

SNOHOMISH
COUNTY

ANNUAL REPORT ON TREE CANOPY



2016 Annual Report on Tree Canopy | Snohomish County Planning and
Development Services

INTRODUCTION

On October 8, 2014, the Snohomish County Council adopted Amended Ordinance No. 14-073, effective October 27, 2014, modifying development standards for landscaping including tree canopy requirements. Included in Amended Ordinance No. 14-073 was a requirement for the Department of Planning and Development Services (PDS) to prepare an annual report on tree canopy (SCC 30.25.014). The report is required to be submitted by January 31 of each year. This 2016 annual report is the second of such reports prepared by PDS, and covers the period from February 5 thru December 31, 2015; however, for the benefit of comparison, various tables include the data from the previous report.

BACKGROUND

The genesis for the 2014 tree canopy regulations was feedback from developers who in designing projects under the 2009 tree retention regulations, identified a number of issues, including:

- Concerns about survivability of newly planted trees
- Costs to complete a survey of significant trees
- Availability of off-site replanting areas within the immediate vicinity of the proposed project (allowed by code when there was insufficient area on-site for replacement trees)
- Bypassing heavily forested sites due to the cost of the tree retention regulations

In addition, PDS staff hypothesized, that under the tree retention/replacement regulations full build-out density of urban residential sites as prescribed by the Growth Management Act (GMA) Comprehensive Plan might not be feasible on some heavily forested lots. This was noted as a potential conflict with the GMA goals and Puget Sound Regional Council's Vision 2040 which encourage development within UGAs to preserve rural and resource lands.

PDS proposed amending the code to focus around the concept of preserving and expanding tree canopy rather than retaining and replacing individual trees. Following Planning Commission review, stakeholder outreach, and County Council hearings, the code amendments were adopted in October 2014.

2014 ADOPTED TREE CANOPY REGULATIONS

The adopted tree canopy regulations are contained in section 30.25.016 Snohomish County Code (SCC), and set a minimum amount of tree canopy to be provided for each development on a sliding scale depending on the type of residential construction (detached versus attached) and the number of lots or units. Under this approach, a higher canopy percentage is required for single family than multiple family developments to account for a desire to increase density along transit corridors and to accommodate future population growth in an efficient manner. The application of these tree canopy percentages applies to sites which have existing canopy and those that do not.

Table 1. Tree Canopy Coverage Requirements

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

This is an important distinction to the former regulations which only applied to sites with significant trees. This provides an opportunity to expand the urban tree canopy, particularly since these sites already had a requirement to landscape 10 percent of the total gross site area, which could be utilized as space to plant trees.

Retaining significant trees is a main objective of the tree canopy approach. Under the adopted regulations, incentives exist to assist developers with the retention of both individual significant trees and stands of significant trees. The tree canopy regulations maintain the previous requirements that significant trees in critical areas and perimeter landscaping be retained. The adopted regulations address species mix, in particular encouraging more native trees to be replanted, to minimize disease and improve survivability. Finally, the regulations encourage planting the right tree in the right place to ensure long term survivability.

ANNUAL REPORT ON TREE CANOPY: FIVE REQUIREMENTS

The tree canopy report is due to the County Council by January 31 of each year, and per SCC 30.25.014, PDS is required to provide data on the following five topics for the applications it received within the reporting year:

1. The number of applications exempted from tree canopy requirements by each of the exemptions in SCC 30.25.016(1).
2. The number of applications to which the tree canopy requirements are applied, subtotaled by type of application.
3. The number of applications using the Tree Survey method and the number using the Aerial Estimation method for estimating existing tree canopy.
4. For each application to which the tree canopy requirements are applied:

- a. The tree canopy required by Table 30.25.016(3) prior to any adjustments.
 - b. Any adjustments to the required tree canopy, the specific type of incentive or other adjustment, and the specific code authority for the adjustment.
 - c. The required tree canopy after all adjustments.
 - d. The use and effect of applying any other incentives for tree retention.
 - e. The result of the calculation of existing canopy.
 - f. The canopy of trees retained.
 - g. The number of new trees planted.
 - h. The result of the calculation of 20-year canopy.
5. For every allowable type of adjustment, the total number of applications that used it and the total reduction in required tree canopy resulting from it.

