



Existing Street Tree Maintenance, Removal, and Replacement Guidelines

Planning and Economic Development Department

2017



PURPOSE AND INTENT

The City of Poulsbo, and its residents, recognize the contribution of street trees to the livability of the community. The aesthetic, historic and functional value of street trees must be protected by clear guidelines for the planting, removal and maintenance of street trees.

The purpose of these guidelines is to provide residents, home owners associations, and developers with standardized practices to plant, preserve, and enhance street trees within our community.

The following pages document the City of Poulsbo guidelines for the planting, pruning, removal, and protection of all street trees. These policies are based upon the highest national accepted standards set for tree care and act as the source referenced by City staff and private property owners.

This document will be periodically updated to ensure that Poulsbo uses the best practices to ensure the longevity of our urban forest.

TREE INSTALLATION AND OWNERSHIP

New development projects are required to plant street trees as a condition of approval. The spacing of trees and species are defined in the conditions of approval and the approved site plan for the project. The Planning and Economic Development (PED) Department refers to [Tree Planting Guide](#) for selection of street tree species. Once the developer has installed the street trees and a transfer of ownership has occurred, their maintenance becomes the responsibility of the new property owner or a Homeowners Association.

TREE MAINTENANCE

Pruning

Pruning is the most common tree maintenance procedure. Although forest trees grow quite well with only nature's pruning, landscape trees require a higher level of care to maintain their structural integrity and aesthetics. However, improper pruning can create lasting damage or even shorten the tree's life.

Reasons for Pruning

Because each cut has the potential to change the growth of the tree, no branch should be removed without a reason. Common reasons for pruning are to remove dead branches, to improve form, and to reduce risk. Trees may also be pruned to increase light and air penetration to the inside of the tree's crown or to the landscape below. In most cases, mature trees are pruned as corrective or preventive measures.

Routine thinning does not necessarily improve the health of a tree. Trees produce a dense crown of leaves to manufacture the sugar used as energy for growth and development. Removal of foliage through pruning can reduce growth and stored energy reserves. Heavy pruning can be a significant health stress for the tree.

There are many outside considerations, however, that make it necessary to prune trees. Safety, clearance, and compatibility with other components of a landscape are all major concerns. Proper pruning, with an understanding of tree biology, can maintain good tree health and structure while enhancing the aesthetic and economic values of our landscapes.



When to Prune

The best time to prune living branches is late in the dormant season or very early in spring before leaves form. Growth is maximized, and wounds close faster. Flowering trees should be pruned after blooming. Routine maintenance pruning of dead or dying branches can be done at any time. However, your tree species may be an exception to these general rules.

For new trees, inspect for pruning needs annually. Prune trees regularly throughout their life to keep them healthy, safe, and aesthetically pleasing.

What to Prune

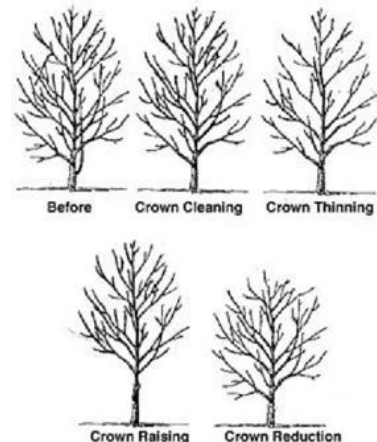
Young and mature trees have different pruning needs. On new trees, prune only dead, broken, crossed, or rubbing branches. A young tree can survive the removal of up to one-third of its foliage in a growing season, but do not remove more than one-quarter of the foliage of a mature tree in any one growing season. Do not make indiscriminate cuts on large branches to lower the height of the tree. This is called topping and is one of the worst things you can do to your trees (see below).

You may wish to prevent future hazards in mature trees by removing branches that may become problematic in the future. Branches with splits and cracks at a joint can be weak. Multiple branches attached to one spot on the trunk can also be trouble spots. U-shaped joints are stronger than narrow V-shaped unions, which can harbor disease-causing debris. Broken branches, whether partially attached or completely separated from the tree, are called hangers or widow makers. They are extremely hazardous and likely to fall; they should be removed promptly. The same is true for deadwood.

