

Portland Plant List



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





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Sam Adams, *Mayor*

Nick Fish, *Commissioner*

Amanda Fritz, *Commissioner*

Randy Leonard, *Commissioner*

Dan Saltzman, *Commissioner*

Bureau of Planning and Sustainability

Susan Anderson, *Planning and Sustainability Director*

Joseph Zehnder, *Chief Planner*

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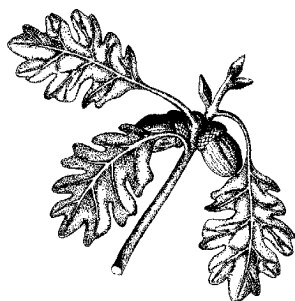
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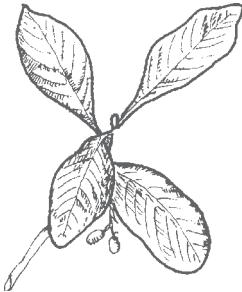


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1. Introduction

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, arborescent shrubs are shrubs that resemble trees in growth, structure, or appearance but they are technically considered shrubs. Arborescent 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

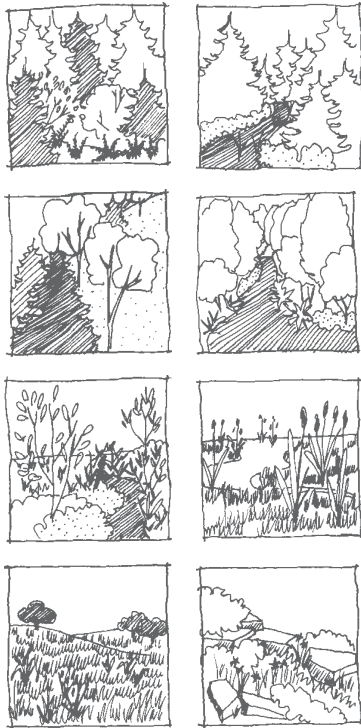
Plant names used in the *Portland Plant List* are taken primarily from Appendix III of *The Jepson Manual* (1993), and the five-volume set, *Flora of the Pacific Northwest* (1973), by Hitchcock and Cronquist. Other sources are *Flora of North America, Volume 2: Ferns and Gymnosperms* (Oxford University 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 with the PLANTS database³ 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, usually 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 pollination, 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

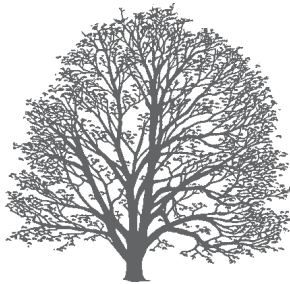


Indicates species which tolerate moist conditions (but not necessarily wetland)



Indicates species which tolerate dry conditions

TREES



Big-leaf Maple

Latin Name

Common Name

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

SHRUBS



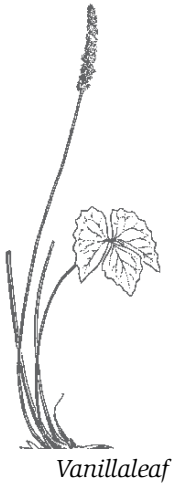
Vine Maple

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

**SHRUBS
(continued)**

	Latin Name	Common Name
☀	<i>Ceanothus sanguineus</i>	Oregon Tea-tree
☀	<i>Ceanothus velutinus</i> var. <i>laevigatus</i>	Mountain Balm
☁	<i>Ribes bracteosum</i>	Blue Currant
	<i>Ribes divaricatum</i>	Straggly Gooseberry
☀	<i>Ribes lobbii</i>	Pioneer Gooseberry
	<i>Rubus leucodermus</i>	Blackcap Raspberry
☁	<i>Vaccinium ovatum</i>	Evergreen Huckleberry

**HERBACEOUS,
GRASSES, ETC.**



☁	<i>Achlys triphylla</i>	Vanillaleaf
☁	<i>Adiantum aleuticum</i>	Northern Maidenhair Fern
☁	<i>Asarum caudatum</i>	Wild Ginger
☁	<i>Athyrium filix-femina</i>	Lady Fern
☁	<i>Carex deweyana</i> ssp. <i>leptopoda</i>	Dewey's Sedge
	<i>Dicentra formosa</i>	Pacific Bleedingheart
☀	<i>Elymus glaucus</i>	Blue Wildrye
☀	<i>Elymus glaucus</i> ssp. <i>jepsonii</i>	Jepson's Blue Wildrye
	<i>Galium aparine</i>	Cleavers
	<i>Hydrophyllum tenuipes</i>	Pacific Waterleaf
	<i>Linnaea borealis</i>	Twinflower
	<i>Moutia perfoliata</i>	Miner's Lettuce
	<i>Montia sibirica</i>	Candy Flower
☁	<i>Oxalis oregana</i>	Oregon Oxalis
☁	<i>Petasites frigidus</i> var. <i>palmatus</i>	Palmate Coltsfoot
	<i>Polypodium glycyrrhiza</i>	Licorice Fern
	<i>Polystichum munitum</i>	Sword Fern
	<i>Prosartes hookeri</i>	Hooker's Fairybells
	<i>Prosartes smithii</i>	Smith's Fairybells
☀	<i>Pteridium aquilinum</i>	Bracken Fern
	<i>Smilacina racemosa</i>	Western False Solomon's Seal
	<i>Smilacina stellata</i>	Starry False Solomon's Seal
☁	<i>Streptopus amplexifolius</i>	Clasping-leaved Twisted-stalk









HERBACEOUS,
GRASSES, ETC.
(continued)

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

HERBACEOUS,
GRASSES, ETC.
(continued)

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

**HERBACEOUS,
GRASSES, ETC.
(continued)**

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

2. NATIVE PLANT COMMUNITIES



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.



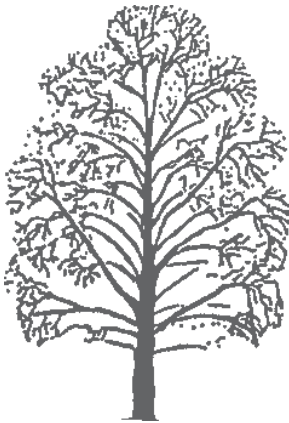
This community represents a mid-range between the narrow riparian areas and deep ravines characteristic of upper sections of streams in the west hills and the broad flood plains of the Columbia and Willamette. Western red cedars are common along with alder and bigleaf maple. Cottonwood, alder, and willows 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

TREES



Red Alder

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

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



Serviceberry

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



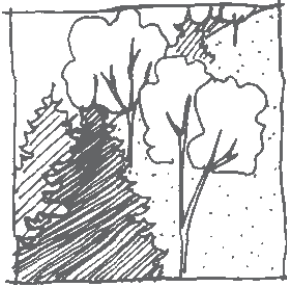
Lady Fern

**HERBACIOUS,
GRASSES, ETC.
(continued)**

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

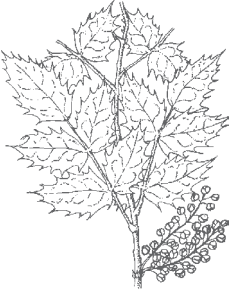
TREES



Garry Oak

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

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
<i>Berberis nervosa</i>	Dull Oregongrape
<i>Oemleria cerasiformis</i>	Indian Plum
<i>Philadelphus lewisii</i>	Mockorange
<i>Prunus virginiana</i>	Chokecherry
<i>Ribes sanguineum</i>	Red Currant
<i>Ribes viscosissimum</i>	Sticky Currant
<i>Rosa gymnocarpa</i>	Baldhip Rose
<i>Rosa nutkana</i> var. <i>nutkana</i>	Nootka Rose
<i>Rubus parviflorus</i>	Thimbleberry
<i>Sambucus cerulea</i>	Blue Elderberry
<i>Vaccinium parvifolium</i>	Red Huckleberry
<i>Ceanothus sanguineus</i>	<i>Oregon Tea-tree</i>
<i>Lonicera hispidula</i>	<i>Hairy Honeysuckle</i>

HERBACIOUS,
GRASSES, ETC.*California Brome-grass*

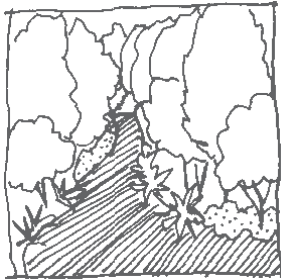
Latin Name	Common Name
Bromus carinatus	California Brome-grass
Carex deweyana ssp. leptopoda	Dewey's Sedge
Carex tumulicola	Foothill Sedge
Clarkia amoena	Farewell to Spring
Elymus glaucus	Blue Wildrye
Elymus trachycaulus	Bluebunch Wheatgrass
Festuca californica	California Fescue
Festuca occidentalis	Western Fescue-grass
Olsynium douglasii	Grass-widows
Polystichum munitum	Sword Fern
Pteridium aquilinum	Bracken Fern
Pyrola picta	White-vein pyrola
Sanicula bipinnatifida	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

HERBACIOUS,
GRASSES, ETC.
(continued)

Latin Name	Common Name
<i>Poa compressa</i>	Canada Bluegrass
<i>Potentilla glandulosa</i>	Sticky Cinquefoil
<i>Rubus ursinus</i>	Pacific Blackberry
<i>Vicia gigantea</i>	Giant Vetch
<i>Bromus vulgaris</i>	Columbia Brome
<i>Cypripedium montanum</i>	Mountain Lady-slipper
<i>Cystopteris fragilis</i>	Brittle Bladder Fern
<i>Erythronium oregonum</i>	Giant Fawn-Lily
<i>Lupinus laxiflorus</i>	Spurred Lupine
<i>Pentagramma triangularis</i>	Gold-back Fern
<i>Sanicula crassicaulis</i>	Pacific Sanicle
<i>Viola adunca</i>	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	<i>Alnus rubra</i>	Red Alder
	<i>Crataegus suksdorfii</i>	Black Hawthorn
	<i>Fraxinus latifolia</i>	Oregon Ash
	<i>Populus balsamifera var. trichocarpa</i>	Black Cottonwood
	<i>Populus tremuloides</i>	Quaking Aspen
	<i>Salix lucida ssp. lasiandra</i>	Pacific Willow
	<i>Salix scouleriana</i>	Scouler Willow



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

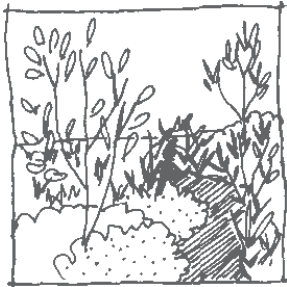
	Latin Name	Common Name
HERBACIOUS, GRASSES, ETC.	<i>Angelica arguta</i>	Sharptooth Angelica
	<i>Arnica amplexicaulis</i> var. <i>piperi</i>	Clasping Arnica
	<i>Athyrium filix-femina</i>	Lady Fern
	<i>Bromus carinatus</i>	California Brome-grass
	<i>Claytonia perfoliata</i> or <i>Montia perfoliata</i>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

HERBACIOUS,
GRASSES, ETC.
(continued)

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

TREES

Latin Name	Common Name
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
<i>Salix rigida var. macrogemma</i>	<i>Rigid Willow</i>

	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
	<i>Lonicera involucrata</i>	Black Twinberry
	<i>Rosa pisocarpa</i>	Swamp Rose
	<i>Rubus parviflorus</i>	Thimbleberry
	<i>Salix hookeriana</i>	Piper's Willow
	<i>Salix sessilifolia</i>	Soft-leaved Willow
	<i>Sambucus mexicana</i>	Blue Elderberry
	<i>Ribes divaricatum</i>	<i>Straggly Gooseberry</i>
<i>Ribes lobbii</i>	<i>Pioneer Gooseberry</i>	

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

HERBACIOUS,
GRASSES, ETC.
(continued)

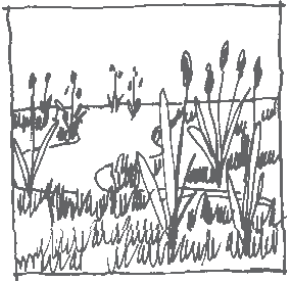
Latin Name	Common Name
<i>Juncus acuminatus</i>	Tapertip Rush
<i>Juncus articulatus</i>	Jointed Rush
<i>Juncus effusus v. pacificus</i>	Soft Rush
<i>Juncus laccatus</i>	Slender Soft Rush
<i>Juncus patens</i>	Spreading Rush
<i>Leersia oryzoides</i>	Rice Cutgrass
<i>Navarretia intertexta</i>	Needle-leaf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

HERBACIOUS,
GRASSES, ETC.
(continued)

Latin Name	Common Name
<i>Oplopanax horridus</i>	Devil's Club
<i>Petasites frigidus</i> var. <i>palmatus</i>	Palmate Coltsfoot
<i>Polypodium glycyrrhiza</i>	Licorice Fern
<i>Pteridium aquilinum</i>	Bracken Fern
<i>Ranunculus cymbalaria</i>	Shore Buttercup
<i>Ranunculus occidentalis</i>	Western Buttercup
<i>Rubus ursinus</i>	Pacific Blackberry
<i>Scirpus microcarpus</i>	Small-fruited Bulrush
<i>Trisetum cernuum</i>	Nodding Trisetum
<i>Veratrum californicum</i>	False Hellebore
<i>Viola palustris</i>	Marsh Violet
<i>Boykinia major</i>	Greater Boykinia
<i>Cinna latifolia</i>	Woodreed
<i>Circaea alpina</i>	Enchanter's Nightshade
<i>Glyceria elata</i>	Fowl Mannagrass
<i>Juncus bolanderi</i>	Bolander's Rush
<i>Lindernia dubia</i>	Common False-pimpernel
<i>Lindernia dubia</i> var. <i>anagallidea</i>	Slender False-pimpernel
<i>Lathyrus polyphyllus</i>	Leafy-pea
<i>Luzula parviflora</i>	Small-flowered Woodrush
<i>Lysichitum americanum</i>	Skunk Cabbage
<i>Melica subulata</i>	Alaska Oniongrass
<i>Piperia elegans</i>	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	<i>Salix lucida ssp. lasiandra</i>	<i>Pacific Willow</i>
	<i>Salix rigida var. macrogemma</i>	<i>Rigid Willow</i>
SHRUBS	<i>Cornus sericea ssp. sericea</i>	<i>Red-osier Dogwood</i>
	<i>Salix hookeriana</i>	<i>Piper’s Willow</i>

HERBACEOUS,
GRASSES, ETC.

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

**HERBACEOUS,
GRASSES, ETC.
(continued)**

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

2. NATIVE PLANT COMMUNITIES



2.7 PRAIRIE

Prairie is most common in the middle and southern Willamette Valley, although some prairies did exist within the Columbia Corridor, on Sawie 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
	<i>Arbutus menziesii</i>	<i>Pacific Madrone</i>
	<i>Pinus ponderosa</i>	<i>Ponderosa Pine</i>
SHRUBS	<i>Amelanchier alnifolia</i>	Western Serviceberry
	<i>Berberis aquifolium</i>	Tall Oregon Grape
	<i>Holodiscus discolor</i>	Ocean-spray
	<i>Philadelphica lewisii</i>	Mockorange

	Latin Name	Common Name
SHRUBS (continued)	<i>Ribes sanguineum</i>	Red Flowering Currant
	<i>Ribes viscidissimum</i>	Sticky Currant
	<i>Rosa gymnocarpa</i>	Baldhip Rose
	<i>Rosa nutkana</i> var. <i>nutkana</i>	Nootka Rose
	<i>Rubus leucodermis</i>	Blackcap Raspberry
	<i>Symphoricarpos albus</i>	Common Snowberry
	<i>Symphoricarpos mollis</i>	Creeping Snowberry
	<i>Viburnum ellipticum</i>	Oval-leaved Viburnum
	<i>Ceanothus sanguineus</i>	Oregon Tea-tree
	<i>Rubus ursinus</i> var. <i>macropetalus</i>	Dewberry

HERBACEOUS, GRASSES, ETC.	<i>Achillea millefolium</i>	Yarrow
	<i>Acnatherum lemmonii</i>	Lemmon's Needlegrass
	<i>Acnatherum occidentale</i> ssp. <i>californica</i>	California's Needlegrass
	<i>Aquilegia formosa</i>	Red Columbine
	<i>Bromus carinatus</i>	California Brome-grass
	<i>Bromus vulgaris</i>	Columbia Brome
	<i>Calochortus tolmiei</i>	Tolmie's Mariposa
	<i>Carex unilateralis</i>	One-sided Sedge
	<i>Cirsium hallii</i>	Hall's Thistle
	<i>Clarkia amoena</i>	Farewell to Spring
	<i>Clarkia rhomboidea</i>	Common Clarkia
	<i>Collinsia rattannii</i>	Rattan Collinsia
	<i>Coreopsis tinctoria</i> v. <i>atkinsonia</i>	Columbia Tickseed
	<i>Deschampsia danthinoides</i>	Ticklegrass
	<i>Dodecatheon hendersonii</i>	Broad-leaved Shooting Star
	<i>Elymus glaucus</i>	Blue Wildrye
	<i>Festuca californica</i>	California Fescue
	<i>Festuca occidentalis</i>	Western Fescue-grass
	<i>Festuca roemerii</i>	Roemer's Fescue
	<i>Fragaria virginiana</i> var. <i>platypetala</i>	Broadpetal Strawberry
	<i>Fritillaria affinis</i>	Checker Lily
	<i>Koeleria macrantha</i>	Junegrass

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

HERBACEOUS,
GRASSES, ETC.
(continued)

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

**HERBACEOUS,
GRASSES, ETC.
(continued)**

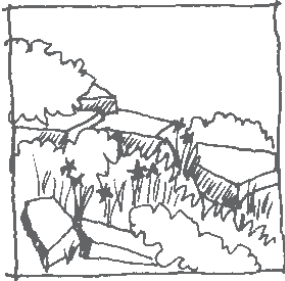
Latin Name	Common Name
Penstemon richardsonii	Cut-leaved Penstemon
Phlox gracilis	Microsteris
Plectritis congesta	Rosy Plectritis
Potentilla glandulosa	Sticky Cinquefoil
Prunella vulgaris var. lanceolata	Heal-all
Ranunculus occidentalis	Western Buttercup
Rubus ursinus	Pacific Blackberry
Sanguisorba occidentalis	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
<i>Allium acuminatum</i>	<i>Hooker's Onion</i>
<i>Aster curtus</i>	<i>White-topped Aster</i>
<i>Cystopteris fragilis</i>	<i>Brittle Bladder Fern</i>
<i>Dichelostemma congestum</i>	<i>Northern Saitas</i>
<i>Erigeron decumbens var. decumbens</i>	<i>Willamette Daisy</i>
<i>Erigeron philadelphicus</i>	<i>Philadelphia Fleabane</i>
<i>Erysimum capitatum ssp. capitatum</i>	<i>Prairie Rocket</i>
<i>Fritillaria affinis</i>	<i>Checker Lily</i>
<i>Madia sativa</i>	<i>Chile Tarweed</i>
<i>Pentagramma triangularis</i>	<i>Gold-back Fern</i>
<i>Poa howellii</i>	<i>Howell's Bluegrass</i>

**HERBACEOUS,
GRASSES, ETC.
(continued)**

Latin Name	Common Name
<i>Sanicula crassicaulis</i>	<i>Pacific Sanicle</i>
<i>Saxifraga integrifolia</i>	<i>Swamp Saxifrage</i>
<i>Sidalcea nelsoniana</i>	<i>Nelson's Checker-mallow</i>
<i>Triodanis perfoliata</i>	<i>Venus'-looking-glass</i>
<i>Xanthium spinosum</i>	<i>Spiny Cocklebur</i>
<i>Xanthium strumarium</i>	<i>Common Cocklebur</i>
<i>Eriophyllum lanatum</i>	<i>Woolly Sunflower</i>

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

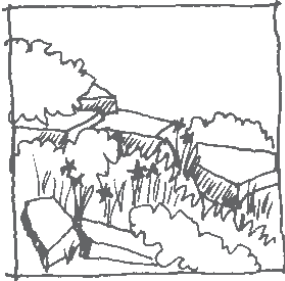
	Latin Name	Common Name
SHRUBS	<i>Spiraea betulifolia</i> var. <i>lucida</i>	Shiny-leaf Spiraea
	<i>Arctostaphylos columbiana</i>	Hairy Manzanita
	<i>Arctostaphylos uva-ursi</i>	Kinnikinnick
HERBACEOUS, GRASSES, ETC.	<i>Elymus glaucus</i>	Blue Wildrye
	<i>Poa secunda</i>	Pine Bluegrass
	<i>Allium cernuum</i>	Nodding Onion
	<i>Aquilegia formosa</i>	Red Columbine
	<i>Campanula rotundifolia</i>	Round-leaf Bluebell
	<i>Deschampsia danthinoides</i>	Ticklegrass
	<i>Elymus trachycaulus</i>	Bluebunch Wheatgrass

HERBACEOUS,
GRASSES, ETC.
(continued)

Latin Name	Common Name
<i>Gilia capitata</i>	Bluefield Gilia
<i>Lomatium utriculatum</i>	Common Lomatium
<i>Lotus purshiana</i>	Spanish Clover
<i>Montia dichotoma</i>	Dwarf Montia
<i>Montia linearis</i>	Narrow-leaved Montia
<i>Penstemon richardsonii</i>	Cut-leaved Penstemon
<i>Phlox gracilis</i>	Microsteris
<i>Rubus ursinus</i>	Pacific Blackberry
<i>Saxifraga occidentalis</i> var. <i>rufidula</i>	Western Saxifrage
<i>Sedum oreganum</i>	Oregon Stonecrop
<i>Sedum spathulifolium</i>	Spatula-leaf Stonecrop
<i>Selaginella densa</i>	Compact Selaginella
<i>Tonella tenella</i>	Small-flowered Tenella
<i>Allium acuminatum</i>	Hooker's Onion
<i>Cystopteris fragilis</i>	Brittle Bladder Fern
<i>Dichelostemma congestum</i>	Northern Saitas
<i>Erysimum capitatum</i> ssp. <i>capitatum</i>	Prairie Rocket
<i>Fritillaria affinis</i>	Checker Lily
<i>Pentagramma triangularis</i>	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	<i>Spiraea betulifolia</i> var. <i>lucida</i>	Shiny-leaf Spiraea
HERBACEOUS, GRASSES, ETC.	<i>Adiantum aleuticum</i>	Northern Maidenhair Fern
	<i>Dryopteris arguta</i>	Wood Fern
	<i>Aquilegia formosa</i>	Red Columbine
	<i>Cardamine angulata</i>	Angled Bittercress
	<i>Claytonia perfoliata</i>	Miner's lettuce
	<i>Collinsia parviflora</i>	Small-flowered Blue-eyed Mary
	<i>Collomia heterophylla</i>	Varied-leaf Collomia
	<i>Comandra umbellata</i> var. <i>californica</i>	Bastard Toad-flax

HERBACEOUS,
GRASSES, ETC.
(continued)

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

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)
- Priority Native Tree Sizes

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

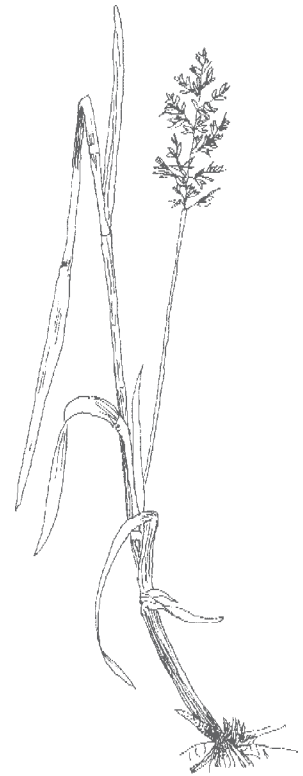
Habitat Types

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. NATIVE PLANTS IN DETAIL



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.