Report Requirement #1:

Number of Applications Exempt from Requirements

For this report no data was compiled to track the number of applications that contained activities exempt from the tree canopy requirements; these exempt activities are listed in SCC 30.25.016(1) and in Table 2 below. Since PDS does not issue a permit for pruning or for the removal of hazardous trees, there is no method to accurately track these two activities. An amendment to SCC 30.25.016 should be considered to exclude these activities from the annual report. For the remaining three exempted activities, the current tree canopy calculation worksheet did not provide a means to easily track these activities, and hence the data was not collected. PDS will endeavor to revise the worksheet or permit application in order to furnish this data for future reports.

Table 2. Number of applications exempted from tree canopy requirements

Exempt Activities per SCC 30.25.016(1)	Number of Applications
a. Removal of any hazardous, dead or diseased trees, and as necessary to remedy an immediate threat to person or property as determined by a letter from a qualified arborist	Data Not Available
b. 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	Data Not Available
c. 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	Data Not Available
d. Construction or maintenance of public parks and trails when located within an urban residential zone	Data Not Available
e. Pruning and maintenance of trees	Data Not Available

Report Requirement #2:
Number and Type of Applications

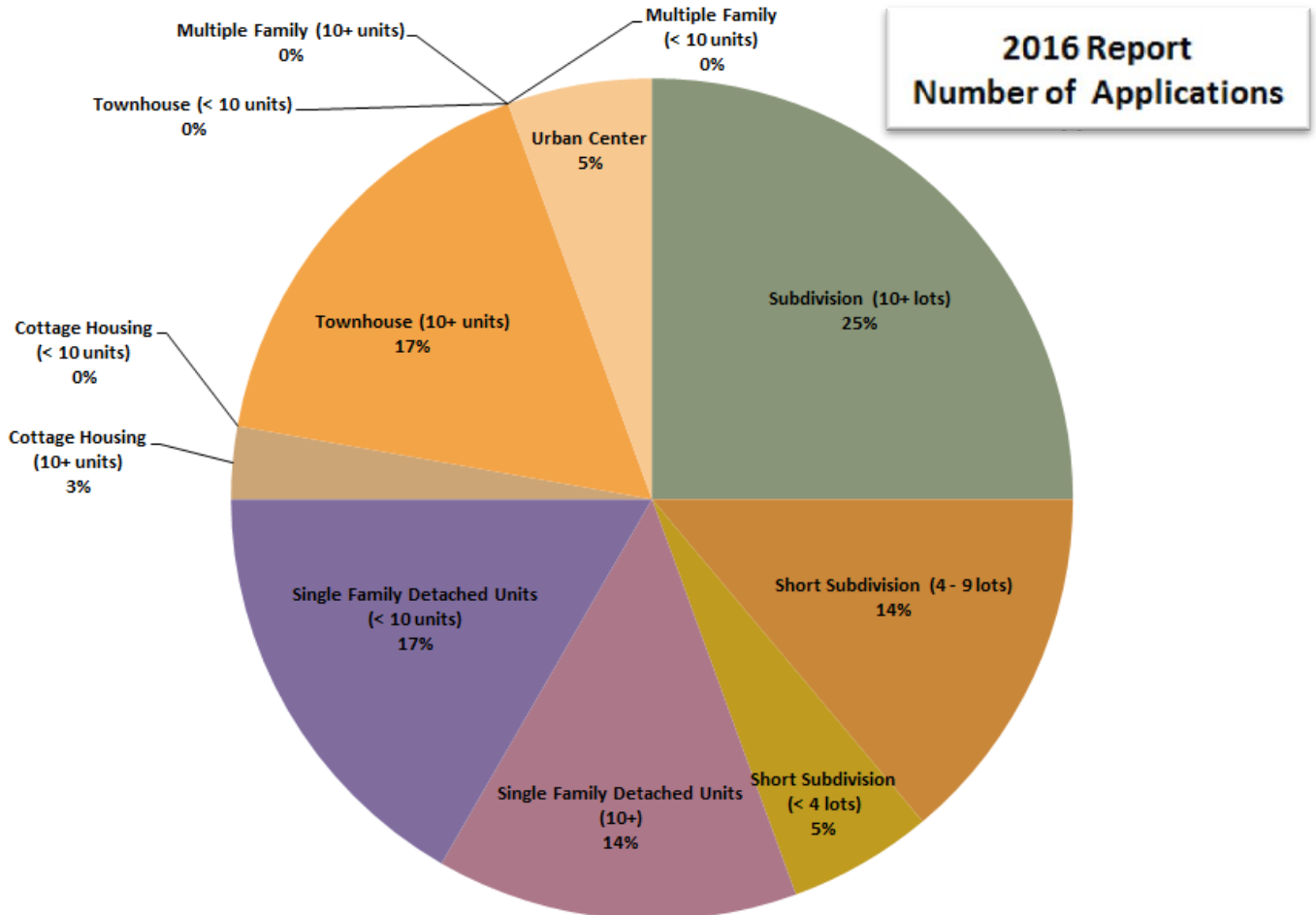
For this reporting year, there were a total of 36 applications that were received; this is an increase from the 11 applications from the previous report. The majority (44%) of the applications were for subdivisions, with 25% comprising subdivisions with 10 or more lots. Table 3 provides the number and type of applications for the 2016 report and includes the numbers for the 2015 report for comparison.

