



## **JOINT PLANNING COMMISSION AND TREE BOARD MEETING MEETING AGENDA**

**Online via Zoom and In Person at  
Tumwater Fire Department  
Headquarters, Training Room, 311 Israel  
Rd. SW, Tumwater, WA 98501**

**Tuesday, January 10, 2023  
7:00 PM**

1. Joint Meeting Call to Order
2. Roll Call - Planning Commission
3. Roll Call - Tree Board
4. Changes to Agenda
5. Approval of Minutes - Planning Commission
6. Approval of Minutes - Tree Board
7. Commissioner's Reports
8. Board Member's Reports
9. Manager's Report
  - a. 2023 Planning Commission Meeting Schedule
10. Coordinator's Report
11. Public Comment
12. Joint Planning Commission and Tree Board Worksession on the Street Tree Plan Update
13. Joint Planning Commission and Tree Board Worksession on Tree and Vegetation Preservation Regulation Update
14. Next Meeting Date - Planning Commission - 01/24/2023
15. Next Meeting Date - Tree Board - 02/14/2023 Joint Meeting with Planning Commission
16. Adjourn

### **Meeting Information**

The public are welcome to attend in person, by telephone or online via Zoom.

#### **Watch Online**

[https://us02web.zoom.us/webinar/register/WN\\_Sduon7WBSF2CgBt1Y6wcuw](https://us02web.zoom.us/webinar/register/WN_Sduon7WBSF2CgBt1Y6wcuw)

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After registering, you will receive a confirmation email containing information about joining the webinar.

The public may also submit comments prior to the meeting by sending an email to:

[cdd@ci.tumwater.wa.us](mailto:cdd@ci.tumwater.wa.us). Please send the comments by 1:00 p.m. on the date of the meeting.

Comments are submitted directly to the Commission Members and will not be read individually into the record of the meeting.

If you have any questions, please contact Planning Manager, Brad Medrud at (360) 754-4180 or [bmedrud@ci.tumwater.wa.us](mailto:bmedrud@ci.tumwater.wa.us).

### **Post Meeting**

Audio of the meeting will be recorded and later available by request, please email

[CityClerk@ci.tumwater.wa.us](mailto:CityClerk@ci.tumwater.wa.us).

### **Accommodations**

The City of Tumwater takes pride in ensuring that people with disabilities are able to take part in, and benefit from, the range of public programs, services, and activities offered by the City. To request an accommodation or alternate format of communication, please contact the City Clerk by calling (360) 252-5488 or email [CityClerk@ci.tumwater.wa.us](mailto:CityClerk@ci.tumwater.wa.us). For vision or hearing impaired services, please contact the Washington State Relay Services at 7-1-1 or 1-(800)-833-6384. To contact the City's ADA Coordinator directly, call (360) 754-4128 or email [ADACoordinator@ci.tumwater.wa.us](mailto:ADACoordinator@ci.tumwater.wa.us).

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### *What is the Planning Commission?*

*The Tumwater Planning Commission is a citizen advisory commission that is appointed by and advisory to the City Council on the preparation and amendment of land use plans and implementing ordinances such as zoning. Actions by the Planning Commission are not final decisions; they are Commission recommendations to the City Council who must ultimately make the final decision. If you have any questions or suggestions on ways the Commission can serve you better, please contact the Community Development Department at (360) 754-4180.*

### *What is the Tree Board?*

*The Tumwater Tree Board is a citizen advisory board that is appointed by and advisory to the City Council on urban forestry issues, including drafting and revising a comprehensive tree protection plan or ordinance, or any other tree matter. Actions by the Tree Board are not final decisions; they are Board recommendations to the City Council who must ultimately make the final decision. If you have any questions or suggestions on ways the Tree Board can serve you better, please contact the Water Resources & Sustainability Department at (360) 754-4140.*

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### **Decorum Statement**

Welcome to the Joint Planning Commission and Tree Board worksession. We are pleased you are interested in the City's update of its tree and vegetarian preservation regulations, and thank you for attending.

The City Council encourages community engagement in local government and provides a variety of ways to participate.

The Chair of the Planning Commission will be responsible for conducting orderly and efficient meetings within the scheduled time. To accomplish that, the Chair will maintain order and decorum and can regulate inappropriate debate, repetitious discussion, and disruptive behavior when needed.

The Chair will recognize those that wish to speak and may limit the time allowed for individual comments. City staff and the project consultant will record questions and comments during the meeting. If an issue or question cannot be addressed during the meeting, the Chair and City staff will address the issue or respond to the question by following up with the individual.

We respectfully request that attendees refrain from disruptions during the meeting and comply with decorum rules.

Thank you for participating.

**DRAFT TUMWATER PLANNING COMMISSION - 2023 MEETING SCHEDULE**

Note: Schedule is tentative and subject to change; Updated 1/4/23

<b><u>MEETINGS</u></b>	<b><u>AGENDA ITEMS</u></b>
January 10, 2023	<u>Joint Worksession with Tree Board</u> : Urban Forestry Amendments – Tree and Vegetation Preservation Regulation Update – Brad <u>Joint Worksession with Tree Board</u> : Urban Forestry Amendments –Street Tree Plan – Introduction - Brad
January 24, 2023	<u>Briefing</u> : Preliminary Docket for 2023 Comprehensive Plan Amendments (O2023-0XX) – Brad <u>Worksession</u> : Urban Forestry Amendments – Tree and Vegetation Preservation Regulation Update – Brad <u>Worksession</u> : Urban Forestry Amendments –Street Tree Plan –Brad
February 14, 2023	<u>Joint Worksession with Tree Board</u> : Urban Forestry Amendments – Tree and Vegetation Preservation Regulation Update – Brad <u>Joint Worksession with Tree Board</u> : Urban Forestry Amendments – Landscaping Regulation Update – Brad
February 28, 2023	<u>Worksession</u> : Preliminary Docket for 2023 Comprehensive Plan Amendments (O2023-0XX) – Brad
March 14, 2023	
March 28, 2023	<u>Hearing</u> :
April 11, 2023	<u>Joint Briefing with Tree Board</u> : Urban Forestry Amendments – Tree and Vegetation Preservation Regulation Update (O2023-0XX) – Brad
April 25, 2023	
May 9, 2023	
May 23, 2023	<u>Worksession</u> : Urban Forestry Amendments – Tree and Vegetation Preservation Regulation Update (O2023-0XX) – Brad
June 13, 2023	<u>Joint Briefing with Tree Board</u> : Urban Forestry Amendments –Street Tree Plan (O2023-0XX) – Brad <u>Joint Worksession with Tree Board</u> : Urban Forestry Amendments – Tree and Vegetation Preservation Regulation Update (O2023-0XX) – Brad
June 27, 2023	<u>Hearing</u> : Urban Forestry Amendments – Tree and Vegetation Preservation Regulation Update (O2023-0XX) – Brad
July 11, 2023	<u>Joint Briefing with Tree Board</u> : Urban Forestry Amendments – Landscaping Regulation Update (O2023-0XX) – Brad <u>Joint Worksession with Tree Board</u> : Urban Forestry Amendments –Street Tree Plan (O2023-0XX) - Brad
July 25, 2023	<u>Hearing</u> : Urban Forestry Amendments –Street Tree Plan (O2023-0XX) - Brad <u>Briefing</u> : Final Docket for 2023 Comprehensive Plan Amendments (O2023-0XX) – Brad
August 8, 2023	<u>Joint Worksession with Tree Board</u> : Urban Forestry Amendments – Landscaping Regulation Update (O2023-0XX) – Brad
August 22, 2023	<u>Worksession</u> : Final Docket for 2023 Comprehensive Plan Amendments (O2023-0XX) – Brad <u>Worksession</u> : Urban Forestry Amendments – Landscaping Regulation Update (O2023-0XX) – Brad
September 12, 2023	<u>Hearing</u> : Final Docket for 2023 Comprehensive Plan Amendments (O2023-0XX) – Brad <u>Hearing</u> : Urban Forestry Amendments – Landscaping Regulation Update (O2023-0XX) – Brad
September 26, 2023	

<b><u>MEETINGS</u></b>	<b><u>AGENDA ITEMS</u></b>
October 10, 2023	
October 24, 2023	
November 7, 2023	<u>Discussion</u> : Election of New Planning Commission Chair and Vice Chair
November 21, 2023	<u>Discussion</u> : 2024 Work Program
December 12, 2023	<u>Joint Worksession with City Council</u> : 2024 Work Program
December 26, 2023	[May Cancel Meeting]

January 9, 2024 – Joint meeting with the Tree Board

**Notes:**

The following will need to be scheduled on the Planning Commission meeting schedule:

- Planning Commissioner Training – Brad
- Mayor Sullivan Meet and Greet and Q&A with Advisory Boards and Commissions – Brad

TO: Planning Commission and Tree Board  
 FROM: Brad Medrud, Planning Manager  
 DATE: January 10, 2023  
 SUBJECT: Joint Planning Commission and Tree Board Worksession on the Street Tree Plan Update

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1) Recommended Action:

Review the packet and be prepared for a discussion with the City's consultant and staff to start the project.

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2) Background:

Trees are an essential part of the character of the City. As part of a healthy community and urban forest, they provide many environmental, economic, and community benefits. Trees and their associated vegetation work constantly to mitigate the negative effects of development, while protecting and enhancing lives within the community. In addition to environmental benefits such as improving and protecting water and air quality, directly and indirectly addressing the effects of climate change, and buffering urban noise, trees and their associated vegetation also have socioeconomic and aesthetic benefits, including promoting equity and environmental justice within the community by ensuring each neighborhood in the City receives community investment and support.

The Tumwater City Council made urban forestry one of four top priority actions for 2022-23. The City Council adopted the *Urban Forestry Management Plan* on March 2, 2021 after four years of entirely City-funded work by City staff, stakeholders, a consultant, the Tree Board, and the Planning Commission.

The City's urban forest consists of all trees and understory plants on public and private property in the City. It includes a diverse mix of vegetation that is managed by a broad group of individuals and groups that are located in a range of urban and natural settings including private properties, developed parks, rights-of-way, conservation areas, and other public lands.

The focus of the *Urban Forestry Management Plan* is the "The Right Tree in the Right Place." The *Urban Forestry Management Plan* guides the stewardship of the urban forest within the City through a series of implementation actions. The primary goals, objectives, and actions that address street trees include:

**Goal 1.** Restore and enhance the community and urban forest.

**Objective 1.1.** Increase canopy cover in the City to expand the community and urban forest.

**Action C.** Require appropriate tree planting in new development and redevelopment, by emphasizing proper planning for trees, correct planting techniques, and aftercare that supports the healthy establishment of newly planted trees.

**Objective 1.2.** Improve and maintain an optimal level of age distribution and species diversity of trees in the community and urban forest by increasing the use of desirable trees.

**Action A.** Designate tree species based upon specific purposes and site conditions for each project and maximize the benefits of trees while maintaining species diversity.

**Goal 3.** Manage City-owned community and urban forestry resources for maximum benefit.

**Objective 3.3.** Improve the health and care of City trees through good horticultural practices.

**Action A.** Develop the recommended City Street Tree and Landscaping Tree Lists based on local experience.

**Action E.** Consider the implications of having the City assume maintenance responsibilities for all street trees in City rights-of-way.

**Objective 3.4.** Establish or enhance the character of City streets using trees in City rights-of-way, where adequate rights-of-way exist.

**Action A.** Use the updated Comprehensive Street Tree Plan to guide the enhancement of the visual appeal of the City.

**Goal 4.** Balance the protection and support of the community and urban forest with other City strategic priorities, which include, in part, providing affordable housing, developing a walkable urban community, economic development, addressing climate change, and protecting endangered species.

**Objective 4.1.** Update the *Urban Forestry Management Plan* and supporting regulations regularly and ensure they work in harmony with other City strategic priorities.

**Action D.** Review tree preservation, landscaping, and street tree regulations regularly to ensure that they are working with other City strategic priorities, plans, and regulations, responding to changes in climate, and implementing the *Urban Forestry Management Plan*.

The Street Tree Plan update is the next step in the City's implementation of the *Urban Forestry Management Plan*. As part of this project, the City's consultant, The Watershed Company, and City staff will work with stakeholders and the Tree Board, Planning Commission, and City Council to update the City's Street Tree Plan and regulations (TMC 12.24 *Street Trees*), as well as review and update other relevant regulations and standards.

The City is currently updating its tree and vegetation preservation regulations (TMC 16.08) and will be updating City's landscaping regulations (TMC 18.47) this year.

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3) Alternative:

☐ None.

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4) Attachments:

- A. Gap Analysis
- B. Public Engagement Plan



## Gap Analysis

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# STREET TREE ORDINANCE (TMC 12.24) AND STREET TREE PLAN CITY OF TUMWATER

December 2022

Prepared for:

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*Title-page image: Street trees in Tumwater,  
The Watershed Company.*

The information contained in this report is based on the application of technical guidelines currently accepted as the best available science. All discussions, conclusions, and recommendations reflect the best professional judgment of the author(s) and are based upon information available at the time the study was conducted. All work was completed within the constraints of budget, scope, and timing. The findings of this report are subject to verification and agreement by the appropriate local authorities. No other warranty, expressed or implied, is made.



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Appendix A

    Jurisdictional Comparison Research

Appendix B

    TMC 12.24 Street Trees

Appendix C

    Street Tree Field Trip Notes Memo

Appendix D

    Street Tree Plan Scope of Work Memo

DRAFT



# 1 Introduction

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The City of Tumwater’s urban forest provides environmental, health, and aesthetic benefits to the entire community. The urban forest is a dynamic ecological system that includes canopy trees as well as associated understory vegetation on both public and private land. It contributes to the City’s character, economic vitality, and a variety of environmental and human health benefits such as reducing urban heat island effects, stormwater management and water quality improvement, erosion reduction, wildlife habitat, and biodiversity, improving mental health and wellness, recreation, and mitigating the impacts of climate change. Like many cities in the Puget Sound region, the Tumwater community is faced with the need to support population growth and development while also ensuring environmental sustainability and promoting equity and environmental justice in its policies.

To meet this challenge, the City Council established “Be a Leader in Environmental Sustainability” as one of its Strategic Priorities in the City of Tumwater Strategic Priorities with the goal of “implement[ing] [the] Urban Forestry Management Plan.” The City Tree Board, with support from the Community Development Department and community stakeholders, created the Urban Forestry Management Plan, which was adopted by City Council on March 2, 2021. To achieve the objectives of the Urban Forestry Management Plan, the City established a review and revision of the City’s street tree code (TMC 12.24 *Street Trees*) as well as the update of its existing Street Tree Plan, developed in 2002, as a high priority action (Tumwater 2021). In addition, the City will also be looking at other related codes, including TMC 16.08 *Protection of trees and vegetation* and TMC 18.47 *Landscaping*, in 2023.

In 2021 and 2022, the Tree Board, Planning Commission, and City planning staff began work to update the Street Tree Plan, which included field trips (See Appendix C) to four sites to learn about street tree conditions in the City and work-sessions to develop a scope of work and priorities for the revised Street Tree Plan (Medrud 2022). The City articulated that the audience for the Street Tree Plan would include residents, homeowner associations, commercial and industrial property owners, developers, landscape architects, arborists, tree professionals, and City tree and landscape maintenance staff. They also identified that the City should address the following sustainable resource management topics within the Street Tree Plan:

- Street Tree Management Plan
- Funding
- Staffing
- Assessment Tools and Data Management

- Species and Site Selection
- Standards for Tree Care
- Public Safety
- Equity
- Reuse

This gap analysis includes the assessment of both the City's municipal code governing the management of street trees as well as the City's 2002 Street Tree Plan, which serves as a best practices manual for City staff as well as for external professionals and stakeholders engaged in street tree care and maintenance in the City. Furthermore, this analysis draws from industry best practices, local urban forest management trends, and regulatory approaches within the Puget Sound region. Features from similar cities' Street Tree Plans or equivalent documents, which may be of interest to the City, are identified along with recommendations based on the latest tree management guidance.

One challenge of urban forest management lies in the fact that these are complex regional and watershed-scale natural systems where regulatory practices differ across local jurisdictions. Furthermore, urban forest types vary by ecoregion and climate type; what may work in eastern Washington cities may not work for the species and habitat types found in western Washington. It is essential that planning and design guidelines are grounded in best practices for urban forest management informed by the best available science in arboriculture<sup>1</sup> and silviculture best practices, urban tree canopy science, critical areas, stormwater management, climate change impacts and adaptation, and sustainable landscape strategies.

Urban forest management is also informed by the priorities, values, and resources of the community. Therefore, the code and Street Tree Plan updates will need to be tailored to address the needs of specific neighborhoods, business districts, landowners, and existing City resources, as well as balance competing City and regional priorities, including developing urban intensities, protecting federally listed prairie species, and providing affordable housing in a geographically constrained area.

