

REMOVING HAZARD TREES IN CRITICAL AREAS

HOW DO WE MITIGATE FOR HAZARD TREE REMOVAL IN A CRITICAL AREA OR BUFFER?

For hazard trees proposed for removal from a Critical Area or buffer, mitigation through installation of replacement trees is required. For proposed hazard tree removal, a 3:1 replacement ratio is required to replace the functions of the removed tree(s). In other words, the City requires that 3 native trees be planted in the Critical Area or buffer for each hazard tree that is removed from a Critical Area or buffer.

Conifer trees that are determined to be hazard trees may be evaluated for wildlife snag creation which leaves the stump 10 feet tall. Deciduous trees need to be cut to a stump less than 5 feet in height and material should be lopped and scattered on the ground in the Critical Area buffer. Do not place cut material within a stream or waterway.

WHAT TREES SHOULD WE PLANT?

Several of the Pacific Northwest native deciduous tree species are relatively short-lived with typical lifespans of only about 70 years to a maximum of 100 years [e.g., red alder (*Alnus rubra*), black cottonwood (*Populus balsamifera*), Paper birch (*Betula papyrifera*), and several species of native or ornamental willows (*Salix spp.*)]. These fast growing deciduous trees are “brash” or prone to break or topple in high winds, especially when the ground is saturated or when ice storms weigh down branches.

Consequently, older alders, cottonwoods, birches, and willows are often determined to be hazard trees. These species are not recommended for re-planting in the vicinity of structures or in areas where people congregate or recreate due to their short lifespans and the dangers that their inherent growth forms and wood properties present.

Instead, shade tolerant conifers and/or long-lived deciduous trees that are selected for your local site conditions should be installed. The table below includes some preferred species for planting as replacement trees.

LATIN NAME	ENGLISH COMMON NAME	NATIONAL WETLAND INDICATOR STATUS ¹
<i>Abies grandis</i>	Grand fir	FACU
<i>Acer macrophyllum</i>	Big leaf maple	FACU
<i>Arbutus menziesii</i>	Pacific Madrone	Not listed
<i>Fraxinus latifolia</i>	Oregon Ash	FACW
<i>Picea sitchensis</i>	Sitka spruce	FAC
<i>Pseudotsuga menziesii</i>	Douglas-fir	FACU
<i>Frangula purshiana</i>	Cascara	Not listed
<i>Thuja plicata</i>	Western red cedar	FAC
<i>Tsuga heterophylla</i>	Western hemlock	FAC

¹ Note: Indicator status defines likely ecological description where a species may be found
 FACW: Facultative Wetland; Usually is a hydrophyte but occasionally found in uplands
 FAC: Facultative; Commonly occurs as either a hydrophyte or nonhydrophyte
 FACU: Facultative Upland; Occasionally is a hydrophyte, but usually occurs in uplands

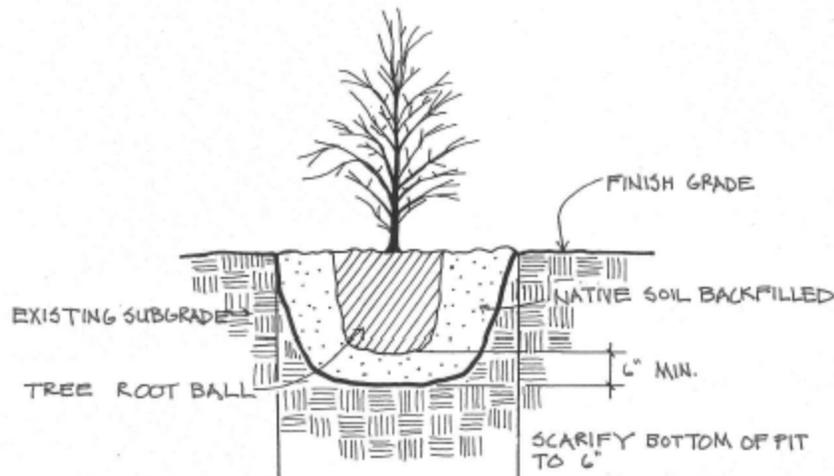
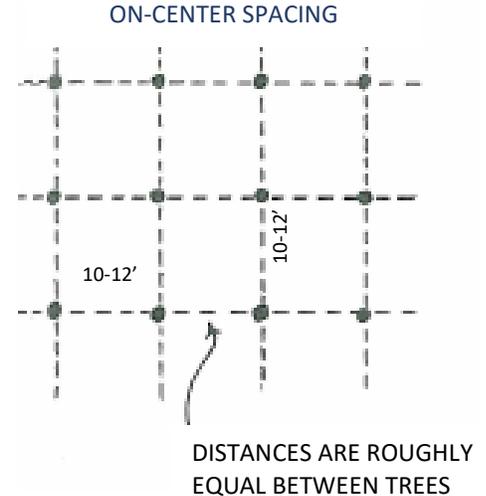
HOW DO WE PLANT THESE TREES?

Install trees on a 10 to 12 foot “on-center” spacing – see the diagram to the right for an illustration of what this means. Dig a hole that is twice the size of the root ball of the tree you are planting, scarify the bottom of the pit, and backfill with native soil – see the illustration below.

To achieve the greatest potential for survival, select planting stock that is high quality and native. Commonly, good quality seedlings are labeled as 2/1 or “Jumbo” 2-0 bare root. Potted or containerized trees are also acceptable, but tend to be more expensive than bare root stock.

A great local place to find the trees you are seeking is the Washington Association of Conservation Districts Plant Materials Center. It is located at 16564 Bradley Road, Bow, WA 98232, Phone = 360-757-1094, Website = <http://www.wacdpmc.org>.

Remember you are required to take photographs of the new trees after planting!



TREE PLANTING DETAIL

WHERE TO PLANT TREES?

The new trees need to be planted in areas of the critical area and its buffer that are optimal for the selected tree species.

- Plant trees away from concentrations of noxious weeds like blackberries.
- If possible, plant on the north or east sides of cut stumps, down wood, or boulders to provide protection from direct sunlight.
- If there is a small area where the ground surface is slightly concave, and thus slightly more wet, (but not ponded or saturated all the time), then select this area to give your tree the chance to access more water during the dry season.