Pruning Techniques

Pruning should only be done with a specific objective. To meet the objective(s) identified for a tree, one or more of the following types of pruning may be allowed by the City of Poulsbo: crown cleaning, crown raising, crown restoration, and young tree training. Each of these pruning types is described in further detail in *ANSI A300 Standards* and *Best Management Practices: Tree Pruning*. Although approval is not required for pruning of your street tree, it is the responsibility of the person conducting the work to be familiar with each type of pruning, its benefits, and its limitations. The following types of pruning are allowed:

- **Crown cleaning** is the removal of water sprouts and dead, dying, diseased, crowded, weakly attached, and low vigor branches from a tree's crown.
- **Crown raising** removes the lower branches of a tree to provide clearance for vehicles, pedestrians, and buildings. The City of Poulsbo requires maintaining clearance standards 8 feet above the full width of the sidewalk and 14 feet above the full width of streets and alleys.
- **Crown restoration** is used to improve the structure, form, and appearance of trees that have sprouted vigorously after being broken, topped, or severely pruned using heading cuts. Crown restoration may require several pruning sessions over a number of years as new dominant branches take time to form.



- **Young tree pruning:** Young trees should be pruned to develop good structure, including a strong and well established central leader, strong branch attachments, and adequate spacing and distribution of scaffold branches. Young tree pruning will need to occur on an ongoing basis over the first ten years after tree planting.



The PED Director may also allow additional specific activities outside of the above pruning types, under the supervision of an International Society of Arboriculture (ISA) Certified Arborist:

- **Weight reduction:** In order to reduce the likelihood of limb or trunk failure, proper pruning cuts at the end of limbs are used to reduce the weight of a limb.
- **Clear infrastructure:** Pruning to clear street light poles, buildings, stop signs, and other infrastructure.
- **Remove defective part:** Pruning to remove a specific defect.

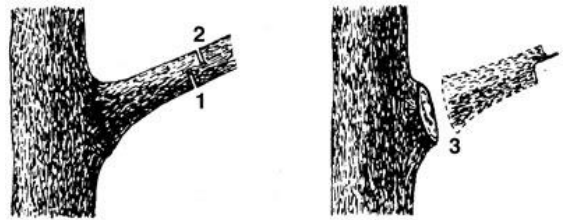
How to Prune

To minimize the amount of exposed wood, make small cuts and conserve as many living branches as possible. Excess end weight should be removed with preliminary cuts to avoid tearing bark. Always prune trees back to the parent branch or a lateral branch that is at least one-third the diameter of the branch being pruned. Avoid cutting the trunk or branches that you are not actively pruning. Do not remove more than one-quarter of the foliage from a branch unless you are removing the entire branch.

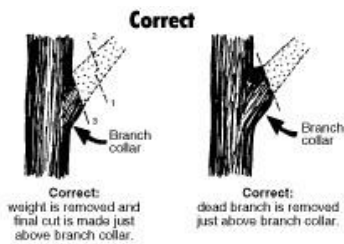
Every branch has a swell at the base, where it meets the trunk of the tree. This is known as the branch collar. All pruning cuts should be made further away from the trunk than the collar.

The three-cut pruning method (see image to the right):

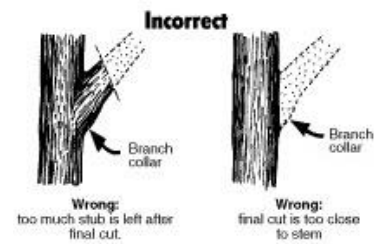
1. Make a shallow cut on the underside of the branch, away from the collar. This will prevent bark tears if the branch drops suddenly.
2. Just beyond the partial cut, cut through the branch to remove the bulk of the weight.
3. Finish the prune by cutting through the branch just outside the branch collar.



Use the three-cut method to remove a large limb.



The two most common pruning errors are known as "flush cuts" and "stub cuts." Both of these errors happen during Cut 3. A flush cut is a cut that injures or removes the branch collar. A stub cut leaves too much branch past the collar. Stub and flush cuts can open your tree to pests, disease, and decay.



Remember, tree wounds should be left uncovered, so the tree's immune system can take care of them.

How Much Should be Pruned

The amount of live tissue that should be removed depends on the tree's size, species, and age, as well as the pruning objectives. Younger trees tolerate the removal of a higher percentage of living tissue better than mature trees do. Generally, no more than 25% of the crown should be removed within an annual growing season, and less for mature trees.

Removing even a single, large-diameter limb can result in significant canopy loss and can create a wound that the tree may not be able to close. Care should be taken to achieve pruning objectives while minimizing live branch loss and wound size.