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<sup>1</sup> Best practices for arboriculture include but are not limited to the American National Standards Institute (ANSI) A300 Standards, which are industry consensus standards developed by the Tree Care Industry Association written by the Accredited Standards Committee. ANSI standards cover everything from specific tree care specifications such as pruning and planting to worker safety.



## 1.1 Methodology

This gap analysis is the first step in revising TMC 12.24 *Street trees* and the City's Street Tree Plan, and it will frame topics to be discussed and addressed by the Tree Board, Planning Commission, and City Council. The Watershed Company (Watershed) will meet with City Staff, Tree Board, and Planning Commission members beginning in January 2023 to discuss the current street tree ordinance and Street Tree Plan. The project team will also launch a public engagement process to solicit input from external stakeholders that build on the engagement process currently underway for the update to TMC 16.08 *Protection of trees and vegetation*. Priorities identified during stakeholder meetings and public comment provided on the Tumwater Urban and Community Forest Online Open House, coupled with existing code and policy review, will inform and guide the street tree code and Street Tree Plan update process. Community members will also have the opportunity for further involvement by participating in public hearings in 2023.

## 1.2 Plan and Policy Review

### 1.2.1 City Design Guidelines

Watershed reviewed TMC 12.24 *Street trees* and City codes that reference tree management, including TMC 16.08 *Protection of trees and vegetation* and TMC 18.47 *Landscaping*. In addition, Watershed reviewed City and regional planning and policy documents to assess tree protection and management references, identify nexus with the existing street tree preservation code and Street Tree Plan, and note opportunities for revision. Those documents include the following:

- 2021 Tumwater Urban Forestry Management Plan
- Tumwater Town Center Street Design Plan
- Design Guidelines for Capitol Boulevard Community Zone
- Capitol Boulevard Corridor Plan
- Tumwater Development Guide
- Tumwater Citywide Design Guidelines
- Tumwater Brewery District Plan
- Tumwater Littlerock Road Subarea Plan

Watershed also completed a jurisdictional code comparison of other Washington jurisdictions within the Puget Sound region with similar land use and urban interfaces that are referenced throughout this document. See Appendix A for a table of findings. Additionally, Watershed staff reviewed other critical City and regional planning documents, including the Tumwater

Comprehensive Plan and Thurston Climate Mitigation Plan, to ensure that the street tree code and Street Tree Plan updates align with local climate resilience and sustainability priorities and the Growth Management Act.

### *1.2.2 Street Tree Plans*

Watershed completed an assessment of the 2002 Tumwater Street Tree Plan as well as reviewed the street tree plans from the City of Seattle (SDOT 2014), the City of Portland (Portland Parks and Recreation 2016), and the City of Vancouver, WA (City of Vancouver 2011). Although these cities have higher populations and are more heavily urbanized than Tumwater, their Street Tree Plans are grounded in the best available science and arboriculture practices. Additionally, these plans are well organized, comprehensive, and easy to understand and serve as good examples of publishable Street Tree Plans for Tumwater to use as a reference.

### *1.2.3 Urban Forestry Management Plan*

The goals and strategies that will guide the update process for TMC 12.24 *Street trees* and the Street Tree Plan are derived from the Urban Forestry Management Plan. The Urban Forestry Management Plan guides the stewardship of the urban forest within the City through a series of implementation actions; its core focus is “The Right Tree in the Right Place.” The primary goals, objectives, and actions of the Urban Forestry Management Plan that specifically inform regulatory strategies and the code update of TMC 12.24 *Street trees* and Street Tree Plan development include:

#### ***Goal 1. Restore and enhance the community and urban forest.***

*Objective 1.1. Increase canopy cover in the City to expand the community and urban forest.*

*Action B. Ensure that landscaping regulations provide for the preservation of trees with potential and the planting of new trees and understory when removing existing trees and understory on public and private properties.*

*Action C. Require appropriate tree planting in new development and redevelopment, by emphasizing proper planning for trees, correct planting techniques, and aftercare that supports the healthy establishment of newly planted trees.*

*Action E. Support and incentivize the use of large-canopy trees in appropriate areas to provide maximum benefits.*

*Objective 1.2. Improve and maintain an optimal level of age distribution and species diversity of trees in the community and urban forest by increasing the use of desirable trees.*

*Action A. Designate tree species based upon specific purposes and site conditions for each project and maximize the benefits of trees while maintaining species diversity.*

Action B. Stagger new and replacement tree plantings to encourage age distribution and species diversity.

Objective 1.3. Establish a full complement of beautiful, healthy trees in the City by planting trees in locations that maximize their ability to grow while minimizing damage to the essential infrastructure of the City.

Action A. Plan citywide for trees along City streets and in City parks and open spaces, maintain an approved City planting list, and designate nuisance trees for removal and replacement.

Action B. Develop a partnership with the City Stormwater Utility to support maintenance of the City's urban forest and staffing.

Action C. Look at enlarging planting sites to capture stormwater, benefit trees, and reduce hardscape damage such as sidewalk failures or gratings not fitting due to confined growing space for trees. Consider increasing resources to prioritize repairing sidewalk damage.

Action D. Encourage engineering solutions in planting sites such as silva cells, automatic watering systems, or similar options to ensure the healthy growth of trees.

**Goal 2. Protect and preserve the community and urban forest, which includes trees, understory, habitat, and soils.**

Objective 2.1. Use regulatory and non-regulatory approaches to protect and retain the community and urban forest to the extent practicable within the context of necessary growth and development.

Action A. Enforce tree protection regulations to protect healthy existing trees and forested areas and replace on public and private properties.

Action B. Enforce landscaping regulations to preserve existing trees and understory as well as replace on public and private properties.

Action C. Implement tree-pruning standards for trees on public property such as street trees, trees in critical areas, public land, parks, and trees in natural areas and remnant forests.

Objective 2.2. Develop a City street tree-trimming program.

Action A. Develop tree-trimming areas based on optimal equipment mobilization, priority locations, current tree inventory, and best management practices.

Action C. Prohibit inappropriate tree topping using education and enforcement. Where overhead power lines are creating conflicts, consider replacing the trees with shorter species or burying the power lines to reduce such conflicts.

Action D. Consider tree growth patterns as a factor prior to planting, especially in instances where a dense sight obscuring barrier or exceptionally large tree is not desirable, such as in front of a business.

**Goal 3. Manage City-owned community and urban forestry resources for maximum benefit.**

Objective 3.1. Promote efficient and cost-effective management of the community and urban forest by selecting, situating, and maintaining urban trees appropriately to maximize benefits and minimize hazards, nuisances, hardscape damage, and maintenance costs.

Action B. Develop and enforce design phase and preconstruction coordination protocols to ensure “The Right Tree in the Right Place.”

Action C. Define and assign street tree maintenance and care responsibilities and publicize for greater awareness and compliance.

Objective 3.2. Adopt best management practices and resource management assessment tools and data management to improve City tree maintenance to manage City-owned community and urban forest areas.

Action B. Regularly review and update the Public Works standards, the Development Guide, and facilities procedures for the maintenance of City trees and the community and urban forest and modify to reflect best tree management practices and employee safety.

Action F. Develop resources for proper tree care that are available to the public, simple to reference, and easily understood.

Objective 3.3. Improve the health and care of City trees through good horticultural practices.

Action A. Develop the recommended City Street Tree and Landscaping Tree Lists based on local experience.

Objective 3.4. Establish or enhance the character of City streets using trees in City rights-of-way, where adequate rights-of-way exist.

Action A. Use the updated Comprehensive Street Tree Plan to guide the enhancement of the visual appeal of the City.

Action B. Maintain and regularly update an ongoing planting plan for vacant street tree sites based on inventory data, which includes designating species for new and

*replacement trees based on the Street Tree List that focuses on filling canopy gaps to produce equitable access to tree benefits and green space throughout the City.*

*Action D. Take the tree health assessment prepared for the Urban Forestry Management Plan and identify specific varieties regularly that will survive the urban environment, climate impacts, and winter wind and ice storms.*

***Goal 4. Balance the protection and support of the community and urban forest with other City strategic priorities, which include, in part, providing affordable housing, developing a walkable urban community, economic development, addressing climate change, and protecting endangered species.***

*Objective 4.1. Update the Urban Forestry Management Plan and supporting regulations regularly and ensure they work in harmony with other City strategic priorities.*

*Action D. Review tree preservation, landscaping, and street tree regulations regularly to ensure that they are working with other City strategic priorities, plans, and regulations, responding to changes in climate, and implementing the Urban Forestry Management Plan.*

*Action E. Review and update the Comprehensive Street Tree Plan regularly to reflect “The Right Tree in the Right Place” strategies, including plantings in planter strips and medians and encourage planting of native tree species, where appropriate.*

*Action F. Review the Street Tree List and Landscaping Tree List regularly to ensure plant choices and tree selection implement the Urban Forestry Management Plan.*

The Urban Forestry Management Plan recognizes that different community and urban forest subtypes may require different approaches to tree management based on environmental conditions and land use designations, as described in the City’s Comprehensive Plan. Environmental conditions account for the tree species and plant types most appropriate for a site, historical use, and conditions, as well as soils, hydrology, and microclimates. Land use accounts for the density of development within a subarea. Tree management differs in higher-density urban land developments compared with lower-density residential areas, open spaces, and critical areas. The tree and vegetation protection code update aims to integrate these concepts. The 2021 Urban Forestry Management Plan can be found on the City website or on the [Tumwater Urban and Community Forestry Online Open House](#).

#### 1.2.4 Thurston Climate Mitigation Plan

Cities and towns in the Puget Sound region are already feeling the impacts of climate change, including hotter summers, extended periods of summer drought, an increase in air pollution, extreme flooding, and increased rain events (Climate Impacts Group 2022). A healthy urban tree canopy helps to mitigate some of these impacts through carbon sequestration; the capture, filtration, and slow release of stormwater; and providing shade. The Thurston Regional Planning Council, a partnership between the Cities of Tumwater, Lacey, Olympia, and Thurston County, seeks to reduce climate-polluting greenhouse gases and develop a regional framework to address this critical environmental issue. Together they developed the Thurston Climate Mitigation Plan (2021), which recognizes the important role that trees, vegetation, and healthy soils play in carbon sequestration, erosion reduction, stormwater management, and providing habitat. Strategy A5/A6/A7: Preserve tree canopy and manage forests and prairies to sequester carbon includes specific actions consistent with the Urban Forestry Management Plan, including:

*A6.5 Municipal Canopy. Maximize tree canopy on jurisdiction owned or managed land, where appropriate in balance with other jurisdictional goals.*

*A6.9 Tree Canopy Preservation. Develop a tree canopy ordinance that establishes a baseline for current urban canopy and sets goals for future canopy to increase resilience. Combine direct cooling value (urban heat island mitigation) with carbon sequestration value when evaluating urban tree management.*

Throughout the municipal code and street tree plan update process, the City will be considering the implications of climate change on street tree management. As much as trees and urban forests help to mitigate the impacts of climate change, they are also greatly affected by the shifts in temperature, precipitation, the growing season, and other factors, such as an increase in pest infestations that result from these changes. Heatwaves, drought, and flooding can cause a decline in tree health and increased mortality in some species. Although many tree species grow in a wide geographic range and may exhibit adaptations and “plasticity” in the face of changing growing conditions, the Puget Sound is starting to see the decline of some of our key native species, including bigleaf maple (Betzen et al. 2021) and western redcedar (Fischer 2019) as well as challenges to tree establishment and vigor in other horticultural varieties.

As noted in the Urban Forestry Management Plan, the City will need to employ management strategies to ensure the resilience of the City’s urban forest. The City street tree ordinance and street tree plan can serve as a tool by guiding tree species selection, as noted earlier, timing of landscape plant installations, and monitoring protocols to assess tree health and potential pest outbreaks.

### 1.3 Internal and External Stakeholder Engagement

City and Watershed staff will be facilitating public meetings with external stakeholders beginning in January 2023, collectively called Community Conversations, to educate the public on the street tree code and Street Tree Plan update and solicit feedback, concerns, and priorities for street tree management within the City of Tumwater. These will be “hybrid” meetings hosted online, with in-person attendance provided at City Hall or the Fire Department Training Room. An internal stakeholder session with City staff will be conducted in early January 2023 to enlist input from City employees who implement and enforce the City street tree management.

Additionally, the City is hosting an Online Open House website to engage community members who cannot attend the stakeholder meetings. The Tumwater Urban and Community Forestry Online Open House invites all stakeholders to provide public comment and serves as a hub for project updates and background information. Public comments provided online and during stakeholder meetings will be summarized as an appendix in a final version of this Gap Analysis. Data will be assessed and integrated into the ordinance update and Street Tree Plan as applicable and feasible.

### 1.4 Document Organization

This report is organized in the following manner:

- Section 2. Analysis of Existing Street Tree Ordinance  
This section includes recommendations for updating TMC 12.24 *Street Trees* (See Appendix B). Potential gaps are identified within each section by topic. This section also addresses additional regulatory or urban forest management topics not addressed within the existing ordinance.
- Section 3. Analysis of 2002 Street Tree Plan  
Section 3 includes potential gaps and recommended revisions to the City’s 2002 Street Tree Plan. The original Street Tree Plan is linked within the Reference section of this report.
- Section 4. Additional Considerations  
This section includes additional considerations and recommendations that pertain to the Street Tree Plan update not currently included in the 2002 Street Tree Plan.
- Section 5. Regulatory Linkages: Consideration with other City Plans and Guidelines  
Section 5 discusses regulatory linkages with other City documents where street trees are discussed or may require additional references and amendments including other related City tree protection or landscaping codes.

- Section 6. Proposed Street Tree Plan Organization  
Section 6 details a proposed outline for the revised Street Tree Plan.
- Section 7. References  
This section includes references used throughout the report.

## 2 Analysis of Existing Street Tree Ordinance

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### 2.1 Introduction

Tumwater’s existing street tree ordinance (TMC 12.24 *Street trees*) outlines regulatory requirements pertaining to planting authority, prohibited tree species, the definition and abatement of nuisance trees, stump and root removal, and enforcement. The current ordinance (See Appendix B) would benefit from reorganization with additional sections by specific topics as well as added references to other applicable codes and policy/planning documents. This would provide clarification and improve functionality for greater ease of use and application by the reader.

#### **Summary of Recommendations:**

- Reorganize the ordinance with additional topics sections and added references

### 2.2 Statement of Purpose or Intent

TMC 12.24 *Street trees* does not include a statement of purpose or intent. The City may consider adding this to ensure consistency with the adopted 2021 Urban Forestry Management Plan. This section should consist of an introductory paragraph that describes the recent Urban Forestry Management Plan planning efforts and reference the most up-to-date Street Tree Plan.

Additional topics could include:

- General intent of the chapter is to ensure traffic visibility for pedestrian, bicycle, or vehicular traffic, protect utilities, streets, accessible access, and sidewalk infrastructure, link together various parts of the City, ease transitions from various land uses, mitigate the impacts of development on stormwater and urban heat islands, as well as growing the urban tree canopy.
- Include a statement that reflects the Urban Forestry Management Plan’s guiding principle of “Right Plant, Right Place” to manage trees and vegetation in accordance with industry standards, best management practices established by the International Society of Arboriculture (ISA) and the American National Standards Institute (ANSI) for Management of Trees During Site Planning, Development and Construction, Pruning, and Tree Risk Assessment.



### Summary of Recommendations:

- Develop and include a statement of purpose and intent

## 2.3 Definitions

One goal of this code update is to ensure that the revised ordinance is straightforward and easy to understand. To that end, additional terms are necessary to ensure the ordinance is accessible to City planners, industry professionals, and community members. As specific amendments are proposed, additional definitions may be needed to ensure conciseness within the ordinance. Furthermore, there may be definitions remaining that are no longer applicable and can be removed. Definitions should be crafted to reduce ambiguity and adhere to industry standards and best management practices established by ISA and ANSI.

Definitions should be reviewed for consistency across other chapters of the Tumwater municipal code, including TMC Title 16 *Environment*, Title 17 *Land Division* (TMC 17.04 *Definitions*), and Title 18 *Zoning* (TMC 18.04 *Definitions*). For example, a definition of a street tree is defined in TMC 17.04 *Definitions*, whereas Title 12 *Streets, Sidewalks, and Public Places* do not have a separate definitions section. A definitions section may be included in Title 12 *Streets, sidewalks and public places*, or a reference to TMC 17.04 *Definitions*, could be included in TMC 12.24 *Street trees*.

