



# **Snohomish County Tree Canopy Monitoring 2021**

**Snohomish County Council**

**March 1, 2021**

# Tree Canopy Monitoring Presentation Outline

- Executive Summary
- Report Background and Regulations
- 2021 Report Findings
- Tree Type Diversity
- Recommendations



# Executive Summary

-Tree Canopy Monitoring Report details the canopy preserved and planted for new residential permits in urban unincorporated Snohomish County

-Yearly report required January 31st

**1,147,599 sq. ft.**

Total 20-Year Canopy Area  
(New & Retained)

**3,306**

New Trees  
Planted

**1,126,694 sq. ft.**

Total 20-Year Canopy Area  
Required (New & Retained)

**34%**

Retained  
Canopy

**13,345,275 sq. ft.**

Total 20-Year Canopy Area  
(New & Retained) from 2014-2021

**66%**

Newly Planted  
Canopy

# Tree Canopy Monitoring Regulation



- October 8<sup>th</sup>, 2014 Snohomish County Council adopted Amended Ordinance No. 14-073, modifying development standards for urban residential landscaping to **regulate tree canopy requirements rather than individual trees**
- New requirement for PDS to create a yearly report that summarizes the outcomes on an annual basis to assess their effectiveness



# **Tree Canopy Ordinance Goal**

Seek to maintain canopy coverage through retention and replacement of existing tree canopy in order to provide flexible options for developers to obtain urban densities as prescribed in the Snohomish County Comprehensive Plan

# Summary Of Tree Canopy Regulations:

All new residential  
development in  
unincorporated  
UGAs

Certain  
development  
activities are  
exempt

Applies to all  
properties  
regardless of  
existing tree canopy

Includes retention  
incentives

Requirements  
based on  
development types  
and units/lots

# Tree Canopy Coverage Requirements

Amount of tree canopy coverage required for new urban residential development

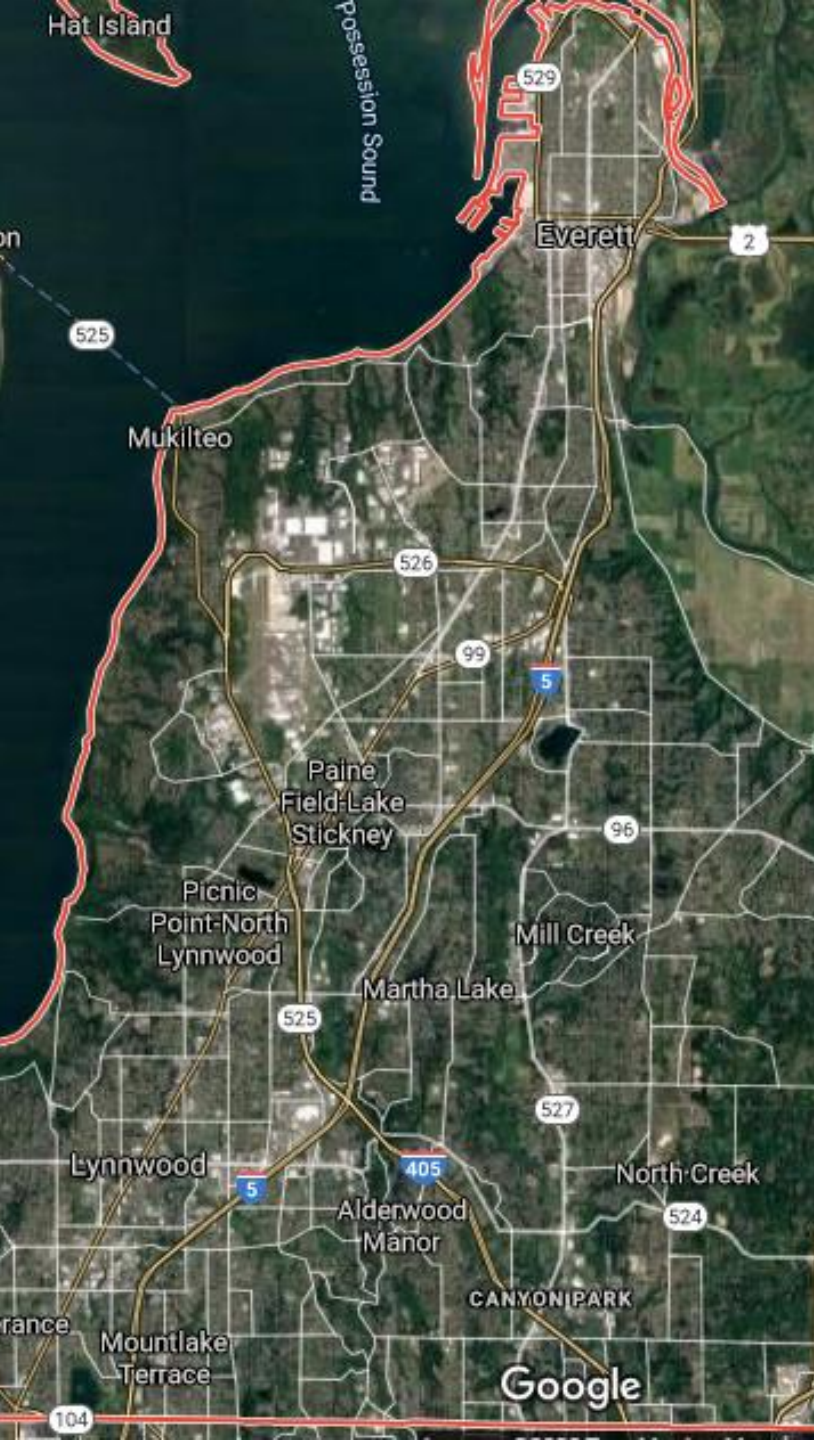
Type of Development	Required 20-Year Tree Canopy Coverage (gross site area)
Subdivisions for Single Family Residential (10+ lots)	30%
Short Subdivisions for Single Family Residential (4 to 9 lots)	25%
Short Subdivisions for Single Family Residential (< 4 lots)	20%
Single Family Detached Units, Cottage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