Tools and Equipment

- Pruning tools shall be sharp and appropriately sized for the pruning cut.
- Equipment that will damage the bark and cambium layer shall not be used on or in any tree.
- Spikes or climbing spurs shall not be used for climbing trees during pruning operations.

Wound Dressing

Wound dressings were once thought to accelerate wound closure, protect against insects and diseases, and reduce decay. However, research has shown that dressings do not reduce decay or speed closure and rarely prevent insect or disease infestations.

Hiring an Arborist

Pruning large trees can be dangerous. If pruning involves working above the ground or using power equipment, it is best to hire an International Society of Arboriculture (ISA) certified arborist. A certified arborist can determine the type of pruning necessary to improve the health, appearance, and safety of your trees. A certified arborist can also provide the services of a trained crew with the required safety equipment and liability insurance.

When should you contact a certified arborist?

- The tree cannot be pruned from the ground.
- The tree has been identified as hazardous.
- The tree is near electrical or other utility lines.
- The branch(es) that need to be pruned are large.

Although it is not required to hire a certified arborist to prune street trees, it is recommended.

Miscellaneous

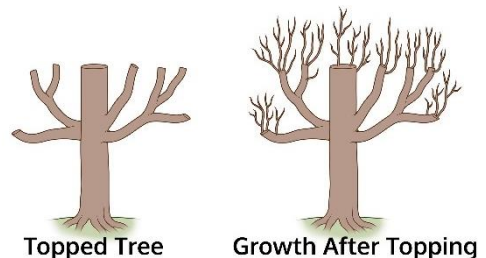
- If the pruning requires extended blockage of right-of-way (or sidewalk), work may require a [Public Property Construction Permit](#).

Tree Topping

Topping is perhaps the most harmful tree pruning practice known. Not only is the practice expensive, it leads to stress, decay, and most importantly creates an unstable and potentially dangerous tree. **Topping of a street tree is not permitted.**

Topping is the indiscriminate cutting of tree branches to stubs or to lateral branches that are not large enough to assume the terminal role. Other names for topping include “heading,” “tipping,” “hat-racking,” and “rounding over.”

There are alternatives to topping trees. Sometimes a tree must be reduced in height or spread, such as for providing utility line clearance. There are recommended techniques for doing so. Small branches should be removed back to their point of origin. If a larger limb must be shortened, it should be pruned back to a lateral branch that is large enough (at least one-third the diameter of the limb being removed) to assume the terminal role. This method of branch reduction helps to preserve the natural form of the tree.



However, if large cuts are involved, the tree may not be able to close over and compartmentalize the wounds. Sometimes the best solution is to remove the tree and replace it with a species that is more appropriate for the site.

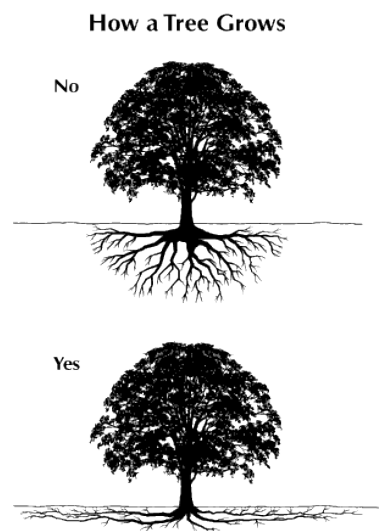
Fertilization

Trees require certain nutrients (essential elements) to function and grow. Urban landscape trees are often grown in soils that do not contain sufficient available nutrients for satisfactory growth and development. In these situations, **it may be necessary to fertilize to improve plant vigor.**

Fertilizing a tree can improve growth; however, if fertilizer is not applied wisely, it may not benefit the tree at all and may adversely affect the tree. Mature trees making satisfactory growth may not require fertilization. When considering supplemental fertilizer, it is important to know which nutrients are needed and when and how they should be applied.

Soil conditions, especially pH and organic matter content vary greatly, making the proper selection and use of fertilizer a somewhat complex process. When dealing with a mature tree that provides considerable benefit and value to your landscape, it is worth the time and investment to have the soil tested for nutrient content. Professional arborists can arrange to have your soil tested at a soil testing laboratory and can offer advice on application rates, timing, and the best blend of fertilizer for your trees and the rest of your landscape.