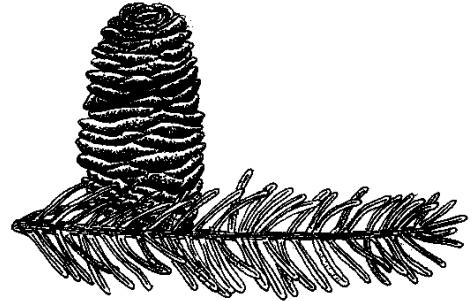
Growth rate: Medium

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.

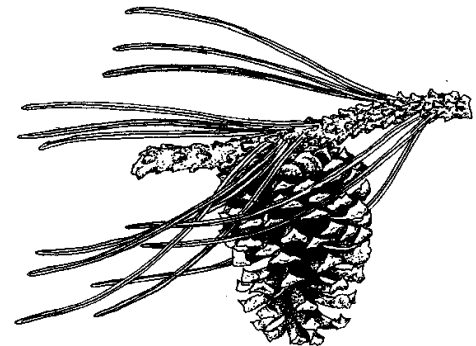
Growth rate: Fast

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.

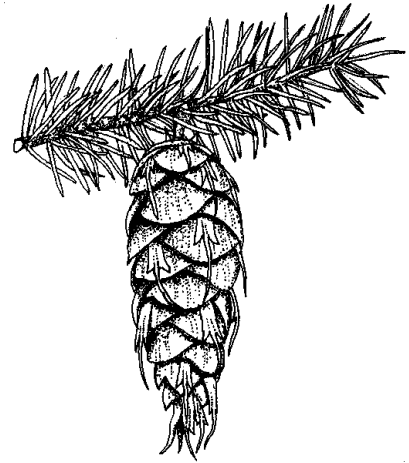
Growth rate: Very fast

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.

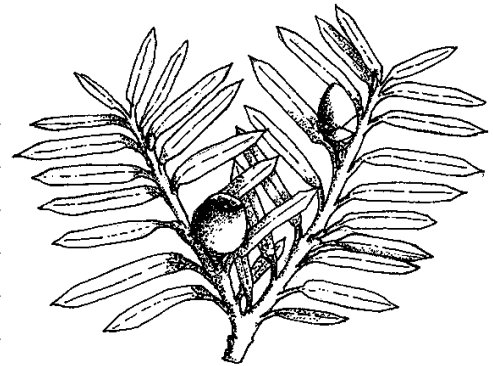
Growth rate: Medium

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. NATIVE PLANTS IN DETAIL



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.

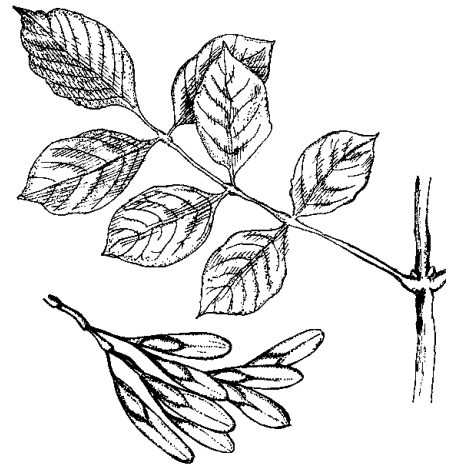
Growth rate: Medium

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.

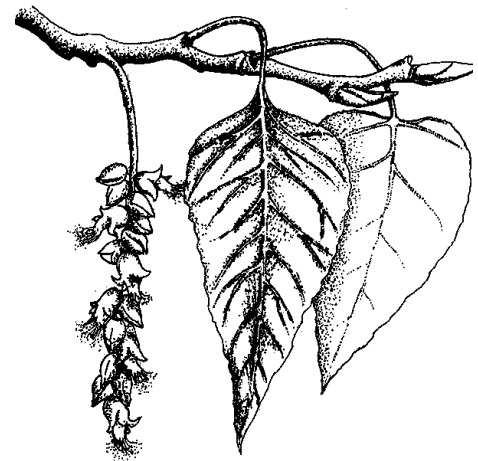
Growth rate: Very fast

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.

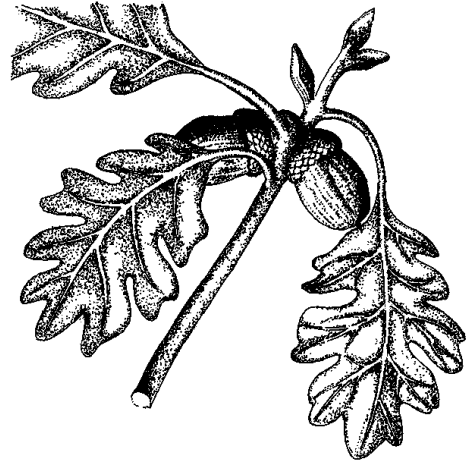
Growth rate: Very slow

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.

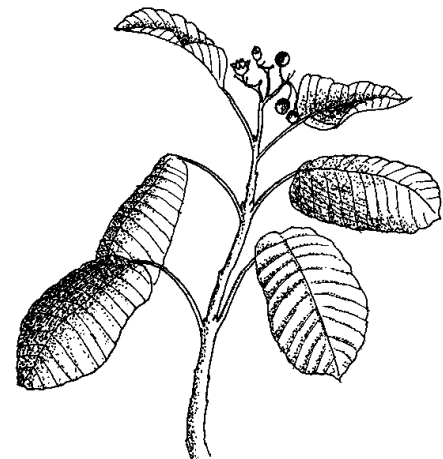
Growth rate: Slow

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.

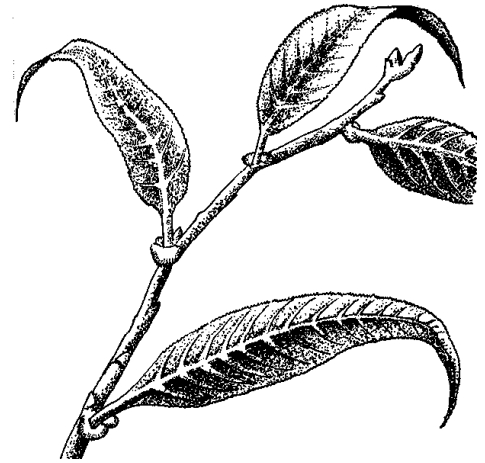
Growth rate: Fast

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.

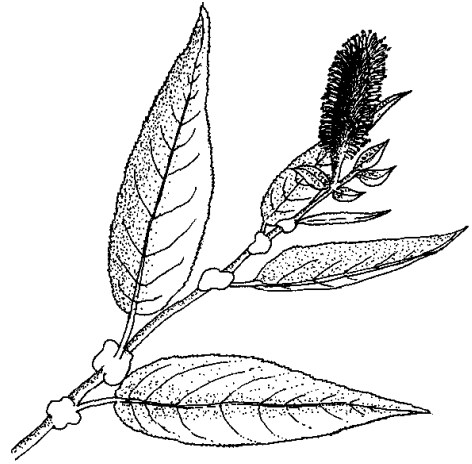
Growth rate: Fast

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
<i>Abies grandis</i>	Grand Fir	Y	FACU-	●	●	●	●			
<i>Acer macrophyllum</i>	Big-leaf Maple	N	FACU			●	●			
<i>Alnus rubra</i>	Red Alder	N	FAC		●	●	●			
<i>Arbutus menziesii</i>	Madrone	N				●				
<i>Cornus nuttallii</i>	Western Flowering Dogwood	N				●	●			
<i>Crataegus suksdorfii</i>	Black Hawthorn	N	FAC	●	●	●	●	●		
<i>Fraxinus latifolia</i>	Oregon Ash	N	FACW	●	●					
<i>Pinus ponderosa</i>	Ponderosa Pine	Y	FACU-			●	●			
<i>Populus balsamifera sp. trichocarpa</i>	Black Cottonwood	N	FAC	●	●					
<i>Populus tremuloides</i>	Quaking Aspen	N		●	●					
<i>Prunus emarginata</i>	Bitter Cherry	N	FACU		●		●	●		
<i>Pseudotsuga menziesii</i>	Douglas Fir	Y	FACU			●	●			
<i>Pyrus (see Malus)</i>		N								
<i>Quercus garryana</i>	Garry Oak	N				●	●		●	
<i>Rhamnus purshiana</i>	Cascara	N	FAC-		●	●	●			
<i>Salix lucida sp. lasiandra</i>	Pacific Willow	N	FACW+	●	●					
<i>Salix rigida v. macrogemma</i>	Rigid Willow	N	OBL	●	●					
<i>Salix scouleriana</i>	Scouler Willow	N	FAC	●	●	●				
<i>Taxus brevifolia</i>	Pacific Yew	Y	NI		●	●	●			
<i>Thuja plicata</i>	Western Red Cedar	Y	FAC	●	●	●	●			
<i>Tsuga heterophylla</i>	Western Hemlock	Y	FACU-		●	●	●			

KEY

*Fire Accelerant Y: plants 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

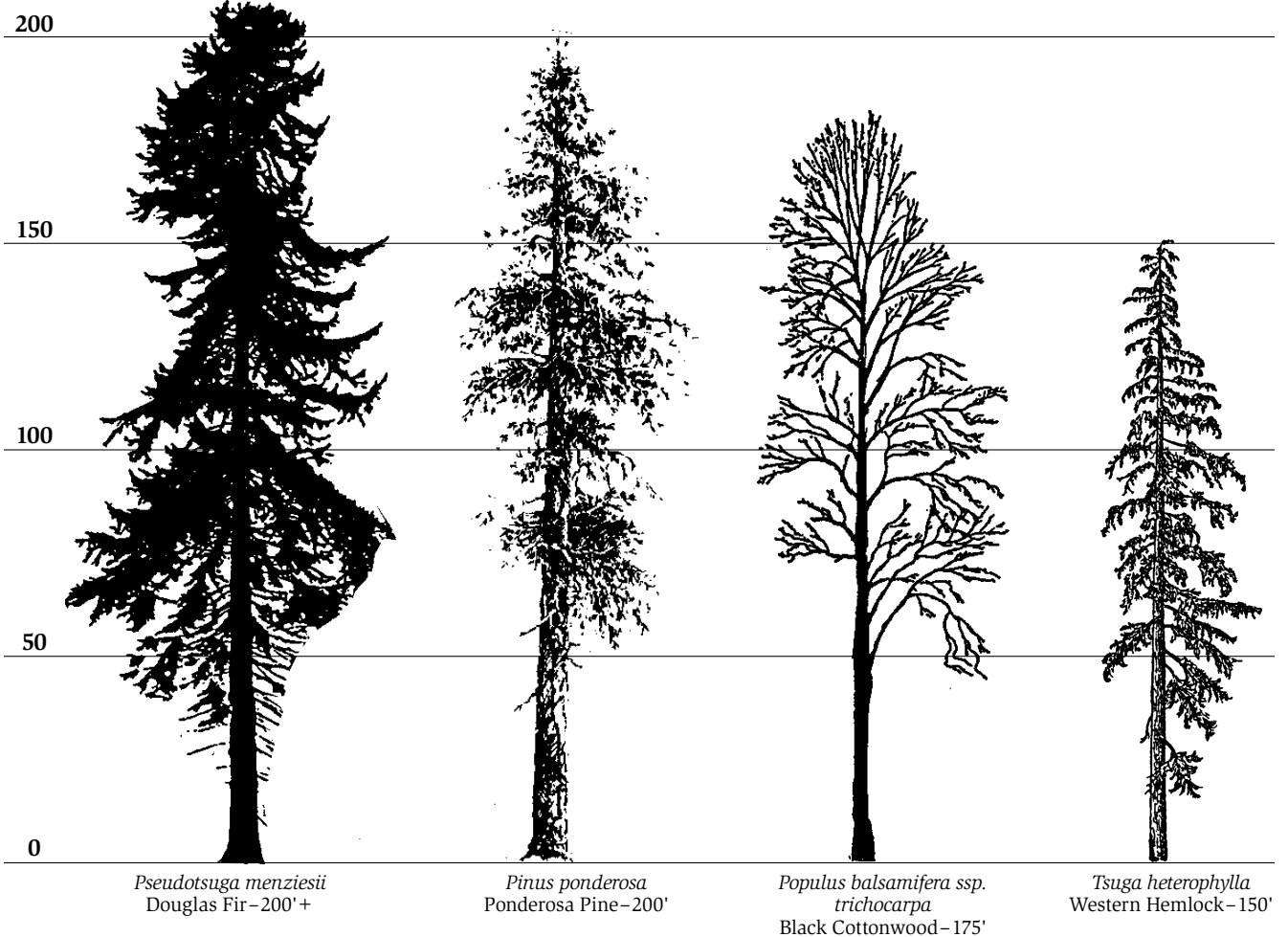
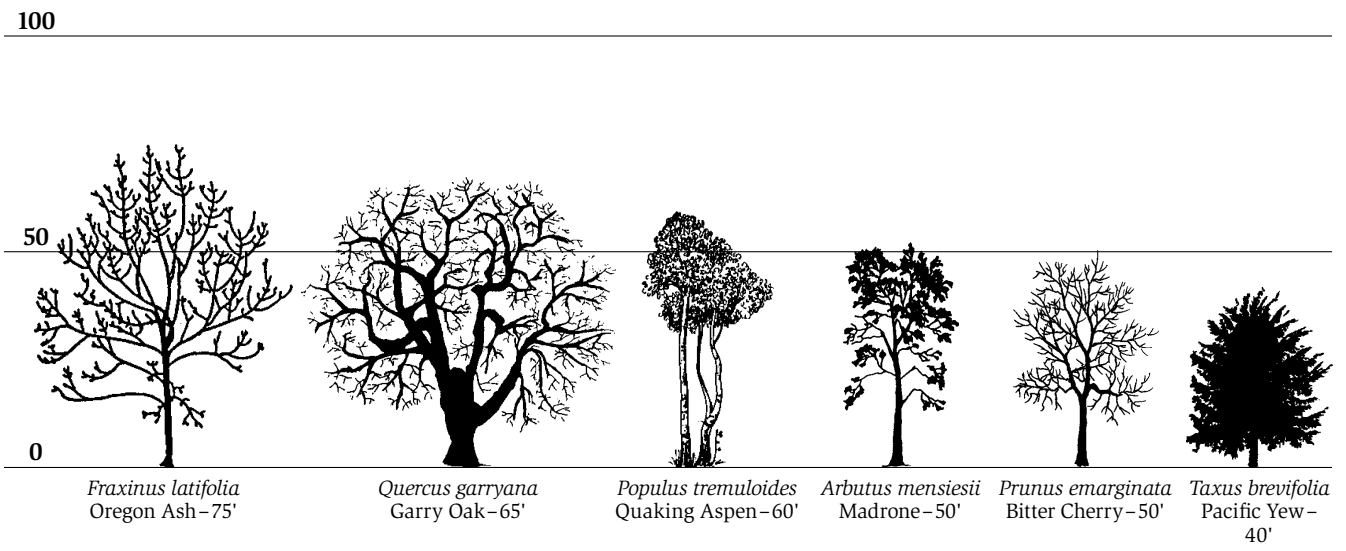
- Obligate Wetland (OBL)** almost always occur in wetlands
- Facultative wetland (FACW)** occur in wetlands 67%–99% of the time
- Facultative (FAC)** equally likely to occur in wetlands or non-wetlands
- Facultative Upland (FACU)** occur wetlands only 1%–33% of the time
- Obligate Upland (UPL)** almost never, under natural conditions, occur in wetlands in the Northwest
- No indicator (NI)** no status

HABITAT TYPE

- 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

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

3.4 TREE SILHOUETTES



100

50

0



Cornus nuttallii
Western Flowering Dogwood-40'



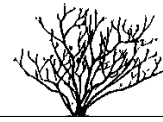
Crataegus suksdorfii
Black Hawthorne-35'



Rhamnus purshiana
Cascara-30'



Malus fusca
Western Crabapple-30'
(Arborescent Shrub)



Acer circinatum
Vine Maple-25'
(Arborescent Shrub)



Prunus virginiana
Common Chokecherry-20'
(Arborescent Shrub)

Not pictured:

Salix lucida ssp. lasiandra
Pacific Willow

Salix rigida var. macrogemma
Rigid Willow

Salix scouleriana
Scouler's Willow

200

150

100

50

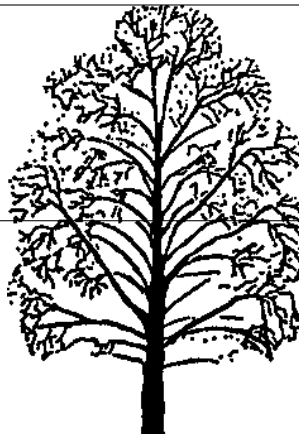
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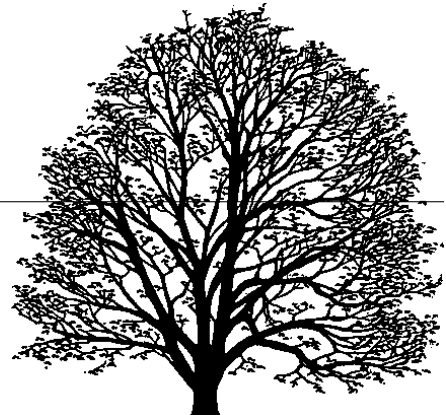
Abies grandis
Grand Fir-150'



Thuja plicata
Western Red Cedar-100'



Alnus rubra
Red Alder-100'



Acer macrophyllum
Big Leaf Maple-90'

3. NATIVE PLANTS IN DETAIL



3.5 PRIORITY NATIVE TREE SIZES

Portland's native trees grow at varying rates and reach different sizes at maturity. For example, some native trees, such as the Pacific yew or Garry oak, might be considerably smaller but older than larger trees such as a Douglas fir. These differences should be taken in to consideration when developing priorities for the care, management, preservation and protection of native trees. When trees reach sizes noted as significant below, they should be prioritized for retention where practical. Smaller native trees may also be prioritized for preservation and protection, particularly when they are part of a grove or are otherwise healthy and appropriately situated. The significance of these trees should not substitute for evaluating specific site conditions, approval criteria, or other code requirements that may affect priorities.

Scientific Name	Common Name	Priority Size (Diameter)
<i>Abies grandis</i>	Grand Fir	10 inches
<i>Acer macrophyllum</i>	Big-leaf Maple	18 inches
<i>Alnus rubra</i>	Red Alder	18 inches
<i>Arbutus menziesii</i>	Madrone	4 inches
<i>Cornus nuttallii</i>	Western Flowering Dogwood	6 inches
<i>Crataegus douglasii</i> var. <i>douglasii</i>	Black Hawthorn	8 inches
<i>Crataegus suksdorfii</i>	Black Hawthorn	8 inches
<i>Fraxinus latifolia</i>	Oregon Ash	10 inches
<i>Pinus ponderosa</i>	Ponderosa Pine	8 inches
<i>Populus balsamifera</i> ssp. <i>trichocarpa</i>	Black Cottonwood	18 inches
<i>Prunus emarginata</i>	Bitter Cherry	10 inches
<i>Pseudotsuga menziesii</i>	Douglas Fir	18 inches
<i>Quercus garryana</i>	Garry Oak	4 inches
<i>Rhamnus purshiana</i>	Cascara	6 inches
<i>Salix scouleriana</i>	Scouler Willow	6 inches
<i>Taxus brevifolia</i>	Pacific Yew	2 inches
<i>Thuja plicata</i>	Western Red Cedar	10 inches
<i>Tsuga heterophylla</i>	Western Hemlock	10 inches

3. NATIVE PLANTS IN DETAIL



3.6 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 bright 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.

