisance plants (nuisance plants were listed as dominating plants and harmful plants); however, no prohibited plants were listed at that time.

The *Portland Plant List* was amended on May 26, 1993 and September 21, 1994. These amendments refined and expanded the *Portland Plant List*, and added prohibited plants. The September 1994 list included five prohibited plants. In July, 1995, the list was updated to include name changes from the reference changes that occurred with the then-updated version of Appendix III of *The Jepson Manual*.

In 1997, the *Portland Plant List* was modified to update the Native Plant Lists and reformat the entire document. The changes were part of the City's efforts to comply with State Land Use Planning Goals 5 Natural Resources and 15 Willamette Greenway, and were included as part of the development of a City of Portland Environmental Handbook. The reformatting created four sections: species lists for native plant communities occurring within the Portland area; species lists of plants historically native to the Portland area with illustrations and information; a list of nuisance plants; and a list of prohibited plants. The changes were adopted by City Council on March 19, 1997.

In 1998, a minor update was made to the *Portland Plant List* when several species were added to the Native Plant Lists and one species was added to the Nuisance Plant List.

In 2004, more extensive changes were made to the *Portland Plant List*. The Regional Interagency Weed Group (IWG), working in conjunction with the Bureau of Planning, proposed to add 113 plants to the Nuisance Plant List. The IWG was composed of representatives the Portland Bureau of Parks and Recreation (Urban Forestry Division, Horticultural Services, and the Natural Resources Program), the Tualatin Hills Parks and Recreation District, The Nature Conservancy, and the Bureau of Environmental Services Watershed Revegetation Program. At the same time, the Bureau of Environmental Services Watershed Revegetation Program proposed an addition of 61 plants to the Native Plant Lists. Because of the nature and extent of the changes, the Planning Bureau requested more comprehensive vetting of the changes and invited comments from the

Oregon Association of Nurseries, the Port of Portland, the Multnomah County Drainage District, the Columbia Slough Watershed Council, and the Oregon Department of Agriculture. The IWG also requested input from six independent experts. Following the review, the lists were modified and submitted by the Bureau of Planning to four plant experts for final review; after several changes, the plants were added to the *Portland Plant List* in March 2004.

The installation of nuisance and prohibited plants has been prohibited in the Greenway Overlay Zone since the plant list was established. Planting of plants on the Nuisance Plant List and the Prohibited Plant List has been prohibited in Environmental Overlay Zones since 1989, when that zone was first established. In June 2005, the Pleasant Valley Natural Resources Overlay Zone was added to the Portland Zoning Code. Planting plants on the Nuisance Plant List and the Prohibited Plant List is prohibited in the Pleasant Valley Natural Resources Overlay Zone. In July 2005, provisions in the City's Zoning Code were changed to prohibit the use of plants on the Nuisance Plant List and the Prohibited Plant List in City-required landscaping. Prior to July 2005, in City-required landscaping, only prohibited plants were prohibited. After July 2005, nuisance plants were also prohibited in City-required landscaping.

In 2009, the Bureau of Planning merged with the Office of Sustainable Development, becoming the Bureau of Planning and Sustainability. In 2009, the Nuisance Plant List and the Prohibited Plant List were consolidated into one list called the Nuisance Plants List. Also, the *Portland Plant List* was updated and refined to provide more information about these plants. Ranks were assigned to each plant on the Nuisance Plants List. Text was added to describe the plants and the ranks. Other portions of the *Portland Plant List* text were revised to reflect changes in terminology, and to improve the usefulness of the *Portland Plant List*. Formatting changes were also made. In addition, the *Portland Plant List* was changed from an ordinance to an administrative rule. Re-establishing the *Portland Plant List* as an administrative rule is consistent with technical documents such as the *Erosion Control Manual* and the *Stormwater Management Manual*. Administrative rules provide a streamline process for reviewing and making changes to technical documents such as the *Portland Plant List*.