Date: May 27, 2020

To: Redmond Planning Commission

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Subject: Tree Regulations Update Briefing

Purpose

The purpose of this briefing is to share information staff has compiled regarding tree removal permits, tree protection during review of development proposal, tree regulations from other jurisdictions, and outline the next steps moving towards updating the City's tree regulations.

Background

The City of Redmond adopted its first tree protection regulations (Ordinance 1998) in 1998. In general, the regulations contain tree retention standards for new developments as well as tree removal permits on developed lots. These regulations have not had a comprehensive review since they were adopted over twenty years ago. It is time to check back with the community to determine if these regulations need modifications and are achieving their goals in the context of urban growth.

In 1998, Redmond had a population of 44,383. According to King County's 1998 Growth Report, there were 18,705 housing units (8,635 single family homes and 10,068 multifamily units) and 52,812 jobs. That is a stark difference to current statistics. In 2019, Redmond's population grew to 65,860 people. There were 13,316 single family residences, 19,343 multi-family units, and 97,863 jobs.

A key element of updating the regulations is to first understand the framework we work within. Under the Growth Management Act, Redmond is designated within an Urban Growth Boundary, which essentially means we will continue to absorb population growth as it occurs. The Urban Growth Boundary is a mechanism to curtail urban sprawl. In Redmond, our eastern border is generally the urban growth boundary, curtailing urban development out towards the Snoqualmie Valley.

Redmond's Comprehensive Plan identifies growth in its two urban centers (Downtown and Overlake) in support of light rail. There will undoubtedly be some infill development in established neighborhoods as well, and it is acknowledged that maintaining neighborhood character is important.

There has been tremendous growth in Redmond over the past decade as can be seen in Figure 1 below.

Figure 1. Redmond Growth Over the Past Decade

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Population	54,144	55,105	55,360	57,657	59,482	59,180	60,560	62,110	64,050	65,860
Number of SF Residences	11,952	12,121	12,192	12,301	12,544	12,729	12,888	12,993	13,177	13,316
Number of MF Residences	11,597	11,610	11,912	12,294	13,086	13,486	15,377	17,400	17,765	19,343
Number of Jobs	78,876	78,893	77,615	81,867	84,547	84,064	86,083	94,059	93,766	97,863
Square Footage of Non-Residential	27,669,494	27,755,493	28,026,282	28,250,773	29,010,668	29,263,336	29,510,271	29,739,174	30,379,506	30,541,499

From 2010 to 2019, the City's population has increased by 18% (14,716 new residences). Single family residential construction has increased 10% adding 1,364 new homes. Multi-family construction has increased by 40% adding 7,746 new units. The number of jobs has increase by 19% with 18,987 new employees. Lastly, non-residential construction has increased by 9% adding 2,872,005 new square feet of commercial space.

Tree Definitions

Redmond regulates removal of significant trees and landmark trees. *A significant tree is defined as any healthy tree six inches in diameter at breast height (d.b.h.), or any tree four inches in diameter at breast height (d.b.h.) that, after considering its age, height, value, or function, the tree or tree stand is determined to be significant.* Important factors to note are that significant trees can be any species of tree meeting the size requirement, and they must be healthy. Landmark trees hold special status. *A landmark tree is any healthy tree over thirty inches in diameter*.

Tree Data Analysis

Tree data was pulled from 2015 through 2019 to help provide a picture of what is occurring with tree removal over the past five years in the City of Redmond. Staff reviewed both tree removal permits and tree data related to proposed developments.

Figure 2 below show the number of individual tree removal permits sought over the past five years and in the first quarter of 2020. These are permits that are for existing developed sites, such as single-family homes, apartment complexes, and commercial properties. Tree removal permits are most commonly applied for by individual homeowner for a number of reasons , most commonly related to safety or health.