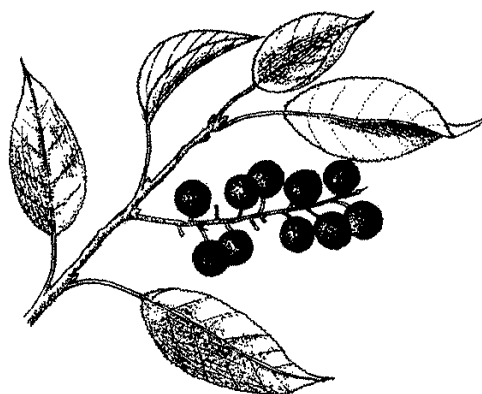
Growth rate: Medium

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.

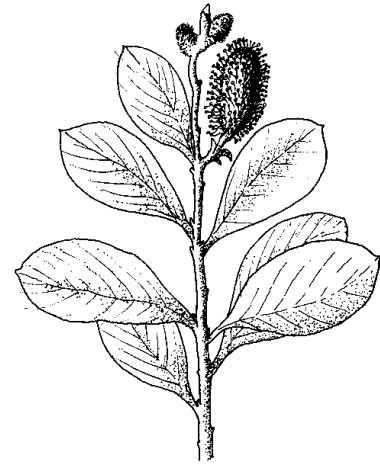
Mature height: 20 ft.	Mature spread: 20 ft.
10 yr. height: 15 ft.	10 yr. spread: 15 ft.
Growth rate: Fast	
Conditions: Full to part sun, moist, seasonally wet to perennially wet soil	
Relocate success: High	
Availability: Low (bare root, container)	
Habitat type(s): Wetland, Riparian	



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 of 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. It 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



3.7 NATIVE ARBORESCENT SHRUB LIST

Scientific Name	Common Name	Fire Accelerant? * +	Indicator Status	Habitat Type						
				Wetland	Riparian	Forest	F. Slope	Thicket	Grass	Rocky
<i>Acer circinatum</i> ^a	Vine Maple	N	FAC-			●	●		●	
<i>Malus fusca</i> ^a	Western Crabapple	N	FACW		●	●		●		
<i>Prunus virginiana</i> ^a	Common Chokecherry	N	FACU		●	●		●		
<i>Salix fluviatilis</i> ^a	Columbia River Willow	N	OBL	●	●					
<i>Salix hookeriana</i> ^a	Piper's Willow	N	FACW	●	●					
<i>Salix sessilifolia</i> ^a	Soft-leaved Willow	N	FACW	●	●					
<i>Salix sitchensis</i> ^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 11 standards, criteria, or conditions of approval which require trees.

*Fire Accelerant Y: plants 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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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
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● HABITAT TYPE

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

3.8 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.

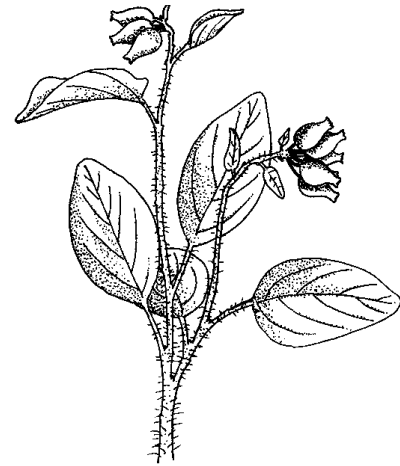
Growth rate: Slow

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 evergreen 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.

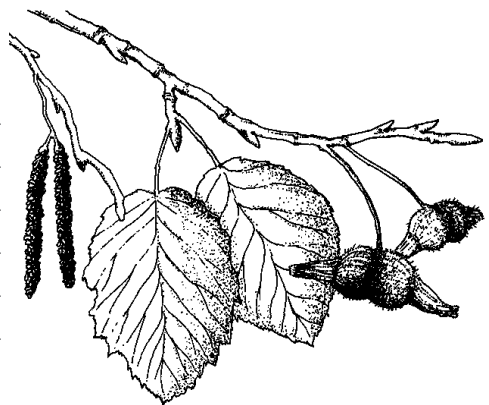
Growth rate: Fast

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, Oceanspray 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.

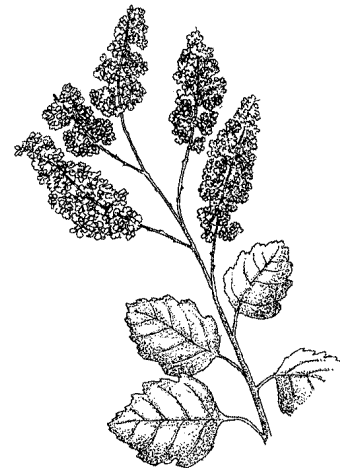
Growth rate: Fast

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.

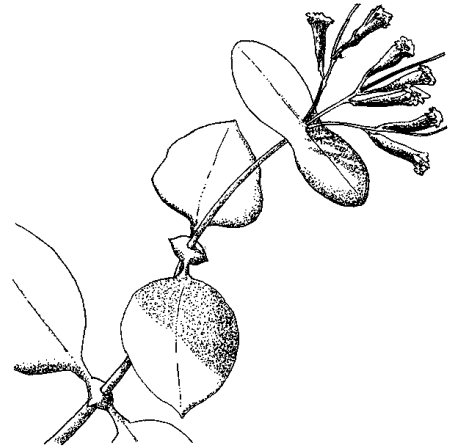
Growth rate: Fast

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 initially 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 layers of thin bark on the stems. Ninebark has small white flowers in 2–3" rounded clusters 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 Gooseberry 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.

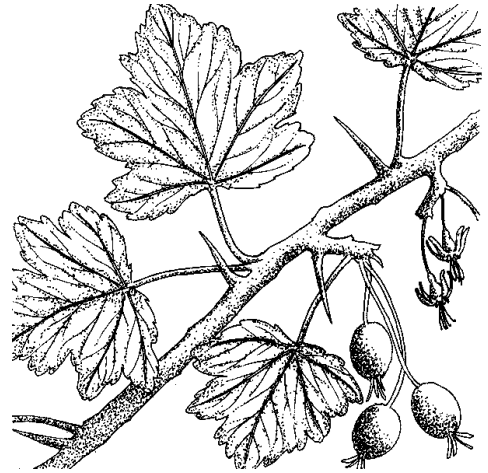
Growth rate: Medium

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 fishia-like flowers.

Mature height: 4 ft.

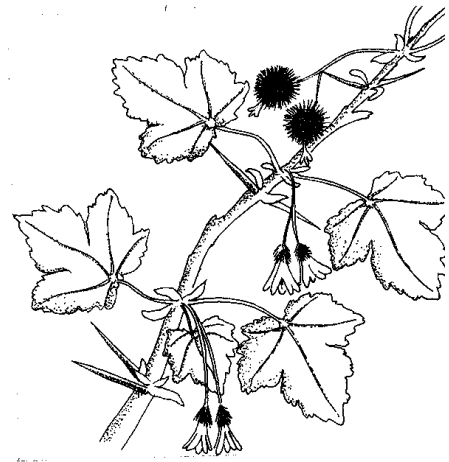
Growth rate: Medium

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. They 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.

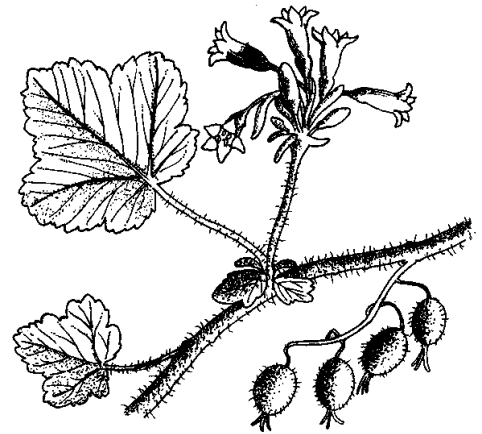
Growth rate: Medium

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.

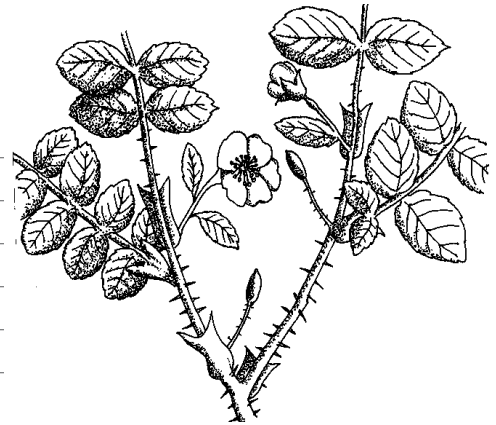
Growth rate: Medium

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 parviflorus*

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.

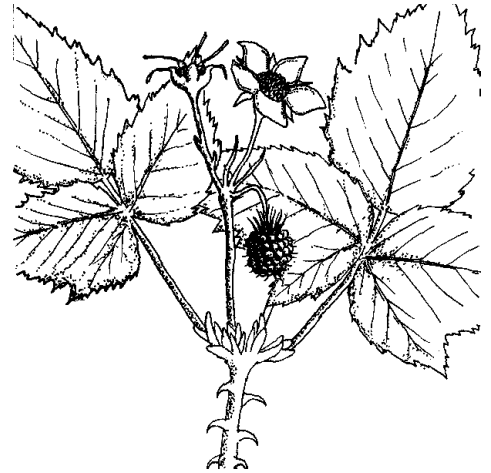
Growth rate: Fast

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.

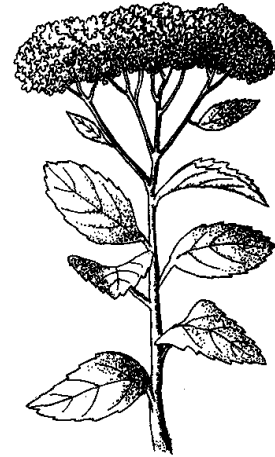
Growth rate: Medium

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. Its 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 in 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.

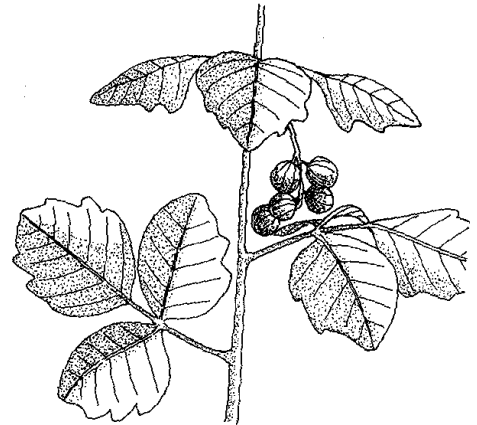
Growth rate: Fast

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.

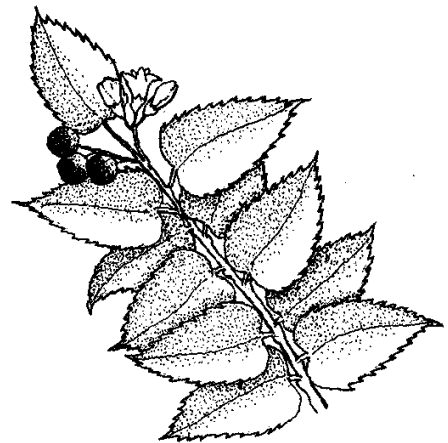
Growth rate: Medium

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.

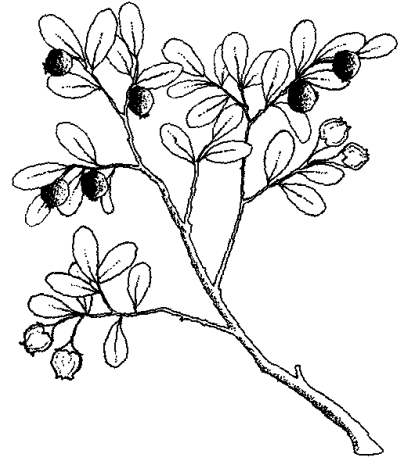
Growth rate: Medium

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.

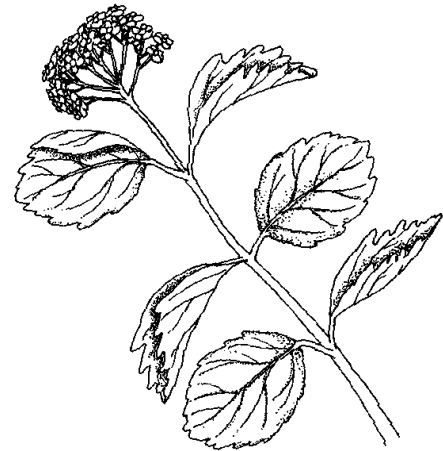
Growth rate: Medium

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

Relocate success: Medium

Availability: Low (seed)

Habitat type(s): Forest, Thicket



3.9 NATIVE SHRUB LIST

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

KEY

*Fire Accelerant Y: plants 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

● HABITAT TYPE

- 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

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

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

3.10

HERBACEOUS FORBS (Table continues across on page 3.10-2 →)

Latin name	Common name	Mature height	FLOWERS															
			Showy	Color	Notes	J	F	M	A	M	J	J	A	S	O	N	D	
<i>Achillea millefolium</i>	Yarrow	8"-20"	●	White	Flat white flower head 2"-4" across				■	■	■	■	■	■	■			
<i>Achlys triphylla</i>	Vanillaleaf	8"-16"	●	White	A spike of tiny white flowers atop a single large flat leaf					■								
<i>Actaea rubra</i>	Baneberry	1'-3'	●	White	Dense rounded to spiky clusters of many tiny white flowers				■	■	■							
<i>Adenocaulon bicolor</i>	Pathfinder	1'-3'		White	Tiny white flowers, sparse on thin stems													
<i>Agoseris grandiflora</i>	Large-flowered Agoseris																	
<i>Alisma gramineum</i>	Narrow-leaved Water Plantain																	
<i>Allium acuminatum</i>	Hooker's Onion	6"-12"	●	Pink	Brilliant rose, showy, in upright round clusters of up to 25 flowers					■	■	■						
<i>Allium amplexens</i>	Slim-leaved Onion																	
<i>Allium cernuum</i>	Nodding Onion	6"-18"	●	White Pink	Pink to white in nodding umbrella shaped clusters					■	■	■	■					
<i>Amsinckia intermedia</i>	Fireweed Fiddleneck																	
<i>Anaphalis margaritacea</i>	Pearly-everlasting	1'-2'	●	White Yellow	Flat, white flower head 2"-4" across, remain after dry						■	■						
<i>Anemone deltoidea</i>	Western White Anemone	4"-12"	●	White	1.5"-2" showy white bracts, solitary on long stalks				■	■	■	■						
<i>Anemone lyallii</i>	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 **T/E** 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					T/E	HABITAT TYPE							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	●			●												●	
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P	●			●											●		
															●		
P	●			●											●		
															●		
P		●	●		●							●	●				
												●	●				

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3.10

HERBACEOUS FORBS (Table continues across on page 3.10-4 →)

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

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B Biennial

EP Evergreen perennial

P Perennial

X **T/E** State or federally listed as Threatened or Endangered

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SEAS WET tolerates seasonally wet conditions

PERNL WET tolerates perennially wet conditions

SUB tolerates submerged conditions

Life cycle	LIGHT			MOISTURE					T/E	HABITAT TYPE							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 TYPE

- WETLAND** all forms of wetlands
- RIPARIAN** stream and river shorelines and bottomlands
- FOREST** flat or mildly rolling forests
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- 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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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 FORBS (Table continues across on page 3.10-6 →)

Latin name	Common name	Mature height	FLOWERS															
			Showy	Color	Notes	J	F	M	A	M	J	J	A	S	O	N	D	
<i>Boykinia occidentalis</i>	Slender Boykinia	6"-24"	●	White	1/3" white 5 petals in loose groups on upright stems				■	■	■	■	■	■				
<i>Brodiaea coronaria</i>	Harvest Brodiaea	8"-14"	●	Purple	Loose clusters of progressively opening 1" vase shaped flowers purple with a darker stripe on petals and with center								■	■	■			
<i>Brodiaea howellii</i>	Howell's Brodiaea																	
<i>Brodiaea hyacintha</i>	Hyacinth Brodiaea	12"-28"																
<i>Calochortus tolmiei</i>	Tolmie's Mariposa																	
<i>Calypso bulbosa</i>	Fairy Slipper																	
<i>Camassia leichtlinii</i>	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				■	■	■							
<i>Camassia quamash</i>	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				■	■	■							
<i>Campanula rotundifolia</i>	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

B Biennial

EP Evergreen perennial

P Perennial

X **T/E** 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					T/E	HABITAT TYPE							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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3.10

HERBACEOUS FORBS (Table continues across on page 3.10-8 →)

Latin name	Common name	Mature height	FLOWERS																			
			Showy	Color	Notes	J	F	M	A	M	J	J	A	S	O	N	D					
<i>Campanula scouleri</i>	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						■	■	■									
<i>Centaureum muhlenbergii</i>	Muhlenberg's Centaury																					
<i>Cerastium arvense</i>	Field Chickweed	2"-20"	●	White	5 notched petals per flower																	
<i>Cardamine angulata</i>	Angled Bittercress																					
<i>Cardamine occidentalis</i>	Western Bittercress																					
<i>Cardamine oligosperma</i>	Little Western Bittercress																					
<i>Cardamine penduliflora</i>	Willamette Valley Bittercress																					
<i>Cardamine pennsylvanica</i>	Pennsylvania Bittercress																					
<i>Cardamine pulcherrima var. tenella</i>	Slender Toothwort																					
<i>Castilleja levisecta</i>	Golden Indian-paintbrush																					
<i>Chamomilla suaveolens</i>	Pineapple Weed																					
<i>Chrysosplenium glechomaefolium</i>	Pacific Water-carpent																					
<i>Cimicifuga elata</i>	Tall Bugbane																					
<i>Circae alpina</i>	Enchanter's Nightshade																					
<i>Cirsium hallii</i>	Hall's Thistle																					

KEY

● **SHOWY**

Flowers are visible at some point during the year

● **LIGHT**

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EP Evergreen perennial

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Life cycle	LIGHT			MOISTURE					T/E	HABITAT TYPE							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
P	●			●											●		FACU
										●	●	●				●	FACW
										●					●		FACW+
										●	●	●			●		FAC
										●	●						OBL
										●		●					FACW
												●	●				
									X						●		
															●		FACU
												●	●				OBL
									X			●		●	●		
										●		●	●				FAC+
	●			●											●		

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3.10

HERBACEOUS FORBS (Table continues across on page 3.10-10 →)

Latin name	Common name	Mature height	FLOWERS															
			Showy	Color	Notes	J	F	M	A	M	J	J	A	S	O	N	D	
<i>Clarkia amoena</i>	Farewell to Spring	24"																
<i>Clarkia rhomboidea</i>	Common Clarkia																	
<i>Claytonia perfoliata</i>	Miner's lettuce	2"-12"	●	White	Tiny white flowers in loose clusters above flat disk like leaves			■	■	■								
<i>Clematis ligusticifolia</i>	Western Clematis	50'	●	White	Numerous clusters of small creamy white flowers					■	■	■	■					
<i>Collinsia grandiflora</i>	Large-flowered Blue-eyed Mary																	
<i>Collinsia parviflora</i>	Small-flowered Blue-eyed Mary	2"-16"	●	White Blue	1/2" 2-lipped flowers upper lip white 2-lobed, lower lip blue 3-lobed				■	■	■							
<i>Collinsia rattannii</i>	Rattan Collinsia								■	■	■							
<i>Collomia grandiflora</i>	Large-flowered Collomia																	
<i>Collomia heterophylla</i>	Varied-lead Collomia																	
<i>Comandra umbellata</i> var. <i>californica</i>	Bastard Toad-flax																	
<i>Conyza canadensis</i> var. <i>glabrata</i>	Horseweed																	
<i>Coptis laciniata</i>	Cutleaf Goldthread																	
<i>Coreopsis tinctoria</i> v. <i>atkinsoniana</i>	Columbia Tickseed	40"																
<i>Cornus canadensis</i>	Bunchberry	4"-8"	●	White Green	1" diameter, 4 white petal-like bracts surrounding greenish center					■	■	■						

KEY

● **SHOWY**

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LIFE CYCLE

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Life cycle	LIGHT			MOISTURE					T/E	HABITAT TYPE							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	●	●	●		●	●							●	●	●	●	●
P	●	●	●	●	●									●	●		
															●	●	
A	●			●	●	●									●	●	
	●	●		●	●										●	●	
															●		
														●	●	●	
														●	●	●	UPL
															●		FACU
														●			FAC
	●	●		●	●	●	●				●	●					
P		●	●		●									●			FAC

● **HABITAT TYPE**

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3.10

HERBACEOUS FORBS (Table continues across on page 3.10-12 →)