Tree Canopy  
Coverage

Data Analysis





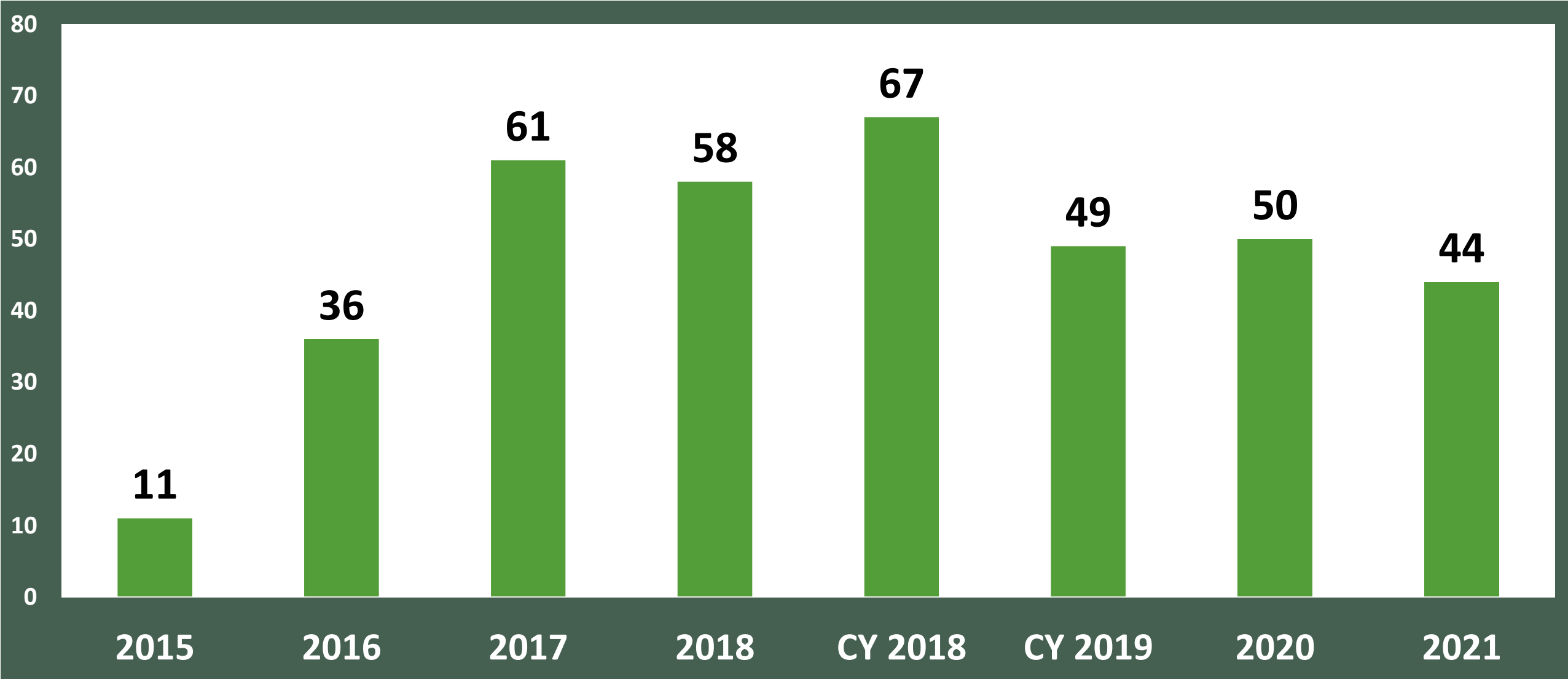


# Establishing A Tree Canopy Baseline

- High-level GIS analysis of Best Available Land Cover Data provided by US Geologic Service from 2007
- 2013 analysis determined the unincorporated UGAs contained an estimated **30%** coverage
- SCC does not require further GIS analysis
- 2020 Report included updated data analysis

