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This Assistance Bulletin only applies to property within unincorporated Snohomish County and does not apply to property within incorporated city limits.

# Urban Tree Canopy Coverage Requirements

Assistance Bulletin

# # 105

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## Introduction

In order to balance environmental goals and planned density goals, the County has shifted its approach of tree retention from regulating individual trees to the conservation of the overall unincorporated urban forest canopy. In the past, tree retention and replacement regulations only applied to sites with significant trees, while sites without significant trees were not subject to the tree retention and replacement requirements. Recognizing the functional importance of a mixed-age, mixed-species urban tree canopy, new regulations were adopted to treat urban residential sites without tree canopy the same as urban residential sites with tree canopy.

## Applicability of Tree Canopy Requirements

The tree canopy requirements are primarily contained in SCC 30.25.016 and apply to all new residential development located within unincorporated Urban Growth Areas whether or not tree canopy exists on the parcel.

## Tree Canopy and Significant Trees Defined

Tree canopy shall include all evergreen and deciduous trees six feet in height or greater, excluding invasive species or noxious weeds, within the gross site area. Significant tree means a tree with a caliper of at least 10 inches. Dogwoods and vine maples are significant trees if they have a caliper of at least seven inches. Alders are not significant trees. For multiple stem trees such as vine maples, the caliper of the individual stems are added together to determine if a tree meets the minimum caliper for a significant tree.

## Exemptions to Tree Canopy Requirements

- Removal of any hazardous, dead, or diseased trees, and as necessary to remedy an immediate threat to person or property as determined an arborist
- Construction of a single-family dwelling, duplex, accessory or non-accessory storage structure on an individual lot created prior to April 21, 2009, or created by a subdivision or short subdivision for which a complete application was submitted prior to April 21, 2009
- Construction or maintenance of public or private road network elements and public or private utilities including utility easements not related to development subject to chapters [30.23A](#), [30.34A](#), [30.41G](#), or [30.42E](#) SCC
- Construction or maintenance of public parks and trails when located within an urban residential zone
- Pruning and maintenance of trees

This bulletin is intended only as an information guide. The information may not be complete and is subject to change. For complete legal information, refer to Snohomish County Code.

## Tree Canopy Coverage Requirements

Tree canopy requirements are set to a sliding scale based on the type of residential development and the number of lots or units. The following table is taken from SCC 30.25.016 and shows the minimum required tree canopy for all new residential development within unincorporated urban growth areas.

Type of Development	Minimum Required Tree Canopy Coverage of Development Site (gross site area)
Subdivisions for Single Family Residential 10 or more lots	30 percent
Short Subdivisions for Single Family Residential 4 to 9 lots	25 percent
Short Subdivisions for Single Family Residential Less than 4 lots	20 percent
Single Family Detached Units, Cottage Housing, Townhouse, Multi-family 10 or more units	20 percent
Single Family Detached Units, Cottage Housing, Townhouse, Multi-family Less than 10 units	15 percent
Urban Center (residential and mixed use projects only)	15 percent

## Tree Canopy Coverage versus Lot Coverage

Tree canopy coverage is different than lot coverage. Tree canopy can extend over structures and buildings like an umbrella. The photo to the right illustrates this. Note the large deciduous tree which has branches extending over the roof of the home. Lot coverage by comparison means that portion of the total area of a lot that is covered by buildings.



## Measuring Tree Canopy

Existing tree canopy may be measured by surveying the canopy for each tree located on a project site and summing the canopy area of each tree to calculate the total existing canopy. Alternatively, for heavily forested sites, sites with critical areas, or sites not proposing to utilize one of the incentives to save existing significant trees, canopy area can be estimated using a recent aerial photo. For sites proposing to plant new tree canopy, the canopy area of each tree to be planted at 20-years maturity must be calculated. The table below illustrates the methods for calculating existing and new tree canopy.

Existing Canopy		New Canopy
Option 1 Tree Survey	Option 2 Aerial Estimation	20-Year Canopy Calculation
Measure average canopy radius ( $r$ ) for each tree to be retained  Calculate existing canopy area using the formula: $CA = \pi r^2$  Total the sum of tree canopy areas and divide by gross site area to obtain canopy coverage percentage	Obtain aerial imagery of site  Measure site boundaries  Measure canopies of individual trees or stand area using leading edges as the forest boundary  Divide total canopy measurement by the gross site area to obtain canopy coverage percentage	For each proposed species:  Calculate radius ( $r$ ) of canopy at 20 years maturity  Calculate canopy coverage using the formula: $CA = \pi r^2$  Multiply by the proposed quantity to be planted to obtain total species canopy area  Total the sum of species canopy area for all proposed species and divide by gross site area to obtain 20-year canopy coverage percentage

## Tree Calculation Worksheet and Tree Species Database

To assist applicants with the calculation of tree canopy for development applications, a worksheet has been developed. This worksheet is required to be submitted with a landscaping plan. Additionally, a database of tree species has been developed and includes estimated 20-year canopy coverage and whether it can be used as a street tree or is utility safe. Applicants shall consult the tree species database when determining the proposed canopy. An applicant may request the PDS director include additional tree species in the database or a change to the 20-year canopy coverage in the database when they provide written documentation from an arborist or nursery. The worksheet and database are available on the county's website at [www.snohomishcountywa.gov/2737](http://www.snohomishcountywa.gov/2737).