### Summary of Recommendations:

- Include additional, relevant terms; remove terms deemed inapplicable
- Determine how these definitions should be accessed (included in Title 12 or as a reference to Title 17.04)

## 2.4 Street Tree Standards and Specifications

TMC 12.24 *Street trees* does not currently include planting and maintenance standards, nor does it cross-reference the City's Street Tree Plan. Street tree specifications are referenced as "in accordance with the development guide." The City could consider adding a code section titled "Street Tree Management Standards" with subsections on street tree species selection, pruning and maintenance requirements, and reference to the City Street Tree Plan. Further discussion on these topics can be found in Sections 3.5.1, 3.9.9, and 4.4 of this report.

### Summary of Recommendations:

- Include a new section, "Street Tree Management Standards," with relevant subsections

## 2.5 Jurisdiction and Authority

The City should clarify the roles and jurisdiction of tree management and maintenance by the City versus when adjacent private landowners are responsible for trees within the right-of-way. This section should articulate that the City is responsible for formal arterial and streetscapes and informal roadside vegetation within public unimproved rights-of-way. Likewise, the code should clarify when private landowners are responsible for the management of trees within adjacent rights-of-way, such as privately owned street trees. Other jurisdictions include a specific list of rights-of-way in the code where City is responsible such as the City of Burien (BMC 12.38.080 *City maintenance responsibility list*).

### Summary of Recommendations:

- Describe the roles and jurisdictions of tree management and maintenance
- Clarify when private landowners are responsible for the management of trees in adjacent ROW

## 2.6 Permit Requirements: Public Tree Removal and Pruning

The City may consider establishing a permitting process specifically for the removal or pruning of street trees with clear procedures outlined in TMC 12.24 *Street trees*. The request to remove a public tree should require an arborist report by a qualified professional and have associated fees. Pruning requests would not require any fees, but an ISA-certified arborist should be required to perform the pruning of public trees according to ANSI A300 standards. Other jurisdictions within the Puget Sound region include tree or right-of-way use permit requirements for planting, removing, and pruning of public trees. Examples included in the jurisdictional code comparison conducted for this report include the City of Burien (BMC 12.38.040), Edmonds (ECC 18.85.020), and Shoreline (SMC 12.30.040) (See Appendix A).

### Summary of Recommendations:

- Establish and describe protocols for permitting requirements related to tree management in rights-of-way

## 2.7 Assessment of TMC 12.24 by Code Section

### 2.7.1 Planting of certain types of trees prohibited (TMC 12.24.010)

This section describes which species shall not be planted within the City rights-of-way. Willow, cottonwood, and poplar trees are identified as nuisance species due to the invasive quality of their root systems. These are also included on the list of prohibited trees for the City and excluded from tree retention calculation standards within TMC 16.08 *Protection of trees and*

*vegetation*. The City also has a list of trees not allowed in public rights of way to minimize impacts to sidewalks and other infrastructure conflicts.

The City may consider expanding its prohibited tree list to include trees known to be invasive in natural areas and open spaces, such as English holly (*Ilex aquifolium*), which can create dense thickets – especially in upland forests of Western Washington, outcompete native vegetation, and is on the monitor list with the Washington State Noxious Weed Board (WANWCB).

Likewise, the City may consider expanding its preferred tree list to include other drought-tolerant or climate-adapted species suitable within restricted planted space within City rights-of-way. For further discussion of prohibited and preferred tree species and the development of an Approved Street Tree List, see Section 3.5.1 of this report.

#### **Summary of Recommendations:**

- Update the list of prohibited trees
- Revise and expand the approved street tree list

#### **2.7.2 Unauthorized planting in public spaces prohibited (TMC 12.24.020)**

This section discusses the prohibition of planting any trees or shrubs in any public space without permission from the City. It expands the list of prohibited trees to include fruit trees (except ornamental varieties), nut trees, Ailanthus, Mountain ash, Oregon or big leaf maple, American elm, or any other tree whose roots are considered invasive, which could lead to inevitable conflicts with sidewalks and other public infrastructure.

Consider consolidating this species list with the list of prohibited trees under 12.24.010 instead of having them in two separate sections. See Section 3.5.1 of this report for further discussion of species selection.

#### **Summary of Recommendations:**

- Consolidate and amend the street tree list to include species listed above
- See Section 3.5.1 of this report for additional discussion

#### **2.7.3 Trees and shrubs endangering usefulness of streets and sidewalks – Public nuisance (TMC 12.24.030)**

Public nuisance is first defined in TMC 8.04.030 *Public nuisance defined*. This section outlines how a tree, shrub, or other vegetation may be declared a public nuisance along with TMC 12.24.050 *Fire hazards – Abatement*. Consider consolidating these code sections into one new section that covers public nuisances. See Section 2.7.5 of this report regarding fire hazards.

Vegetation that jeopardizes the safety or inhibits access or use of any public street, sidewalk, sewer, or underground utility is considered a public nuisance. This code provision allows trees to extend over the sidewalk when its crown is raised eight feet above sidewalks and fourteen feet above roadways. Section 4.19.C of the Tumwater Development Guide also states that trees impeding visibility at intersections need to be “trimmed from the base to a height of 10 feet above the street” (Tumwater 2019). This standard should be consistent across the municipal code and planning documents or clarify in which circumstances the standard can be altered. City should also direct readers to street tree pruning and maintenance standards located in the City’s revised Street Tree Plan.

**Summary of Recommendations:**

- Consider consolidating code sections (TMC 12.24.030 and TMC 12.24.040)
- Clarify pruning clearance height expectations for sidewalks and streets

*2.7.4 Abatement of nuisance (TMC 12.24.040)*

This section explains that the Director shall provide written notice to the owner of previously described nuisances to mitigate through trimming or removal. The expense shall be taken on by the owner. If mitigation is not done in a timely manner in accordance with the written notice, a bill may be given to the owner. There are no suggested changes to this section currently.

*2.7.5 Fire hazards – Abatement (TMC.12.24.050)*

Any vegetation that has grown and died on a property is considered a fire and safety hazard and is considered a public nuisance. The onus lies with the property owner to mitigate. As noted earlier, consider consolidating this section with TMC 12.24.030 to address public nuisances in one section. The City should also consider adding a reference to the current Hazards Mitigation Plan or Street Tree Plan.

*2.7.6 Stumps and roots – Removal (TMC 12.24.060)*

This section discusses the requirements for stump grinding for trees and shrubs. After stump grinding, should roots remain, a suitable compound is required to prevent future sprouting. If any roots have impacted the street, curb, or sidewalk, those roots shall be removed, and the infrastructure repaired. The City should consider including this in a new section titled “Street Tree Management Standards,” as noted in Section 2.4 of this report, or reference the specific management standards referenced in the Street Tree Plan. The standard for stump and root treatments should also reference the City’s Integrated Pest Management (IPM) policy or standards for herbicide use to control stump sprouting. The City should also specify when and if a right-of-way or street-use permit is required to perform this work.

**Summary of Recommendations:**

- Consider creating a new code section, “Street Tree Management Standards”
- Include reference to the City’s IPM policy as it relates to herbicide use
- Determine if and when a ROW or street-use permit is required to perform stump removal

#### *2.7.7 Appeals (TMC 12.24.070)*

No changes are proposed, and the appeals procedure is cross-referenced to the appropriate development code to avoid redundancy and consistent language during future code updates to the section.

#### *2.7.8 Enforcing authority (TMC 12.24.080)*

This section states, “The public works director or his/her duly authorized representative shall be charged with the enforcement of this chapter.” While the Transportation & Engineering Director has replaced the Public Works Director as the responsible party for street related issues, these code amendments will not be updating references to the old Public Works Director position, as that is a code wide issue. No changes are recommended for this section.

#### *2.7.9 Violation – Penalty (TMC 12.24.090)*

This section of the City code could be evaluated for consistency with other tree-related code violations. Currently, TMC 12.24.090 states that “violation of or failure to comply with any provision of this chapter shall constitute a misdemeanor.” The City may consider structuring violation penalties by whether they are associated with a development project versus trees adjacent to existing development.

There is variation across jurisdictions on the assignment of fines and penalties related to public trees. The City of Burien street tree code also references RCW 64.12.030 *Injury to or removing trees, etc. – Damages* that pertain to the timber trespass statute in the Revised Code of Washington.

#### **Summary of Recommendations:**

- Consider penalty structure for violation of this code
- Determine fines and penalties as they relate to injuring or removal of street trees

#### *2.7.10 Remedies not exclusive (TMC 12.24.100)*

This section states, “The remedies prescribed in this chapter are in addition to all other remedies provided or authorized by law, including damages to the City’s proprietary interests.” No changes are recommended for this section.

## 2.8 Monitoring

As outlined in Objective 4.1 Action D of the Urban Forestry Management Plan, the City will review urban forestry regulations in the municipal code to evaluate their effectiveness in achieving other City strategic priorities, plans, and regulations, responding to changes in climate, and implementing the Urban Forestry Management Plan (Tumwater 2021). This will begin with this code update, anticipated to be completed by summer 2023, and then every four years. The City could consider including this provision in the municipal code itself.

### Summary of Recommendations:

- Consider including an update interval into TMC 12.24 *Street Trees*

## 3 Analysis of the 2002 Street Tree Plan

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### 3.1 Overview of Section 3

Tumwater's existing Street Tree Plan (Tumwater 2002) was developed in 2002 by Washington Forestry Consultants. The plan focuses on the use of trees as a central design element to link different areas of the City together. It describes different planting design themes and provides recommendations on tree species selection by addressing mature trees in the landscape, lifespan, character and form, and cold hardiness. Tree species recommendations are outlined for specific types of streets (main artery, connector, etc.). It includes suggestions for planting strip dimensions to support tree growth, basic best management practices for tree planting, after-planting care, and maintenance practices. An overview of the City code and document review is described, and recommendations for the next steps for urban forestry management are included.

The following gap analysis is organized by the title section of the 2002 Street Tree Plan (report Sections 3.2 through 3.10). Recommendations for revisions are provided with references to examples from other jurisdictions. Additional recommendations for the revised Street Tree Plan follow in Section 4 and they are organized by topic. Regulator linkages with related City codes, policies, and guides are described in Section 5. The proposed organization of the revised Street Tree Plan is in Section 6.

### 3.2 Executive Summary

The Executive Summary of the 2002 Street Tree Plan includes a brief overview of the contents, a description of the 2002 canopy conditions, and broad canopy goals. In lieu of an Executive Summary, the City could consider combining it with the information currently housed in the

Introduction to create one section detailing the Street Tree Plan's purpose, scope, and intent. The *Purpose, Scope, and Intent* section should place the Street Tree Plan in context with City's broader planning and management framework – with references to related municipal codes and policies. The importance of street tree management should be referenced as a critical tool for achieving the City's canopy cover goals. It should also serve as a stand-alone and defensible plan when the City is reviewing development applications. This section should describe the intended audience defined in Section 1 of this report (See Appendix D).

**Summary of Recommendations:**

- Condense executive summary and introduction sections into a *Purpose, Scope, and Intent* section
- Reference goals stated in the Urban Forestry Management Plan and other relevant municipal codes and policies

### 3.3 Introduction

The existing introduction section describes the overarching canopy goals of the City, emphasizing the design importance on a community-wide basis and trees' ability to link different City areas together. As noted above in Section 3.2, the Introduction could be combined with the Executive Summary to characterize the purpose, scope, and intent of the Street Tree Plan. The revised section will need to reference and reflect the goals, objectives, and actions outlined in the City's 2021 Urban Forestry Management Plan as stated in Section 1.2.3 of this report (Tumwater 2021).

**Summary of Recommendations:**

- Condense executive summary and introduction sections into a *Purpose, Scope, and Intent* section

### 3.4 The Street Tree Planning Process

This section describes various planting design themes and their applications. It also discusses mature tree size, lifespan, characteristics, hardiness, and species diversity. Comments per section topic are discussed below. Any discussion of street tree planning and planting should ensure synergy with TMC 18.47 *Landscaping*.

#### 3.4.1 Planting design patterns

Design recommendations outlined in this section would be better suited to a City street design plan. Design themes are discussed in the Town Center Street Design (Tumwater 2003) and the Capitol Boulevard Corridor Plan (Tumwater 2014). See the Reference section of this report for



links to these documents. The City should ensure that specific neighborhood or district design documents reflect best planting and management practices outlined in the revised Street Tree Plan.

#### **Summary of Recommendations:**

- City design documents should reflect best management practices
- Determine what level of detail regarding street tree design is desired
- Present the information graphically

#### **3.4.2 Mature Tree Size**

This section discusses the limitations trees face in the urban environment that may restrict a tree from maturing to its full size. These considerations would be better suited under Street Tree Selection. See Section 6 of this report for a proposed outline.

#### **Summary of Recommendations:**

- Combine topics related to tree species selection (mature tree size, lifespan of trees, tree character, and species diversity) under one section (See Section 6 of this report for a proposed outline) and utilize this information to help inform the updates to the Approved Street Tree List.

#### **3.4.3 Longevity of Species**

This section lists common fast-growing tree species that are often planted. These fast-growing species result in higher maintenance costs and often need to be replaced sooner than slower-growing species. These considerations would be better suited under *Street Tree Selection* and incorporated into the Approved Tree List table. See Section 6 of this report for a proposed outline.

#### **3.4.4 Tree Character**

This section describes tree characteristics, such as form, leaf color, and branch habit, which help determine tree selection. These considerations would be better suited under *Street Tree Selection* and incorporated into the Approved Tree List table. See Section 6 of this report for a proposed outline.

#### **3.4.5 Diversity of Street Trees**

This section discusses the importance of avoiding monocultures when unexpected disease and pest pressures emerge. This should include findings of the 2018 citywide tree inventory, canopy diversity goals discussed in the Urban Forestry Management Plan, and industry



recommendations. Based on best arboriculture practices the recommendation is to limit any one genus to 10% and species to 5% (Galle et al. 2021). While these thresholds do not consider the surrounding matrix of trees or the non-inventoried street trees in Tumwater, it is good practice to aim for these numbers by increasing species diversity, thus reducing the risk of losing significant portions of the street tree canopy. These considerations would be better suited under *Street Tree Selection*. See Section 6 of this report for a proposed outline.

### 3.5 Current Tree Conditions

This section describes the results of the 1997 street tree inventory and species planted in old and recent plantings. Existing soil conditions of Tumwater are also outlined in this section. Recommendations regarding backfill soil for tree planting are briefly discussed. This section also notes that supplemental irrigation is required three years post-planting to ensure healthy root growth. In the case of trees planted in sidewalks with tree grates or in parking lots, the Street Tree Plan encourages species selection to reflect increased soil and air temperatures.

The City completed an updated street tree inventory in 2018. For further discussion of the 2018 data, see Section 4.6 of this report. Objective 1.3 Action A of the Urban Forestry Management Plan, recommends updating this inventory on a five-year basis. All current information on 2018 tree inventory results, diversity findings, and tree selection should be moved to a new section titled *Street Tree Selection*. Soil amendment requirements should be included in the detailed specifications for plantings and should be moved to *Planting Guidance* along with requirements regarding irrigation, watering requirements, and tree grates. See Section 6 for all recommended changes to the revised street tree plan outline. Additional comments regarding irrigation and watering are found in Section 3.9.6 of this report.

#### Summary of Recommendations:

- Include 2018 inventory data in the Street Tree Plan and proposed update intervals. The Urban Forestry Management Plan recommends every five years (Objective 3.3 Action A Priority 2)
- Include specifications for soil amendments

#### 3.5.1 Street Tree List

Growing healthy full-sized canopy trees in the built environment requires careful consideration of optimal growing conditions by species, proper planting practices, and protection of infrastructure (e.g., buildings, utilities, driveways, sidewalks, and fences). To achieve this, the City has developed an approved tree list ([Approved Street Tree Species | City of Tumwater, WA](#)) to guide street tree selection on commercial, industrial, and residential development projects. The current Street Tree Plan also includes a recommended tree list (See Table 1, page

13). The list is organized by size, crown spread, and spacing. The Street Tree Plan also includes a list of conifer species considered suitable for informal plantings.

The City should consider revising this list to provide homeowners and other landowners with “Right Tree, Right Place” guidance on preferred and prohibited tree species and planting practices aligned with planting specifications outlined in TMC 18.47 *Landscaping* and the revised Street Tree Plan.

Additionally, species selection and recommendations should be informed by current trends in the region’s changing climate. The University of Washington Climate Impacts Group predicts that Western Washington will likely see increasingly drier conditions and higher temperatures during the summer months, with potential increases in precipitation during the winter months. This increases stressors on urban trees, such as drought, insect, and tree disease outbreaks. As the City develops its preferred tree lists and resources, species should be prioritized that Perform well under summer drought conditions and outline best practices for tree installation and establishment. The City should reference this resource in the applicable tree protection, landscaping, and development codes and provide access on the City’s urban forestry website.