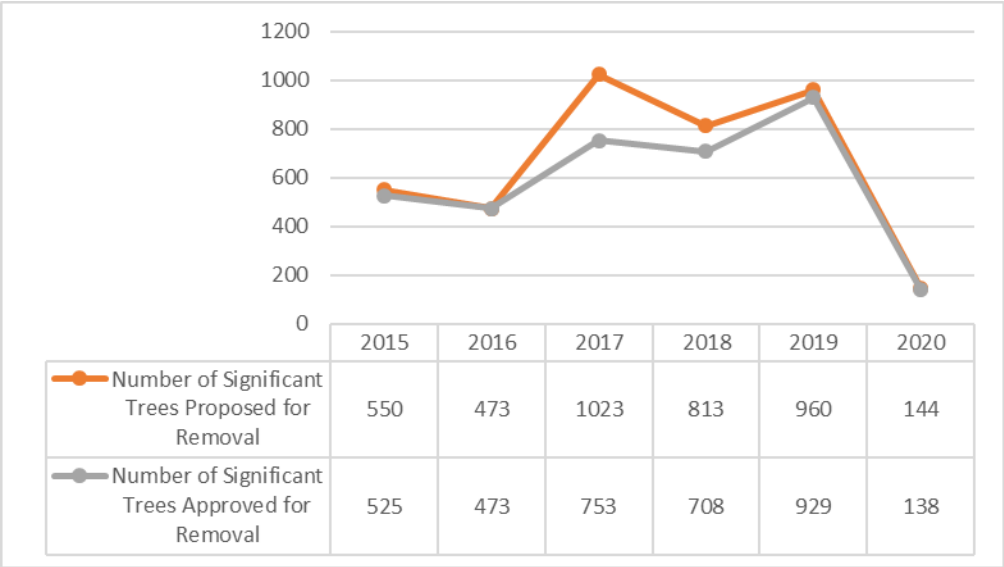
Figure 2. Tree Removal Permits

	2015	2016	2017	2018	2019	2020
Numer of Tree Removal Permit Requests	326	315	432	424	438	62
Number of Tree Removal Permits Issued	324	314	424	412	432	60
Number of Tree Removal Permits Denied	2	1	1	4	1	0
Percent of Tree Removal Permits Issued	99%	100%	98%	97%	99%	97%
Number of Significant Trees Proposed for Removal	550	473	1023	813	960	144
Number of Significant Trees Approved for Removal	525	473	753	708	929	138
Number of Replacement Trees Required	561	539	636	588	458	89

It appears from the data above that the number of replacement trees is not keeping pace with the number of significant trees removed. The tree protection regulations require each significant tree removed be replaced by one new tree. This is clearly an area of improvement needed when issuing tree removal permits.

Figure 3 below represents a comparison of the number of significant trees proposed for removal versus the number of significant trees approved for removal through tree removal permits.

Figure 3. Significant Trees Proposed for Removal vs. Approved for Removal (Tree Removal Permits)



	2015	2016	2017	2018	2019	2020
Number of Significant Trees Proposed for Removal	550	473	1023	813	960	144
Number of Significant Trees Approved for Removal	525	473	753	708	929	138

This graphic illustrates that the City issues most individual tree removal permits, but not all.

City staff observed take-aways from researching tree removal permits on a large scale. Some translate to lessons learned and provide opportunities for improvement for issuing more effective tree removal permits. These observations include:

- The ratio of trees being retained vs removed may not fully reflect the effectiveness of policy over time. The intake planners have been increasingly thorough with applications as they come in the door, therefore significantly reducing the amount of denied applications in recent years by simply educating customers about code, processes, and requirements and eliminating the need for applying in certain scenarios.

- Many residents will include dead, diseased or dying trees in their removal permits. While these trees are documented, they do not require replacements. More detailed and broken out tracking of when unhealthy trees are included as part of tree removal permit applications is also an area of opportunity identified by staff.

- Data entry methods have varied significantly over time due to vague definitions of significant vs. hazardous tree counts, inadequate training, and lack of detailed descriptions.

- A clear understanding of how tree data information can be used will ease the transition into effective data entry methods and unilateral consensus on the proper use of the internal permit tracking modules with the City's permitting system.

Once an effective method for data entry is implemented, quarterly metrics and rigid reporting requirements will ease and facilitate the accurate compiling of meaningful data moving forward.

Development proposals are subject to the tree protection standards as well. All new developments, including additions to existing non-single-family buildings and parking areas requires the retention of 35% of all significant trees. The regulations do allow exceptions to this standard provided specific criteria are met and approved.

Figure 4 shows the number of development proposal from 2015 through 2019 subject to tree protection regulations. This is inclusive of developments proposed in Redmond's two urban centers. On average over the past five years, 73% of land development applications submitted have met the 35% tree retention requirement.