It is important to note that, when collected for inclusion in this report, the 36 applications were in various stages of review that included: approved, reviewed but not approved, and not yet reviewed. This means that some of these applications may not be approved and may be returned to the applicant for revisions. Therefore, the data resulting from these applications may not reflect what is actually included in the approved permit and landscaping plan. For example, a revised application may include necessary changes to meet code requirements such as changes to the species mix ratio, number of existing trees to be retained, or number or type of trees to be planted.

Table 3. Number and Type of Applications

Application Type	2016 Report (2/5/15 – 12/31/15) # Applications	2015 Report (10/27/14 – 2/4/15) # Applications
Subdivision (10+ lots)	9	5
Short Subdivision (4 - 9 lots)	5	2
Short Subdivision (< 4 lots)	2	1
Single Family Detached Units (10+ units)	5	2
Single Family Detached Units (<10 units)	6	0
Cottage Housing (10+ units)	1	0
Cottage Housing (< 10 units)	0	0
Townhouse (10+ units)	6	1
Townhouse (<10 units)	0	0
Multiple Family (10+ units)	0	0
Multiple Family (<10 units)	0	0
Urban Center (residential and mixed use only)	2	0
Total	36	11

Figure 1. Type of applications for 2016 Report (February 5 - December 31, 2015)



Report Requirement #3:
 Number of Applications Using Specific Method to Calculate Existing Tree Canopy

For existing tree canopy, applicants have two options for calculating canopy coverage: tree survey method or the aerial estimation method. Under the tree survey method, the average canopy is calculated for each tree retained, whereas, under the aerial estimation method, an applicant can calculate the extent of the canopy by using a recent air photo.

Of the applications that maintained existing canopy, 7 applied the tree survey method, 14 applied the aerial estimation, and 15 applications exclusively used new tree canopy to meet the tree canopy requirements.

Table 4. Number of Applications Using Specific Method

Tree Canopy Estimation Method	2016 Report (2/5/15 – 12/31/15) # of Applications	2015 Report (10/27/14 – 2/4/15) # of Applications
Tree Survey	7	5
Aerial Estimation	14	3
New Canopy Only – no tree retention	15	3
Total	36	11

Report Requirements #4 & 5:

Data for Each Application & Number and results of Adjustments Used

These two reporting requirements are for more detailed information for each of the 36 applications received during this reporting period. The specific data required for each application is enumerated below (a - h), and is provided in Table 6 (pages 8 - 9).

- a. The tree canopy required by Table 30.25.016(3) prior to any adjustments;
- b. Any adjustments to the required tree canopy, the specific type of incentive or other adjustment, and the specific code authority for the adjustment;
- c. The required tree canopy after all adjustments;
- d. The use and effect of applying any other incentives for tree retention;
- e. The result of the calculation of existing canopy;
- f. The canopy of trees retained;
- g. The number of new trees planted; and
- h. The result of the calculation of 20-year canopy.

For a more comprehensive perspective, Table 5 provides the aggregates for this reporting year and the prior year on data requirements a, b, and g. Totals are not feasible for other data requirements because there were no adjustments made for either reporting year.

