



Planting Trees

to catch and slow storm runoff



How can we make this...



...work more like this?

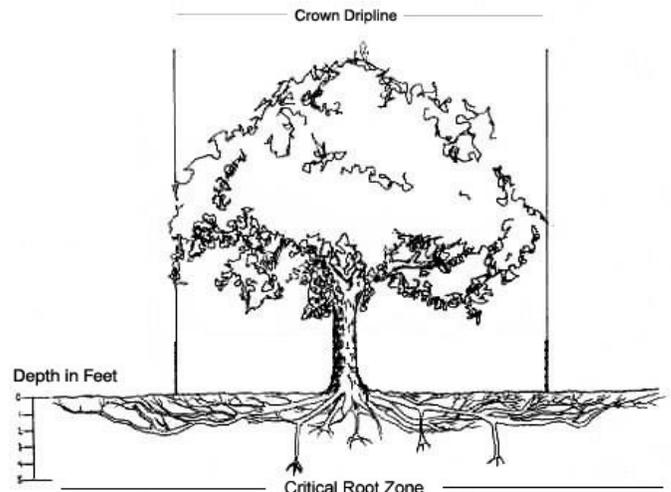


Why plant a tree?

Trees catch rainfall on their leaves and needles, slowing and evaporating it. Their roots also loosen the soil, improving infiltration, and they absorb ground water and transpire it through their leaves or needles back into the atmosphere. So trees, especially evergreens that do this year-round, help slow and reduce runoff during our big storms. Trees have other benefits too: cooling our homes and buildings in summer and slowing cold winds in winter, cleaning our air while moving carbon dioxide (a greenhouse gas) from the atmosphere back into the soil, and of course beautifying our city (and enhancing property values) while providing homes for birds and other wildlife. Trees are environmental heroes!

What kind of tree, and where?

- ☑ **Choose a tree that will fit your yard at its mature size.** Look overhead for wires, and underfoot for utility lines, pavement, or foundations. Minimum setbacks are 5 feet from structures, 5 feet from buried utility lines, and 2 feet from pavement edge. Look around the city for trees you like. Ask at nurseries for trees that fit the vertical and rooting space you have, and that fit the sun, soil, and moisture conditions in your yard. A great resource to find appropriate trees is www.seattle.gov/transportation/forestry.htm, **Seattle’s Urban Forestry program** – see “ReLeaf” link. For street tree selection, planting, and required street tree permits see www.seattle.gov/transportation/treeplanting.htm.
- ☑ **Talk to your neighbors.** At full size, your tree will become part of your neighbor’s life too. Think about where the shade will fall, where you want privacy screening, and where roots could affect foundations, or limbs affect wires.
- ☑ **Get professional help if needed.** You can find a certified arborist to help you with planning, or to evaluate, prune and maintain your existing trees, at www.pnwisa.org
- ☑ **Evergreen, or deciduous?** Evergreens keep their needles or leaves all winter, so they keep transpiring, which helps reduce storm runoff. Think about putting evergreens to the north and west of buildings, to block winter winds and hot afternoon sun, and deciduous trees to south and east, to let winter sun in and provide summer shade.
- ☑ **What about natives?** Northwest natives, when planted in their preferred sun and soil conditions, grow well with few pest problems and provide habitat for native birds and insects. But there are also many non-native trees that are well adapted to our climate, as well as trees that bear fruit or have other values. Think about what fits your yard.



How to plant a tree

1) Dig hole as deep as root ball, and 2-3 times as wide

The old saying is “dig a 10 dollar hole for a 5 dollar tree.” Your new tree’s roots need room to spread easily. If the soil is compacted, make the hole wider and loosen the walls with a shovel or pick to help roots enter.

2) Unwrap burlap, remove wires and tags

All these would restrict and damage the tree as it grows.

3) Spread roots out, and prune circling roots

It’s important to spread all the roots so they point outward, and to prune off any roots that have started to circle in the container (they’ll restrict growth later).

4) Make a pile of loose soil, to set the rootball on

Placing a few shovelfuls of soil in a pile in the center of the hole will allow you to lower the tree onto that loose soil, spreading the roots and adjusting the height.