## Incentives to Retain Significant Trees

In an effort to retain significant trees and existing tree canopy, several incentives are available and may be incorporated into a development application. These include:

- Canopy bonuses for retaining individual significant trees, stands of five or more trees, stands of five or more significant trees, and significant trees qualified to receive flow control credits for drainage
- Reductions in required on-site open space in exchange for preserving 40 percent of the existing tree canopy
- Exemption from landscape requirements when at least 45 percent of the gross site area's existing tree canopy is retained and the majority retained are evergreen species
- Reducing the minimum lot area required in subdivisions and short subdivisions when at least 20 percent of the site, not including any critical area protection areas and perimeter buffers, is put into a separate tract or tracts that have at least 20 significant trees per acre and where at least 60 percent of the significant trees within the tract or tracts are retained

## Reducing the Tree Canopy Coverage Requirements

An applicant may request a landscape modification to reduce the tree canopy coverage requirements by five percentage points when certain criteria are met. For example, a short subdivision of less than four lots could request a landscape modification to reduce the tree canopy coverage requirement from 20% to 15%. The applicant would need to demonstrate they have made every effort to retain as much tree canopy as possible, plant additional understory vegetation and, if applicable, enhance underperforming critical area protection area buffers.

On sites without existing tree canopy, the director may reduce the tree canopy coverage requirements by five percentage points when the applicant provides a 25 percent increase in the area of required open space. Certain developments are not eligible for this reduction.

## Option to Opt-in to Tree Canopy Regulations for Vested Development Applications

Applicants with a development application that was vested between April 21, 2009 and October 27, 2014, may request the application be reviewed under Amended Ordinance No. 14-073. All other development regulations in effect as of the date the original application was vested shall apply. Applicants shall have 12 months from October 27, 2014, in which to apply. Public notice to parties of record is required.

## Definitions of Tree and Clusters or Stands of Trees

Title 30 SCC does not include a general definition of a tree. Pursuant to code the customary meaning of a tree is used. According to the Merriam-Webster dictionary a tree is a woody perennial plant having a single usually elongated main stem generally with few or no branches on its lower part.

Title 30 SCC does not define the phrase "clusters or stands of trees." In general, a stand or cluster is five or more uniform mature trees that form a continuous canopy, however, each site will be reviewed on a case-by-case basis to determine what constitutes a cluster or stand.

## Frequently Asked Questions

**Q:** What can be counted as existing tree canopy?

**A:** Tree canopy shall include all evergreen and deciduous trees six feet in height or greater, excluding invasive species or noxious weeds, within the gross site area. This can include existing trees located within critical areas and buffers.

**Q:** Do street trees planted within required frontage improvements count towards the tree canopy coverage requirements?

**A:** Yes.

**Q:** What significant trees are required to be saved?

**A:** All significant trees within critical area protection areas and required buffers. If applicable, all significant trees within required perimeter landscaping buffers required under SCC 30.25.020.

**Q:** Can the incentives to save existing trees be combined?

**A:** Yes. It is possible to combine incentives, however, as a practical matter not all of the incentives will work together.

**Q:** What does “counted at 125, 150, or 200 percent of its actual canopy area” mean?

**A:** It means the existing tree is given extra credit for its canopy, making it more attractive to be retained rather than cut down. To calculate this incentive the existing tree canopy is multiplied by 1.25, 1.5, or 2. For example, if an applicant wants to take advantage of the incentive to retain one existing significant tree with a canopy of 500 square feet. The applicant would multiply the tree canopy of 500 square feet by 1.25, resulting in an effective canopy of 625 square feet. The 625 square feet would be deducted from the overall tree canopy coverage requirements. The net effect is the applicant may need to plant less trees on the project site because they chose to retain existing trees.

**Q:** Can the owner of a single family home remove an existing significant tree located in their yard?

**A:** Yes. Unless the tree was part of a development application submitted after October 27, 2014, then it cannot be removed unless determined in writing by an arborist to constitute a hazard.

**Q:** Can the owner of a single family home remove a retained or replacement tree located in their yard?

**A:** No. Retained significant trees, trees planted as replacements for significant trees, and trees planted to meet the canopy coverage requirements may not be removed except when determined in writing by an arborist to constitute a hazard. Removal of a replacement or significant tree without proper documentation is subject to a fine under chapter 30.85 SCC.

**Q:** Does a property without trees have to comply with the tree canopy requirements?

**A:** Yes. The tree canopy requirements apply to all new residential development located within unincorporated Urban Growth Areas whether or not tree canopy exists on the parcel.

**Q:** What are the notice requirements for opting in to the tree canopy requirements?

**A:** SCC 30.25.013(3) requires public notice pursuant to chapter 30.70 SCC. Any development application requesting to opt-in is required at a minimum to provide notice to parties of record.

**Q:** Where can I get more information?

**A:** More tree canopy resources are available at [www.snohomishcountywa.gov/2737](http://www.snohomishcountywa.gov/2737).