Table 5. Aggregate data for 2016 and 2015 applications

Reporting Requirement	2016 Report Period (2/5/15 – 12/31/15) Aggregate of Applications	2015 Report Period (10/27/14 – 2/4/15) Aggregate of Applications
Number of applications	36	11
Tree canopy required by code	1,200,205 sq. ft.	837,731 sq. ft.
Adjustments to canopy requirements	0	0
Total number of trees planted	3,042	1,164
Final 20-year tree canopy calculation	1,606,219 sq. ft.	1,036,381 sq. ft.

In sum, for this reporting year (36 applications), the total 20-year canopy calculation is 1,606,219 sq. ft.; this exceeds the total required tree canopy coverage by 34% or 404,014 sq. ft. A total of 3,042 new trees are to be planted, and none of the applications requested a reduction under SCC 30.25.016(8).

RECOMMENDATIONS

Five-year Tree Canopy Assessment

Because this is only the second tree monitoring report, there is not enough data and actual tree maturation to determine whether or not the tree canopy regulations are meeting the intended outcomes, such as maintaining or enhancing the 30% tree canopy coverage in the county’s unincorporated UGAs. In 2014, and as a lead up to work on the tree canopy code amendments, PDS staff analyzed satellite imagery to determine the amount of existing tree canopy in unincorporated urban growth areas (UGAs). In general, this analysis determined there was approximately 30 percent tree canopy in unincorporated UGAs. The data used to arrive at this figure is provided by the federal government approximately every five years. This exercise could be conducted every five years, using the same methodology, in order to determine if there is any loss or gain to the 30% tree canopy baseline.

Amendments to SCC 30.25.014

Amendments to SCC 30.25.014 (Annual report on tree canopy) should be made to delete the reporting requirement for two exempt activities that PDS does not track.

Improvements to PDS’ Workflow Process

For greater reporting accuracy, PDS will modify its workflow process so that future reports will only contain applications with approved landscaping plans.

Revisions to Tree Canopy Worksheet or Permit Application

As mentioned on page 3 of this report, in order to provide data on specific exempt activities, PDS would need to modify the permit applications or the Tree Canopy Calculation Worksheet in order to obtain this information from the applicant.

Research on Street Trees

The previous report identified an emerging issue related to SCC 30.25.015(8), which requires the planting of street trees. Based on initial findings, street trees prove an effective means to increase the urban tree canopy. However, this research is still on-going and may be presented in a future annual report.

Table 5
Report Requirements 4 and 5 for 2016 Report (2/5/15 - 12/31/15)

Application	Tree Canopy Required	Adjustments to the Required Tree Canopy	Type of Incentive or Adjustment	Code Authority For Adjustment	Required Tree Canopy After Adjustment	Required Tree Canopy Area After Adjustment sf	Use and Effect of Applying any other incentives for tree retention	The Result of the Calculation of Existing Canopy	Calculated canopy of trees retained sf	The number of new trees planted	20 year canopy area calculation sf	Total Tree Canopy Proposed
1503-WLD SHR Townhomes	20%	0	N/A	N/A	20%	121,920	N/A	3.11%	19,054	251	123,681	20.28%
230th Street Townhomes	20%	0	N/A	N/A	20%	7,826	N/A	N/A	N/A	32	9,844	25.20%
51st Avenue Short Plat	25%	0	N/A	N/A	25%	22,357	N/A	5.47%	4,900	41	22,600	25.27%
Ash Way Townhomes	20%	0	N/A	N/A	20%	7,413	N/A	9%	3,351	16	7,761	21%
Belcher/Nealy Short Plat	25%	0	N/A	N/A	25%	25,612	N/A	3.47%	3,551	70	27,271	26.60%
Beverly Court	20%	0	N/A	N/A	20%	12,000	N/A	N/A	N/A	58	13,185	22%
Canton Highlands PRD	30%	0	N/A	N/A	30%	67,582	Significant tree bonus applied to 79 trees	5% (6832 sf bonus)	20,110	236	98,954	43.9%
Cari Crest Short Plat	25%	0	N/A	N/A	25%	10,941	N/A	2.9%	1,290	30	11,045	25.2%
Carrara	30%	0	N/A	N/A	30%	76,959	N/A	N/A	N/A	186	79,566	31%
Creekside Urban Center	15%	0	N/A	N/A	15%	64,991	N/A	15.65%	38,606	122	64,991	26.3%
Diedrich Short Plat	25%	0	N/A	N/A	25%	6,513	Significant tree bonus applied to two trees	8% (with 578 sf bonus)	2,891	22	9,186	25%
Dynasty SFDU-1200 112th St	15%	0	N/A	N/A	15%	3,585	N/A	0	N/A	29	3,585	15%
Edmonds Townhomes	20%	0	N/A	N/A	20%	36,874	Significant tree bonus applied to one tree	.64% (with 3.63 sf bonus)	1,186	120	41,798	22.67%
Fender SFDU	15%	0	N/A	N/A	15%	3,432	N/A	N/A	N/A	10	3,510	15.3%
Gursli Short Plat	20%	0	N/A	N/A	20%	19,521	N/A	38%	N/A	N/A	36,989	38%
Gustalo SFDU	15%	0	N/A	N/A	20%	3,765	N/A	N/A	N/A	10	3,915	15.6%