Both lists within the current Street Tree Plan should be cross-referenced with the species noted in the Urban Forestry Management Plan, the Tumwater Development Guide Chapter 3, the Tumwater Capitol Blvd Design document, the Tumwater Town Center Street Design document, and the Approved Street Tree Species list published on the City of Tumwater website. The updated list should be revised to remove problematic trees and include new suitable species with a focus on enhancing the diversity of the street tree population, procurement availability, and our evolving climate with drier, hotter summers.

The City may also include prohibited street tree species in their own list. Prohibited trees should include invasive trees, trees with weak wood, and trees that drop fruit on the sidewalk or street. The City should consider adding the following invasive or aggressive species to those listed in TMC 12.24.010 *Planting of certain types of trees - prohibited*:

- *Crataegus monogyna* – common hawthorn (invasive in natural areas)
- *Ilex aquifolium* – English holly (invasive in natural areas)
- *Paulownia tomentosa* – empress tree (aggressive and quick growing, potentially invasive)
- *Prunus avium* – bird cherry (invasive in natural areas)
- *Sorbus aucuparia* – European mountain ash (invasive in natural areas)

Trees cited in the 2018 citywide tree inventory known to have infrastructure conflicts may also need to be added to the prohibited tree list. The trees listed below are included because they require large planting areas and they are known to have aggressive root systems, which can cause infrastructure conflicts.

- *Acer platanoides* – Norway maple (roots; invasive – Seattle does not allow planting this within 1,000 feet of greenbelts)
- *Acer rubrum* – red maple (roots)
- *Acer truncatum* x *A. platanoides* – sunset maple (roots)
- *Fraxinus* spp. – ash (roots)
- *Liriodendron tulipifera* – tulip tree (roots)
- *Pyrus calleryana* – Callery pear (becoming invasive in other areas)

Field trip notes compiled by the Tree Board and Planning Commission on Sept 22, 2022 (See Appendix C), recorded two species to avoid—maples and sweetgums. Additional information is needed to determine why these two species were cited (i.e., infrastructure conflicts). In addition, if the City updated Street Tree Plan covers the entire ROW, including natural areas, the City may want to create an additional list with approved native trees to plant in natural areas adjacent to the road.

Consider creating one Approved Street Tree List, listing common and botanical names, noting such specifics as best-suited locations (i.e., under powerlines) and spacing recommendations, and including it in the updated Street Tree Plan. The final list should be a living document and, as recommended by the Urban Forestry Management Plan, be evaluated and updated every five years (Objective 3.3 Action A Priority 2). When the Approved Street Tree List is updated in coming years, consider including the scope and budget to perform a street tree suitability test. This field test would involve an arborist assessing species in the built environment around the City of Tumwater. The arborist would look for current infrastructure conflicts, especially pertaining to root conflicts. Trees consistently found to be in conflict may need to be removed from the list.

Example planting resources and tree lists include the Seattle Department of Transportation's Approved Street Tree List and City of Kirkland tree lists and homeowner education materials, which are linked in the References section of this report for further consideration.

#### **Summary of Recommendations:**

- Cross-reference existing Street Tree Lists
- Establish an Approved Street Tree List to be included in the Street Tree Plan and on the City's website
- Consider including a Prohibited Tree List in the master list that could reference the Noxious Weed Board's most current list of trees.

### 3.6 Street Tree Themes

This section describes high-need areas, potential planting opportunities, and species recommendations. Table 2 in this section describes recommended primary and secondary trees along specific streets, with an accent tree and utility tree. This detailed information seems better suited for a master plan document like the Tumwater Town Center Street Design or Design Guidelines for Capitol Blvd Community Zone than the operating Street Tree Plan document. However, the design information may be better relayed through a map graphic. None of the other Street Tree Plan reviewed included high-level design details within the document.

#### Summary of Recommendations:

- Determine what level of detail regarding street tree design is desired
- Consider presenting the information graphically

### 3.7 Street Profiles for Trees

This section described ideal tree spacing to achieve tree-lined streets it and should be combined with Section 3.8. Both sections should reside within the Street Tree Planting section described in the proposed Street Tree Plan outline. See Section 6.

### 3.8 Planting Space Recommendations

This section recommends 8-foot-wide planter strips when designing sidewalk areas to reduce future infrastructure conflict and emphasizes providing trees with enough root space to allow the tree to come to maturity. General spacing recommendations are also included for large, medium, columnar, and small street trees.

Several Tumwater documents note planting strip width recommendations and tree spacing.

- **Tumwater Development Guide Chapter 3** (4.49.C-D *Street Trees*)
  - “Planter strips shall typically be 6 feet in width to provide adequate root space and water infiltration.”
  - “Trees shall be located at least 3 feet behind the backside of the curb...spaced 30 feet on-center, starting 15 feet from the property line.”
- **Tumwater Town Center Street Design** (*Street Character*)—streets to include 6-foot-wide planter strip.
- **Tumwater Capitol Blvd Design** (B.1.2 *Properties Fronting on Side Streets*) – “must provide a sidewalk at least 6-foot-wide sidewalk with a 6-foot-wide planter or a 12-foot-

wide sidewalk with tree wells. The planting strip must include at least one street tree for every 30 feet of frontage.”

A consensus on the minimum amount of planting space should be agreed upon before implementation. Tree spacing recommendations should be included in the updated Street Tree Plan and could be presented in the master Approved Street Tree list table as its own column. Establishing minimum planting space requirements (planter strip width, etc.) should be included in the Tumwater Development Guide and the Street Tree Plan. Any areas too small to support tree growth should also be listed; for example, planting strips less than three feet in width (Portland 2016).

#### **Summary of Recommendations:**

- Determine the minimum allowable planting area and tree spacing
- Include recommendations for use of silva cells
- Include this determination in the Tumwater Development Guide

### **3.9 Street Tree Planting and Maintenance**

This section outlines several aspects of the planting and maintenance process, including budget, stock quality, preparation of the planting hole, the orientation of the tree to be planted, tree grates, burlap and wire basket, fertilization, watering, mulching, staking, trunk wraps, root collar protection, pruning, inspections, planting timing, record keeping, and management units. Many topics discussed in this section follow current best management practices and should be included in the updated Street Tree Plan. See Section 6 for the recommended outline. Comments per section topic are discussed below for those needing updates, revisions, or clarification.

#### **3.9.1 Budget**

This section details the recommended per-tree annual budget (\$7-\$10 per tree) needed to adequately maintain street trees, noting that as trees grow, the budget should also reflect the aging trees.

While overall maintenance costs may increase, choosing the right tree for the right place and establishing a proactive maintenance program while the tree is young will help mitigate many problems as the trees age, such as infrastructure conflicts and poor canopy structure. The City should consider whether it would like to include general cost estimates or budget information in the updated Street Tree Plan. Other jurisdictions reviewed as part of this analysis do not include cost estimates or budget information. Instead, the Street Tree Plan serves as the best management guideline.

### Summary of Recommendations:

- Determine if the City wants to include budget information

#### 3.9.2 Stock Quality

The recommendations referenced in this section of the current Street Tree Plan regarding stock selection, although sound, were published in 1996 by the American National Standard for Nursery Stock. Instead, consider a reference to the most current standard on the Tumwater Street Tree webpage and the Resources section of the updated Street Tree Plan. An additional paragraph within the existing Street Tree Plan describes procurement contracting between the City and a nursery. If helpful for internal City staff use, this procedure should be updated to represent current or desired practices.

Minimum tree size requirements should also be included. The Tumwater Development Guide requires street trees to measure 2 or 3 inches in caliper (Chapter 4.49.B, page 4-41), which is similar to, but slightly larger than the size thresholds used by other jurisdictions. Size thresholds for street tree stock is generally consistent across other jurisdictions that include different minimum replacement tree size requirements based on tree type (broadleaf or conifer)<sup>2</sup>. Caliper recommendations from the jurisdictional review are as follows:

Table 1. Recommended Tree Species Size

City	Broadleaf (Caliper/Height)	Conifer (Caliper/Height)
Burien, WA	2 – inches in caliper	6 feet in height
Edmonds, WA	Largest caliper available	
Lacey, WA	2 – inches in caliper	7 feet in height
Olympia, WA	1-2 inches in caliper *size requirements based on development type	3-4 feet in height *size requirements based on development type
Portland, OR	1.5 - 2.5 inches in caliper	5 feet in height
Vancouver, WA	1.5 - 2 inches in caliper	
Tumwater (existing)	2 - 3 inches in caliper	
Recommended	1.5-2 inches in caliper	6-7 feet in height

<sup>2</sup> This standard is based on the American Standard for Nursery Stock (ANSI Z60.1) published by the American Horticulture Industry Association (aka AmericanHort). This was developed to standardize the system for measuring and describing plants based on tree type to facilitate the trade in nursery stock with professionals in the arboriculture and landscaping industry. Some jurisdictions also utilize these size thresholds to ensure that trees at the time of planting are of a size and structure to dissuade acts of vandalism or damage and thus are more likely to reach maturity.

### Summary of Recommendations:

- Determine if procurement information is helpful to City officials to be included in this document
- Determine the minimum size of replacement trees based on tree type

#### 3.9.3 Tree Grates

Within the current Street Tree Plan, tree grates are recommended for use if the only planting location is within a sidewalk. The grates should be five feet by five feet. Tumwater Town Center Street Design recommends using permeable pavers to help increase the water supply and available soil to trees. Tumwater Capitol Blvd Design (Section C.1.2. A-C Pedestrian Circulation) requires trees “as approved by the Director, [to] be placed at an average of 30 feet on-center and placed in grates.”

Tree grates generally do not contribute to a tree’s overall well-being during its lifespan. Too often, grates cause trunk or root girdling issues or roots cause grates to uplift, thus creating a pedestrian tripping hazard. If there are instances where there is no alternative, the City should decide when tree grates are required and include a detail depicting best practices for installation. Additionally, the City should clarify who will oversee maintaining the tree grates and removing rings as the tree grows. Situations, when permeable pavers are preferred, including narrow sidewalks with less-than-ideal planting space, should be specified. Consider including proactive sidewalk solutions such as silva cells or interlocking pavers.

### Summary of Recommendations:

- Determine when tree grates are required (include a standard detail)
- Determine which department is responsible for tree grate maintenance and removal
- Include proactive sidewalk solutions

#### 3.9.4 Burlap and Wire Basket

The current Street Tree Plan notes that “prior to completing backfill, cut out the upper 2/3’s of the wire basket and remove from the hole.” Current best management practices vary for this recommendation. The City should consider how it would like to approach this practice and include the decision in the Street Tree Plan.

- **Seattle:** At a minimum, twine, burlap, and wire baskets should be removed to expose the top 2/3 of the root ball. Full removal of twine, burlap, and wire baskets is preferred.

- **Portland:** All of the burlap and wire shall be completely removed from the root ball before backfilling.
- **Vancouver, WA:** Remove wire baskets. After the root ball is oriented in the hole, balled and burlapped trees in wire baskets shall have the upper two-thirds of the wire basket cut and removed from the ball.
- **Trees Are Good website:** Remove wire basket or cut one or two rings off so it is low profile and will not interfere with future root growth.

#### **Summary of Recommendations:**

- Determine how the City would like to deal with this tree-planting practice.

#### **3.9.5 Fertilization**

The current Street Tree Plan states that trees should be fertilized with a granular fertilizer at a rate of 6 pounds per 1,000 square feet with a 20-10-10 fertilizer. The section also states not to incorporate fertilizer into the planting hole.

It is recommended to perform a soil or foliage nutrient test before fertilizer is applied to avoid over-salting the soil. A soil or foliar test aims to provide an accurate assessment of the soil's fertility to create an accurate plant healthcare plan. A slow-release fertilizer with a low salt index is preferred if fertilizer is to be applied. Fertilization recommendations may not be necessary to specify in the Street Tree Plan and can reference a qualified professional or be included in an appendix with best management practices.

#### **3.9.6 Watering**

This section provides recommendations for watering at the time of planting and watering rates amounts per week as the tree matures, with the caveat that soil moisture should be physically checked to confirm frequency and amount.

There is little direction in the existing Street Tree Plan regarding irrigation past the planting stage. The Tumwater Development Guide Chapter 3 discusses irrigation very briefly—"systems shall have a backflow prevention installed and not wet public streets or sidewalks." Irrigation is required, as per TMC 18.47.020(J), except when native or drought-tolerant vegetation is included. Field trip notes compiled by the Tree Board and Planning Commission (See Appendix C) note the need for street tree irrigation during dry summers.

As summers continue to be drier and hotter than previous years, the City could consider including long-term watering/irrigation requirements, such as bubblers, to ensure newly planted street trees are established as quickly and effectively as possible. Include water volume application per week (i.e., "5-10 gals [of water] per week, applied slowly, especially during dry



months” (Vancouver 2011) and the required duration of irrigation (i.e., three years post-planting, as stated in the current Street Tree Plan). Lastly, the City should decide which party (public work vs. property owner) is responsible for tree watering. All this information should reside under *Planting Guidance*. See Section 6 for a proposed outline.

#### **Summary of Recommendations:**

- Determine if the City would like to include long-term (first three years) watering/irrigation requirements
- Determine who is responsible for watering/irrigation

#### **3.9.7 Staking**

The current Street Tree Plan recommends installing stakes along with newly planted trees. The City needs to determine a procedure for removing the stakes once the tree is established, usually after the first year, if there is not one already in place. This procedure should be included in the updated Street Tree Plan.

#### **3.9.8 Root collar protection**

The current Street Tree Plan recommends installing root collar protection to protect against lawnmowers and line trimmers. Consider removing this practice or utilizing it only on an as-needed basis. ANSI A300 Part 6 Planting Standards (64.5.7 *Backfill*) recommends that mulch be applied at least two inches from the trunk to the perimeter of the planting circle. This mulching practice should eliminate the need, and cost, for root collar protection. ANSI A300 Part 6 Annex E for planting projects recommends that the planting hole should be kept clear of grass and landscape plantings. Additionally, anything wrapped around a tree’s trunk can pose a girdling risk if not inspected on a regular basis. If weeds or grasses do grow up to a tree’s trunk, the use of hand tools and hand pulling is recommended instead of a lawn mower or line trimmer.

#### **Summary of Recommendations:**

- Determine if the City would like to continue the use of root collar protection
- If so, establish a maintenance schedule to avoid trunk girdling problems (i.e., annual inspection)

#### **3.9.9 Pruning**

The brief, existing pruning notes correspond with current industry standards. The entirety of the ANSI 300 Pruning Standards is included in the appendix, as are a couple of bulletins from Tree City USA regarding pruning.

The City should consider including these by reference instead of including them in their entirety within the appendices. The Street Tree Plan would benefit from additional pruning guidelines for specific scenarios, pruning for clearance over sidewalks and streets, structural pruning of young trees, pruning under overhead utilities, etc. Critical references from the ANSI 300 Pruning Standards, including definitions of pruning types and basic pruning terms, should be included in the body of the updated Street Tree Plan document. Types of prohibitive pruning, such as topping, should also be outlined. Additional pruning discussions are outlined in the *Maintenance* chapter of the proposed Street Tree Plan outline (See Section 6 of this report).

The City should clarify jurisdiction and responsibilities for pruning under different scenarios (City vs. private owners). This should also include clear guidance on when and under which circumstances pruning should be performed. This includes but is not limited to maintaining and enhancing a tree's natural form, longevity, clearance for driver—pedestrian visibility, and clearance heights over sidewalks and streets.

Pruning specifications for clearance and visibility exist in a couple of supporting City documents:

- **The Tumwater Development Guide** (4.16.C *Sight Obstruction*) – “trees should be trimmed from the base to a height of 10 feet above the street.”
- **The Capitol Blvd Design Guidelines** (Guidelines B.9.1 *Prohibitions*) – landscaping should be “open between three feet and eight feet above grade where there is need for visibility.”

Clearance recommendations from the jurisdictional review are as follows:

- **SDOT** – lower limbs on street trees within thirty feet of an intersection shall be pruned to a minimum of eight feet over the sidewalk and planting strip, and 14 feet over the surface of the street.”
- **Vancouver, WA** – if trees do not meet an eight-foot clearance over sidewalks and 14-foot clearance over streets they shall be pruned

Clearance height expectations should be included in the updated Street Tree Plan.

The Street Tree Plan should facilitate the needs of Puget Sound Energy (PSE) by allowing PSE to perform necessary utility pruning without getting a permit on the condition PSE follows industry standards. The recommended street tree list should contain tree species suitable to plant under powerlines.

Additionally, the Street Tree Plan should reference the regulatory requirements related to the removal and pruning of street trees. This should include a reference to the appropriate municipal code section (e.g., TMC 12.24 *Street Trees*).