Latin name	Common name	Mature height	FLOWERS																
			Showy	Color	Notes	J	F	M	A	M	J	J	A	S	O	N	D		
<i>Corydalis scouleri</i>	Western Corydalis	2'-4'	●	Pink	Numerous 1" tubular flowers in long spike-like clusters atop stem					■	■								
<i>Cryptantha intermedia</i> var. <i>grandiflora</i>	Common Forget-me-not																		
<i>Cynoglossum grande</i>	Pacific Hound's-tongue	1'-3'	●	Blue Purple	1/2" blue to violet flower with white center			■	■										
<i>Delphinium menziesii</i> var. <i>pyramidale</i>	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				■	■									
<i>Delphinium nuttallii</i>	Nuttall's Larkspur	1'-3'	●	Blue Purple	Deep purplish-blue with light blue lower petals tubular flowers with a long spur					■	■								
<i>Dicentra formosa</i>	Pacific Bleedingheart	8"-18"	●	Pink	Drooping pinkish-purple heart shaped flowers 3/4" in clusters of 5-15 atop stems				■	■	■								
<i>Dicentra formosa</i> sp. <i>oregana</i>	Oregon Bleedingheart	8"-18"	●	White					■	■	■								
<i>Dichelostemma congesta</i>	Northern Saitas	1"-3"	●	Pink Purple	Clusters of pinkish to purplish flowers on 1/2" stalks														

KEY

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Life cycle	LIGHT			MOISTURE					T/E	HABITAT TYPE							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	●	●		●	●	●									●	●	
P	●	●		●	●				X						●		
P		●	●		●												FACU
P		●	●		●				X								
P	●			●											●	●	

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3.10

HERBACEOUS FORBS (Table continues across on page 3.10-14 →)

Latin name	Common name	Mature height	FLOWERS																			
			Showy	Color	Notes	J	F	M	A	M	J	J	A	S	O	N	D					
<i>Disporum hookeri</i>	Hooker Fairy-bell	1'-3'	●	White	Creamy white nodding bell-shaped 3/4" usually in groups of 1-3					■	■	■										
<i>Disporum smithii</i>	Large-flowered Fairy-bell	1'-3'	●	White	Creamy white nodding bell-shaped 1"						■	■										
<i>Dodecatheon dentatum</i>	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					■	■	■	■									
<i>Dodecatheon hendersonii</i>	Broad-Leaved Shooting Star	8"-15"								■	■	■	■									
<i>Dodecatheon pulchellum</i>	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					■	■	■	■									
<i>Downingia elegans</i>	Common Downingia									■	■	■	■									
<i>Draba verna</i>	Spring Whitlow-grass																					
<i>Epilobium angustifolium</i>	Fireweed	3'-8'	●	Pink Purple	Rose purple flowers 1"-2" long on tall spikes									■	■	■	■					
<i>Epilobium ciliatum</i> ssp. <i>glandulosum</i>	Common Willow-weed																					
<i>Epilobium ciliatum</i> ssp. <i>watsonii</i>	Watson's Willow-weed																					

KEY

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P		●	●		●							●	●				
P		●	●		●							●	●				
P			●	●		●										●	FAC-
		●	●		●											●	●
P			●	●		●					●						FACW
		●	●			●	●	●			●						
																●	●
P		●			●	●					●	●	●		●	●	FACU+
											●	●	●			●	FACW
											●	●	●			●	FACW-

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3.10

HERBACEOUS FORBS (Table continues across on page 3.10-16 →)

Latin name	Common name	Mature height	FLOWERS															
			Showy	Color	Notes	J	F	M	A	M	J	J	A	S	O	N	D	
<i>Epilobium paniculatum</i> var. <i>paniculatum</i>	Tall Annual Willow Herb																	
<i>Equisetum arvense</i>	Common Horsetail	1'-2'																
<i>Equisetum hyemale</i>	Common Scouring-rush	2'-4'																
<i>Equisetum telemateia</i>	Giant Horsetail																	
<i>Erigeron annuus</i>	Annual Fleabane																	
<i>Erigeron decumbens</i> var. <i>decumbens</i>	Willamette Daisy																	
<i>Erigeron philadelphicus</i>	Philadelphia Fleabane	8"-28"	●	White Pink Purple	Petals are actually ray flowers with yellow disk flowers in center													
<i>Eriogonum cf. nudum</i>	Barestem Buckwheat																	
<i>Eriophyllum lanatum</i>	Woolly Sunflower	6"-12"	●	Yellow	1" sunflower like flowers with 9-11 petals, single on long stalks above wooly gray leaves					■	■	■	■					
<i>Erysium capitatum</i> ssp. <i>capitatum</i>	Prairie Rocket	1'-3'	●	Yellow	4 Petals yellow to orange 1" across clustered around stem, fragrant					■	■	■	■					
<i>Erythronium oregonum</i>	Giant Fawn-lily	6"-12"	●	White	Single 2" flowers with petals bent back, nodding, single to a stem					■	■							

KEY

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												●				●		UPL
P	●	●			●	●	●				●	●						FAC
P	●	●			●	●	●				●	●						FACW
											●	●				●		FACW
																●		FACU+
									X							●		
P	●	●			●	●										●		FACU
																	●	
P	●			●														●
B	●			●												●	●	
P	●	●		●	●							●	●					

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A **positive (+) sign** — the plant occurs more frequently in wetlands, at the higher end of the wetland status category range
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3.10

HERBACEOUS FORBS (Table continues across on page 3.10-18 →)

Latin name	Common name	Mature height	FLOWERS																		
			Showy	Color	Notes	J	F	M	A	M	J	J	A	S	O	N	D				
<i>Eschscholzia californica</i>	Gold Poppy	8"-18"	●	Orange	2" saucer shaped flowers with 4 petals, solitary atop long stems						■	■	■	■	■						
<i>Fragaria vesca var. bracteata</i>	Wood Strawberry	3"-8"	●	White	3/4" five petals with yellow centers						■	■									
<i>Fragaria vesca var. crinita</i>	Wood Strawberry																				
<i>Fragaria virginiana var. platypetala</i>	Broadpetal Strawberry	2"-5"	●	White	3/4" flowers with 5 white petals and yellow centers					■	■										
<i>Fritillaria affinis</i>	Checker Lily	1'-2'	●	Purple	Dark purple mottled with greenish yellow, bell-shaped nodding to 1.5", in terminal clusters of 2-5 flowers						■	■	■								
<i>Galium aparine</i>	Cleavers																				
<i>Galium trifidum</i>	Small Bedstraw																				
<i>Galium triflorum</i>	Sweetscented Bedstraw																				
<i>Gentiana sceptrum</i>	Staff Gentian	8"-20"	●	Blue	1"-1.5" tubular flowers which open to reveal dark green specks inside							■	■	■	■						
<i>Gentianella amarella ssp. acuta</i>	Northern Gentian																				
<i>Geranium bicknellii</i>	Bicknell's Geranium																				

KEY

● **SHOWY**

Flowers are visible at some point during the year

LIFE CYCLE

A Annual

B Biennial

EP Evergreen perennial

P Perennial

X **T/E** 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					T/E	HABITAT TYPE							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	●	●		●	●										●		FACU
P	●	●		●	●										●	●	
															●	●	FACU
											●						FACW+
												●	●				FACU
P	●				●	●	●				●	●					OBL
												●	●				FACW-
												●					

● **HABITAT TYPE**

- 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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3.10

HERBACEOUS FORBS (Table continues across on page 3.10-20 →)

Latin name	Common name	Mature height	FLOWERS																
			Showy	Color	Notes	J	F	M	A	M	J	J	A	S	O	N	D		
<i>Geum macrophyllum</i>	Oregon Avens	1'-3'	●	Yellow	3/4" flowers with five yellow petals either single or in small clusters at branch tips						■	■	■						
<i>Gilia capitata</i>	Bluefield Gilia	1'-3'	●	Blue	Many 1/4" flowers in dense balls at tips of stems							■	■						
<i>Gnaphalium palustre</i>	Marsh Cudweed																		
<i>Goodyera oblongifolia</i>	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								■	■					
<i>Gratiola ebracteata</i>	Bractless Hedge-hyssop																		
<i>Grindelia integrifolia</i>	Willamette Valley Gumweed																		
<i>Habenaria dilatata</i>	White Bog-orchid																		
<i>Heracleum lanatum</i>	Cow-parsnip	3'-9'	●	White	4"-10" flat clusters of many small white flowers atop thick stems						■	■							
<i>Heterocodon rariflorum</i>	Heterocodon																		
<i>Heuchera glabra</i>	Smooth Alumroot																		
<i>Heuchera micrantha</i>	Smallflowered Alumroot	1'-2'	●	White	Numerous very small flowers in open clusters						■	■	■						

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-
A	●			●	●											●	●
										●						●	FAC+
EP		●	●	●	●							●					FACU-
										●	●						OBL
	●	●		●	●	●	●			●	●						
										●							FACW+
P	●	●	●		●	●				●	●	●				●	FAC+
															●		FAC
											●	●				●	
P	●	●			●						●	●				●	

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3.10

HERBACEOUS FORBS

(Table continues across on page 3.10-22 →)

Latin name	Common name	Mature height	FLOWERS																	
			Showy	Color	Notes	J	F	M	A	M	J	J	A	S	O	N	D			
<i>Hieracium albiflorum</i>	White-flowered Hawkweed	2'-4'	●	White	A dozen or more 1/2" white flowers along a slender stem								■	■						
<i>Hydrophyllum tenuipes</i>	Pacific Waterleaf	1'-3'	●		Greenish-white to lavender small bell-shaped in terminal clusters about 2" across						■	■								
<i>Hypericum anagalloides</i>	Bog Saint John's Wort																			
<i>Hypericum formosum</i> var. <i>scouleri</i>	Western Saint John's Wort																			
<i>Impatiens ecalcarata</i>	Spurless Balsam																			
<i>Iris tenax</i>	Oregon Iris	10"-20"	●	White Yellow Blue Purple	Usually blue or purple, color range includes yellow to white				■	■	■									
<i>Lathyrus nevadensis</i>	Nevada Peavine								■	■	■									
<i>Lathyrus polyphyllus</i>	Leafy-pea																			
<i>Ligusticum apiifolium</i>	Parsley-leaved Lovage	18"-60"	●	White	Compound umbel					■	■									
<i>Ligusticum grayii</i>	Gray's Lovage	24"	●	White Purple	Compound umbel								■	■	■					
<i>Lilium columbianum</i>	Columbia Lily	2'-4'	●	Orange	Deep orange with red or purple spots; tepals curved backwards; 2-20 flowers on long pedicels							■	■							
<i>Limosella aquatica</i>	Mudwort																			
<i>Linanthus bicolor</i>	Bicolored Linanthus																			

KEY

● **SHOWY**

Flowers are visible at some point during the year

● **LIGHT**

FULL SUN tolerates unshaded full exposure

PARTIAL SUN tolerates some sun and shade

FULL SHADE tolerates fully shaded conditions

LIFE CYCLE

A Annual

B Biennial

EP Evergreen perennial

P Perennial

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Life cycle	LIGHT			MOISTURE					T/E	HABITAT TYPE							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	●	●	●		●							●	●				
											●	●				●	OBL
											●					●	FAC-
											●	●					FACW
P	●	●		●	●							●		●	●		
	●	●		●	●												
												●		●			
P	●	●		●	●	●						●	●	●	●		
P	●	●		●	●	●							●		●		
P	●	●			●							●	●	●	●		FAC
											●	●					OBL
															●		

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3.10

HERBACEOUS FORBS (Table continues across on page 3.10-24 →)

Latin name	Common name	Mature height	FLOWERS															
			Showy	Color	Notes	J	F	M	A	M	J	J	A	S	O	N	D	
<i>Linaria canadensis</i> var. <i>texana</i>	Wild Toadflax																	
<i>Lindernia dubia</i>	Common False-pimpernel																	
<i>Lindernia dubia</i> var. <i>anagallidea</i>	Slender False-pimpernel																	
<i>Linnaea borealis</i>	Twinflower	4"-7"	●	Pink	Trumpet-like, in pairs on y-shaped, upright stalk, fragrant									■	■			
<i>Listera caurina</i>	Western Twayblade																	
<i>Listera cordata</i>	Heart-leaved Listera																	
<i>Lithophragma parviflorum</i>	Small-flowered Prairiestar																	
<i>Lomatium utriculatum</i>	Common Lomatium	12"	●	Yellow	Up to 15 compact heads of small bright yellow flowers make up compound umbel				■	■	■	■	■	■	■			
<i>Lonicera ciliosa</i>	Trumpet Vine	15'-20'	●	Orange	Bright orange trumpet-shaped flowers cluster just above a pair of fused leaves						■	■	■					
<i>Lotus denticulatus</i>	Meadow Lotus																	
<i>Lotus formosissimus</i>	Seaside Lotus	12"-18"	●	Yellow Purple	Wing petal lavender						■							
<i>Lotus micranthus</i>	Small-flowered Deervetch																	
<i>Lotus purshiana</i>	Spanish Clover																	

KEY

● **SHOWY**

Flowers are visible at some point during the year

LIFE CYCLE

- A** Annual
- B** Biennial
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- SUB** tolerates submerged conditions

Life cycle	LIGHT			MOISTURE					T/E	HABITAT TYPE							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
											●	●						OBL
	EP		●	●	●	●							●	●				FACU-
											●		●	●				FACU
											●		●	●				FACU
		●	●		●											●	●	
	P	●			●													●
	P		●	●		●							●					
																	●	
	P		●			●	●	●			●						●	FACW+
																●		
													●				●	

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3.10

HERBACEOUS FORBS (Table continues across on page 3.10-26 →)

Latin name	Common name	Mature height	FLOWERS															
			Showy	Color	Notes	J	F	M	A	M	J	J	A	S	O	N	D	
<i>Lupinus bicolor</i>	Two-color Lupine	4"-18"	●	White Blue	Flowers blue and white, pea-like, small, in short cluster				■	■	■							
<i>Lupinus latifolius</i>	Broadleaf Lupine	24"	●	Blue Purple	Pea-like, whorls form loose racemes					■	■	■						
<i>Lupinus laxiflorus</i>	Spurred Lupine	18"-30"	●	Blue Purple	Pea-like, racemes 3"-8" long					■	■	■						
<i>Lupinus lepidus</i>	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						■	■	■					
<i>Lupinus micranthus</i>	Field Lupine																	
<i>Lupinus microcarpus</i>	Chick Lupine																	
<i>Lupinus polyphyllus</i>	Large-leaved Lupine	2'-5'	●	Blue Purple	Pea-like in dense upright clusters up to 16" long					■	■							
<i>Lupinus rivularis</i>	Stream Lupine																	
<i>Lupinus sulphureus</i>	Sulphur Lupine																	
<i>Lycopus americanus</i>	Cut-leaved Bugleweed																	
<i>Lycopus uniflorus</i>	Northern Bugleweed																	
<i>Lysimachia ciliata</i>	Fringed Loosestrife																	
<i>Lysimachia thyrsiflora</i>	Tufted Loosestrife																	

KEY

● **SHOWY**

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LIFE CYCLE

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Life cycle	LIGHT			MOISTURE					T/E	HABITAT TYPE							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	●			●											●		
P	●	●			●										●		
P	●	●		●											●		
P	●			●											●		
															●		
															●		
P	●	●			●	●									●		FAC+
															●		FACU
															●		
													●	●			OBL
													●	●			OBL
													●		●		FACW+
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3.10

HERBACEOUS FORBS (Table continues across on page 3.10-28 →)

Latin name	Common name	Mature height	FLOWERS																
			Showy	Color	Notes	J	F	M	A	M	J	J	A	S	O	N	D		
<i>Lystichum americanum</i>	Skunk Cabbage	1'-5'	●	Yellow	Small greenish-yellow flowers on fleshy spike are hooded by large showy yellow bract		■	■	■										
<i>Madia sativa</i>	Chile Tarweed																		
<i>Madia glomerata</i>	Cluster Tarweed	2"-10"		Yellow	Yellow ray and disk flowers in small clusters							■	■						
<i>Madia gracilis</i>	Slender Tarweed											■	■						
<i>Maianthemum dilatatum</i>	False Lily-of-the-valley	4"-16"	●	White	Small, 4-part flowers in terminal cylindrical cluster					■	■	■							
<i>Marah oreganus</i>	Manroot																		
<i>Mentha arvensis var. glabrata</i>	Field Mint	8"-36"	●	White Pink Purple	Tight clusters of small, 1/4" cup-shaped flowers, pinkish-lavender, sometimes whitish							■	■						
<i>Menyanthes trifoliata</i>	Buckbean																		
<i>Mertensia platyphylla</i>	Western Bluebells																		
<i>Mimulus alsinoides</i>	Chickweed Monkey-flower																		
<i>Mimulus guttatus</i>	Yellow Monkey-flower	3"-30"	●	Yellow	Yellow, sometimes with dots of brown or purple; 2-lipped tubular, large 1"-1.5", resemble snap-dragons				■	■	■	■	■	■	■				

KEY

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P	●	●	●		●	●	●			●	●						OBL
														●			
A	●			●											●		FACU+
	●	●		●										●	●		
P		●	●		●	●						●	●				FAC
													●	●			
P	●	●			●	●						●					FACW-
											●				●		OBL
												●	●				
											●	●				●	OBL
A	●	●			●	●					●	●			●	●	OBL

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3.10 HERBACEOUS FORBS (Table continues across on page 3.10–30 →)

Latin name	Common name	Mature height	FLOWERS														
			Showy	Color	Notes	J	F	M	A	M	J	J	A	S	O	N	D
<i>Mimulus moschatus</i>	Musk-flower	3"–10"		Yellow	Yellow, funnel-like, with dark lines or spots, 3/4" long						■	■	■	■			
<i>Mitella caulescens</i>	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				■	■							
<i>Mitella pentandra</i>	Five-stamened Mitrewort	8"–16"	●	Green	Small, saucer-shaped, blossoming upward, petals dissected into thread-like segments						■	■					
<i>Moehringia macrophylla</i>	Bigleaf Sandwort																
<i>Monotropa uniflora</i>	Indian-pipe																
<i>Montia dichotoma</i>	Dwarf Montia																
<i>Montia diffusa</i>	Branching Montia																
<i>Montia fontana</i>	Water Chickweed																
<i>Montia linearis</i>	Narrow-leaved Montia																
<i>Montia parvifolia</i>	Streambank Springbeauty	4"–12"	●	White Pink	Small, 5-petalled white or pink with pink veins. Mall open cluster 3–8 on top of stem					■	■	■					
<i>Montia sibirica</i>	Candy Flower	4"–16"	●	White Pink	5-Petalled, on stalks, many cluster of 1–3					■	■	■	■				

KEY

● **SHOWY**

Flowers are visible at some point during the year

LIFE CYCLE

A Annual

B Biennial

EP Evergreen perennial

P Perennial

X **T/E** 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					T/E	HABITAT TYPE							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+
P		●	●		●	●							●	●		●	
P		●	●		●	●							●	●		●	FAC
												●	●				
												●					FACU
											●				●	●	FAC
									X			●					
											●	●			●	●	OBL
												●			●	●	
P	●	●			●						●	●				●	FACW-
A		●	●		●							●	●	●	●	●	FACW

● **HABITAT TYPE**

- 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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● **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
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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 FORBS (Table continues across on page 3.10–32 →)

Latin name	Common name	Mature height	FLOWERS																
			Showy	Color	Notes	J	F	M	A	M	J	J	A	S	O	N	D		
<i>Myosotis laxa</i>	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							■	■	■	■				
<i>Navarretia intertexta</i>	Needle-Leaf Navarretia											■	■	■	■				
<i>Navarretia tagetina</i>	Northern Navarretia											■	■	■	■				
<i>Navarretia squarrosa</i>	Skunkweed																		
<i>Nemophila menziesii</i>	Baby Blue-eyes	6"–10"	●	White Blue	White 5-petaled flowers with blue veins				■	■	■								
<i>Nemophila parviflora</i>	Small-flowered Nemophila																		
<i>Nemophila pedunculata</i>	Spreading Nemophila																		
<i>Nothochelone nemorosa</i>	Turtle Head	16"–30"	●	Pink Blue Purple	1"–1.25" long tubular, pinkish-purple to bluish purple, glandular hairy on outside								■	■					
<i>Oenante sarmentosa</i>	Pacific Water-parsley	1'–3'	●	White	Tiny white flowers in umbels, 5–20 compact clusters							■	■						
<i>Oenothera biennis</i>	Evening Primrose	2'–4'	●	Yellow	Flowers open in evening-fragrant-showy, golden yellow, purplish pink buds								■	■	■				

KEY

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Life cycle	LIGHT			MOISTURE					T/E	HABITAT TYPE							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	●	●			●	●	●			●	●						OBL
	●	●			●	●	●			●					●		
	●	●								●							
															●		
A	●	●			●							●	●				
												●	●				
	●	●			●	●	●			●	●						
P		●	●	●	●							●				●	
P	●	●				●	●	●		●	●						OBL
B	●			●	●										●		FACU

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3.10 HERBACEOUS FORBS (Table continues across on page 3.10-34 →)

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

KEY

● **SHOWY**

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Life cycle	LIGHT			MOISTURE					T/E	HABITAT TYPE							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+
																	●	FACU
																●		FACU-
P		●	●	●	●								●	●				
P		●	●		●													
P		●	●		●													
												●	●	●		●		FAC+
P	●	●		●	●							●						
P	●	●		●													●	
P	●	●			●						●					●	●	FACU