Mature trees have expansive root systems that extend from 2 to 3 times the size of the leaf canopy. A major portion of actively growing roots are located outside the tree's drip line. There is a long-standing inaccurate belief that trees must be "deep root" fertilized. This notion is associated with the myth that a tree's root system is an underground mirror of the crown. Because most of the absorbing roots are actually in the upper few inches of soil, it makes little sense to place the fertilizer deeper. It is important to understand this fact when applying fertilizer to your trees. Understanding the actual size and extent of a tree's root system before you fertilize is necessary to determine how much, what type, and where to best apply fertilizer.



If you are fertilizing your lawn and trees are occupying the same area, the trees might not require supplemental fertilization. The key to any fertilization program is to base the application of the fertilizer based upon the plant's needs.

Note: Please also consider alternatives to chemical fertilizers such as, but not limited to, Bone Meal, Composted Manure, Fish Emulsion, and Cottonseed Meal. Whenever using any fertilizer or pesticide, including those that are "natural" or "organic", prevent overspray of liquids or broadcasting of dry products onto surfaces such as sidewalks where they will wash into the storm drain with the next rain. Never wash-down or dispose of garden chemicals into the storm drain.

Trees and Lawn

Many street trees in the City of Poulsbo are located in the front yards of residences. However, the maintenance practices for trees and lawns are different. Because tree and grass roots exist together in the upper 6 to 8 inches of the topsoil, treatment of one may damage the other. Fertilizer applied to one plant will also be absorbed by the roots of a nearby plant. Normally that is good, but excessive fertilization of either trees or lawn can result in tree crown or grass blade growth greater than desired.

Chemical treatments: Herbicides, especially broadleaf weed killers, are often used on lawns. It is important to remember however, that most trees are broadleaved plants and can be injured or killed if



high enough doses reach them. Homeowners must keep in mind that "weed and feed" fertilizers contain herbicides, which can damage trees.

Lawns, water and trees: Watering can be beneficial to trees and lawn if the watering is done correctly. Trees need, on average, the equivalent of one inch of rain every seven to ten days, depending on the species. Tropical rain forest trees may require more. Frequent, shallow watering does not properly meet the needs of either trees or turf and can be harmful to both, deep and slow watering 1-2 times a week to meet the amount needed is preferred.



Mowing and Line-Trimming: Turf growing under or near trees should be mowed at the top of its recommended mowing height. Mowing off no more than one-third of the grass blade's height and letting the clippings remain on the lawn helps to ensure a healthy and vigorous lawn. In an ideal situation, tree and turf maintenance would be handled by the same individual to maximize the benefits of all maintenance practices.

Most people don't realize the degree of damage that can be caused by the bumping of a mower or the whipping action of a nylon string trimmer. A tree's bark can only provide so much protection against these devices.

Pruning for light penetration: Pruning to increase light penetration for the lawn may be considered, keep in mind that it is usually not a permanent solution. That's why a rule of thumb is not to remove more than one-fourth of the tree's foliage-bearing crown in a single pruning. If a tree is thinned too much, it will be stressed, and will probably produce many water-sprouts (suckers) along its branches to compensate for lost foliage. This process defeats the purpose of pruning to allow more light penetration. It may help to "raise" a tree's crown to improve light penetration. Crown raising involves the removal of lower branches on trees, and most tree species are quite tolerant of this pruning practice.

Root Control: Some trees tend to form surface roots, which can be a major problem in lawns. Homeowners always want to know to what extent they can prune or remove tree roots without killing the tree. Because cut roots tend to develop more roots, root pruning is generally not a solution.

Tips on Watering

- Long and slow soaks are the key to tree watering- this allows the water to penetrate the root zone deeply without running off over the soil surface, which wastes water and doesn't give adequate water to the tree's roots.
- An easy and inexpensive way to do water is to drill 2-3 small holes (1/16"-1/8") into the bottom of a 5-gallon bucket, set the bucket near the tree, fill with water one-two times a week, and you are all set!
- Soaker hoses, ice blocks, and hose end devices that control water speed can even be used.
- Using overhead sprinklers for watering trees is expensive and ineffective. As much as 70% of the water is lost into the air before falling to the soil! Lawn irrigation systems also do not deliver enough water for trees.

TREE REMOVAL

A street tree must be protected and preserved unless the Planning and Economic Development (PED) Director has approved removal and replacement of the tree. Street trees that are removed must be replaced with the same species, or another species that provides comparable or greater canopy coverage at maturity, providing that the planting site has sufficient space to support the replacement tree. Removal of a street tree without approval or without replacing the tree is not permitted.