# 2021 Tree Canopy Monitoring Report





## Total Permit Applications Subject To Tree Canopy Regulations

# Number of Applications by Method

<b>Tree Canopy Estimation Method</b>	<b>2018 Report (1/17-12/17)</b>	<b>CY 2018 Report (1/18 – 12/18)</b>	<b>CY 2019 Report (1/19 – 12/19)</b>	<b>2020 Report (1/20-12/20)</b>	<b>2021 Report (1/21-12/21)</b>
Tree Survey	6	19	4	7	4
Aerial Estimation	12	11	15	19	11
New Canopy Only	33	37	30	24	29
<b>Total</b>	<b>58</b>	<b>67</b>	<b>49</b>	<b>50</b>	<b>44</b>
<b>Percent of Permits that Retained Canopy Coverage</b>	<b>31%</b>	<b>45%</b>	<b>39%</b>	<b>52%</b>	<b>34%</b>

# Tree Retention

- Retaining significant trees remains an objective of current regulations
- Regulations address species mix, encouraging native trees, and planting the 'right tree in the right place'



# Retained Tree Canopy Data

<b>Tree Canopy Estimation Method</b>	<b>2018 Report (1/17-12/17)</b>	<b>CY 2018 Report (1/18 – 12/18)</b>	<b>CY 2019 Report (1/19 – 12/19)</b>	<b>2020 Report (1/20-12/20)</b>	<b>2021 Report (1/21-12/21)</b>	<b>Cumulative Retained Canopy</b>
Tree Survey (sq. ft.)	58,519	84,051	35,420	22,418	<b>6,199</b>	<b>206,607</b>
Aerial Estimation (sq. ft.)	259,713	253,004	475,231	1,041,803	<b>370,662</b>	<b>2,400,413</b>
Total Retained Canopy (sq. ft.)	318,232	337,055	510,651	1,064,221	<b>376,861</b>	<b>2,607,020</b>
<b>Percent of Canopy Coverage Retained</b>	<b>14.1%</b>	<b>19.9%</b>	<b>28.1%</b>	<b>51.8%</b>	<b>32.8%</b>	<b>29.1%</b>

# Overall Tree Canopy Data

<b>Reporting Requirement</b>	<b>2020 Report</b>	<b>2021 Report</b>	<b><u>Cumulative 2016-2021</u></b>
<b>Number of Applications</b>	<b>50</b>	<b>44</b>	<b>268</b>
<b>Tree Canopy Required (sq.ft.)</b>	<b>1,933,354</b>	<b>1,126,694</b>	<b>7,701,053</b>
<b>Total Canopy New and Retained (sq. ft.)</b>	<b>2,054,772</b>	<b>1,147,599</b>	<b>8,955,614</b>
<b>Total New Trees Planted</b>	<b>2,844</b>	<b>3,306</b>	<b>19,853</b>

# Tree Type Diversity

- 2021 Report incorporates past recommendations to track tree type diversity from permits
- Landscape Designer is required for all tree canopy permits
- Applicants can use the 'Tree Canopy Database' which includes:
  - Species
  - Growth type
  - Drought tolerance
  - Estimated 20-year canopy square footage
- Applicants can also use their own calculations on trees not included on database





# 2021 Tree Type Diversity

**69**

Total Tree Species

**3,306**

New Trees Planted

**8** Species Represented

**55%** of

All New Trees Planted

# 2021 Most Planted Tree Species

<b>Tree Species – Common Name</b>	<b>Tree Species – Scientific Name</b>	<b>Native Species</b>	<b>Evergreen (E) or Deciduous (D)</b>	<b>Trees Planted</b>
<b>Douglas Fir</b>	<i>Pseudotsuga menziesii</i>	Yes	E	<b>301</b>
<b>Vine Maple</b>	<i>Acer circinatum</i>	Yes	D	<b>299</b>
<b>Western Red Cedar</b>	<i>Thuja plicata</i>	No	E	<b>296</b>
<b>Pacific Madrone</b>	<i>Arbutus menziesii</i>	Yes	E	<b>240</b>
<b>Warrenred Pacific Sunset Maple</b>	<i>Acer truncatum</i> x <i>A. platanooides</i> 'Warrenred'	No	D	<b>238</b>
<b>Columnar American Arborvitae</b>	<i>Thuja occidentalis</i> 'Fastigiata'	No	E	<b>208</b>
<b>Incense Cedar</b>	<i>Calocedrus decurrens</i>	No	E	<b>130</b>
<b>Excelsa Western Red Cedar</b>	<i>Thuja plicata</i> 'Excelsa'	No	E	<b>115</b>

# Summary of 2021 Data

3

Applicants Used  
Canopy Bonuses

15

Significant Trees  
Retained

3,306

New Trees  
Planted

2

Permits Met  
Requirements with  
Retained Canopy Only

15

Permits Met  
Requirements with  
Retained and New Trees

# Recommendations for Future Analysis

- Continue to monitor UGA Tree Canopy Coverage using GIS data
- Look out for local, State, and Federal data when available

**Data  
Analysis**



- Updating available trees for landscaping on Native Tree Species List

**Flexibility for  
Applicants**



# Where To Find More Information?

You can find past reports and links to Ordinance and Snohomish County Code here:

[www.snohomishcountywa.gov/2737/Tree-Canopy-in-Landscaping](http://www.snohomishcountywa.gov/2737/Tree-Canopy-in-Landscaping)





Questions?