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3.10

HERBACEOUS FORBS (Table continues across on page 3.10–36 →)

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

KEY

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Flowers are visible at some point during the year

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Life cycle	LIGHT			MOISTURE					T/E	HABITAT TYPE							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

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3.10

HERBACEOUS FORBS (Table continues across on page 3.10–38 →)

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

KEY

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Life cycle	LIGHT			MOISTURE					T/E	HABITAT TYPE							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

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3.10

HERBACEOUS FORBS (Table continues across on page 3.10–40 →)

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

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P	●	●			●						●			●	●		FAC
											●	●			●		FACW-
											●	●					FACW
											●	●					OBL
												●			●		FAC
									X		●	●			●		OBL
P	●	●		●	●							●	●	●	●	●	FACU
															●		FAC
P	●				●	●					●				●		FACW+
	●	●			●	●					●						
															●		
															●		FACU+
P	●	●				●	●	●			●						OBL
A	●	●		●	●	●									●		

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3.10

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

KEY

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SEAS WET tolerates seasonally wet conditions

PERNL WET tolerates perennially wet conditions

SUB tolerates submerged conditions

Life cycle	LIGHT			MOISTURE					T/E	HABITAT TYPE							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	●	●			●										●	●	NI
													●				●
															●	●	FAC
	●	●			●	●											●
P	●	●			●	●											
EP	●	●		●	●												●

● **HABITAT TYPE**

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

Life cycle	LIGHT			MOISTURE					T/E	HABITAT TYPE							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-
P	●			●													●	FACU
										●							●	FACW
										●	●							FACW
										●	●						●	FACW

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3.10

HERBACEOUS FORBS (Table continues across on page 3.10-46 →)

Latin name	Common name	Mature height	FLOWERS															
			Showy	Color	Notes	J	F	M	A	M	J	J	A	S	O	N	D	
<i>Stachys palustris</i> <i>var. pilosa</i>	Swamp Hedge-nettle																	
<i>Stellaria crispa</i>	Crisped Starwort																	
<i>Streptopus amplexifolius</i>	Clasping-leaved Twisted-stalk	18"-36"		White	Greenish-white, bell-shaped													
<i>Sullivantia oregana</i>	Sullivantia																	
<i>Synthyris reniformis</i>	Snow Queen	2"-6"		Blue Purple	Blue-violet, bell-shaped													
<i>Tellima grandiflora</i>	Fringecup	1'-2'	●	White Green	Greenish-white to reddish; small frilly petals, 5-10 lobes; arranged in linear raceme				■	■	■							
<i>Teucrium canadense</i> <i>var. occidentale</i>	Wood Sage																	
<i>Thalictrum occidentale</i>	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				■	■	■	■						
<i>Tiarella trifoliata</i>	Laceflower	8"-16"	●	White	Tiny, delicate, white or pinkish nodding flowers on slender branching stems						■	■	■	■				
<i>Tiarella trifoliata</i> <i>v. unifoliata</i>	Trefoil Tiarella										■	■	■	■				

KEY

● **SHOWY**

Flowers are visible at some point during the year

LIFE CYCLE

A Annual

B Biennial

EP Evergreen perennial

P Perennial

X **T/E** 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

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SEAS WET tolerates seasonally wet conditions

PERNL WET tolerates perennially wet conditions

SUB tolerates submerged conditions

Life cycle	LIGHT			MOISTURE					T/E	HABITAT TYPE							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+
											●					●		FAC+
	P		●	●		●						●	●	●				FAC-
									X			●					●	
	P		●			●							●	●	●			
	P		●	●	●	●							●	●				
											●	●						FAC+
	P		●	●		●										●		FACU
	P		●	●		●							●	●	●			FAC-
				●	●	●							●	●	●			

● **HABITAT TYPE**

- WETLAND** all forms of wetlands
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3.10

HERBACEOUS FORBS (Table continues across on page 3.10-48 →)

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

KEY

● **SHOWY**

Flowers are visible at some point during the year

LIFE CYCLE

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

X **T/E** State or federally listed as Threatened or Endangered

● **LIGHT**

- FULL SUN** tolerates unshaded full exposure
- PARTIAL SUN** tolerates some sun and shade
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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					T/E	HABITAT TYPE							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
		●	●	●	●	●	●					●	●					

● **HABITAT TYPE**

- WETLAND** all forms of wetlands
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3.10

HERBACEOUS FORBS (Table continues across on page 3.10-50 →)

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

KEY

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Life cycle	LIGHT			MOISTURE					T/E	HABITAT TYPE							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		●		●	●											●		

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3.10

HERBACEOUS FORBS (Table continues across on page 3.10-52 →)

Latin name	Common name	Mature height	FLOWERS																			
			Showy	Color	Notes	J	F	M	A	M	J	J	A	S	O	N	D					
<i>Viola adunca</i>	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							■	■	■								
<i>Viola glabella</i>	Stream Violet	4"-9"	●	Yellow	Small flowers, 3 lower petals with purple lines; flowers grow from upper leaf axils							■	■	■	■							
<i>Viola hallii</i>	Hall's Violet	4"-6"	●	White Yellow Purple	Upper petals purple or blue, lower petals yellow or cream								■	■	■							
<i>Viola howellii</i>	Howell's Violet																					
<i>Viola palustris</i>	Marsh Violet																					
<i>Viola praemorsa v. praemorsa</i>	Canary Violet																					
<i>Viola sempervirens</i>	Evergreen Violet	2"-5"	●	Yellow	Pale yellow, lower 3 petals with purple lines							■	■	■								
<i>Whipplea modesta</i>	Yerba de Selva																					
<i>Xanthium spinosum</i>	Spiny Cocklebur																					
<i>Xanthium strumarium</i>	Common Cocklebur																					

KEY

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Life cycle	LIGHT			MOISTURE					T/E	HABITAT TYPE							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

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3.11 HERBACEOUS GRASSES (Table continues across on page 3.11-2 →)

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

KEY

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	MOISTURE					T/E	HABITAT TYPE							Wetland indicator status
	Dry	Moist	Seas wet	Pernl wet	Sub		Wetland	Riparian	Forest	Forest slope	Thicket	Grass land	Rocky	
●												●	●	
●												●	●	
		●	●	●			●	●						
		●	●	●			●	●						
		●	●	●			●							OBL
		●	●	●			●							OBL
●	●							●	●			●		
								●	●			●		
●	●											●		UPL
							●	●	●			●		FACW
●	●							●				●	●	FACU
		●	●	●			●							FACW
			●									●	●	FACW
●	●	●	●				●	●						FACW
							●	●						FACW
●	●								●	●	●	●	●	FACU
●	●								●	●	●	●		
●											●	●	●	FAC
●									●	●		●		
●	●								●	●				
●	●								●	●				FACU+

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3.11 HERBACEOUS GRASSES (Table continues across on page 3.11-4 →)

Latin name	Common name	Mature height	Life cycle	LIGHT		
				Full sun	Part sun	Full shade
<i>Festuca subuliflora</i>	Coast Range Fescue-grass	20"-40"		●	●	●
<i>Glyceria elata</i>	Fowl Mannagrass	3'-4'	P	●	●	●
<i>Glyceria occidentalis</i>	NW Mannagrass	2'-3'	P	●	●	
<i>Hordeum brachyantherum</i>	Meadow Barley	1'-3'	P	●		
<i>Koeleria macrantha</i>	Junegrass			●		
<i>Leersia oryzoides</i>	Rice Cutgrass			●	●	
<i>Luzula campestris var. congesta</i>	Field Woodrush	4"-24"	P	●	●	
<i>Luzula parviflora</i>	Small-flowered Woodrush					
<i>Melica bulbosa</i>	Oniongrass	12"-30"	P	●		
<i>Melica geyeri</i>	Geyer's Oniongrass	12"-40"	P	●	●	
<i>Melica subulata</i>	Alaska Oniongrass	12"-40"	P	●	●	
<i>Olysinium douglasii</i>	Grass-Widows			●	●	
<i>Panicum capillare</i>	Old-witch Grass					
<i>Paspalum distichum</i>	Knotgrass					
<i>Poa grayana</i>	Gray's Bluegrass					
<i>Poa howellii</i>	Howell's Bluegrass					
<i>Poa compressa</i>	Canada Bluegrass	8"-16"	A	●	●	
<i>Poa secunda</i>	Pine Bluegrass	18"-36"	P	●	●	
<i>Trisetum cernuum</i>	Nodding Trisetum					

KEY

● **SHOWY**

Flowers are visible at some point during the year

LIFE CYCLE

- A** Annual
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● **LIGHT**

- FULL SUN** tolerates unshaded full exposure
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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

	MOISTURE					T/E	HABITAT TYPE							Wetland indicator status
	Dry	Moist	Seas wet	Pernl wet	Sub		Wetland	Riparian	Forest	Forest slope	Thicket	Grass land	Rocky	
		●						●	●			●		
		●	●	●			●	●						FACW+
		●	●	●	●		●							OBL
		●	●				●	●				●		NI
												●		
			●	●	●		●							
	●	●							●		●	●		NI
									●	●	●			FAC-
	●												●	FACU
	●								●	●				
	●	●							●		●			
	●	●												
							●	●						FACU+
														FACW
								●				●		FACU
												●		
		●							●			●		FACU+
	●									●		●	●	NI
							●	●	●					FACU

● **HABITAT TYPE**

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

3.12 HERBACEOUS SEDGES AND RUSHES (Table continues across on page 3.12-2 →)

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

KEY

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	MOISTURE					T/E	HABITAT TYPE							Wetland indicator status	
	Dry	Moist	Seas wet	Pernl wet	Sub		Wetland	Riparian	Forest	Forest slope	Thicket	Grass land	Rocky		
		●	●				●	●	●						FACW+
		●	●	●			●	●							FACW
			●	●			●								OBL
		●	●				●	●				●			OBL
		●	●				●					●			FACW
		●	●				●	●	●			●			FACW+
			●	●			●	●							OBL
			●				●								OBL
		●					●	●	●	●					FACU
		●	●				●	●	●	●					FAC
			●	●	●		●	●				●			OBL
				●	●		●								OBL
				●	●		●								OBL
	●											●			
			●	●			●					●			FACW
			●	●	●		●								OBL
			●	●			●								
		●	●	●			●								
		●	●	●			●								
		●	●	●			●								
			●	●	●		●	●							

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3.12 HERBACEOUS SEDGES AND RUSHES (Table continues across on page 3.12-4 →)

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

KEY

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	MOISTURE					T/E	HABITAT TYPE							Wetland indicator status
	Dry	Moist	Seas wet	Pernl wet	Sub		Wetland	Riparian	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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3.13 HERBACEOUS FERNS (Table continues across on page 3.13-2 ———>)

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

KEY

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	MOISTURE					T/E	HABITAT TYPE							Wetland indicator status
	Dry	Moist	Seas wet	Pernl wet	Sub		Wetland	Riparian	Forest	Forest slope	Thicket	Grass land	Rocky	
		●						●	●	●			●	FAC
		●	●	●				●	●					FAC
		●	●				●	●	●					FAC+
		●					●	●	●	●	●			FAC
	●	●							●	●	●		●	FACU
	●	●							●				●	
		●	●					●	●	●				
		●							●					FAC
	●												●	
		●	●					●	●	●	●		●	
	●	●							●	●	●			FACU
	●	●							●		●	●		FACU

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3.14

OTHER HERBACEOUS (Table continues across on page 3.14-2 →)

Latin name	Common name	Mature height	Form	FLOWERS																
				Showy	Color	Notes	J	F	M	A	M	J	J	A	S	O	N	D		
<i>Azolla filiculoides</i>	Duckweed	f	a																	
<i>Brasenia schreberi</i>	Water-shield	f	a	●	Purple	Single 1" purple flowers rising on thin stalks above leaf									■	■	■			
<i>Callitriche heterophylla</i>	Different-leaf Water-starwort	f/s	a																	
<i>Cephalanthera austiniiae</i>	Phantom Orchid	10"	m			Cannot be cultivated														
<i>Ceratophyllum demersum</i>	Coontail	s	a																	
<i>Corallorhiza maculata</i>	Pacific Coral-root	12"	m																	
<i>Corallorhiza mertensiana</i>	Coral-root	12"	m																	
<i>Corallorhiza striata</i>	Striped Coral-root	12"	m																	
<i>Elatine triandra</i>	Three-stamen Waterwort	2"	e																	
<i>Howellia aquatilis</i>	Howellia	f/s	a																	
<i>Lemna minor</i>	Water Lentil (duckweed)	f	a																	
<i>Ludwigia palustris</i>	False Loosestrife	6"	e																	
<i>Nuphar luteum ssp. polysepalum</i>	Yellow Water-lily	f	a	●	Yellow	Brilliant yellow or reddish tinged, cup-shaped blossoms, 3-4" wide, floating						■	■	■	■					
<i>Polygonum amphibium var. emersum</i>	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

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Life cycle	LIGHT			MOISTURE					T/E	HABITAT TYPE							Wetland indicator status
	Full sun	Part sun	Full shade	Dry	Moist	Seas. wet	Pernl. wet	Sub		Wetland	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

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3.14 OTHER HERBACEOUS (Table continues across on page 3.14-4 →)

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

KEY

MATURE HEIGHT

Height above water if emergent

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- s** submerged

FORM

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A	●	●				●	●		X	●							OBL
										●							OBL
										●							OBL
												●	●			●	
P	●	●						●	●		●						OBL
											●						OBL
P	●	●					●	●	●		●						OBL

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3. NATIVE PLANTS IN DETAIL



3.15 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.

3.16 GROUND COVERS

Latin name	Common name	Mature height	LIGHT			MOISTURE				
			Full sun	Part sun	Full shade	Dry	Moist	Seas. wet	Pernl. wet	Sub
Forbs										
<i>Achlys triphylla</i>	Vanillaleaf	8"-16"		●	●		●			
<i>Cornus canadensis</i>	Bunchberry	4"-8"		●	●		●			
<i>Fragaria vesca var. bracteata</i>	Wood Strawberry	3"-8"	●	●		●	●			
<i>Fragaria virginiana var. platypetala</i>	Broadpetal Strawberry	2"-5"	●	●		●	●			
<i>Linnaea borealis</i>	Twinflower	4"-7"		●	●	●	●			
<i>Maianthemum dilatatum</i>	False Lily-of-the-valley	4"-16"		●	●		●	●		
<i>Oxalis oregana</i>	Oregon Oxalis	2"-8"		●	●		●			
<i>Petasites frigidus var. palmatus</i>	Sweet Coltsfoot	4"-18"	●	●	●		●	●		
<i>Potentilla glandulosa</i>	Sticky cinquefoil	12"-24"	●	●		●	●			
<i>Sedum oreganum</i>	Oregon Stonecrop	3"-6"	●	●		●	●			
<i>Tellima grandiflora</i>	Fringecup	12"-24"		●	●	●	●			
<i>Tolmiea menziesii</i>	Pig-a-back	12"-30"		●	●		●			
<i>Vancouveria hexandra</i>	White Inside-out Flower	8"-18"		●	●	●	●			
<i>Viola adunca</i>	Early Blue Violet	3"-6"	●	●	●	●	●			
<i>Viola glabella</i>	Stream Violet	4"-9"		●	●		●			
<i>Viola hallii</i>	Hall's Violet	4"-6"	●	●			●			
<i>Viola sempervirens</i>	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
SEAS WET tolerates seasonally wet 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										
<i>Alopecurus geniculatus</i>	Water Foxtail	6"-24"	●				●	●	●	
<i>Beckmannia syzigachne</i>	Slough Grass	36"	●				●	●	●	
<i>Bromus carinatus</i>	California Brome-grass	24"-36"	●			●	●			
<i>Bromus vulgaris</i>	Columbia Brome	24"-48"	●	●	●	●	●			
<i>Deschampsia cespitosa</i>	Tufted hairgrass	18"-48"	●				●	●	●	
<i>Elymus glaucus</i>	Blue Wildrye	24"-48"	●		●	●	●			
<i>Festuca roemerii</i>	Roemer's Fescue	10"-40"	●			●				
<i>Festuca occidentalis</i>	Western Fescue-grass	10"-40"	●		●	●	●			
<i>Festuca subulata</i>	Bearded Fescue-grass	20"-40"	●	●	●	●	●			
<i>Festuca subuliflora</i>	Coast Range Fescue-grass	20"-40"	●	●	●		●			
<i>Glyceria elata</i>	Fowl Mannagrass	36"-48"	●	●	●		●	●	●	
<i>Glyceria occidentalis</i>	NW Mannagrass	24"-36"	●	●			●	●	●	●
<i>Luzula campestris var. congesta</i>	Field Woodrush	4"-24"	●	●		●	●			
<i>Melica bulbosa</i>	Oniongrass	12"-30"	●			●				
<i>Melica geyeri</i>	Geyer's Oniongrass	12"-40"	●	●		●				
<i>Melica subulata</i>	Alaska Oniongrass	12"-40"	●	●	●	●	●			
<i>Poa compressa</i>	Canada Bluegrass	8"-16"	●	●			●			
<i>Poa secunda</i>	Pine Bluegrass	18"-36"	●	●		●				

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										
<i>Carex amplifolia</i>	Big-leaf Sedge	24"-42"	●	●			●	●		
<i>Carex aperta</i>	Columbia Sedge	20"-38"	●	●			●	●	●	
<i>Carex aquatilis var. dives</i>	Sitka Sedge	10"-46"	●	●				●	●	
<i>Carex arcta</i>	Clustered Sedge	8"-30"	●	●				●	●	
<i>Carex athrostachya</i>	Slenderbeaked Sedge	4"-24"	●				●	●		
<i>Carex deweyana</i>	Dewey's Sedge	8"-48"	●	●		●	●			
<i>Carex hedersonii</i>	Henderson's Wood Sedge	12"-40"	●	●				●	●	●
<i>Carex lynbyei var. robusta</i>	Lyngby's Sedge	8"-40"	●	●					●	●
<i>Carex obnupta</i>	Slough Sedge	24"-60"	●	●					●	●
<i>Carex praticola</i>	Meadow Sedge	12"-28"	●	●			●	●	●	
<i>Carex rostrata var. utriculata</i>	Beaked Sedge	12"-60"	●	●					●	●
<i>Carex stipata</i>	Sawbeak Sedge	10"-40"	●	●					●	●
<i>Carex vesicaria</i>	Inflated Sedge	12"-38"	●	●					●	●
<i>Eleocharis acicularis</i>	Needle Spike-rush	4"-8"	●					●	●	●
<i>Eleocharis macrostachya</i>	Creeping Spike-rush	24"-36"	●					●	●	●
<i>Juncus balticus</i>	Baltic Rush	4"-40"	●				●	●	●	●
<i>Juncus bolanderi</i>	Bolander's Rush	6"-24"	●					●	●	●
<i>Juncus effusus</i>	Common Rush	10"-50"	●				●	●	●	●
<i>Juncus ensifolius</i>	Dagger-leaf Rush	6"-24"	●					●	●	●
<i>Juncus tenuis</i>	Slender Rush	6"-28"	●				●	●	●	
<i>Scirpus acutus</i>	Hardstem Bulrush	36"-72"	●	●					●	●
<i>Scirpus americanus</i>	American Bulrush	6"-40"	●	●					●	●
<i>Scirpus microcarpus</i>	Small-fruited Bulrush	24"-48"	●	●					●	●
<i>Scirpus tabernaemont</i>	Softstem Bulrush	36"-108"	●	●					●	●

KEY

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- SEAS WET** tolerates seasonally wet 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
Shrubs										
<i>Arctostaphylos uva-ursi</i>	Kinnikinnick	5"-8"	●			●	●			
<i>Berberis nervosa</i>	Dull Oregongrape	2'	●	●		●	●			
<i>Gaultheria shallon</i>	Salal	12"-60"		●	●	●	●			
<i>Rubus ursinus var. macropetalus</i>	Dewberry	1'-1.5'	●	●	●	●	●	●		
Vines										
<i>Lonicera ciliosa</i>	Trumpet Vine	18'	●			●	●		●	
<i>Lonicera hispidula</i>	Hairy Honeysuckle	15'	●	●	●		●	●		
<i>Marah oreganus</i>	Manroot	12'	●	●			●	●		
<i>Ribes laxiflorum</i>	Western Black Currant	3'-21'	●	●	●	●	●		●	●
<i>Rubus ursinus</i>	Pacific Blackberry	15'-18'		●	●		●	●	●	
<i>Toxicodendron diversilobum</i>	Poison Oak	3'-10'	●	●	●		●	●	●	

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3. NATIVE PLANTS IN DETAIL



3.17 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
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Shrubs