A street tree may not be removed unless the PED Director determines that:

- The street tree is a hazardous tree and cannot be relieved of its hazardous condition through actions other than removal;
- The street tree poses a public safety hazard. In some cases, an otherwise healthy tree may have grown in such a way that it is not compatible with the safe operation of the transportation system. A native tree, germinating naturally and growing into the clearance zone required at an arterial intersection is one example;
- The street tree is in such a condition of poor health or poor vigor that removal is justified; or
- The street tree cannot be successfully retained, due to public or private construction or development conflicts.

In all cases, a tree removal requires the following for City review and approval, unless specifically waived by PED Director:

1. Written approval by PED Department (see page 9).
2. Right-of-Way Use Permit, if needed, and associated fees.
3. Arborist report, if needed to document the existence of a hazard.

If the PED Director requires an Arborist Report, it must be prepared by an ISA Qualified Tree Risk Assessor.

All street trees that have been assessed and approved by the PED Director for removal, including emergency removals, are subject to Tree Replacement Standards (below).

Hazard Trees

A hazardous tree is a tree, or part of a tree, that has a potential for failure and falling because of dead, or dying or diseased branches, roots or trunk. A hazard tree exists when the sum of the risk factors assessed equals or exceeds a determined threshold of risk. Below that threshold, the tree is not considered to be a hazard. Risk factors are assessed during a tree risk assessment performed by a certified arborist that has the [ISA Tree Risk Assessment Qualification](#). Tree risk assessment examines the whole tree, or a part of it. It is only undertaken when there is a target (people and/or property within striking distance of the tree or its parts) that might be damaged if the tree or tree part were to fail.

If a Certified Arborist determines that the street tree is a hazard, it may be removed. However, if staff suspects an error in the applicant's arborist report, a peer review may be required, to be billed to the applicant.

TREE REPLACEMENT

When a street tree is removed, tree replacement is required. When a street tree is to be replaced, the following standards apply:

- Tree replacements shall be the same species, or a species that provides comparable or greater canopy coverage at maturity, unless otherwise approved by the PED Director.
- Tree replacements shall be planted in the same location as the tree removed *unless otherwise approved by the PED Director*.

Where planting space is not adequate to support replacement planting on the original location, alternative conditions may apply to achieve an appropriate balance for the loss of public investment and/or benefit. Conditions for replacement are based on assessment of trees and sites on a case by- case basis.



When to Plant

All planting of trees shall take place between mid-Fall and early Spring (November to April) to take advantage of the dormant period for most trees and the cooler, wetter seasons of the year. However, trees properly cared for in the nursery or garden center, and given the appropriate care during transport to prevent damage, can be planted throughout the growing season.