5) Set tree in hole at same height as it was grown

Look for the tree “collar” – the flare at the base of the trunk. Set the tree in the hole with that collar just above ground level (lay your shovel handle across the hole to check). *Trees set too high or too low may die!*

6) Fill hole with native soil, tamping as you go

Some people add a shovel or two of compost to poor soil, but don’t add more – most experts prefer to backfill with existing soil, even if it’s poor. Enriching the planting hole soil can hold too much water, and limit the roots’ drive to spread. Tamp the soil firmly below and above roots – they need to make good contact. Check the height again – be sure the tamped soil comes just to the trunk flare. Mound the soil at the hole edges, to make a well for watering.

7) Water it in, to settle the soil and make good root/soil contact

Fill the well around the tree several times, until no more water soaks in. This will settle the soil around the fine roots (which is essential) and stabilize the tree. Another good (but messy!) way is to add water as you backfill soil into the hole. Check the soil height on trunk again after watering – you may need to remove or add some soil to get it right.

8) Mulch it!

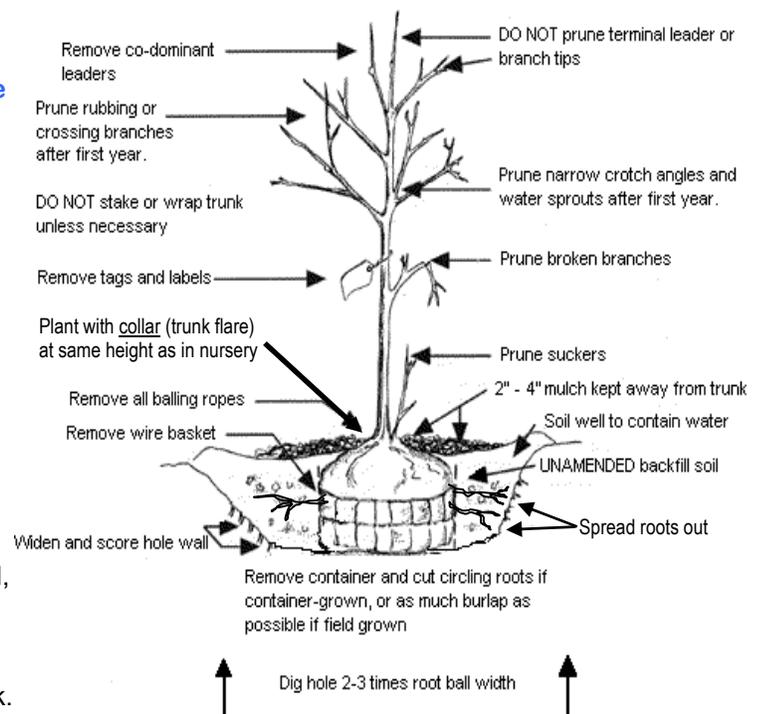
Spread 2-4 inches of mulch around the tree, keeping the mulch at least 1 inch back from the stem (it can hold too much moisture against the trunk). On poor soils, mulch first with 1-2 inches of compost to feed the soil, and then top-mulch with wood chips (from a tree service), medium (not fine) bark mulch, or shredded leaves. Staking is usually not necessary if the soil is well tamped, but if you do, use two stakes with loops of wide fabric that won’t constrict the tree. Remove the stakes and ties after 1 year.

Establishing and maintaining your trees

Water new trees weekly in summer for the first 2-5 years – feel the soil or look for overnight drooping to know when. Water slowly, or better use a “tree bag” (see right) to slowly wet the soil. Weed around trees and check/replenish mulch annually. Mulch and pull grass out next to the trunk; don’t use string trimmers – they damage the bark. Try to avoid excavating or paving over major tree roots, to protect the tree’s health.

Learn more:

See the Seattle Urban Forestry website above to learn all about tree selection, planting, and care. For fact sheets on Downspout Disconnection, Rain Gardens, Cisterns, Rock-filled Infiltration Trenches, Permeable Paving, Compost-Amended Soil, and other RainWise ideas, see www.seattle.gov/util/rainwise For printed copies and expert answers contact the **Garden Hotline at (206) 633-0224** or email help@gardenhotline.org



Illustrations in this factsheet are from Seattle’s Urban Forestry program www.seattle.gov/transportation/forestry.htm and it’s reLeaf site for tree selection, planting, and tree care tips, www.seattle.gov/trees