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

WILDLIFE SPECIES KEY

<i>Water Birds (seeds, young plants)</i>	Ducks (many species), Geese (several species)
<i>Upland Birds (buds, fruit, needles, seeds)</i>	Grouse (2 species), Pheasant, Dove, Quail, Pigeon
<i>Song Birds (buds, fruit, needles, seeds)</i>	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)
<i>Medium and Large Mammals (bark, foliage, seeds, fruit)</i>	Bear, Beaver, Coyote, Opossum, Rabbit (2-3 species), Raccoon, Skunk (2 species), Squirrel (3 species)
<i>Small Mammals (bark, fruit, seeds)</i>	Chipmunk, Mice (many species)
<i>Hoofed Mammals (foliage, twigs)</i>	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)							
<i>Canada Bluegrass</i>	<i>Poa compressa</i>	1	3	7	1		
<i>Gray's Bluegrass</i>	<i>Poa grayana</i>	1	3	7	1		
<i>Howell's Bluegrass</i>	<i>Poa howellii</i>	1	3	7	1		
<i>Water Smartweed</i>	<i>Polygonum amphibium</i>	19	1	12	2	1	
<i>Doorweed</i>	<i>Polygonum aviculare</i>	3	3	13	1	2	1
<i>Douglas' Knotweed</i>	<i>Polygonum douglasii</i>	3	3	13	1	2	1
<i>Nuttalls' Knotweed</i>	<i>Polygonum nuttallii</i>	3	3	13	1	2	1
<i>Dotted Smartweed</i>	<i>Polygonum punctatum</i>	19	1	12	2	1	
<i>Sticky Cinquefoil</i>	<i>Potentilla glandulosa</i>	1	2	1	1		
<i>Marsh Cinquefoil</i>	<i>Potentilla palustris</i>	1	2	1	1		
<i>Water-plantain Buttercup</i>	<i>Ranunculus alismaefolius</i>	1	3	1	3	1	
<i>Shore Buttercup</i>	<i>Ranunculus cymbalaria</i>	1	3	1	3	1	
<i>Creeping Buttercup</i>	<i>Ranunculus flammula</i>	1	3	1	3	1	
<i>Straightbeak Buttercup</i>	<i>Ranunculus orthorhyncus</i>	1	3	1	3	1	
<i>Pennsylvania Buttercup</i>	<i>Ranunculus pennsylvanicus</i>	1	3	1	3	1	
<i>Bitter Dock</i>	<i>Rumex obtusifolius</i>	1	3	8	1	1	1
<i>Western Dock</i>	<i>Rumex occidentalis</i>	1	3	8	1	1	1
<i>Wapato</i>	<i>Sagittaria latifolia</i>	15					
<i>Hardstem Bulrush</i>	<i>Scirpus acutus</i>	20	1	3			
<i>Pale Great Bulrush</i>	<i>Scirpus heterochaetus</i>	20	1	3	1		
<i>Small-fruited Bulrush</i>	<i>Scirpus microcarpus</i>	20	1	3	1		
<i>Olney's Bulrush</i>	<i>Scirpus olneyi</i>	20	1	3			
<i>Simplestem Bur-reed</i>	<i>Sparganium emersum</i>	11		1			
<i>Lesser Cattail</i>	<i>Typha angustifolia</i>	3	1				
<i>Common Cattail</i>	<i>Typha latifolia</i>	3	1				
<i>Viola species</i>	Violets	3	1	1	1		

WILDLIFE SPECIES KEY

<i>Water Birds (seeds, young plants)</i>	Ducks (many species), Geese (several species)
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<i>Medium and Large Mammals (bark, foliage, seeds, fruit)</i>	Bear, Beaver, Coyote, Opossum, Rabbit (2-3 species), Raccoon, Skunk (2 species), Squirrel (3 species)
<i>Small Mammals (bark, fruit, seeds)</i>	Chipmunk, Mice (many species)
<i>Hoofed Mammals (foliage, twigs)</i>	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 are divided into the following groups:

- Rank A Plants
- Rank B Plants
- Rank C Plants
- Rank D Plants
- Rank W Plants

The following special list is also included:

- Required Eradication List

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 may 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 (*Myriophyllum 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

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 mycorrhizae allow plant roots to access more soil moisture and lack of soil mycorrhizae 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/aQTU3>

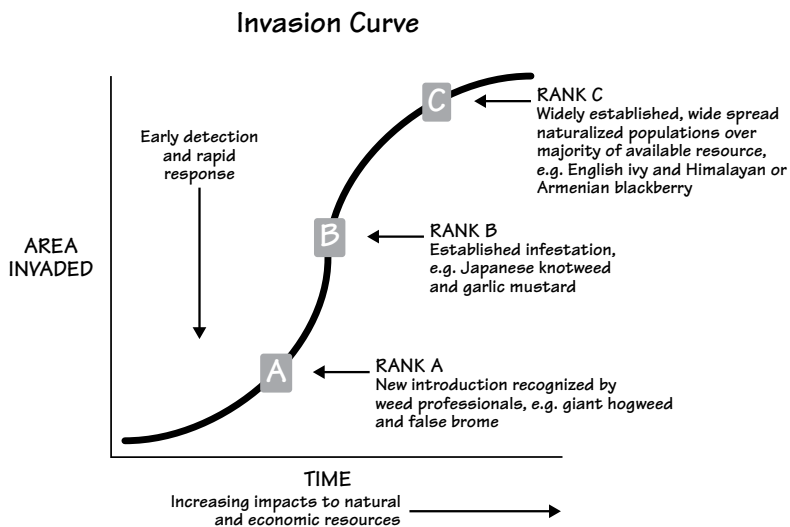
Ranks

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.

ODA Rank — In the required eradication list, the Oregon Department of Agriculture (ODA) ranks for noxious weeds are also included when available, ODA ranks these species as A, limited infestation; B, abundant infestation in some areas of the State; or T, a priority weed targeted by ODA for a statewide management plan. These ranks are included as reference only.

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

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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.

* These plants are also identified on the Required Eradication List

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

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

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

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

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

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

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Scientific Name	Common Name	Rank	Plant Type
Rank W Plants (continued)			
<i>Sasa veitchii</i>	Kuma bamboo	W	Herbaceous
<i>Sorghum halepense</i>	Johnson grass	W	Herbaceous
<i>Solanum sarrachoides</i>	Hairy nightshade	W	Herbaceous
<i>Trifolium hybridum</i>	Alsike clover	W	Herbaceous

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4. NUISANCE PLANTS IN DETAIL



4.2 REQUIRED ERADICATION LIST

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

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

5. Area-Specific Plant Lists

This section includes plant lists adopted for particular areas of the city. These lists are intended to achieve a certain design objective or habitat community, or to prevent incompatible landscaping based on adjacent uses or infrastructure requirements.

The following area-specific plant lists are found in this section:

- **Airport Plant List**

The City of Portland has adopted plant lists that are specific to certain geographic areas. There may be several reasons for these particular plant lists, including public health and safety (such as avoiding conflicts with aircraft operations at Portland International Airport), enhance ecological conditions, or to meet particular design or other purposes. The lists may establish allowed, required, or prohibited plant species depending on the specific objectives for the area.

Historically, these lists have been incorporated into the land use code, either by reference or directly in the zoning code. Consequently, revisions to these lists require a legislative amendment process.

This section of the *Portland Plant List* will eventually incorporate these lists in order to allow updates more readily through an administrative rule-making process.

How To Use These Lists

Each area-specific list is accompanied by a map or description of the location of where the list applies. For additional map detail, contact the Bureau of Planning and Sustainability. These lists are to be used in conjunction with required landscape plans, or mitigation projects where landscaping or plant restoration is required. They also serve as a helpful reference for making planting decisions when not associated with development or required mitigation.

Each list is organized according to meet the particular objectives of the plan area and therefore may not entirely correspond with other area-specific lists or lists in the preceding chapters of this document.

5.1 AIRPORT PLANT LIST

Applies to:

- **Portland International Airport Plan District (Airport Subdistrict only)**
- **Portland International Center/Cascade Station Plan District**

Introduction

Plant selection and spacing is an especially important component of the Airport Plan District. Collisions between birds and aircraft (“bird strikes”) are a significant hazard to both aircraft and birds in and around Portland International Airport (PDX) due to existing natural features and habitats, such as the Columbia Slough. In an effort to reduce this hazard, the approved Airport Plant List provides a selection of plant materials and standards for plant spacing which may be used in the plan district. These plants were selected because they generally do not attract wildlife; they do not provide attractive roosting habitat for species posing a threat to aviation safety, and are generally non-seeding or non-fruiting.

Where these standards apply

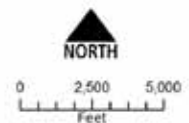
These standards apply to new development and significant redevelopment within the PDX Plan District - Airport Subdistrict and the Cascade Station/Portland International Center Airport Plan District. These standards do NOT apply in environmental overlay zones or to natural resource restoration/enhancement projects.



Areas where Airport Landscaping Standards Apply

Legend

- Areas where Landscaping Standards apply
- Portland International Airport Plan District
- Cascade Station / Portland International Center Plan District
- Airport Runway Structures
- Water Features



October 5, 2009

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Background

The City of Portland and the Port of Portland developed a set of landscaping design standards for use at PDX within the specific Plan District subdistricts that address plant species and planting standards for spacing and arrangement of trees and shrubs. The list of trees, shrubs, and groundcover vegetation is comprised of species screened by PDX Wildlife staff for general wildlife attractant features such as fruit, berries, height, density, branching structure, and crown shape. The list was also screened against the City's Nuisance Plant List to ensure no use of these problem species. The Airport Futures planning process adds a PDX specific list to the *Portland Plant List*, called the Airport Plant List. The current list is based directly on the Port's 2009 Wildlife Hazard Management Plan (WHMP).

Changes to the Airport Plant List

The Airport Plant List is subject to revision based on future updates to the Port's WHMP and approval by the Bureau of Planning & Sustainability through administrative rule-making.

Alternative Plant Selection

Approval of plants not on the Airport Plant List may be considered on a case by case basis, provided such plants are not listed in the Nuisance Plants section of this document. An applicant must submit a request to the Port of Portland in a process that takes 10 business days. A form and instructions for submittal are available on the Port's website www.portofportland.com. When the Port finds that the plant is consistent with the Wildlife Hazard Management Plan, the Port will issue a letter to the applicant. The applicant will need to include this letter in the permit application to the City.

AIRPORT PLANT LIST

	Scientific name	Common name	Type	Max. Height at Maturity	Max. Spread at Maturity
Trees					
Plant at minimum 25' on center	<i>Acer freemanii</i> 'Armstrong'	Armstrong Red Maple	Deciduous	50'–70'	15'
	<i>Calocedrus decurrens</i>	Incense Cedar	Evergreen	75'	15'
	<i>Cedrus deodara</i> 'Aurea'	Aurea Deodar Cedar	Evergreen	10'–25'	6'–10'
	<i>Chamaecyparis obtusa</i> 'Gracilis'	Slender Hinoki Falsecypress	Evergreen	20'	6'
	<i>Cryptomeria japonica</i> 'Elegans'	Japanese Plume Cedar	Evergreen	30'	10'
	<i>Cryptomeria japonica</i> 'Sekkan Sugi'	Golden Japanese Cedar	Evergreen	25'	10'
	<i>Cupressocyparis leylandii</i> 'Golconda'	Gold Leyland Cypress	Evergreen	20'	6'
	<i>Prunus sargentii</i> 'Columnaris'	Columnar Sargent Cherry	Deciduous	35'	15'
	<i>Zelkova serrata</i> 'Musashino'	Musashino Zelkova	Deciduous	45'	15'
Plant at minimum 40' on center	<i>Acer buergerianum</i>	Trident Maple	Deciduous	25'–35'	20'–30'
	<i>Acer circinatum</i>	Vine Maple	Deciduous	10'–20'	20'
	<i>Acer ginnala</i>	Amur Maple	Deciduous	10'–20'	20'
	<i>Acer griseum</i>	Paperbark Maple	Deciduous	20'–30'	25'
	<i>Acer palmatum</i>	Japanese Maple	Deciduous	15'–25'	10'–25'
	<i>Fagus sylvatica</i> 'Tricolor'	Tricolor European Beech	Deciduous	20'–30'	10'–20'
	<i>Ginkgo biloba</i>	Ginkgo (males only)	Deciduous	50' +	30'
	<i>Liquidambar styraciflua</i> 'Rotundiloba'	Rotundiloba Sweetgum	Deciduous	60'–70'	20'–30'
	<i>Magnolia x soulangiana</i>	Saucer Magnolia	Deciduous	15'–20'	15'–25'
	<i>Malus x 'Spring Snow'</i>	Spring Snow Crabapple	Deciduous	25'–30'	15'–20'
	<i>Metasequoia glyptostroboides</i>	Dawn Redwood (height restricted)	Deciduous	70'–100'	15'–25'
	<i>Oxydendrum arboreum</i>	Sourwood	Deciduous	25'–60'	10'–25'
	<i>Parrotia persica</i>	Persian Parrotia	Deciduous	40'	25'
	<i>Pinus ponderosa</i>	Ponderosa Pine (height restricted)	Evergreen	60'–10'0'	25'–30'
	<i>Prunus serrulata</i> 'Shirotae'	Mt Fuji Cherry	Deciduous	12'–15'	20'
	<i>Pyrus calleryana</i> 'Cleveland Select'	Cleveland Select Flowering Pear	Deciduous	30'–35'	15'–20'
	<i>Acer rubrum</i> var.	Red Maple	Deciduous	60'–75'	30'–50'
	<i>Carpinus betulus</i>	European Hornbeam	Deciduous	40'–60'	30'–40'
	<i>Fraxinus americana</i> 'Autumn Purple'	Autumn Purple Ash	Deciduous	45'–60'	35'–50'
	<i>Fraxinus pennsylvanica</i>	Green Ash (seedless varieties only)	Deciduous	50'	40'
	<i>Gleditsia tricanthos</i> var. <i>inermis</i>	Thornless Honeylocust	Deciduous	30'–70'	30'–40'
	<i>Platanus x acerifolia</i>	London Planetree (height restricted)	Deciduous	70'–100'	60'–75'
	<i>Quercus coccinea</i>	Scarlet Oak	Deciduous	75'	45'
	<i>Tillia americana</i>	American Linden	Deciduous	60'–80'	30'–50'
	<i>Tillia chordata</i>	Littleleaf Linden	Deciduous	60'–70'	25'–40'

Scientific name	Common name	Type	Max. Height at Maturity	Max. Spread at Maturity
Shrubs				
<i>Acer freemanii</i> 'Armstrong'	Armstrong Red Maple	Deciduous	50'–70'	15'
<i>Abelia x grandiflora</i> 'Prostrata'	Prostrate Glossy Abelia	Evergreen	1.5–2'	4–5'
<i>Berberis thunbergii</i> var. <i>atropurpurea</i> 'Crimson Pygmy'	Crimson Pygmy Japanese Barberry	Deciduous	2'	3'
<i>Berberis thunbergii</i> 'Kobold'	Kobold Japanese Barberry	Deciduous	2–2.5'	2–2.5'
<i>Buxus sempervirens</i> 'Suffruticosa'	English Boxwood	Evergreen	4–5'	2–4'
<i>Ceanothus thyrsiflorus</i>	Blue Blossom	Evergreen	4–12'	Variable
<i>Chamaecyparis obtusa</i> 'Nana Lutea'	Nana Lutea Hinoki Falsecypress	Evergreen	6'	4'
<i>Cistus</i> spp.	Rockrose species	Evergreen	Variable	Variable
<i>Clematis armandii</i>	Evergreen Clematis	Evergreen	20'	Variable
<i>Corylopsis glabrescens</i>	Fragrant Winterhazel	Deciduous	8–15'	8–15'
<i>Cotinus coggygria</i>	Common Smoketree	Deciduous	10–15'	10–15'
<i>Daphne</i> spp.	Daphne	Evergreen	3–4'	2–3'
<i>Enkianthus campanulatus</i>	Redvien Enkianthus	Deciduous	6–8'	4–6'
<i>Erica</i> spp.	Heath	Evergreen	1–2'	1–2'
<i>Euonymus alatus</i> 'Compactus'	Compact Winged Burning Bush	Deciduous	8–10'	9–11'
<i>Euonymus fortunei</i>	Wintercreeper Euonymus	Evergreen	1–3'	2–4'
<i>Forsythia</i> spp.	Forsythia	Deciduous	8–10'	10–12'
<i>Hamamelis x intermedia</i> 'Diane'	Diane Witchhazel	Deciduous	8–12'	10–15'
<i>Hydrangea macrophylla</i>	Bigleaf Hydrangea var.	Deciduous	4–6'	4–6'
<i>Kerria japonica</i>	Japanese Kerria	Deciduous	4–8'	6–9'
<i>Leucothoe fontanesiana</i>	Drooping leucothoe	Evergreen	3–6'	3–6'
<i>Nandina domestica</i> 'Gulf Stream'	Gulf Stream False Bamboo	Evergreen	2.5–3.5'	3'
<i>Potentilla fruticosa</i>	Bush Cinquefoil	Deciduous	2–4'	2–4'
<i>Rhododendron griffithianum</i> 'Jean Marie'	Honorable Jean Marie Rhododendron	Evergreen	5–6'	5–6'
<i>Rhododendron macrophyllum</i>	Western Rhododendron	Evergreen	6–12'	
<i>Rhododendron</i> spp. P.J.M.	P.J.M. Rhododendron	Evergreen	3–6'	6'
<i>Rhus typhina</i> 'Laciniata'	Laceleaf Staghorn Sumac	Deciduous	10–20'	10–20'
<i>Rosa gymnocarpa</i>	Little Wood Rose	Deciduous	6'	2–4'
<i>Rosa nutkana</i>	Nootka Rose	Deciduous	3–6'	6'
<i>Salix purpurea</i> 'Nana'	Dwarf Alaskan Blue Willow	Deciduous	5'	3–5'
<i>Spiraea douglasii</i>	Douglas Spiraea	Deciduous	3–7'	3–7'
<i>Taxus baccata</i> 'Repandens'	Spreading English Yew	Evergreen	2–4'	12–15'
<i>Taxus baccata</i> 'Standishii'	Standishii Yew	Evergreen	7'	3'

Scientific name	Common name	Type	Max. Height at Maturity	Max. Spread at Maturity
Groundcovers				
<i>Arctostaphylos uva-ursi</i> (cultivars)	Kinnikinnick	Evergreen	.5-1.5'	3-6'
<i>Genista pilosa</i>	Silkyleaf Broom	Deciduous	1-1.5'	2-3'
<i>Hemerocallis hybrid</i>	Day Lily	Deciduous	1-3'	
<i>Iberis sempervirens</i>	Evergreen Candytuft	Evergreen	1-2'	3-4'
<i>Liriope muscari</i>	Lily Turf	Evergreen	1-2'	.5-1'
<i>Mahonia nervosa</i>	Dwarf Oregon Grape	Evergreen	2'	
<i>Mahonia repens</i>	Creeping Mahonia	Evergreen	2'	3'
<i>Pachysandra terminalis</i>	Japanese Spurge	Evergreen	1'	2'
<i>Paxistima canbyi</i>	Canby Paxistima	Evergreen	1-1.5'	
<i>Sedum spp.</i>	Sedum	Deciduous		

Grasses and Sedges

<i>Bromus vulgaris</i>	Columbia Brome			
<i>Calamagrostis x acutifolia</i> 'Overdam'	Overdam Feather Reed Grass		2.5-3'	1.5-2'
<i>Carex morrowii</i> 'Evergold'	Evergold Japanese Sedge			
<i>Carex tumulicola</i>	Splitawn Sedge			
<i>Danthonia californica</i>	California Oatgrass		2'	

6. 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

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

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

West Multnomah Soil and Water Conservation District

www.wmswcd.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*.