Application	Tree Canopy Required	Adjustments to the Required Tree Canopy	Type of Incentive or Adjustment	Code Authority For Adjustment	Required Tree Canopy After Adjustment	Required Tree Canopy Area After Adjustment sf	Use and Effect of Applying any other incentives for tree retention	The Result of the Calculation of Existing Canopy	Calculated canopy of trees retained sf	The number of new trees planted	20 year canopy area calculation sf	Total Tree Canopy Proposed
Harmony at Mill Creek	20%	0	N/A	N/A	20%	40,329	100% reduction of onsite recreation space	52.6%	52.6%	N/A	106,101	52.6%
Hawksbeard	30%	0	N/A	N/A	30%	75,812	N/A	N/A	N/A	81	75,812	46.25%
Hawthorne Meadows	20%	0	N/A	N/A	20%	4,530	N/A	5.1%	3,882	9	5,033	22.2%
Hayward Homes, LLC SFDU	15%	0	N/A	N/A	15%	2,308	N/A	N/A	N/A	6	2,480	16.1%
Jefferson 148	20%	0	N/A	N/A	20%	34,341	N/A	N/A	N/A	93	43,440	25%
Lancaster Estates SFDU	20%	0	N/A	N/A	20%	23,039	N/A	N/A	N/A	92	23,041	20%
Macaulay Short Plat	25%	0	N/A	N/A	25%	12,029	N/A	N/A	N/A	45	12,043	25.03%
McCarty SFDU	15%	0	N/A	N/A	15%	2,268	N/A	N/A	N/A	8	2,570	17%
Normandie Woods II	30%	0	N/A	N/A	30%	70,075	N/A	1.4%	3385	207	70,135	30%
Oak Heights Estates	30%	0	N/A	N/A	30%	44,565	N/A	N/A	N/A	100	44,865	30.2%
Parkview Ridge	30%	0	N/A	N/A	30%	124,213	N/A	N/A	N/A	384	124,435	30.2%
Petersen SFDU	15%	0	N/A	N/A	15%	2,183	N/A	13%	1,942	6	4,327	29.7%
Puget Park Apartments	15%	0	N/A	N/A	15%	63,965	N/A	33%	123,159	N/A	123,159	33%
Rosedale Townhomes	20%	0	N/A	N/A	20%	10,803	N/A	N/A	N/A	58	12,830	23.7%
Serene Point	20%	0	N/A	N/A	20%	15,211	N/A	N/A	N/A	86	15,355	20.2%
Shadow Creek	20%	0	N/A	N/A	20%	36,826	N/A	N/A	N/A	183	86,160	46%
Southend Townhomes PRD	30%	0	N/A	N/A	30%	22,544	100% reduction of onsite recreation space	40%	30,000	0	30,000	40%
The Grove at Canyon Park	30%	0	N/A	N/A	30%	121,220	N/A	3.2%	12,888	268	122,049	30.2%
The Woodlands	20%	0	N/A	N/A	20%	37,732	N/A	N/A	N/A	107	37,455	21%
WLD Sierra Townhomes	20%	0	N/A	N/A	20%	48,785	N/A	27%	65,974	N/A	65,974	27%