What to Plant

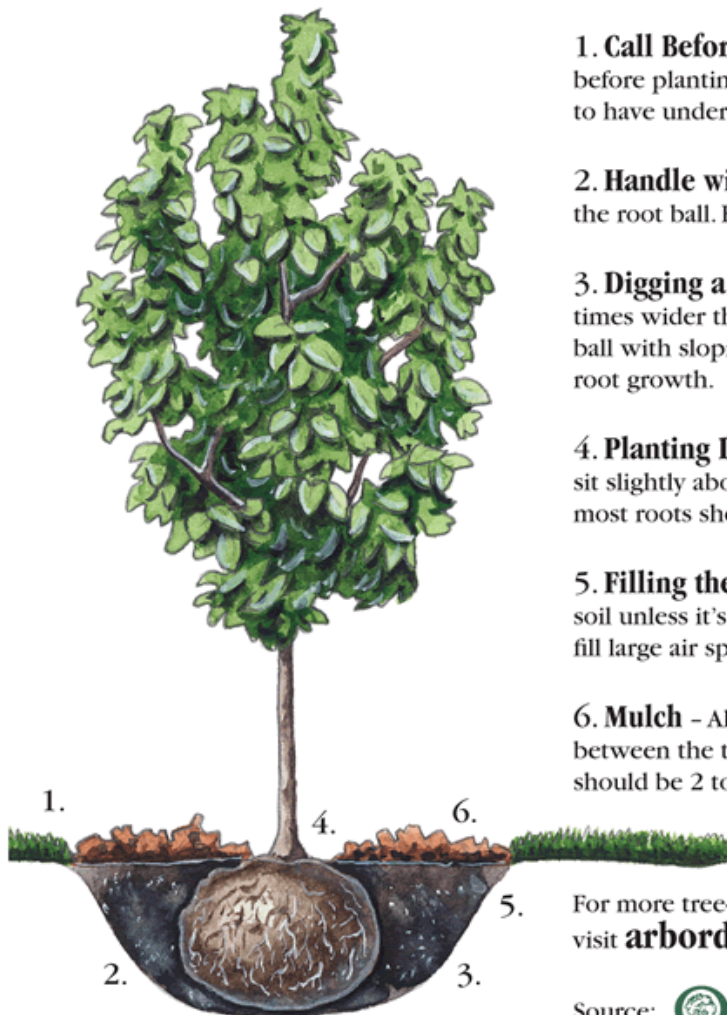
Tree Planting Guide

Poulsbo, WA

Tree City USA award city since 1997

Poulsbo [Tree Board](#) offers a guide to help citizens make informed decisions choosing and maintaining trees for public and private areas. The trees on this list are proven performers in our area, provided they are matched with appropriate site conditions.

How to Plant



1. Call Before You Dig - Several days before planting, call the national 811 hotline to have underground utilities located.

2. Handle with Care - Always lift tree by the root ball. Keep roots moist until planting.

3. Digging a Proper Hole - Dig 2 to 5 times wider than the diameter of the root ball with sloping sides to allow for proper root growth.

4. Planting Depth - The trunk flare should sit slightly above ground level and the top-most roots should be buried 1 to 2 inches.

5. Filling the Hole - Backfill with native soil unless it's all clay. Tamp in soil gently to fill large air spaces.

6. Mulch - Allow 1 to 2 inch clearance between the trunk and the mulch. Mulch should be 2 to 3 inches deep.

5. For more tree-planting tips and information, visit arborday.org.

Source:  **Arbor Day Foundation**
90075201



After Planting Care

- Removal tags and labels.
- **Do not stake** unless the tree has a large crown, or if the planting is situated on a site where the wind or people may push the tree over.
- Keep the soil moist but not soaked; over-watering and under-watering causes leaves to turn yellow or fall off. Water the trees at least once a week, barring rain, and more frequently during hot weather. When the soil is below the surface of the mulch is dry (approximately 1" below the soil surface), it is time to water. Continue until mid-fall, tapering off for lower temperatures that require less-frequent watering.

APPLICATION FOR STREET TREE REMOVAL AND REPLACEMENT

The City of Poulsbo requires approval to remove or replace street trees. Persons wishing to remove a street tree must request approval from the PED Department, either in writing or via email. The request must include information describing the location, type, and size of the subject tree, and the reasons for the desired action. Requests will be reviewed by staff for decision, and applicants are notified in writing of the results.

For additional information, contact the PED Department at (360) 394-9748.

MISCELLANEOUS

Finding a Good Arborist

Hiring an arborist is a decision that you should not take lightly. Tree work performed incorrectly not only poses a risk to the tree itself but also endangers the person performing the work. An unqualified person may not have proper insurance, leaving a liability burden to the customer that could run into thousands of dollars. Check out [Hiring a Good Arborist](#) page.

Trees and Power Lines

Never attempt to prune a tree that has grown into high voltage wires. The utility companies prune trees under high voltage power lines on a regular schedule. If a tree or tree branch is leaning on a high voltage wire, call your utility company immediately.

For concerns about trees on service lines call [Puget Sound Energy](#) at (360) 475-7865.

For downed power lines, please call 911 or PSE at 1-888-225-5773.

Overgrown Vegetation Causing Obstruction

Overgrown trees and shrubs endanger us all when they block our view of traffic signs, pedestrians, or other vehicles. It is the adjacent property owner's responsibility to keep trees and other plants in the right-of-way (the planting strip between the sidewalk and the curb) from blocking visibility within transportation corridors.

For blockage of sight distance at intersections, please call (360) 779-4078.



Trees and Neighbors

My neighbor's tree hangs over my property, blocks my view, drops its leaves, etc., is there anything the City can do? The City does not get involved in civil matters, which is what the above examples are considered. However, if the tree poses a significant and immediate threat to public health, safety or welfare, the City does have authority to act. Call Public Works at (360) 779-4078 if the tree poses a public safety risk.

References

Pacific Northwest ISA <http://pnwisa.org/tree-care/maintenance/pruning/>

City of Tacoma Urban Forestry <http://www.cityoftacoma.org/cms/One.aspx?portalId=169&pageId=7258>