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<i>Draba verna</i>	Spring Whitlow-grass	Forbe	2.7–4, 3.10–13
<i>Dryopteris arguta</i>	Wood Fern	Fern	2.1–5, 2.2–4, 2.8b–1, 3.13–1
<i>Dryopteris expansa</i>	Spreading Wood Fern	Fern	2.1–5, 3.13–1
<i>Echinochloa crusgalli</i>	Large Barnyard-grass	Grass	3.11–1
<i>Elatine triandra</i>	Three-stamen Waterwort	Other	3.14–1
<i>Eleocharis macrostachya</i>	Creeping Spikerush	Sedge/Rush	2.5–2, 2.6–2, 3.12–3, 3.16–3
<i>Eleocharis obtusa</i> v. <i>obtusa</i>	Ovate Spikerush	Sedge/Rush	2.5–2, 3.12–3
<i>Eleocharis acicularis</i>	Needle Spikerush	Sedge/Rush	2.6–2, 3.12–1, 3.16–3
<i>Elymus glaucus</i>	Blue Wildrye	Grass	2.1–4, 2.3–3, 2.4–1, 2.4–3, 2.5–3, 2.7–2, 2.8a–1, 2.8b–2, 3.11–1, 3.16–2
<i>Elymus glaucus</i> ssp. <i>jepsonii</i>	Jepson's Blue Wildrye	Grass	2.4–1, 2.4–3, 2.7–4, 2.8a–1, 3.11–1
<i>Elymus trachycaulus</i>	Bluebunch Wheatgrass	Grass	2.3–3, 2.7–4, 2.8a–1, 3.10–13, 3.11–1
<i>Epilobium angustifolium</i>	Fireweed	Forbe	2.7–4, 3.10–13
<i>Epilobium ciliatum</i> ssp. <i>glandulosum</i>	Common Willow-weed	Forbe	3.10–13
<i>Epilobium ciliatum</i> ssp. <i>watsonii</i>	Watson's Willow-weed	Forbe	3.10–15
<i>Epilobium paniculatum</i> var. <i>paniculatum</i>	Tall Annual Willow Herb	Forbe	2.7–4, 3.10–15
<i>Equisetum arvense</i>	Common Horsetail	Forbe	2.2–3, 2.4–3, 2.5–2, 3.10–15
<i>Equisetum hyemale</i>	Common Scouring-rush	Forbe	2.2–3, 2.5–2, 3.10–15
<i>Equisetum telemateia</i>	Giant Horsetail	Forbe	3.10–15
<i>Erigeron annuus</i>	Annual Fleabane	Forbe	3.10–15
<i>Erigeron decumbens</i> var. <i>decumbens</i>	Willamette Daisy	Forbe	2.7–5, 3.10–15
<i>Erigeron philadelphicus</i>	Philadelphia Fleabane	Forbe	2.7–5, 3.10–15
<i>Eriogonum</i> cf. <i>nudum</i>	Barestem Buckwheat	Forbe	2.8b–2, 3.10–15, 3.17–3

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<i>Eriophyllum lanatum</i>	Woolly Sunflower	Forbe	2.6-2, 2.7-4, 2.7-6, 3.10-15
<i>Erysium capitatum ssp. capitatum</i>	Prairie Rocket	Forbe	3.10-15
<i>Erythronium oregonum</i>	Giant Fawn-lily	Forbe	2.1-7, 2.3-4, 3.10-15
<i>Eschscholzia californica</i>	Gold Poppy	Forbe	2.7-4, 3.10-17
<i>Euonymus occidentalis</i>	Western Wahoo	Shrub	2.1-3, 2.2-2, 3.8-4, 3.9-1
<i>Festuca californica</i>	California Fescue	Grass	2.7-2, 3.11-1
<i>Festuca occidentalis</i>	Western Fescue-grass	Grass	2.1-6, 2.3-3, 2.4-4, 2.7-2, 3.11-1, 3.16-2, 3.17-3
<i>Festuca roemerii</i>	Roemer's Fescue	Grass	2.7-2, 2.8b-2, 3.11-1, 3.16-2
<i>Festuca subulata</i>	Bearded Fescue-grass	Grass	2.1-6, 2.4-4, 3.11-1, 3.16-2, 3.17-3
<i>Festuca subuliflora</i>	Coast Range Fescue-grass	Grass	2.4-4, 3.11-3, 3.16-2, 3.17-3
<i>Fragaria vesca var. bracteata</i>	Wood Strawberry	Forbe	2.1-6, 2.4-4, 3.10-17, 3.16-1, 3.17-3
<i>Fragaria vesca var. crinita</i>	Wood Strawberry	Forbe	2.4-4, 3.10-17
<i>Fragaria virginiana var. platypetala</i>	Broadpetal Strawberry	Forbe	3.10-17, 3.16-1
<i>Fraxinus latifolia</i>	Oregon Ash	Tree	2.1-2, 2.2-1, 2.4-1, 2.5-1, 3.2-2, 3.3-1, 3.4-1, 3.5-1, 3.17-1
<i>Fritillaria affinis</i>	Checker Lily	Forbe	2.7-2, 2.7-5, 2.8a-2, 2.8b-2, 3.10-17
<i>Galium aparine</i>	Cleavers	Forbe	2.1-4, 2.5-3, 3.10-17
<i>Galium trifidum</i>	Small Bedstraw	Forbe	2.2-3, 2.4-3, 2.5-2, 3.10-17
<i>Galium triflorum</i>	Sweetscented Bedstraw	Forbe	2.1-6, 3.10-17
<i>Gaultheria shallon</i>	Salal	Shrub	2.1-3, 2.2-2, 3.8-4, 3.9-1, 3.16-4, 3.17-2
<i>Gentiana sceptrum</i>	Staff Gentian	Forbe	2.5-3, 2.6-3, 3.10-17
<i>Gentianella amarella ssp. acuta</i>	Northern Gentian	Forbe	3.10-17
<i>Geranium bicknellii</i>	Bicknell's Geranium	Forbe	3.10-17, 3.17-3
<i>Geum macrophyllum</i>	Oregon Avens	Forbe	2.1-6, 2.2-4, 2.4-4, 2.5-3, 3.10-19
<i>Gilia capitata</i>	Bluefield Gilia	Forbe	2.7-4, 2.8a-2, 2.8b-2, 3.10-19
<i>Glyceria elata</i>	Fowl Mannagrass	Grass	2.5-4, 2.6-2, 3.11-3, 3.16-2
<i>Glyceria occidentalis</i>	NW Mannagrass	Grass	2.5-3, 2.6-2, 3.11-3, 3.16-2
<i>Gnaphalium palustre</i>	Marsh Cudweed	Forbe	3.10-19
<i>Goodyera oblongifolia</i>	Giant Rattlesnake-plantain	Forbe	2.1-7, 3.10-19
<i>Griatiola ebracteata</i>	Bractless Hedge-hyssop	Forbe	3.10-19
<i>Grindelia integrifolia</i>	Willamette Valley Gumweed	Forbe	2.5-2, 3.10-19
<i>Gymnocarpium dryopteris</i>	Oak Fern	Fern	2.1-7, 2.2-4, 3.13-1
<i>Habenaria dilatata</i>	White Bog-orchid	Forbe	3.10-19
<i>Heracleum lanatum</i>	Cow-parsnip	Forbe	2.1-6, 2.2-4, 2.4-3, 3.10-19
<i>Heterocodon rariflorum</i>	Heterocodon	Forbe	3.10-19
<i>Heuchera glabra</i>	Smooth Alumroot	Forbe	2.4-4, 2.8b-2, 3.10-19
<i>Heuchera micrantha</i>	Smallflowered Alumroot	Forbe	2.1-6, 2.4-4, 2.8b-2, 3.10-19
<i>Hieracium albiflorum</i>	White-flowered Hawkweed	Forbe	2.1-6, 2.3-3, 2.7-4, 3.10-21
<i>Holodiscus discolor</i>	Ocean-spray	Shrub	2.1-3, 2.3-2, 2.7-1, 3.8-4, 3.9-1, 3.17-2
<i>Hordeum brachyantherum</i>	Meadow Barley	Grass	2.6-2, 3.11-3
<i>Howellia aquatilis</i>	Howellia	Other	3.14-1
<i>Hydrophyllum tenuipes</i>	Pacific Waterleaf	Forbe	2.1-4, 2.2-3, 3.10-21
<i>Hypericum anagaloides</i>	Bog Saint John's Wort	Forbe	3.10-21
<i>Hypericum formosum var. scouleri</i>	Western Saint John's Wort	Forbe	3.10-21
<i>Impatiens capensis</i>	Orange Balsam	Forbe	3.10-21, 4.1-3

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<i>Impatiens ecalcarata</i>	Spurless Balsam	Forbe	3.10–21
<i>Iris tenax</i>	Oregon Iris	Forbe	2.1–6, 2.7–4, 3.10–21
<i>Juncus acuminatus</i>	Tapertip Rush	Sedge/Rush	2.5–3, 3.12–3
<i>Juncus articulatus</i>	Jointed Rush	Sedge/Rush	2.5–3, 3.12–3
<i>Juncus balticus</i>	Baltic Rush	Sedge/Rush	2.6–2, 3.12–3, 3.16–3, 3.17–3
<i>Juncus bolanderi</i>	Bolander's Rush	Sedge/Rush	2.5–4, 2.6–3, 3.12–3, 3.16–3
<i>Juncus bufonius</i>	Toad Rush	Sedge/Rush	3.12–3
<i>Juncus effusus v. pacificus</i>	Soft Rush	Sedge/Rush	2.5–3, 2.6–2, 3.12–3, 3.16–3
<i>Juncus ensifolius</i>	Dagger-leaf Rush	Sedge/Rush	2.4–3, 2.5–3, 2.6–2, 3.12–3, 3.16–3, 3.17–3
<i>Juncus laccatus</i>	Slender Soft Rush	Sedge/Rush	2.5–3, 2.6–2, 3.12–3
<i>Juncus oxymeres</i>	Pointed Rush	Sedge/Rush	3.12–3
<i>Juncus patens</i>	Spreading Rush	Sedge/Rush	2.5–3, 3.12–3
<i>Juncus tenuis</i>	Slender Rush	Sedge/Rush	2.6–2, 3.12–3, 3.16–3
<i>Koeleria macrantha</i>	Junegrass	Grass	2.7–2, 3.11–3
<i>Lathyrus nevadensis</i>	Nevada Peavine	Forbe	2.7–3, 3.10–21
<i>Lathyrus polyphyllus</i>	Leafy-pea	Forbe	2.5–4, 3.10–21
<i>Leersia oryzoides</i>	Rice Cutgrass	Grass	3.11–3
<i>Lemna minor</i>	Water Lentil (duckweed)	Other	3.14–1
<i>Ligusticum apiifolium</i>	Parsley-leaved Lovage	Forbe	2.1–6, 2.3–3, 2.5–3, 2.7–4, 3.10–21
<i>Ligusticum grayii</i>	Gray's Lovage	Forbe	2.1–6, 2.3–3, 3.10–21
<i>Lilium columbianum</i>	Columbia Lily	Forbe	2.1–6, 3.10–21
<i>Limosella aquatica</i>	Mudwort	Forbe	3.10–21
<i>Linanthus bicolor</i>	Bicolored Linanthus	Forbe	2.7–4, 3.10–23
<i>Linaria canadensis var. texana</i>	Wild Toadflax	Forbe	3.10–23
<i>Lindernia dubia</i>	Common False-pimpernel	Forbe	2.5–4, 3.10–23
<i>Lindernia dubia var. anagallidea</i>	Slender False-pimpernel	Forbe	2.5–4, 3.10–23
<i>Linnaea borealis</i>	Twinflower	Forbe	2.1–4, 3.10–23, 3.16–1
<i>Listera caurina</i>	Western Twayblade	Forbe	3.10–23
<i>Listera cordata</i>	Heart-leaved Listera	Forbe	3.10–23
<i>Lithophragma parviflorum</i>	Small-flowered Prairiestar	Forbe	2.7–3, 3.10–23
<i>Lomatium utriculatum</i>	Common Lomatium	Forbe	2.7–4, 2.8a–2, 3.10–23
<i>Lonicera ciliosa</i>	Trumpet Vine	Forbe	2.1–7, 3.10–23, 3.16–4
<i>Lonicera hispidula</i>	Hairy Honeysuckle	Shrub	2.1–3, 2.3–2, 3.8–5, 3.9–1, 3.16–4
<i>Lonicera involucrata</i>	Black Twinberry	Shrub	2.1–3, 2.2–2, 2.5–2, 3.8–5, 3.9–1, 3.17–2
<i>Lotus denticulatus</i>	Meadow Lotus	Forbe	2.7–4, 3.10–23
<i>Lotus formosissimus</i>	Seaside Lotus	Forbe	3.10–23, 3.17–3
<i>Lotus micranthus</i>	Small-flowered Deervetch	Forbe	2.7–4, 3.10–23
<i>Lotus purshiana</i>	Spanish Clover	Forbe	2.7–4, 2.8a–2, 2.8b–2, 3.10–23, 3.17–3
<i>Ludwigia palustris</i>	False Loosestrife	Other	3.14–1
<i>Lupinus bicolor</i>	Two-color Lupine	Forbe	2.7–4, 3.10–25, 3.17–3
<i>Lupinus latifolius</i>	Broadleaf Lupine	Forbe	2.1–6, 3.10–25
<i>Lupinus laxiflorus</i>	Spurred Lupine	Forbe	2.3–4, 2.7–4, 3.10–25
<i>Lupinus lepidus</i>	Prairie Lupine	Forbe	3.10–25, 3.17–3
<i>Lupinus micranthus</i>	Field Lupine	Forbe	2.7–4, 3.10–25, 3.17–3
<i>Lupinus microcarpus</i>	Chick Lupine	Forbe	2.7–4, 3.10–25, 3.17–3
<i>Lupinus polyphyllus</i>	Large-leaved Lupine	Forbe	3.10–25
<i>Lupinus rivularis</i>	Stream Lupine	Forbe	2.4–4, 2.7–4, 3.10–25, 3.17–3
<i>Lupinus sulphureus</i>	Sulphur Lupine	Forbe	2.7–4, 3.10–25, 3.17–3

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<i>Luzula campestris</i> var. <i>congesta</i>	Field Woodrush	Grass	2.1–6, 2.5–3, 2.7–3, 3.11–3, 3.16–2
<i>Luzula parviflora</i>	Small-flowered Woodrush	Grass	2.1–6, 2.5–4, 3.11–3
<i>Lycopus americanus</i>	Cut-leaved Bugleweed	Forbe	3.10–25
<i>Lycopus uniflorus</i>	Northern Bugleweed	Forbe	3.10–25
<i>Lysimachia ciliata</i>	Fringed Loosestrife	Forbe	3.10–25
<i>Lysimachia thyrsoiflora</i>	Tufted Loosestrife	Forbe	3.10–25
<i>Lystichum americanum</i>	Skunk Cabbage	Forbe	3.10–27
<i>Madia glomerata</i>	Cluster Tarweed	Forbe	3.10–27
<i>Madia gracilis</i>	Slender Tarweed	Forbe	2.7–3, 3.10–27
<i>Madia sativa</i>	Chile Tarweed	Forbe	2.7–5, 3.10–27
<i>Mahonia</i> (see <i>Berberis</i>)		Shrub	3.9–1, 5.1–5
<i>Maianthemum dilatatum</i>	False Lily-of-the-valley	Forbe	2.1–6, 2.2–4, 3.10–27, 3.16–1
<i>Malus fusca</i>	Western Crabapple	Arb. Shrub	2.1–3, 2.4–2, 2.5–1, 3.4–2, 3.6–1, 3.7–1, 3.17–1
<i>Marah oreganus</i>	Manroot	Forbe	2.5–3, 2.7–4, 3.10–27, 3.16–4
<i>Melica bulbosa</i>	Oniongrass	Grass	2.8b–2, 3.11–3, 3.16–2
<i>Melica geyeri</i>	Geyer's Oniongrass	Grass	3.11–3, 3.16–2
<i>Melica subulata</i>	Alaska Oniongrass	Grass	2.3–3, 2.5–4, 2.7–4, 3.11–3, 3.16–2
<i>Mentha arvensis</i> var. <i>glabrata</i>	Field Mint	Forbe	3.10–27
<i>Menyanthes trifoliata</i>	Buckbean	Forbe	3.10–27
<i>Mertensia platyphylla</i>	Western Bluebells	Forbe	2.1–6, 2.4–4, 3.10–27
<i>Mimulus alsinoides</i>	Chickweed Monkey-flower	Forbe	2.8b–2, 3.10–27
<i>Mimulus guttatus</i>	Yellow Monkey-flower	Forbe	2.5–3, 2.6–3, 2.8b–2, 3.10–27
<i>Mimulus moschatus</i>	Musk-flower	Forbe	3.10–29
<i>Mitella caulescens</i>	Leafy Mitrewort	Forbe	2.1–6, 2.2–4, 3.10–29
<i>Mitella pentandra</i>	Five-stamened Mitrewort	Forbe	2.1–6, 2.2–4, 2.4–4, 3.10–29
<i>Moehringia macrophylla</i>	Bigleaf Sandwort	Forbe	3.10–29
<i>Monotropa uniflora</i>	Indian-pipe	Forbe	2.1–6, 3.10–29
<i>Montia dichotoma</i>	Dwarf Montia	Forbe	2.7–4, 2.8a–2, 2.8b–2, 3.10–29
<i>Montia diffusa</i>	Branching Montia	Forbe	3.10–29
<i>Montia fontana</i>	Water Chickweed	Forbe	3.10–29
<i>Montia linearis</i>	Narrow-leaved Montia	Forbe	2.6–3, 2.7–4, 2.8a–2, 2.8b–2, 3.10–29
<i>Montia parvifolia</i>	Streambank Springbeauty	Forbe	2.1–6, 2.8b–2, 3.10–29
<i>Montia sibirica</i>	Candy Flower	Forbe	2.1–4, 2.2–4, 2.4–3, 3.10–29
<i>Myosotis laxa</i>	Small-flowered Forget-me-not	Forbe	2.2–4, 2.6–3, 3.10–31
<i>Navarretia intertexta</i>	Needle-Leaf Navarretia	Forbe	2.5–3, 3.10–31
<i>Navarretia squarrosa</i>	Skunkweed	Forbe	2.7–4, 3.10–31
<i>Navarretia tagetina</i>	Northern Navarretia	Forbe	2.7–3, 3.10–31
<i>Nemophila menziesii</i>	Baby Blue-eyes	Forbe	2.1–6, 2.7–4, 3.10–31
<i>Nemophila parviflora</i>	Small-flowered Nemophila	Forbe	3.10–31
<i>Nemophila pedunculata</i>	Spreading Nemophila	Forbe	2.5–3, 3.10–31
<i>Nothochelone nemorosa</i>	Turtle Head	Forbe	2.1–7, 2.2–4, 2.8b–2, 3.10–31
<i>Nuphar luteum</i> ssp. <i>polysepalum</i>	Yellow Water-lily	Other	2.6–3, 3.14–1
<i>Oemleria cerasiformis</i>	Indian Plum	Shrub	2.1–3, 2.2–2, 2.3–2, 2.4–2, 3.9–1, 3.17–2
<i>Oenanthe sarmentosa</i>	Pacific Water-parsley	Forbe	2.2–4, 2.5–3, 2.6–2, 3.10–31
<i>Oenothera biennis</i>	Evening Primrose	Forbe	2.7–4, 3.10–31
<i>Olsynium douglasii</i>	Grass-Widows	Grass	2.3–3, 3.11–3
<i>Oplopanax horridus</i>	Devil's Club	Forbe	2.1–6, 2.2–4, 2.4–4, 2.5–4, 3.10–33

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<i>Orobanche uniflora</i>	Naked Broomrape	Forbe	2.8b-2, 3.10-33
<i>Orthocarpus hispidus</i>	Hairy Owl-Clover	Forbe	2.7-4, 3.10-33
<i>Osmorhiza chilensis</i>	Mountain Sweet-root	Forbe	2.1-6, 2.3-3, 3.10-33
<i>Oxalis oregana</i>	Oregon Oxalis	Forbe	2.1-4, 3.10-33, 3.16-1
<i>Oxalis suksdorfii</i>	Western Yellow Oxalis	Forbe	3.10-33
<i>Oxalis trilliifolia</i>	Trillium-leaved Wood-sorrel	Forbe	2.4-4, 3.10-33, 3.17-3
<i>Panicum capillare</i>	Old-witch Grass	Grass	3.11-3
<i>Paspalum distichum</i>	Knotgrass	Grass	3.11-3
<i>Penstemon ovatus</i>	Broad-leaved Penstemon	Forbe	3.10-33
<i>Penstemon richardsonii</i>	Cut-leaved Penstemon	Forbe	2.7-5, 2.8a-2, 3.10-33
<i>Penstemon serrulatus</i>	Cascade Penstemon	Forbe	2.8b-2, 3.10-33
<i>Pentagramma triangularis</i>	Gold-back Fern	Fern	2.3-4, 2.7-5, 2.8a-2, 3.13-1
<i>Petasites frigidus var. palmatus</i>	Sweet Coltsfoot	Forbe	2.1-4, 2.2-3, 2.4-4, 2.5-4, 3.10-35, 3.16-1
<i>Phacelia nemoralis</i>	Shade Phacelia	Forbe	3.10-35
<i>Philadelphus lewisii</i>	Mockorange	Shrub	2.1-3, 2.3-2, 3.8-6, 3.9-1
<i>Phlox gracilis</i>	Microsteris	Forbe	2.7-5, 2.8a-2, 3.10-35
<i>Physocarpus capitatus</i>	Pacific Ninebark	Shrub	2.1-3, 2.2-2, 2.4-2, 2.5-2, 3.8-6, 3.9-1, 3.17-2
<i>Pinus ponderosa</i>	Ponderosa Pine	Tree	2.1-2, 2.3-1, 2.7-1, 3.1-1, 3.3-1, 3.4-1, 3.5-1, 5.1-3
<i>Piperia elegans</i>	Elegant Rein-orchid	Forbe	2.5-4, 3.10-35
<i>Piperia unalascensis</i>	Alaska Rein-orchid	Forbe	3.10-35
<i>Plagiobothrys figuratus</i>	Fragrant Plagiobothrys	Forbe	2.6-3, 3.10-35
<i>Platanthera stricta</i>	Slender Bog-orchid	Forbe	3.10-35
<i>Plectritis congesta</i>	Rosy Plectritis	Forbe	2.7-5, 3.10-35
<i>Poa compressa</i>	Canada Bluegrass	Grass	2.1-6, 2.3-4, 3.11-3, 3.16-2, 3.17-4
<i>Poa grayana</i>	Gray's Bluegrass	Grass	3.11-3, 3.17-4
<i>Poa howellii</i>	Howell's Bluegrass	Grass	2.7-5, 3.11-3, 3.17-4
<i>Poa secunda</i>	Pine Bluegrass	Grass	2.7-3, 2.8a-1, 3.11-3, 3.16-2
<i>Polygonum amphibium var. emersum</i>	Water Smartweed	Other	2.6-3, 3.14-1, 3.17-4
<i>Polygonum aviculare</i>	Doorweed	Forbe	3.10-35, 3.17-4
<i>Polygonum douglasii</i>	Douglas' Knotweed	Forbe	3.10-35, 3.17-4
<i>Polygonum douglasii ssp. spergulariiforme</i>	Fall Knotweed	Forbe	3.10-35
<i>Polygonum hydropiperoides</i>	Common Waterpepper	Forbe	3.10-35
<i>Polygonum nuttallii</i>	Nuttall's Knotweed	Forbe	3.10-37, 3.17-4
<i>Polygonum persicaria</i>	Lady's Thumb	Forbe	3.10-37
<i>Polygonum polygaloides ssp. kelloggii</i>	Kellogg's Knotweed	Forbe	3.10-37
<i>Polygonum punctatum</i>	Dotted Smartweed	Other	3.14-3, 3.17-4
<i>Polypodium glycyrrhiza</i>	Licorice Fern	Fern	2.1-4, 2.2-3, 2.5-4, 3.13-1
<i>Polystichum munitum</i>	Sword Fern	Fern	2.1-4, 2.2-3, 2.3-3, 2.4-3, 3.13-1
<i>Populus balsamifera sp. trichocarpa</i>	Black Cottonwood	Tree	2.1-2, 2.2-1, 2.4-1, 2.5-1, 3.2-2, 3.3-1, 3.4-1, 3.5-1, 3.17-1
<i>Populus tremuloides</i>	Quaking Aspen	Tree	2.2-1, 2.4-1, 2.5-1, 3.3-1, 3.4-1
<i>Potamogeton crispus</i>	Curled Pondweed	Other	3.14-3, 4.1-4, B-15
<i>Potamogeton natans</i>	Broad-leaved Pondweed	Other	3.14-3
<i>Potentilla glandulosa</i>	Sticky cinquefoil	Forbe	2.1-6, 2.3-4, 2.7-5, 3.10-37, 3.16-1, 3.17-4
<i>Potentilla gracilis v. gracilis</i>	Slender Cinquefoil	Forbe	2.5-3, 2.7-3, 3.10-37
<i>Potentilla palustris</i>	Marsh cinquefoil	Forbe	3.10-37, 3.17-4