#### **Summary of Recommendations:**

- Include pruning guidelines for specific scenarios and critical references from ANSI standards
- Determine pruning clearance height expectations for sidewalks and streets
- Clarify jurisdiction and responsibilities for pruning under different scenarios (City vs. private owners).
- List prohibitive pruning practices

#### **3.9.10 Inspections**

This section recommends that new street trees be inspected several times during their first year and “prior to the release of the 1-year bond or end of the 1-year guarantee for trees planted as part of a street project” new trees should be inspected by an ISA Certified Arborist.

If this procedure is still current, it should be included. If not, the City should decide how it wants to address inspections and how to penalize violations.

#### **3.10 Appendices**

The following documents are included as appendices in the Street Tree Plan.

- American National Standard for Nursery Stock
- Tree Planting Specifications
- Tree Pruning Guidelines for Small Trees

Critical references should be included in the body of the updated Street Tree Plan with reference to the parent document; include links on the City website for these ANSI standards. See Section 6 for the proposed Street Tree Plan outline and recommended appendices.

## **4 Additional Considerations**

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### **4.1 Street Tree definition**

Tumwater’s Urban Forestry Management Plan references the previously completed 2018 street tree inventory and states that inventoried trees included “most City-owned tree[s] planted in the rights-of-way between a public sidewalk and a City street” (Urban Forestry Management

Plan, Street Inventory, pg. 16). A street tree definition is published in TMC Title 17 *Land Division* and states that a street tree is a tree “planted along the edge of a right-of-way or easement, or just inside the lot or parcel from the right-of-way or easement and is of a variety approved by the City for such. However, this definition is not noted in TMC 12.24 *Street trees* or the existing Street Tree Plan. The City should clarify whether street trees include those trees also located within both improved and unimproved rights-of-way.

Other municipalities define a street tree as any tree in the public ROW, excluding trees located on private property or public parcels. Some representative example definitions are as follows:

- **Seattle** – Any tree planted or growing within public places, which includes the public right of way and the space above or beneath its surface, whether or not open or improved, including streets, avenues, ways, boulevards, drives, places, alleys, sidewalks, planting strips, squares, triangles, and plazas that are not privately owned. Public places do not include boulevards or land owned by Seattle Parks and Recreation.
- **Portland** – Any tree planted in the City right-of-way, whether in improved or unimproved right-of-way.
- **Vancouver** – Any woody vegetation, generally single-stemmed, and is recognized by the City as a tree, and in which the trunk is wholly or partially located within the right-of-way or any easement granted for the purpose of public tree management.
- **Shoreline** – Trees in rights-of-way adjacent to the applicant’s property [excluding] trees on rights-of-way that have not been opened with public improvements, including, but not limited to, streets, sidewalks, pathways, and underground or overhead utilities. (Per Shoreline Municipal Code 12.30.040)

Once the City decides on a definition of a street tree, the updated Street Tree Plan should clearly outline the definition, and the body of the plan should incorporate that definition. Other regulations, including the definitions listed in TMC Title 16 *Environment*, Title 17 *Land Division*, Title 18 *Zoning*, and supplementary documents, may need to be updated to use consistent terminology.

#### **Summary of Recommendations:**

- Consider expanding and clarifying the definition of street tree
- Include the updated street tree definition in applicable code chapters and supplementary City documents

## 4.2 Definitions section

A list of applicable definitions should be provided in the updated Street Tree Plan at the end of the document, which will reduce ambiguity and provide clarification of terms referenced in the Street Tree Plan. Some of these terms already exist in TMC 16.08 *Protection of trees and vegetation*. Example terms to include street tree, Right-of-Way, public tree, private tree, hazard tree, nuisance tree, landmark tree, trees worthy of preservation, caliper, DBH (diameter-at-breast-height), topping, ISA Certified Arborist, and qualified tree professional. This list should be reviewed, refined, and amended to be consistent across codes and supporting documents.

### Summary of Recommendations:

- Create a definitions section utilizing applicable industry terms, terms in TMC 16.08 *Protection of trees and vegetation*; this list should be cross-referenced with applicable code chapters and supplementary City documents.

## 4.3 Street Tree planning, planting, and removals

### 4.3.1 Planning

The existing Street Tree Plan provides recommendations regarding design themes. Additional documents also provide direction and guidance on street tree planning in conjunction with development, namely the Design Guidelines for Capitol Blvd Community Zone, the Tumwater Brewery District Plan, and the Tumwater Town Center Street Design.

Pertinent goals outlined in the Urban Forestry Management Plan:

#### **Goal 1. Objective 1.1.**

*Action C: "Requiring tree planting in development by emphasizing proper planning for trees, correct planting techniques, and aftercare that supports the healthy establishment of newly planted trees," and*

#### **Goal 3. Objective 3.1.**

*Action B: "To develop and enforce design phase and preconstruction coordination protocols to ensure "The Right Tree in the Right Place."*

To further these goals, appropriate planting space is required to support adequate tree growth and should be planned for during the design phase of new projects. Cohesive design recommendations and the minimum requirements based on the design documents mentioned above, as well as best management practices for planting space, should be included in the updated Street Tree Plan.

### Summary of Recommendations:

- Determine what level of detail regarding street tree design is desired
- Establish and include minimum spacing requirements

#### 4.3.2 *Planting*

The Street Tree Plan should include better guidance on how to plant street trees, including specifications and details. The City's existing details on tree planting with root barriers (ST-31) should be included in the Street Tree Plan as well as when they are required (i.e., trees planted within six feet of hardscape). This detail is currently published online as a part of the Tumwater Development Guide (City of Tumwater 2008). There is no planting detail in the Tumwater Development Guide pertaining to tree planting that outlines soil and planting hole preparation recommendations. This standard detail should be included in the updated Street Tree Plan as well as the Tumwater Development Guide.

In the recent tree inventory, tree grates were inventoried, but no design details or direction exist in the Street Tree Plan or the Tumwater Development Guide. Guidance on when the tree grate rings should be removed and who is responsible for this maintenance should be included in the Street Tree Plan, as should protocols to address conflicts between tree roots and infrastructure.

##### **Summary of Recommendations:**

- Determine when tree grates are required (include a standard detail)
- Determine which department is responsible for tree grate maintenance and removal
- Include processes to address infrastructure conflicts

#### 4.3.3 *Removals*

The Street Tree Plan does not address procedures and protocols for the approval of removing a street tree, including due to risk, outgrowing its location, or conflicts with streetscape infrastructure. The Street Tree Plan should outline clear guidelines for when and how tree removal occurs and is acceptable, along with the appropriate procedures including permitting, traffic control plans, underground utility locating, inventory updates, and regulatory authority to contact. When street trees—especially older and well-loved trees—need to be removed, the Street Tree Plan should outline replanting guidelines and requirements, including public notice and outreach. The City of Vancouver's Street Tree Plan (Vancouver 2011) outlines specific criteria for when trees are not suitable for removal, which is another method to outline criteria for when tree removal is acceptable.

##### **Summary of Recommendations:**

- Consider criteria for when trees are not suitable for removal
- Develop protocols for removing and replanting street trees, when not related to development

#### 4.4 Management and maintenance responsibility

The Street Tree Plan currently states that the responsibility for maintenance and planting new street trees should fall with the Public Works Department. The Urban Forestry Management Plan has a summary table (A.6 Summary of Management Responsibilities, page) depicting the roles and responsibilities of various management departments. Based on the Urban Forestry Management Plan summary table, Public Works is currently responsible for all planting, pruning, and tree removal. Currently, there is not a subcategory discussing street trees and development. According to the Urban Forestry Management Plan table, no other entities currently prune or remove street trees. The City should also consider requiring a permit for pruning activities over a certain threshold to ensure trees are being pruned following BMPs outlined in the Street Tree Plan and not being over-pruned or topped. Additional recommendations regarding pruning procedures are noted previously in this report (Section 3.9.9).

##### **Summary of Recommendations:**

- Determine if the City would like to develop a permitting process for street tree pruning and removal.

#### 4.5 Street tree protection during development and construction

Street tree protection measures required during development and construction are not mentioned in the Street Tree Plan. Such instances include but are not limited to, sidewalk repair, utility work, and frontage improvements. These measures should parallel those outlined in TMC. 16.08 *Protection of Trees and Vegetation* and be included in the Street Tree Plan. Additionally, a standard detail showing appropriate tree protection fencing setup should also be included in the Street Tree Plan.

The tree protection detail should provide for the protections of trunk, canopy, and critical root zone and include specifications for the type and location of fencing, treatment of roots exposed during construction, prohibition of stockpiling materials, vehicular traffic, or storage of machinery within the fencing area, and fencing signage requirements. The City may consider providing a tree protection zone (TPZ) engineering detail with instructions for contractors within the Tumwater Development Guide. Example details and best practices from other Puget Sound jurisdictions or industry professionals can be found on the following websites:



- International Society of Arboriculture ([Tree Protection \(isa-arbor.com\)](https://isa-arbor.com))
- City of Mercer Island ([Tree Protection During Construction](#))
- City of Kirkland ([Tree Fencing](#))

The City may want to incorporate recommendations from the City's drainage manual here as well. The City should consider including procedures surrounding sidewalk repair, maintenance responsibility, and how trees and roots will be mitigated. The City of Seattle has a detailed handbook, SDOT Trees and Sidewalks Operation Plan (Seattle 2015) that provides guidance on installation, repair, maintenance of sidewalks, and solutions to conflicts. This manual outlines a decision process that considers existing trees, sidewalks, and future tree planting opportunities. This manual is listed in the Reference section of this document for additional review.

#### **Summary of Recommendations:**

- Consider providing a tree protection zone (TPZ) engineering detail with instructions for contractors within the Tumwater Development Guide
- Include instances when street tree protection is needed
- Include procedures around sidewalk conflicts and tree roots.

## **4.6 2018 Street Tree Inventory Data**

Watershed staff did a cursory review of street tree inventory data (current as of October 2022) to identify any significant gaps and potential opportunities for future data collection. An inventory in 2018 collected data for 3,481 trees. Tree attribute data collected were for City-owned trees planted in the right-of-way between a public sidewalk and a City street. Since the 2018 effort, it appears that an additional 1,674 tree points have been added to the inventory without tree attribute data. This is possibly the result of an analysis of remote sensing data by City staff. These points should be prioritized for a follow-up effort to collect relevant tree attribute data.

The 2018 street tree inventory was an update to a 1997 inventory of 2,340 public street trees managed by the City of Tumwater. The summary of the 1997 inventory included in the 2002 Street Tree Plan is brief, mentioning that most trees inventoried were flowering plum (*Prunus cerasifera*) varieties. The 2021 Urban Forest Management Plan includes a more detailed assessment of the 2018 inventory results, finding that maples (*Acer* spp.), flowering pears (*Pyrus* sp.), and flowering cherries and plums (*Prunus* spp.) represent over 50% of the total species inventoried. Additionally, most trees were estimated to be less than ten years old and less than 15 inches in diameter. This indicates that the relative diversity of tree species, age, and size is low and has been for the past few decades. Future planning documents for the urban forest,



including street trees, should be consistent with the recommendations outlined in the Urban Forestry Management Plan.

Trees not captured in the 2018 street tree inventory include trees in medians and planting strips not adjacent to sidewalks, trees along unimproved rights-of-way and natural areas, and within City-managed parks. Including all trees growing in public spaces may be too cumbersome to completely inventory. However, there may be value in quantifying or otherwise analyzing trends for these public trees (which may or may not be planted) within a street tree management framework. These trees have both positive and negative impacts on public infrastructure, utilities, environmental benefits, and maintenance budgets. It is critical to determine first the scope of the street tree plan and definition of a street tree before deciding to include additional trees in future inventories. Fully understanding the gaps in the street tree inventory is contingent on defining the scope of the plan.

The 2021 Urban Forestry Management Plan recommends maintaining an ongoing street tree inventory built on the success of the Stream Team program, engaging community members on a long-term basis to provide updates to the street tree inventory. It also identifies the development of a citywide work order system that enters all tree work automatically as performed. Additionally, Objective 1.3 Action A recommends an evaluation of this inventory on a five-year basis. The details on how to achieve and implement these goals and actions may be included in the Street Tree Plan or other internal planning documents.

Finally, a critical concern of any street tree plan usually addresses impacts from tree roots to sidewalks and roads, as well as clearing tree canopies from traffic and pedestrian circulation. There will undoubtedly be instances in which trees located on private property, adjacent to roads and sidewalks, have roots and canopies which impact public infrastructure. These trees may also be included in the street tree inventory, although considerations would need to include the adjacent private property owner.

## 5 Regulatory Linkages – Coordination with other City Plans and Guidelines

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Several City policy and code documents were reviewed for language and content related to TMC 12.24 *Street trees*, including TMC 16.08 *Protection of trees and vegetation*, TMC 18.47 *Landscaping*, the Tumwater 2002 Street Tree Plan, Tumwater Comprehensive Plan Land Use Element, Tumwater Town Center Street Design, Design Guidelines for Capitol Boulevard Community Zone, Capitol Boulevard Corridor Plan, Tumwater Development Guide, and the Tumwater Brewery District Plan. Note that separate a separate gap analysis is being completed for both TMC 16.08 *Protection of trees and vegetation* and TMC 18.47 *Landscaping*. As the Street

Tree Plan and TMC 12.24 *Street trees* are amended and developed, consistency with other City planning and design guidelines will need to be addressed for uniformity. The following City documents include references to or requirements for street tree management and maintenance within the City.

## 5.1 TMC 16.08 Protection of trees and vegetation

A separate Gap Analysis is currently being reviewed for TMC 16.08 *Protection of trees and vegetation* as part of the City's urban forestry municipal code updates (Watershed 2022). As the project team considers amendments and updates for TMC 12.24 *Street trees* and the City's Street Tree Plan, the respective codes will be evaluated for consistency. A complete discussion of recommended updates to TMC 16.08 *Protection of trees and vegetation* is found in the draft gaps analysis under development by The Watershed Company and the City (Watershed 2022). Items under consideration for TMC 16.08 *Protection of trees and vegetation* that may have implications for the updated Street Tree Plan and TMC 12.24 *Street trees* include, but are not limited to, the following:

- Addition of new code section under TMC 16.08 *Protection of trees and vegetation* addressing the management of public trees. The new code section would reference TMC 12.24 *Street trees* while also addressing regulatory needs of trees within unimproved rights-of-way, public parks, and natural areas (not regulated by the critical areas ordinance).
- Updates to the Prohibited and Preferred Tree Species List. The review process for these revised lists will also include street tree recommendations, which will be evaluated in tandem with the Street Tree Plan update.
- Updates to permitting requirements on development projects, tree removal on existing development, and any potential permits needed to address nuisance trees and fire hazards.
- Contractor licensing requirements for tree removal contractors.
- Climate change resilience and best management practices identified for planting and maintenance in a changing environment.
- Updates to definitions and use of terms to ensure consistency across TMC 18.47 *Landscaping*, TMC 16.08 *Protection of trees and vegetation*, and TMC 12.24 *Street trees*.

## 5.2 TMC 18.47 Landscaping

A separate gap analysis will be developed for TMC 18.47 *Landscaping* in 2023 as part of the City's urban forestry municipal code updates. As the City considers amendments and updates for TMC 18.47 *Landscaping*, implications for TMC 12.24 *Street trees* will be evaluated. The

following outlines a preliminary list of revisions or updates that may be needed for consistency with TMC 12.24 *Street trees*:

- Review landscaping plan requirements in TMC 18.47.020 to ensure consistency with updated tree retention plan requirements in TMC 16.08 *Protection of trees and vegetation* for depicting significant trees, critical root zones, tree protection fencing requirements, and appropriate species and spacing.
- Reference updated permitting requirements outlined in TMC 16.08 *Protection of trees and vegetation* and TMC 12.24 *Street Trees*.
- Section 18.47.020(L) could include a reference to the revised Approved Street Tree Species List.
- Review species choice in Section 18.47.020(N) to ensure consistency definition of invasive plant species and noxious weeds that are prohibited.
- Update maintenance recommendations in TMC 18.47.040 for consistency with those outlined in the updated Street Tree Plan and TMC 12.24 *Street trees*, as it pertains to maintenance of street trees.
- Section 18.47.050.A.2.b could include a reference to the Approved Street Tree list and/or expand on street trees would be best to accomplish 75 percent coverage in four years and perform well in urban landscape conditions. Additionally, include reference to the Approved Street Tree List throughout TMC 18.47.050(B), (D), and (E).
- Updates to definitions and use of terms to ensure consistency across TMC 18.47 *Landscaping*, TMC 16.08 *Protection of trees and vegetation*, and TMC 12.24 *Street trees*.