Figure 4. Number of Development Proposals Meeting 35% Tree Retention

	2015	2016	2017	2018	2019
Number of development proposals requiring 35% tree retention	47	47	22	40	51
Number of development proposals meeting 35% tree retention	34	35	19	29	31
Percent of development proposals meeting 35% tree retention	72	75	86	73	61

All significant trees removed as part of development proposals are required to be replaced at a 1:1 ratio. All landmark trees removed are required to be replaced at a 3:1 ratio. Figure 5 contains data related to tree removal numbers and tree replacement requirements.

Figure 5. Number of Significant and Landmark Trees Removed and Replaced for New Developments

	2015	2016	2017	2018	2019
Number of significant trees approved for removal	658	1,774	496	2,737	7,925
Number of trees planted due to significant tree removal	703	2,150	681	2,906	7,970
Number of landmark trees approved for removal	46	91	41	104	117
Number of trees planted due to landmark tree removal	111	288	133	282	351

There were some big numbers of trees proposed for removal over the past two years which are attributed to Sound Transit, Microsoft Refresh, Lake Hills, Project X, and several subdivisions in the Rose Hill Neighborhood. The required 1:1 replacement for significant trees have always been met, if not exceeded in some years. However, it appears the numbers for landmark tree replacements (2015 & 2018) haven't always been met.

As noted above, the tree protection regulations allow exceptions to meeting the 35% tree retention standard as well as permitting landmark tree removal, when specific criteria are met. Figure 6 provides the statistics on exception requests over the past five years.

Figure 6. Tree Exception Requests

	2015	2016	2017	2018	2019
Number tree exception requests	14	25	5	16	15
Number of tree exception requests approved	14	25	5	13	8
Percent of tree exception requests approved	100	100	100	TBD	TBD

Exception requests have run from a high of 25 in 2016 to a low of 5 in 2017. The City has granted all exceptions requests, but it is important to note staff are more vigilant about not allowing submittal of those that wouldn't be supported to apply. The data set for years 2018 and 2019 are not yet complete as some of the projects requesting tree exceptions are still under review.

Tree Regulations of Surrounding Jurisdictions

Staff researched tree codes from other King County jurisdictions, including Kirkland, Sammamish, Bellevue, Issaquah, Renton, and Woodinville. This enabled staff to determine where Redmond falls in the spectrum of tree protection and regulation in the region.

All jurisdictions have similar definitions of significant trees. Sammamish and Bellevue's size of significant trees is eight inches in diameter at breast height (DBH), as opposed to six. Issaquah and Renton use six inches DBH but require cottonwoods and alders be eight inches DBH to be considered significant trees. Issaquah, Sammamish, and Renton regulate landmark trees. Issaquah's and Renton's landmark tree definitions are similar to Redmond's, trees greater than 30" DBH. Sammamish's defines a landmark tree as 32" DBH. However, they do have a heritage tree definition which is a tree greater than 22" (but less than 32") DBH. Issaquah and Woodinville have a heritage tree definition which does not include a minimum size. Similarly, Kirkland has a specimen tree definition that does not include a minimum size.

Five of the six jurisdictions require tree removal permits. Most have a sliding scale of the number of trees that may be removed within one year (365 days) that vary with the lot size, similar to Redmond. All jurisdictions have some level of tree preservation required with land development activity. Th range is requirement ranges from 10% to 50% depending on the jurisdiction and the underlying zoning of the development proposal property. Several jurisdictions have a minimum tree density requirement which is a formula-based calculation. Most jurisdictions require tree replacement plantings. The majority of cities that require tree replacement plantings are consistent with Redmond's 1:1 requirement. Additionally, most of those cities require a minimum size at installation of replacement trees at two-inch caliper. Redmond regulations requires size of replacement trees at two- and one-half-inch caliper for deciduous trees and six feet in height for evergreen trees. For those jurisdictions that have a fee-in-lieu program, Redmond has the lowest fee at $250 per tree, with Woodinville at $500 per tree credit. Others' fees are based on the current market value of the replacement tree and the labor to install them.

Next Steps

The City will define a scope and address updating the tree regulations in the Zoning Code over the next several months. Staff will develop a public engagement plan and establish an internal stakeholders' team.