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<i>Prosartes smithii</i>	Smith's Fairybells	Forbe	2.1-4, 2.2-3, 3.10-37
<i>Prunella vulgaris var. lanceolata</i>	Heal-all	Forbe	2.1-6, 2.2-4, 2.7-5, 3.10-37
<i>Prunus emarginata</i>	Bitter Cherry	Tree	2.1-2, 2.3-1, 3.2-3, 3.3-1, 3.4-1, 3.5-1, 3.17-1
<i>Prunus virginiana</i>	Common Chokecherry	Arb. Shrub	2.1-3, 2.2-2, 2.3-2, 2.4-2, 3.4-2, 3.6-1, 3.7-1, 3.17-1, 3.17-2
<i>Pseudotsuga menziesii</i>	Douglas Fir	Tree	2.1-2, 2.2-1, 2.3-1, 3.1-2, 3.3-1, 3.4-1, 3.5-1, 3.17-1
<i>Pteridium aquilinum</i>	Bracken Fern	Fern	3.13-1
<i>Pyrola asarifolia</i>	Wintergreen	Forbe	2.1-6, 2.2-4, 2.4-4, 3.10-37
<i>Pyrola picta</i>	White-Vein Pyrola	Forbe	2.3-3, 3.10-37
<i>Pyrus (see Malus)</i>		Tree	3.3-1, 5.1-3
<i>Quercus garryana</i>	Garry Oak	Tree	2.1-2, 2.3-1, 2.4-2, 2.7-1, 3.2-3, 3.3-1, 3.4-1, 3.5-1, 3.17-1
<i>Ranunculus alismaefolius</i>	Water-plaintain Buttercup	Forbe	3.10-37, 3.17-4
<i>Ranunculus aquatilis var. hispidulus</i>	White Water-buttercup	Other	2.6-3, 3.14-3
<i>Ranunculus cymbalaria</i>	Shore Buttercup	Forbe	2.5-4, 2.6-3, 3.10-37, 3.17-4
<i>Ranunculus flammula</i>	Creeping Buttercup	Forbe	2.4-4, 3.10-37, 3.17-4
<i>Ranunculus macounii var. oreganus</i>	Macoun's Buttercup	Forbe	3.10-37
<i>Ranunculus occidentalis</i>	Western Buttercup	Forbe	2.4-3, 2.5-4, 2.7-5, 3.10-39
<i>Ranunculus orthorhyncus</i>	Straightbeak Buttercup	Forbe	2.4-4, 2.6-3, 3.10-39, 3.17-4
<i>Ranunculus pensylvanicus</i>	Pennsylvania Buttercup	Forbe	3.10-39
<i>Ranunculus scleratus</i>	Celery-leaved Buttercup	Forbe	3.10-39
<i>Ranunculus uncinatus</i>	Little Buttercup	Forbe	2.4-3, 3.10-39
<i>Rhamnus purshiana</i>	Cascara	Tree	2.1-2, 2.2-1, 2.3-1, 2.4-2, 3.2-3, 3.3-1, 3.4-2, 3.5-1, 3.17-1
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<i>Ribes divaricatum</i>	Straggly Gooseberry	Shrub	2.1-4, 2.5-2, 3.8-7, 3.9-2
<i>Ribes lobbii</i>	Pioneer Gooseberry	Shrub	2.1-4, 2.4-2, 2.5-2, 3.8-7, 3.9-2, 3.17-2
<i>Ribes sanguineum</i>	Red Currant	Shrub	2.1-3, 2.3-2, 2.4-2, 2.7-2, 3.8-7, 3.9-2
<i>Ribes viscosissimum</i>	Sticky Currant	Shrub	2.1-3, 2.3-2, 3.8-8, 3.9-2
<i>Rorippa columbiae</i>	Columbia Cress	Forbe	3.10-39
<i>Rosa gymnocarpa</i>	Baldhip Rose	Shrub	2.1-3, 2.3-2, 2.4-2, 2.5-2, 2.7-2, 3.8-8, 3.9-2, 5.1-4
<i>Rosa nutkana v. nutkana</i>	Nootka Rose	Shrub	2.1-3, 2.2-2, 2.3-2, 2.4-2, 2.5-2, 2.7-2, 3.9-2, 3.17-2, 5.1-4
<i>Rosa pisocarpa</i>	Swamp Rose	Shrub	2.1-3, 2.2-2, 2.5-2, 3.8-9, 3.9-2
<i>Rubus leucodermis</i>	Blackcap Raspberry	Shrub	2.2-2, 2.7-2, 3.9-2
<i>Rubus parviflorus</i>	Thimbleberry	Shrub	2.1-3, 2.2-2, 2.3-2, 2.5-2, 3.8-9, 3.9-2
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<i>Salix hookeriana</i>	Piper’s Willow	Arb. Shrub	2.2–3, 2.4–2, 2.5–2, 2.6–1, 3.6–2, 3.7–1
<i>Salix lucida sp. lasiandra</i>	Pacific Willow	Tree	2.2–1, 2.4–1, 2.5–1, 2.6–1, 3.2–4, 3.3–1, 3.4–2
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<i>Salix scouleriana</i>	Scouler Willow	Tree	2.1–2, 2.2–2, 2.4–1, 2.5–1, 3.2–4, 3.3–1, 3.4–2, 3.5–1
<i>Salix sessilifolia</i>	Soft-leaved Willow	Arb. Shrub	2.2–2, 2.4–2, 2.5–2, 3.6–2, 3.7–1
<i>Salix sitchensis</i>	Sitka Willow	Arb. Shrub	2.1–3, 2.2–2, 2.4–2, 2.5–2, 3.6–3, 3.7–1
<i>Sambucus cerulea</i>	Blue Elderberry	Shrub	2.1–3, 2.2–2, 2.3–2, 2.4–2, 3.8–10, 3.9–2
<i>Sambucus racemosa</i>	Red Elderberry	Shrub	2.1–3, 2.2–2, 2.4–2, 2.5–2, 3.8–10, 3.9–2, 3.17–2
<i>Sanguisorba occidentalis</i>	Annual Burnet	Forbe	2.7–5, 3.10–39
<i>Sanicula bipinnatifida</i>	Purple Sanicle	Forbe	2.3–3, 2.7–3, 3.10–41
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<i>Smilacina stellata</i>	Starry False Solomon’s Seal	Forbe	2.1–4, 2.2–3, 3.10–43
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<i>Sparganium emersum var. emersum</i>	Simplestem Bur-reed	Other	2.6–2, 3.14–3, 3.17–4
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<i>Stellaria crispa</i>	Crisped Starwort	Forbe	3.10-45
<i>Streptopus amplexifolius</i>	Clasping-leaved Twisted-stalk	Forbe	2.1-4, 2.4-4, 3.10-45
<i>Sullivantia oregana</i>	Sullivantia	Forbe	2.8b-2, 3.10-45
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<i>Symphoricarpos mollis</i>	Creeping Snowberry	Shrub	2.1-3, 2.3-2, 2.7-2, 3.8-12, 3.9-2, 3.17-2
<i>Synthyris reniformis</i>	Snow Queen	Forbe	2.1-7, 3.10-45
<i>Taxus brevifolia</i>	Pacific Yew	Tree	2.1-2, 2.2-2, 3.1-2, 3.3-1, 3.4-1, 3.5-1
<i>Tellima grandiflora</i>	Fringecup	Forbe	2.1-5, 2.2-3, 2.4-3, 3.10-45, 3.16-1
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<i>Thuja plicata</i>	Western Red Cedar	Tree	2.1-2, 2.2-1, 2.4-2, 3.1-2, 3.3-1, 3.4-2, 3.5-1, 3.17-1
<i>Tiarella trifoliata</i>	Laceflower	Forbe	2.1-7, 2.4-4, 3.10-45
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<i>Tonella tenella</i>	Small-flowered Tonella	Forbe	2.7-5, 2.8a-2, 3.10-47
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<i>Cirsium arvense</i>	Canada thistle	C	4.1–3
<i>Cirsium vulgare</i>	Common thistle	C	4.1–3
<i>Clematis vitalba</i>	Traveler's joy	C	4–3, 4.1–3
<i>Conium maculatum</i>	Poison-hemlock	C	4.1–3
<i>Convolvulus arvensis</i>	Field morning-glory	C	4.1–3
<i>Convolvulus sepium</i>	Lady's-nightcap	C	4.1–3
<i>Cortaderia jubata</i>	Jubata grass	A*	4.1–1, 4.2–1
<i>Cortaderia selloana</i>	Pampas grass	W	4.1–6
<i>Crataegus monogyna</i>	English hawthorn	C	4.1–3
<i>Crococsmia crocosmiflora</i>	Montbretia	W	4.1–6
<i>Cytisus monspessulanus</i>	French broom	W	4.1–6
<i>Cytisus scoparius</i>	Scotch broom	C	4–3, 4.1–3
<i>Cytisus striatus</i>	Portugese broom	W	4.1–6
<i>Daphne laureola</i>	Spurge laurel	B	4.1–2
<i>Daucus carota</i>	Queen Anne's lace	C	4.1–3
<i>Dipsacus fullonum</i>	Common teasel	C	4.1–3
<i>Echium plantagineum</i>	Paterson's curse	A*	4–2, 4.1–1, 4.2–1
<i>Egeria densa</i>	S. American waterweed	B	4.1–2
<i>Euphorbia esula</i>	Leafy spurge	W	4.1–6
<i>Euphorbia lathyris</i>	Mole plant	D	4.1–5
<i>Euphorbia oblongata</i>	Oblong or eggleaf spurge	W	4.1–6
<i>Fallopia bohemica</i>	Bohemian knotweed	B	4.1–2
<i>Festuca arundinacea</i>	Tall fescue	D	4.1–5
<i>Foeniculum vulgare</i>	Fennel	C	4.1–3
<i>Galium odoratum</i>	Sweet woodruff	W	4.1–6
<i>Geranium lucidum</i>	Shining geranium	C	4.1–3
<i>Geranium robertianum</i>	Robert geranium	C	4.1–3
<i>Geum urbanum</i>	European avens	C	4.1–3
<i>Hedera helix</i>	English ivy	C	4–2, 4–3, 4.1–3
<i>Hedera hibernica</i>	Irish ivy	C	4.1–3
<i>Heracleum mantegazzianum</i>	Giant hogweed	A*	4–2, 4.1–1, 4.2–1
<i>Hieracium aurantiacum</i>	Orange hawkweed	A*	4.1–1, 4.2–1
<i>Hieracium laevigatum</i>	Smooth hawkweed	B	4.1–2
<i>Hieracium pilosella</i>	Mouse-ear hawkweed	B	4.1–2
<i>Hieracium pratense (H. cespitosum)</i>	Meadow hawkweed (formerly listed as Yellow hawkweed)	A*	4.1–1, 4.2–1
<i>Hieracium vulgatum (H. lachanelii)</i>	Common hawkweed	B	4.1–2
<i>Holcus lanatus</i>	Velvet grass	D	4.1–5
<i>Houttuynia cordata</i>	Chameleon plant	D	4.1–5
<i>Hydrilla verticillata</i>	Hydrilla	W	4–2, 4.1–6
<i>Hypericum perforatum</i>	St. John's wort	C	4.1–3
<i>Hypochoeris radicata</i>	Spotted cat's ear	C	4.1–3
<i>Ilex aquifolium</i>	English holly	C	4.1–3
<i>Impatiens capensis</i>	Spotted touch-me-not	C	4.1–3
<i>Impatiens glandulifera</i>	Policemen's helmet	A*	4.1–1, 4.2–1
<i>Iris pseudacorus</i>	Yellow flag	B	4–2, 4.1–2
<i>Juncus effusus v. effusus</i>	European soft rush	B	4.1–2


* Also on the Required Eradication List

Latin name	Common name	Rank	Page
<i>Laburnum watereri</i>	Golden chain tree	W	4.1-6
<i>Lactuca (Mycelis) muralis</i>	Wall lettuce	D	4.1-5
<i>Lactuca serriola</i>	Prickly lettuce	C	4.1-3
<i>Lamiastrum galeobdolon</i>	Yellow archangel	A	4.1-1
<i>Lamium maculatum</i>	White nancy	W	4.1-6
<i>Lapsana communis</i>	Nipplewort	C	4.1-3
<i>Lathyrus latifolius</i>	Perennial peavine	W	4.1-6
<i>Leucanthemum vulgare</i>	Oxeye daisy	C	4.1-3
<i>Ligustrum vulgare</i>	Privet	C	4.1-3
<i>Linaria dalmatica ssp. dalmatica</i>	Dalmation toadflax	B	4.1-2
<i>Linaria vulgaris</i>	Yellow toadflax	D	4.1-5
<i>Lolium multiflorum</i>	Annual ryegrass	D	4.1-5
<i>Lolium perenne</i>	Perennial ryegrass	D	4.1-5
<i>Lotus corniculatus</i>	Bird's foot trefoil	C	4.1-3
<i>Lotus uliginosus</i>	Greater bird's foot trefoil	D	4.1-5
<i>Ludwigia hexapetala (Jussiaea uruguayensis)</i>	Water primrose	A	4.1-1
<i>Lunaria annua</i>	Money plant	B	4.1-2
<i>Lysimachia nummularia</i>	Creeping jenny	W	4.1-6
<i>Lythrum portula</i>	Spatula leaf purslane	B	4.1-2
<i>Lythrum salicaria</i>	Purple loosestrife	B	4-2, 4.1-2
<i>Melilotus alba</i>	Sweetclover	C	4.1-3
<i>Melilotus officinalis</i>	Yellow sweetclover	W	4.1-6
<i>Melissa officinalis</i>	Lemon balm	C	4.1-3
<i>Mentha pulegium</i>	Penny royal	C	4.1-4
<i>Myriophyllum aquaticum</i>	Parrots feather	B	4.1-2
<i>Myriophyllum spicatum</i>	Eurasian watermilfoil	C	4.1-4
<i>Nymphaea odorata</i>	Fragrant water lily	C	4.1-4
<i>Nymphoides peltata</i>	Yellow floatingheart	W	4.1-6
<i>Onopordum acanthium</i>	Scotch thistle	A*	4.1-1, 4.2-1
<i>Parentucellia viscosa</i>	Yellow glandweed	C	4.1-4
<i>Parthenocissus quinquefolia</i>	Virginia creeper	W	4.1-6
<i>Paulownia tomentosa</i>	Princess tree	W	4.1-6
<i>Petasites japonicus</i>	Sweet coltsfoot	W	4.1-6
<i>Phalaris aquatica</i>	Harding grass	A	4.1-1
<i>Phalaris arundinacea</i>	Reed canarygrass	C	4.1-4
<i>Phleum pratense</i>	Timothy	D	4.1-5
<i>Phragmites australis (introduced var. only)</i>	Common reed	A*	4.1-1, 4.2-1
<i>Phyllostachys atrovaginata</i>	Incense bamboo	W	4.1-6
<i>Phyllostachys heteroclada</i>	Water bamboo	W	4.1-6
<i>Phyllostachys nidularia</i>	Big-node bamboo	W	4.1-6
<i>Phytolacca americana</i>	Pokeweed	A	4.1-1
<i>Poa annua</i>	Annual bluegrass	D	4.1-5
<i>Polygonum convolvulus</i>	Climbing bindweed	B	4.1-2
<i>Polygonum cuspidatum (Fallopia cuspidata)</i>	Japanese knotweed	B	4.1-2
<i>Polygonum polystachyum (Persicaria wallachii)</i>	Himalayan knotweed	B	4.1-2
<i>Polygonum sachalinense (Fallopia sachalinensis)</i>	Giant knotweed	B	4.1-2

* Also on the Required Eradication List

Latin name	Common name	Rank	Page
<i>Populus alba</i>	White poplar	B	4.1-2
<i>Potamogeton crispus</i>	Curly leaf pondweed	C	4.1-4
<i>Potentilla recta</i>	Sulphur cinquefoil	C	4.1-4
<i>Prunus avium</i>	Sweet cherry	C	4.1-4
<i>Prunus laurocerasus</i>	English laurel	C	4.1-4
<i>Prunus lusitanica</i>	Portugal laurel	C	4.1-4
<i>Pueraria lobata</i>	Kudzu	A*	4.1-1, 4.2-1
<i>Ranunculus acris</i>	Meadow or tall buttercup	D	4.1-5
<i>Ranunculus ficaria</i> (formerly listed as <i>Chelidonium majus</i>)	Lesser celandine	B	4.1-2
<i>Ranunculus repens</i>	Creeping buttercup	C	4.1-4
<i>Robinia pseudoacacia</i>	Black locust	C	4.1-4
<i>Rorippa nasturtium-aquaticum</i> (<i>Nasturium officinale</i>)	European watercress	D	4.1-5
<i>Rosa eglanteria</i>	Sweetbriar rose	C	4.1-4
<i>Rosa multiflora</i>	Multiflora rose	C	4.1-4
<i>Rubus discolor</i> (<i>armeniacus</i>)	Himalayan (Armenian) blackberry	C	4.1-4
<i>Rubus laciniatus</i>	Evergreen blackberry	C	4.1-4
<i>Sasa palmata</i>	Broadleaf bamboo	W	4.1-6
<i>Sasa veitchii</i>	Kuma bamboo	W	4.1-7
<i>Secale cereale</i>	Cultivated rye	D	4.1-5
<i>Senecio jacobaea</i>	Tansy ragwort	C	4.1-4
<i>Silene coronaria</i>	Rose campion	C	4.1-4
<i>Silene latifolia</i> (<i>Lychnis alba</i>)	White campion	D	4.1-5
<i>Silybum marianum</i>	Blessed milk thistle	A*	4.1-1, 4.2-1
<i>Sisymbrium officinale</i>	Hedge mustard	C	4.1-4
<i>Solanum dulcamara</i>	Bittersweet nightshade	C	4.1-4
<i>Solanum nigrum</i>	Garden nightshade	B	4.1-2
<i>Solanum sarrachoides</i>	Hairy nightshade	W	4.1-7
<i>Sonchus arvensis</i> , <i>S. asper</i> , and <i>S. oleraceus</i>	Perennial sowthistle	C	4.1-4
<i>Sorbus aucuparia</i>	European mountain ash	D	4.1-5
<i>Sorghum halepense</i>	Johnson grass	W	4.1-7
<i>Taeniatherum caput-medusa</i>	Medusahead	C	4.1-4
<i>Tamarix ramosissima</i>	Salt cedar	A*	4.1-1, 4.2-1
<i>Tanacetum vulgare</i>	Common tansy	C	4.1-4
<i>Trifolium arvense</i>	Hare's foot clover	C	4.1-4
<i>Trifolium hybridum</i>	Alsike clover	W	4.1-7
<i>Trifolium pratense</i>	Red clover	C	4.1-4
<i>Trifolium repens</i>	White clover	C	4.1-4
<i>Trifolium subterraneum</i>	Subterranean clover	C	4.1-4
<i>Ulex europaeus</i>	Gorse	A*	4-2, 4-3, 4.1-1, 4.2-1
<i>Ulmus pumila</i>	Siberian elm	D	4.1-5
<i>Utricularia inflata</i>	Swollen bladderwort	A	4.1-1
<i>Utricularia vulgaris</i>	Common bladderwort	D	4.1-5
<i>Verbascum blattaria</i>	Moth mullein	C	4.1-4
<i>Verbascum thapsus</i>	Common mullein	C	4.1-4
<i>Verbena bonariensis</i>	Tall verbena	A	4.1-1
<i>Vicia cracca</i>	Tufted vetch	C	4.1-4
<i>Vicia sativa</i>	Common vetch	D	4.1-5

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Latin name	Common name	Rank	Page
<i>Vicia villosa</i>	Hairy vetch	C	4.1 – 4
<i>Vinca major</i>	Periwinkle (large leaf)	C	4.1 – 4
<i>Vinca minor</i>	Periwinkle (small leaf)	C	4.1 – 4

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