### 5.3 Tumwater Town Center Street Design

This document serves as an overarching, guiding document to help inform the design of the Tumwater Town Center and offer recommendations. It emphasizes that as streets and frontages are improved, new development follow a pattern and be consistent with themes (i.e., street tree species, benches style, light style, etc.). It describes three main types of streets (main streets, green streets, and connector streets) in the Town Center area. Each of these streets have their own characteristics and feel to them, whether that be street parking availability, formal or informal landscape, and access to buildings from the street. The document provides recommendations for types of landscaping along certain streets as well as tree species. This document could benefit from an in-depth look at the types of landscaping and species recommended to planted, to ensure the species and landscaping types are consistent with the

overall canopy and vegetation goals identified in Urban Forestry Management Plan. A table of the Approved Trees List, or reference to the list, would also be beneficial.

#### 5.4 Design Guidelines for Capitol Boulevard Community Zone

This document complements TMC 18.21 *CBC Capitol Blvd Community Zone District*. There are specific requirements listed for development regarding frontage improvements. According to this document, tree replacement is considered a major change and needs to follow the guidelines outlined within. Details include appropriate tree spacing, planting strip width, and sidewalk specifications for various types of projects. There are additional sections that discuss landscaping installation specifically as well as expected maintenance. These sections contain broad best management practices but do contain information that should be reviewed and referenced in the updated Street Tree Plan.

#### 5.5 Tumwater Capitol Boulevard Corridor Plan

This document focuses on economic conditions, transportation options and safety, and aesthetics of the Capitol Boulevard (Blvd). Street trees are addressed peripherally in the context of preservation in specific sections of the thoroughfare as well as identifying areas that would benefit from new street tree plantings as new development happens. Most of the document is dedicated to overarching goals and objectives for different segments of the Blvd, such as the addition of bus stops or the installation of new bike lanes. These objectives parallel the goals outlined in the Urban Forestry Management Plan. Listed goals include “choose appropriate species and locations for tree planting and attend to maintenance issues” (*Goals and Objectives: Respect the environment*). The document also notes the importance of parks and green spaces within the cityscape.

The document primarily contains standards specific to street trees. Goals and Objectives section could be updated with maintenance standards from TMC 16.08 *Protection of trees and vegetation*, rather than just stating, “...be aware of maintenance that comes with trees.” This section could also reference the new Approved Trees List where it states, “...choose appropriate species and locations for trees.”

#### 5.6 Tumwater Littlerock Road Subarea Plan

This document serves to create an understanding of the existing conditions and desired design of the Littlerock Road Subarea. The overall vision for the development of this area was informed by public input. The area is 410 acres within City boundaries composed of commercial and multi-residential mixed uses. The goal of future development is to create a “village” that is “transit oriented and pedestrian friendly.” The build-out of the area brings forward two major concerns “provisions of adequate infrastructure to serve new development...and stormwater

[management].” Significant development would impact existing trees as well as provide opportunities for new plantings. Most of the document describes the opportunities available in this subarea for growth and change as well as the overall vision for the area. Suggested road sections, detailing street trees and trees planted in the median, include six-foot-wide planter strips and 12-foot-wide median planter strips. Trees are a noted part of the existing infrastructure. The importance of preserving the existing urban forest as a way to offset significant development is emphasized.

1. Section 2.1 Community Involvement could benefit from including updates pertaining to tree retention and tree protection standards. Additionally, include a reference to the new Approved Tree List.
2. Section 3.2 Vision for the Subarea could include a reference to the new Approved Tree List.
3. Section 5.1 Necessary Implementation Actions could include updated tree protection measures for existing trees to be retained, as well as requiring replacement trees or street trees to be selected from the new Approved Tree List.

## 5.7 Tumwater Development Guide

This document is the presiding guide for regulations relating to development. Street, sidewalk, and public utility development are included. Street trees are discussed in Chapter 4. It states that all arterial and collector streets be planted with street trees. Specific tree species are listed as are planting size requirements, tree spacing within a planting strip, and expected width of planting strips. A brief overview of maintenance expectations is also outlined. The maintenance responsibility in regard to development and the planting of street trees is noted as well.

Section 4.49 Street Trees (pages 4-40, 4-41, and 4-42) could be updated with the new Approved Trees List, in addition to updating the maintenance standards for residential and commercial projects for consistency.

## 5.8 Tumwater Citywide Design Guidelines

This document contains design guidelines for projects that are not addressed by other City planning and design guidelines, with the intent of implementing the City’s Comprehensive Plan vision. The guidelines apply to all new commercial, mixed use, residential, industrial, and institutional development projects that are not already addressed by specific district or corridor design guidelines, additions to existing buildings that increase gross floor area by 1,000 square feet or more or increase gross floor area by 50 percent or more, and exterior modifications of existing structures. Design guidelines are organized by land use type and they include guidelines for site planning, pedestrian access, amenities, and open space, parking areas,

building, and lighting. The City may consider the following updates to the Design Guidelines based on updated best practices outlined in the revised Street Tree Plan or include by reference:

1. Update Section 1.A.1 Purpose to include purposes identified in Gap Analysis Section 2.2.
2. 1.A.2 Administrative Procedures is an opportunity to include a statement about incentives/variation allowances in development standards to encourage tree retention.
3. Consider adding a statement about trees and the aesthetics and functional benefits that selecting the appropriate street tree species can provide to the Intent bullet list in Section 2.B.2 Relationship to Street Front.
4. Opportunity to add a reference to the Approved Street Tree List in Figures 2.B.2-1 and 2.B.2-2.
5. Opportunity to add a reference to the Approved Street Tree List in Section 2.B.2.6 Streetscape.
6. There is an exception on page 2-8 regarding requirements for residential buildings on signature roads (section 2.B.2.5.b.3) that states that departures from maximum setbacks may be allowed to preserve existing large trees. "Existing large tree" could be defined with a specific DBH, or DBH based on species; allowed setback departures could be elaborated upon by clarifying within the document itself or adding a reference to the new section in TMC 16.08 *Protection of trees and vegetation* that discusses development incentives, including allowed setback reductions.
7. Section 2.B.4.2 Internal Roadways and Vehicular Circulation contains street tree requirements.
8. Section 2.B.5.1 Unified Site Plans (for lots with multiple buildings or a total area greater than 2 acres) criteria could include the preservation of large trees (to be defined) and groves.
9. Section 2.B.7.2(g) Integration of Stormwater Facilities into Site Design provides an opportunity to suggest the use of specific tree species best suited for biofiltration, LID, and stormwater management needs.
10. Section 2.B.2.8.1(a) discusses requirements for common open space in multifamily developments. In addition to the requirements outlined, the City could consider requiring the common open space area be located to preserve and retain landmark trees and/or groves, when possible.
11. Section 2.B.2.9.1 discusses requirements for non-residential open space. The City could consider requiring the open space to include landmark trees and/or groves when possible.
12. Section 2.B.11.1.b(2) could include a reference to the Approved Street Tree List.
13. Section 2.C.1.2(a) could reference the Approved Street Tree List.

14. Section 2.C.3.2(f) could include a direct reference to the Approved Street Tree List, and (m) could include a reference to the Approved Tree List.
15. Section 2.C.3.5(a) states that maintaining existing mature evergreen trees and including existing and new evergreens in site development is an important objective. When appropriate, the Director may also relax other standards, such as setbacks and geometric requirements, to promote the retention of mature trees. This section could be elaborated upon by clarifying within the document itself or adding a reference to the new section in TMC 16.08 *Protection of trees and vegetation* that discusses development incentives, including allowed setback reductions. Further, this section includes the protection of roots and setbacks to maintain the tree's health. It should be reviewed to include potentially any updates to tree protection measures.
16. Section 2.D.2 Parking Area Landscaping could include a list of trees best suited for improving water quality and stormwater management. Section 2.D.2.1(b) states that mature conifer trees over 24 inches in caliper may count as two trees (with regard to tree retention standards). The City should consider updating this sentence to use DBH rather than caliper.
17. Section 2.E.1.1.a(1) includes the retention of a substantial number of large trees, especially native trees such as conifers, to accomplish the objective that the architectural design of new development must reflect and add to Tumwater's design character by incorporating distinctive and substantial landscaping to enhance the building's setting. The City should consider making the retention of large trees a requirement in this section rather than calling out the retention of large trees as an option to accomplish an objective. The goal would be to require new development to prioritize the preservation of high-retention value trees when possible.

## 5.9 Tumwater Brewery District Plan

This document describes the redevelopment vision for the Brewery District. It encompasses a *"series of recommended transportation enhancements, public realm improvements, a vision for building character and development intensity, and a set of implementation and phasing strategies."* As road improvements happen, street tree planting opportunities occur. The addition of trees helps to calm the overall atmosphere and creates a more welcoming environment. The document includes design recommendations and broad street tree placement recommendations (i.e., *"trees should be interspersed with on-street parking"*) and notes the importance of using trees and the landscape to help link together different areas. Trees are mentioned peripherally when building frontages are being improved.



1. TMC 18.27.050 references “preservation of mature tree stands” in footnote No. 2. A definition of what constitutes a mature tree stand or alternate language could be included here for clarity.
2. Goals/Objectives Section 1.3 could benefit from updating vegetation and tree replacement standards. This section could also include a reference to the new Approved Tree List.

## 5.10 Tumwater Stormwater Management Program Plan

This section is under development. To include a discussion of Low Impact Development (LID) requirements and the City’s NPDES permit.

## 6 Proposed Street Tree Plan Organization

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Tumwater planning staff, the Planning Commission, and Tumwater Tree Board developed a proposed scope of work and outline for the revised Street Tree Plan (Medrud, 2022; See Appendix D). The proposed structure for the updated Street Tree Plan includes the following:

- Chapter 1 –Introduction: describes why the City developed the Plan, its benefits, and its purpose.
- Chapter 2 –Background: refers to the existing regulations and street tree surveys completed.
- Chapter 3 –Street tree planning: describes the vision for future street tree plantings.
- Chapter 4 –Street tree planting: contains recommendations for street tree planting and maintenance.
- Appendices: include information on specific street trees to be planted as well as planting and pruning recommendations.

Building off this proposed structure, the City should consider the following revised outline. The following structure is informed by Street Tree Plans from Seattle, Vancouver, and Portland and it outlines more explicit content to consider within each chapter.

### Chapter 1. Introduction: Purpose, Intent, and Scope of the Street Tree Plan

- A. State the purpose of the Street Tree Plan
- B. Describe what type of information is in this manual: permitting requirements and best management practices for street tree planting, maintenance, and tree protection and preservation



- C. Describe whom this manual is intended for: City departments, property owners, tree service providers, and/or contractors, and those working around street trees
- D. State reasons for having and protecting street tree canopy: e.g., reducing stormwater runoff, cooling temperatures, shading streets
- E. Define a street tree, who is responsible for maintenance, and the geographic scope of the plan
- F. List and describe broad goals for the Street Tree Plan, and any related goals in the Urban Forestry Management Plan

## Chapter 2. General Overview of Regulations

- A. Include a brief background summary of the process for creating the Street Tree Plan
- B. Describe governing documents and policy and which departments regulate street trees
- C. Describe which department issues permits, who has the authority to establish tree standards, and the code that gives that regulatory authority
- D. Describe the other policy documents that govern street trees or influence the goals of the Street Tree Plan

## Chapter 3. Street Tree Permitting

- A. Provide reference to TMC 12.24 *Street Trees* and other municipal code sections regulating street trees
- B. Provide a summary of when a permit is needed to (1) plant, (2) prune, or (3) remove a street tree and explain the process and requirements
- C. Specify City authority for review and issuance of permits
- D. Describe exemptions for street tree permits (e.g., City departments)
- E. Describe the penalties and required mitigation for violations of TMC 12.24 *Street Trees* or by reference to the City code

## Chapter 4. Street tree planting

- A. Species selection:
  1. Reference the City's approved and prohibited species selection lists and include them as appendices in the Street Tree Plan

2. Describe “Right Tree in the Right Place” criteria including:

- Width of the planting area
- Whether in the streetscape, setback from the sidewalk, or in a natural area
- Visibility and clearance from nearby structures, roads, driveways, intersections, signs, or signals
- Overhead wires – plant trees approved under wires
- Underground utilities – call 811 to locate utilities
- Mature height, width, and shape of the tree
- Existing species of nearby street trees; the street has a species predetermined by the City

B. Tree size

C. Spacing

D. Planting guidance

1. Planting season

2. Planting procedures

- Tree quality – meet industry standards for nursery stock
- Soil amendments
- Root ball
- Woodchip mulch
- Tree stakes and ties
- Backfilling
- Tree grate specifications
- Include planting detail(s)

3. After planting care (establishment)

- Watering
- Weed control/mulch restoration
- Establishment pruning

## Chapter 5. Maintenance

- A. Watering (frequency, volume, duration)
- B. Pruning
  - 1. Reference industry pruning standards
  - 2. Pruning requirements
    - State who is required to prune trees in the ROW (City vs. private)
    - State when pruning is required
    - Pruning expectations (i.e., natural form)
    - State if a pruning threshold requires the tree care worker to have industry certification/training
    - Maximum pruning allowed (i.e., 25% per year)
    - Benefits of pruning young trees for longevity
  - 3. Types of pruning with definitions
  - 4. Timing of pruning
- C. Tree grate management
- D. Management of sidewalk conflicts
- E. Insect and disease management
- F. Tree Preservation and Removal

## Chapter 6. Tree Protection During Construction

- A. Critical root zone/dripline
- B. Calculate tree protection zone (Provide detail)
- C. Tree protection fencing and signage (Include tree protection detail)
- D. Grading around trees in the ROW
- E. Penalties for injuring street trees (e.g., construction damage)
- F. Promote longevity of trees and pavement

1. Methods to reduce conflicts include decompact soil before planting, root barrier, and Silva Cells.

#### Chapter 7. Additional Resources

- A. Quick Guides for specific audiences (property owners/HOA, City maintenance staff, tree care companies)
- B. Definitions
- C. Approved Street Tree/ROW Tree Lists

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JURISDICTIONAL COMPARISON RESEARCH

Topic	Tumwater	Burien	Edmonds	Lacey	Lake Forest Park	Olympia	Shoreline
Municipal code sections where street trees are regulated or referenced:	<ul style="list-style-type: none"><li>Street Tree Defined: <a href="#">TMC 17.04.450</a> Street Tree</li><li><a href="#">TMC 12.24</a> Street Trees</li><li><a href="#">TMC 16.08</a> Protection of Trees &amp; vegetation</li><li><a href="#">TMC 18.27</a> Brewery District in Zoning</li><li><a href="#">TMC 12.12</a> Construction of curbs and sidewalks</li><li><a href="#">TMC 18.21</a> CBC Capitol Blvd Community Zone</li><li><a href="#">TMC 18.23</a> TC Town Center Zone</li><li><a href="#">TMC 18.67</a> Landscaping</li></ul>	<ul style="list-style-type: none"><li><a href="#">BMC 12.38</a> Street Trees and Trees on City Property</li><li><a href="#">BMC 19.26</a> Tree Retention</li><li><a href="#">BMC 19.25</a> (Landscaping)</li><li><a href="#">BMC 19.17</a> Miscellaneous Use, Development, and Performance Standards</li><li><a href="#">Climate Action Plan (2021)</a></li><li><a href="#">Comprehensive Plan (last updated 2021)</a></li></ul>	<ul style="list-style-type: none"><li><a href="#">EMC 18.85</a> Street trees</li><li><a href="#">EMC 20.13</a> Landscaping</li><li><a href="#">EMC 23.10</a> Tree Related Regulations</li><li>Edmonds Street Tree Plan</li></ul>	<ul style="list-style-type: none"><li><a href="#">LMC 12.20</a> Street Trees</li><li><a href="#">LMC 14.32.067</a> Street Tree Requirements</li><li><a href="#">LMC 16.80.050</a> Types of Landscaping</li><li><a href="#">LMC 14.23</a> Design Review</li><li><a href="#">LMC 16.24.080</a> Design Toolbox</li></ul>	<ul style="list-style-type: none"><li><a href="#">LFPMC 16.14</a> Tree Canopy Preservation and Enhancement</li><li><a href="#">LFPMC 16.06</a> State Environmental Act Implementation</li><li><a href="#">LFPMC 12.40</a> Complete Streets</li><li>No specific street tree ordinance.</li></ul>	<ul style="list-style-type: none"><li><a href="#">OMC 12.44</a> Street Trees</li><li><a href="#">Engineering Design &amp; Development Standards Chapter 4 Transportation: 4H.100 Street Trees</a></li><li><a href="#">OMC 16.56</a></li><li><a href="#">OMC 16.58</a></li><li><a href="#">OMC 16.60</a></li><li><a href="#">Urban Forestry Manual</a></li></ul>	<ul style="list-style-type: none"><li><a href="#">SMC 12.30</a> Public Tree Management</li><li><a href="#">SMC 20.50.480</a> Street trees and landscaping within the right-of-way - Standards</li><li><a href="#">Engineering Development Manual</a></li></ul>
Recommended Street Tree List	Approved Street Tree List and Prohibited Trees provided on City website: <a href="#">Approved Street Tree Species   City of Tumwater, WA</a>	No approved Street Tree List.	Street Tree List is provided on page 128 of the Edmonds Street Tree Plan. Other species suggestions are in other areas of the Street Tree Plan, based on location.	Street tree list in Lacey Urban Forest Management Plan: <a href="https://cityoflacey.org/wp-content/uploads/sites/3/2022/03/UFMP-Documents-092621-FINAL.pdf">https://cityoflacey.org/wp-content/uploads/sites/3/2022/03/UFMP-Documents-092621-FINAL.pdf</a>	No approved Street Tree List.	Street Tree List on city website: <a href="#">Recommend Street Trees List</a>	Street tree list: <a href="http://www.shorelinewa.gov/home/showdocument?id=2454">http://www.shorelinewa.gov/home/showdocument?id=2454</a>
Street Tree Replacement Standards	<ul style="list-style-type: none"><li>Replacement standards are not called out in TMC 12.24.</li><li>Restrictions on planting willow, cottonwood, poplar, and any other trees the roots of which are likely to obstruct or injure sanitary sewers or other underground utilities, except as approved by the director of public works in accordance with a city-approved plan or project.</li></ul>	<ul style="list-style-type: none"><li>New trees planted in the right-of-way shall be selected from a list of recommended species approved by the City. (<a href="#">BMC 12.38</a>)</li><li>For single detached subdivisions, a tree shall be planted at the rate of 1 tree for every 50 feet of street frontage along a neighborhood collector street and 40 feet if frontage along an arterial street.</li></ul>	<ul style="list-style-type: none"><li>When necessary to remove a tree, the City shall replant the tree(s) or replace them.</li><li>Replacements shall meet the standards specified in the street tree plan for size, species, and placement.</li><li>The permittee shall bear the costs of removal and replacement. (<a href="#">EMC 18.85</a>)</li></ul>	<ul style="list-style-type: none"><li>All trees within the ROW shall be planted in accordance with the City of Lacey Development Guidelines and Public Works Standards including species, size, location, etc. Any alternate species shall not be used unless approved by the City forester. (<a href="#">LMC 12.20</a>)</li><li>Street trees are required on all public streets within all new developments. The species of tree shall</li></ul>	<ul style="list-style-type: none"><li>For RM, BN, TC, CC zones and uses, at least one tree shall be required for every 250 square feet of landscape area. (<a href="#">LFPMC 18.62.041</a>)</li></ul>	<ul style="list-style-type: none"><li>Mitigation is required if a public tree is removed, injured, or otherwise damaged by a private party. The mitigation value shall be calculated by the Urban Forester using the formula outlined in the most recent edition of the "Guide for Establishing Values of Trees and Other Plants," published by the International Society of Arboriculture. The</li></ul>	<ul style="list-style-type: none"><li>All existing public trees 6 inches in DBH or greater allowed to be removed shall be replaced with an approved variety of tree in the area of removal according to the replacement formula in <a href="#">SMC 20.50.360(C)</a>.</li><li>If the director determines there is no suitable space for planting of the replacement trees in the vicinity of removal, the director will determine</li></ul>



Topic	Tumwater	Burien	Edmonds	Lacey	Lake Forest Park	Olympia	Shoreline
	<ul style="list-style-type: none"><li>• Fruit trees, nut trees, Ailanthus, Mountain ash, Oregon or big leaf maple, American elm may not be planted in any event.</li><li>• No trees or shrubs shall be planted in or abutting any public parking strip, street ROW, or any other public place in the City, including sidewalks.</li></ul>	<ul style="list-style-type: none"><li>• Mature and health native trees retained within the ROW or within 20 feet of the ROW line may substitute for the required street tree at a 1:1 ratio.</li><li>• BMC 19.25.060(2) has a requirement for work along Des Moines Memorial Drive that requires the planting of elm trees, when applicable. (BMC 19.25)</li><li>• Developments within the Station Area overlay that abut a required sidewalk are exempt from street tree frontage landscaping standards, except that street trees are required at an average of 1 tree for every 30 feet of linear street frontage (BMC 19.16.025)</li></ul>		<p>be selected from the street tree list or general tree list in the Lacey Urban Forest Management Plan. Landscape trees are required in all alleys. (LMC 14.32.067)</p>		<p>mitigation value shall be paid into the City Tree Account, as established in OMC 16.60. All or a portion of this mitigation may be met by planting replacement trees on the site. (OMC 16.58)</p> <ul style="list-style-type: none"><li>• No maples or other such spreading trees shall be planted. Ash, poplar, similar trees shall be used.</li><li>• Trees shall be planted on all streets within the City which have been paved, or may be paved, and wherever there is a parking strip.</li><li>• Trees planted shall be uniform on each street, not closer than 40 feet apart. (OMC 12.44)</li></ul>	<p>whether an applicant shall replant at public sites approved by the director or pay a fee in lieu. (SMC 12.30.040)</p> <ul style="list-style-type: none"><li>• All street trees must be selected from the City-approved street tree list. (SMC 20.50.480)</li></ul>
Permit requirements	<ul style="list-style-type: none"><li>• Not specified in TMC 12.24.</li><li>• Application for a land clearing permit required for any “project permit”.</li><li>• Tree protection plan, replacement plan required. (TMC 16.08)</li></ul>	<ul style="list-style-type: none"><li>• A tree permit will not be issued to a private individual for the pruning or removal of trees or other vegetation on city property identified on the city maintenance responsibility list, including streets, parks and open spaces.</li><li>• Issuance of a tree permit is based on the City arborist determining that the removal or requested</li></ul>	<ul style="list-style-type: none"><li>• Permit required from the director of public works for planting, removing, pruning, or otherwise changing a tree on a street, ROW, parking, planting strip, or other public place.</li><li>• Proposal must conform to the Edmonds Street Tree Plan. (EMC 18.85)</li></ul>	<ul style="list-style-type: none"><li>• ROW access permit required prior to the planting, major pruning, or removal of any street tree within the City. (LMC 12.20)</li></ul>	<ul style="list-style-type: none"><li>• Minor permit, major tree permit, or utility forest management permit required. (LFPMC 16.14)</li></ul>	<ul style="list-style-type: none"><li>• A tree removal permit is required. To be approved by the Urban Forester if the tree is infected with an epidemic insect or disease; is a public nuisance; safety hazard; severely interferes with the growth and development of a more desirable tree; required infrastructure work or improvements would kill</li></ul>	<ul style="list-style-type: none"><li>• A ROW use permit shall be required and issued by the director of public works for planting public trees in rights-of-way adjacent to an applicant’s property according to the variety and spacing approved in the Engineering Development Manual.</li><li>• A ROW use permit shall be required and issued by the director for the nonexempt pruning or removal of public trees in</li></ul>

Topic	Tumwater	Burien	Edmonds	Lacey	Lake Forest Park	Olympia	Shoreline
		<p>action or treatment is necessary.</p> <ul style="list-style-type: none"><li>Planting plan required. <i>(BMC 12.38)</i></li></ul>				<p>the tree or render it a hazard; necessary to implement or maintain a vegetation management plan for the area; or to provide the only reasonable access to adjacent private property.</p> <ul style="list-style-type: none"><li>When a private party (non-city) requests the removal of a public tree, the applicant required to develop and implement a vegetation management plan for the property. The applicant required to pay all costs associated with the plan. <i>(OMC 16.58)</i></li></ul>	<p>rights-of-way adjacent to an applicant's property.</p> <ul style="list-style-type: none"><li>Public tree removal is prohibited on ROWs that have not been opened with public improvements.</li><li>No trees listed in the Engineering Development manual as approved tree varieties for planting in the ROW shall be removed unless deemed a hazard by a certified arborist.</li><li>In commercial zones, tree removal is exempt unless within a critical area or buffer, or if the existing trees were included as required landscaping within the previous three years. <i>(SMC 12.30.040)</i></li></ul>
<b>Protection and Management of Public Trees</b>	<ul style="list-style-type: none"><li>Not specified in TMC 12.24.</li><li>Protection standards in TMC 16.08.070 apply to all land clearing not exempt under TMC 16.08.080.</li></ul>	<ul style="list-style-type: none"><li>The City manager, or his/her designee, shall oversee the planting, care, and removal of trees on City property.</li><li>The City of Burien has a City Maintenance Responsibility list for street trees and other vegetation on ROW and City property. The list can be found in BMC 12.38.080.</li></ul>	<ul style="list-style-type: none"><li>Not explicitly defined in Chapter 18.85.</li><li>Tree protection measures during development are outlined in EMC 23.10.070 and include tree protective fencing of minimum 3' tall and prohibiting excavation or compaction of soil within the tree barrier. <i>(EMC 23.10)</i></li></ul>	<ul style="list-style-type: none"><li>Street trees shall be maintained so that they do not obstruct the free use of the ROW, including clearance for sight visibility, traffic signage and signals, as well as pedestrian and vehicular use of streets and sidewalks.</li><li>Street trees are not to damage utilities, streets, or sidewalks. <i>(LMC 12.20)</i></li></ul>	<ul style="list-style-type: none"><li>Not explicitly defined for street trees.</li></ul>	<ul style="list-style-type: none"><li>Tree removal, pruning and/or planting is subject to review and approval of the Parks, Recreation and Cultural Services Department. <i>(OMC 16.58)</i></li><li>Protective fencing required: chain link and at least 4' high, prior to development activities.</li><li>No materials placed within the protective area of any tree, and no objects attached to any tree. <i>(Chapter 7 of the Urban Forestry Manual)</i></li></ul>	<ul style="list-style-type: none"><li>No specific protection measures outlined in SMC 12.30.040 <i>Public Trees in the ROW.</i></li></ul>

Topic	Tumwater	Burien	Edmonds	Lacey	Lake Forest Park	Olympia	Shoreline
Maintenance Requirements	<ul style="list-style-type: none"><li>Not specified in TMC 12.24.</li><li>For street trees, the maintenance requirements of TMC 16.08.072 shall be in effect for 3 years from the date the final plat is approved, or the trees are planted.</li><li>The applicant shall also execute a covenant in a form agreeable to the city. The recording fee shall be paid by the applicant. (TMC 16.08.072)</li></ul>	<ul style="list-style-type: none"><li>The city shall maintain all trees and other vegetation on the city maintenance responsibility list.</li><li>No person shall prune or remove trees identified on the city maintenance responsibility list.</li><li>The owner of property adjacent to an improved or unimproved right-of-way not listed on the city maintenance list shall maintain street trees and other vegetation located within the maintenance area. (BMC 12.38)</li><li>Public utilities shall maintain any vegetation that interferes with their utilities and may prune trees. (BMC 12.38)</li></ul>	<ul style="list-style-type: none"><li>Not explicitly defined in Chapter 18.85.</li><li>Except where otherwise defined by the City, the adjacent property owner is responsible for tree planting and maintenance.</li><li>Street Tree Maintenance is outlined in the Edmonds Street Tree Plan and includes maintenance standards for water, fertilizer application, pruning, treating disease, avoiding damage, and reducing plant competition.</li></ul>	<ul style="list-style-type: none"><li>Maintenance shall be in accordance with tree care standards contained in ANSI A300 standards.</li><li>Adjacent property owners have the following routine tree maintenance responsibilities: removal or pruning of nuisance trees, pruning of nuisance trees, and removal of all debris from public property. (LMC 12.20)</li></ul>	<ul style="list-style-type: none"><li>Not explicitly defined for street trees.</li><li>All protected trees and required replacement trees shall be maintained in a healthy condition.</li><li>Pruning and maintenance of protected trees shall be consistent with the ANSI A300 standards and ISA best management practices for proper pruning. (LFPMC 16.14)</li></ul>	<ul style="list-style-type: none"><li>Private parties may have public trees pruned with written permission from the City with permission.</li><li>Topping of public trees is prohibited.</li><li>Insect and disease abatement. The City may prune, spray, or otherwise maintain public trees in order to control infestations of insects or disease or to maintain public safety. (OMC 16.58)</li></ul>	<ul style="list-style-type: none"><li>All planted trees and replacement trees shall be maintained in good health and condition by an applicant, or their successor in interest, in accordance with the issued ROW use permit or other authorizing permit. (SMC 12.30.040)</li></ul>
Nuisances	<ul style="list-style-type: none"><li>The Director can enforce abatement of nuisance trees and fire hazards.</li><li>Removal of stumps and roots of trees or shrubs shall be removed to a point a least 1-foot below the tops of the adjacent curb or proposed curb grade.</li></ul>	<ul style="list-style-type: none"><li>City shall maintain trees planted by the City and may remove any tree located on or near City property that present unsafe conditions, disrupt utilities or public improvements, or are infected with any significant disease or insect. (BMC 12.38)</li></ul>	<ul style="list-style-type: none"><li>Not addressed in Street Tree Chapter 18.85.</li><li>Nuisance trees may be removed with supporting documentation of the damage and any tree work that has been attempted to rectify the nuisance. (EMC 23.10)</li></ul>	<ul style="list-style-type: none"><li>Any tree (public or private) that constitutes a hazard to public safety, obstructs the free passage of pedestrian or vehicular traffic or obstructs public street lighting, harbors pests expected to injure or harm public trees.</li><li>All costs for nuisance abatement are the responsibility of the property owner or adjacent property owner.</li><li>City has the right to immediately abate any nuisance in an emergency. (LMC 12.20) or immediate hazard to public safety.</li></ul>	N/A	<ul style="list-style-type: none"><li>Any planting of public trees that fails to comply with the standards established in the Urban Forestry Manual is declared a public nuisance and may be abated pursuant to OMC 8.24.030. (OMC 16.58)</li></ul>	N/A

Topic	Tumwater	Burien	Edmonds	Lacey	Lake Forest Park	Olympia	Shoreline
Code Enforcement/ Mitigation for Violations	<ul style="list-style-type: none"><li>Public works director is charged with enforcement of chapter.</li><li>Violations constitute a misdemeanor.</li></ul>	<ul style="list-style-type: none"><li>Violation or failure to comply with Ch 12.38 is subject to enforcement set forth in BMC Chapter 1.15. <i>(BMC 12.38)</i></li><li>Violations constitute a misdemeanor, unless otherwise designated as a gross misdemeanor.</li><li>Violations are punishable by imprisonment in jail for a maximum term fixed by the court of not more than 90 days or by a fine in an amount fixed by the court of not more than \$1,000 or by both such imprisonment and fine.</li><li>A gross misdemeanor is punishable by a fine of not more than \$5,000 or by imprisonment for not more than 12 months or by both such fine and imprisonment. <i>(BMC 1.15)</i></li></ul>	<ul style="list-style-type: none"><li>Public works enforces this chapter.</li><li>If a tree is planted contrary to provisions, the director of public works may remove the tree. A second violation is a misdemeanor. <i>(EMC 18.85)</i></li></ul>	<ul style="list-style-type: none"><li>Public works department has the authority to enforce provisions of the street tree chapter as it relates to trees located within the public ROW or any tree located on private property that poses a risk, hazard or nuisance to the public ROW. <i>(LMC 12.20)</i></li></ul>	<ul style="list-style-type: none"><li>Violations are addressed by the administrator.</li><li>Liability for violations shall be the joint and several responsible of the landowner and any person performing activity. <i>(LFPMC 16.14)</i></li></ul>	<ul style="list-style-type: none"><li>It shall be gross misdemeanor for any person, firm, or corporation to knowingly cut down, prune, kill, or otherwise damage any public tree without lawful authority. The penalty for such violation shall be a fine not to exceed One Thousand Dollars (\$1,000), and/or to imprisonment not to exceed ninety (90) days or to both such fine and imprisonment. <i>(OMC 16.58)</i></li></ul>	<ul style="list-style-type: none"><li>It is the responsibility of the parks, fleet, and facilities manager to manage and oversee the planting, care maintenance, and removal of all trees on public ROW and city-owned property.</li><li>No penalties or violations identified. <i>(SMC 12.30)</i></li></ul>

## Appendix B

### TMC 12.24 STREET TREES

Sections:

**12.24.010 Planting of certain trees prohibited.**

**12.24.020 Unauthorized planting in public places prohibited.**

**12.24.030 Trees and shrubs endangering usefulness of streets and sidewalks – Public nuisance.**

**12.24.040 Abatement of nuisance.**

**12.24.050 Fire hazards – Abatement.**

**12.24.060 Stumps and roots – Removal.**

**12.24.070 Appeals.**

**12.24.080 Enforcing authority.**

**12.24.090 Violation – Penalty.**

**12.24.100 Remedies not exclusive.**

**12.24.010 Planting of certain trees prohibited.**

It is unlawful to plant hereafter anywhere in the city willow, cottonwood, poplar, and any other trees the roots of which are likely to obstruct or injure sanitary sewers or other underground utilities, except as approved by the director of public works in accordance with a city-approved plan or project.

(Ord. 1392, Amended, 08/03/1993; Ord. 909, Added, 08/15/1981)

**12.24.020 Unauthorized planting in public places prohibited.**

No trees or shrubs shall hereafter be planted in or abutting any public parking strip, street right-of-way, or any other public place in the city, including sidewalks, without permission of the city; provided, that the following species may not be planted in the above-named places in any event: trees named in TMC 12.24.010, fruit trees (except ornamental types), nut trees, Ailanthus, Mountain Ash, Oregon or big leaf maple, American elm, or any other tree the roots of which cause injury to sidewalks or pavements.

(Ord. 02011-002, Amended, 03/01/2011; Ord. 909, Added, 08/15/1981)

**12.24.030 Trees and shrubs endangering usefulness of streets and sidewalks – Public nuisance.**

Trees, plants, shrubs or vegetation, or parts thereof, which endanger the security or usefulness of any public street, sidewalk, sewer or other underground utility, are declared to be a public nuisance, except that trees may extend over the sidewalk when kept trimmed to a height of eight feet above sidewalks and fourteen feet above a roadway.

(Ord. 909, Added, 08/15/1981)

**12.24.040 Abatement of nuisance.**

The public works director, or his/her designee, shall by written notice require the owner of such nuisances described in TMC 12.24.030, in addition or alternative to the penalties prescribed by TMC 12.24.090, to abate the nuisance by trimming, destroying or removal, at the owner's cost and expense within the time specified by the director; provided further, that if the destruction, trimming, or removal is not made by such owner within the time specified, the director may abate the same and render a bill covering the cost of such abatement.

(Ord. O2011-002, Amended, 03/01/2011; Ord. 909, Added, 08/15/1981)

**12.24.050 Fire hazards – Abatement.**

Grass, weeds, shrubs, trees, or vegetation growing or which has grown and died upon any property and are a fire hazard or menace to public health, welfare or safety are likewise public nuisances. It is the duty of the property owner wherein or whereon any such nuisance exists to abate the nuisances by destroying, removing, or trimming the growth.

(Ord. 909, Added, 08/15/1981)

**12.24.060 Stumps and roots – Removal.**

The stumps and roots of trees or shrubs shall be removed to a point at least one foot below the top of the adjacent curb or proposed curb grade, treating the remaining roots with a suitable compound to prevent future sprouting or growth. Any roots which have disrupted or broken the adjacent street, curb or sidewalk shall be removed and the street, sidewalk or curb shall be repaired.

(Ord. 909, Added, 08/15/1981)

**12.24.070 Appeals.**

Appeals from administrative actions made under this chapter may be made by any citizen or property owner to the hearing examiner in the manner provided in TMC Chapter 2.58.

(Ord. O2014-018, Amended, 12/16/2014; Ord. O2011-002, Amended, 03/01/2011; Ord. O96-027, Amended, 10/15/1996; Ord. 909, Added, 08/15/1981)

**12.24.080 Enforcing authority.**

The public works director or his/her duly authorized representative shall be charged with the enforcement of this chapter.

(Ord. O2011-002, Amended, 03/01/2011; Ord. 909, Added, 08/15/1981)

**12.24.090 Violation – Penalty.**

Violation of or failure to comply with any provision of this chapter shall constitute a misdemeanor.

(Ord. O2011-007, Amended, 07/19/2011; Ord. 909, Added, 08/15/1981)

**12.24.100 Remedies not exclusive.**

The remedies prescribed in this chapter are in addition to all other remedies provided or authorized by law, including damages to the city's proprietary interests.

(Ord. 909, Added, 08/15/1981)

## Appendix C

### STREET TREE FIELD TRIP NOTES MEMO

#### **Background**

Following the completion of the Urban Forestry Management Plan earlier this year, the Tree Board and Planning Commission will be working on an update to the city's street tree regulations (TMC 12.24). This update will also include a review and potential update to the following:

- Urban Forestry Management Plan Appendix A.9 Street Tree Planting List
- Tumwater Municipal Code (TMC) Chapter 12.24 *Street Trees*
- Other relevant sections of the Municipal Code in
  - TMC Title 12 *Streets, Sidewalks and Public Places*
  - Title 16 *Environment*
  - Title 17 *Land Division*
- Tumwater Development Guide
- Littlerock Road Subarea Plan
- Tumwater Town Center Street Design Plan
- Capitol Boulevard Community Zone Design Guidelines

The next step in the review process was a street tree field trip on Wednesday, September 22 at 5:30 PM with members of the Tree Board and the Planning Commission.

The City's tree preservation (TMC 16.08) and landscape buffering and screening regulations (TMC 18.47) will be updated next year.

#### **Attendees**

##### *Tree Board*

- Trent Grantham
- Brent Chapman
- Mike Jackson
- Jim Sedore
- Dennis Olson

##### *Planning Commission*

- Elizabeth
- Meghan Sullivan
- Terry Kirkpatrick
- Joel Hansen
- Michael Tobias
- Nathan Peters

##### *Staff*

- Brad Medrud



## **Field Trip Itinerary**

### **1. City Hall Parking Lot – 555 Israel Road SW**

### **2. Mirasett Subdivision - 70th Avenue SW on to Mirasett Street SW**

*Staff Comment: This is an example of joint project where the city replaced the lifted panels in 2016 and the HOA replaced the trees that were causing problems around 2019. This subdivision was originally approved by the County and annexed into the City with existing problems that continue to get worse.*

### **3. Littlerock Road SW near Israel Road SW**

*Staff Comment: This is a good example of an area built by the City that has held up for 10 to 15 years. We believe construction was in 2009. We are sure it is not the only reason for its success, but note the larger planting strips on Littlerock Road SW.*

### **4. The Preserve at Tumwater Place Subdivision, Phase 1**

*Staff Comment: This subdivision was originally approved by the County and annexed into the City.*

### **5. Deschutes River Highlands Subdivision, Phase 1**

*Staff Comment: This is another example of many failures in a small area. This subdivision was originally approved by the County and annexed into the City.*

### **6. End of Field Trip**

## **Field Trip Notes**

- Soils.
- Proper planting
- Training for maintenance of trees and landscaping near the trees
- Use of root barriers to protect sidewalks, curbs, and gutters
- Smaller trees but more of them for canopy coverage
- Consider clearance needed for garbage trucks with lifting containers
- Consider requiring a planting bed area similar in size to the ones used on Littlerock Road to protect trees from equipment.
- Irrigation would likely be needed for street trees because of dry summers and nearest to street and sidewalk heat. Guidance can be given on the amount of watering needed.
- There was a question about interactions with street trees and underground utilities.
- There was a question about who is responsible for sidewalks and street trees: property owner or City
- Consider requiring different varieties of street trees in subdivisions
- Specific species to avoid: maples, sweetgums
- Consider alternatives to street trees: location behind sidewalk, in separate tracts balanced with the needs of heat reduction for streets and sidewalks and aesthetics.

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## STP SCOPE OF WORK MEMO



### Attachment A

City Hall  
555 Israel Road SW  
Tumwater, WA 98501-6515  
Phone: 360-754-5855  
Fax: 360-754-4138

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## Memorandum

Date: March 9, 2022

To: General Government Committee

From: Brad Medrud, Planning Manager

Subject: Urban Forestry Management Plan –  
Street Tree Plan, Scope of Work

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### Issue

Street trees are an essential part of the character of the City. As part of a healthy community and urban forest, they provide many environmental, economic, and community benefits. Street trees work constantly to mitigate the negative effects of development, while protecting and enhancing lives within the community. In addition to environmental benefits such as improving and protecting water and air quality, directly and indirectly addressing the effects of climate change, and buffering urban noise, street trees also have socioeconomic and aesthetic benefits, including promoting equity and environmental justice within the community by ensuring each neighborhood in the City receives community investment and support.

The City Council adopted the *Urban Forestry Management Plan* on March 2, 2021 after four years of work. The City's urban forest consists of all trees and understory plants on public and private property in the City. It includes a diverse mix of vegetation that is managed by a broad group of individuals and groups that are located in a range of urban and natural settings including private properties, developed parks, rights-of-way, conservation areas, and other public lands.

The *Urban Forestry Management Plan* guides the stewardship of the urban forest within the City through a series of implementation actions. Twenty-five actions in the City's *Urban Forestry Management Plan* address street trees and the most important of these are the following three actions with their overall objectives:

**Objective 1.1.** Increase canopy cover in the City to expand the community and urban forest.

**Action C.** Require appropriate tree planting in new development and redevelopment, by emphasizing proper planning for trees, correct planting techniques, and aftercare that supports the healthy establishment of newly planted trees.

## Urban Forestry Management Plan – Street Tree Plan

## Scope of Work

March 9, 2022

**Objective 4.1.** Update the *Urban Forestry Management Plan* and supporting regulations regularly and ensure they work in harmony with other City strategic priorities.

**Action D.** Review tree preservation, landscaping, and street tree regulations regularly to ensure that they are working with other City strategic priorities, plans, and regulations, responding to changes in climate, and implementing the *Urban Forestry Management Plan*.

**Action E.** Review and update the Comprehensive Street Tree Plan regularly to reflect “The Right Tree in the Right Place” strategies, including plantings in planter strips and medians and encourage planting of native tree species, where appropriate.

The next step in the implementation of the *Urban Forestry Management Plan* is the preparation of a *Street Tree Plan*, which is intended to guide street tree planting and maintenance in the City as an element of the 2021 *Urban Forestry Management Plan*. The *Street Tree Plan* will incorporate elements of the 2002 *Comprehensive Street Tree Plan* that was prepared by Washington Forestry Consultants, Inc.

Work on the *Street Tree Plan* will include updating Tumwater Municipal Code (TMC) 12.24 *Street Trees*, Chapter 3 of the *Tumwater Development Guidelines*, as well as review and update other relevant regulations, plans, and procedures for maintaining street trees with the *Urban Forestry Management Plan*’s primary goal of ensuring “The Right Tree in the Right Place.”

The purpose of the *Street Tree Plan* is to guide the maintenance, management, and improvement of the street tree component of the community and urban forest in the City for the benefit of the entire community over the next 20 years. The *Street Tree Plan* and the regulations establish the minimum requirements and standards for development and redevelopment of individual properties in the City as it relates to the street trees. The information for the *Street Tree Plan* will come from multiple sources, including stakeholder groups and inventories and surveys completed as part of the development of the *Urban Forestry Management Plan*.

As part of work on the *Urban Forestry Management Plan*, in 2018 more than 25 volunteers worked with staff and our consultant to inventory, measure, and catalogue more than 3,500 street trees using geographic information systems (GIS) and global positioning systems (GPS). Trees were identified by species, measured trunks at diameter breast height or four and a half feet above the ground, and canopy width, and rated for structure, condition, and health.

The street tree inventory included most City-owned trees planted in rights-of-way between a public sidewalk and a City street. In addition to common tree measurements described above, the inventory teams collected data on sidewalk displacement and planting location types in order to study relations between tree species and types of hardscape damage. This data has been incorporated into the City’s GIS-based asset management system.

## Urban Forestry Management Plan – Street Tree Plan

## Scope of Work

March 9, 2022

On September 22, 2021, the Tree Board and Planning Commission took a field trip to four different sites in the City to review street trees conditions and then provided input on the *Street Tree Plan* scope of work at more than seven meetings in the summer and fall of 2021 and the winter of 2022.

The *Street Tree Plan* will identify recommendations regarding sustainable resource management for street trees in the City that can be used by residents, homeowner associations, commercial and industrial property owners, developers, landscape architects, arborists, tree professionals, and tree and landscape maintenance staff including the following criteria for sustainable resource management:

Criteria	Key Purpose
<b>Management Plan</b>	Develop and implement a management plan for street trees on public right of ways that includes updating tree design and planting guidelines to provide for long-term development and health of the trees by providing enough space for them to grow.
<b>Funding</b>	Develop and maintain adequate funding to implement the <i>Street Tree Plan</i> .
<b>Staffing</b>	Employ and train adequate City staff to implement the <i>Street Tree Plan</i> .
<b>Assessment Tools and Data Management</b>	Develop methods to collect information about the street trees on a routine basis.
<b>Species and Site Selection</b>	Provide guidelines and specifications for street tree species use, on a context-defined basis.
<b>Standards For Tree Care</b>	Adopt and adhere to professional standards for street tree care.
<b>Public Safety</b>	Maximize public safety with respect to street trees.
<b>Equity</b>	Ensure that ensuring each neighborhood in the City receives community investment and support by requiring street trees to be planted on all public and private streets, and in all new development
<b>Reuse</b>	Create a closed system for street tree waste.

All natural and built systems change over time. Adaptive changes must be actively planned, managed, and maintained over the course of the *Street Tree Plan*'s duration to result in effective benefits. Lack of planning and management is evident where street trees are planted in places that do not allow for growth, which can lead to conflict with sidewalks and utilities. Proactive planning, management, and

## Urban Forestry Management Plan – Street Tree Plan

### Scope of Work

March 9, 2022

maintenance are needed to keep street trees in the City sustainable and in balance with other urban priorities.

The conditions under which trees grow in the City are often less than optimal. The soils in developed areas are often severely compacted, low in organic content and may contain construction debris. Trees often have restricted rooting space, and the space they do have is often covered with concrete or asphalt, reducing access to water and gas exchange from the soil to the air, critical to tree health.

Because the urban environment is a complex combination of human growth and disturbed environments, the selection of street trees used to create a healthy, sustainable urban environment should include a mixture of native and non-native trees, with no single species dominating. The predominance of a single species will increase the susceptibility of street trees to pests or disease.

The *Street Tree Plan* will provide a comprehensive list of street trees appropriate for all of the City's arterial and collector streets, as well as a general list for all other street types and include a detailed tree planting specification for use in transportation and engineering projects that could also be used for parks and recreation projects. The tree planting plan, specifications, and maintenance guidelines will ensure that the durable, long-term, canopy forming trees will be planted along City streets, forming the linkages between neighborhoods in the City.

The *Street Tree Plan* is proposed to be organized into four chapters and series of appendices.

**Chapter 1 – Introduction** describes the reasons why the City developed the Plan, its benefits, and its purpose.

**Chapter 2 – Background** refers to the existing regulations and street tree surveys completed.

**Chapter 3 – Street Tree Planning** describes the vision for future street tree plantings.

**Chapter 4 – Street Tree Planting** contains recommendations for street tree planting and maintenance.

**Appendices** include information specific street trees to be planted, as well as planting and pruning recommendations.

### Grant Application

The City submitted a Community Forestry Assistance grant application on February 22, 2022 to the Department of Natural Resources to support a consultant to work on the *Street Tree Plan*. The purpose of the grant is to assist communities with planning and implementing projects that improve management, care, and public engagement with trees growing in parks, natural areas, and along public rights-of-way. As part of the grant, projects also need to address social and environmental disparities in

Urban Forestry Management Plan – Street Tree Plan  
 Scope of Work  
 March 9, 2022

Washington communities by investing in community-identified urban forestry needs that advance environmental, social, or public health outcomes.

### **Draft Scope of Work**

1. Prepare Public Engagement Plan, which will:
  - a. Define the stakeholders for the process of creating the *Street Tree Plan*, their different information needs, and their role in the update process:
    - 1) Residential property owners
    - 2) Homeowner associations
    - 3) Commercial, industrial, and institutional property owners
    - 4) Residential, commercial, industrial, and institutional developers
    - 5) City maintenance staff
    - 6) City development review staff, including planning, building and development engineering staff
    - 7) City code enforcement staff
    - 8) Professional consultants, such as landscape architects, foresters, and arborists
    - 9) Tree cutting/landscape maintenance companies
  - b. Explicitly address how the *Street Tree Plan* will promote equity and environmental justice
  - c. Establish external and internal stakeholder groups
  - d. Contain a project schedule for:
    - 1) Community and stakeholder meetings
    - 2) Staff stakeholder meetings
    - 3) Draft work product delivery schedule for review by staff, stakeholders, and the Tree Board, Planning Commission, and City Council
    - 4) Public worksessions with the Tree Board and the Planning Commission
    - 5) Formal adoption of the supporting regulations through the Tree Board, the Planning Commission, including a public hearing, General Government Committee briefing, City Council worksession, City Council consideration and adoption
  - e. Identify materials for the implementation of the Public Engagement Plan
    - 1) City website and social media materials
    - 2) Materials to support the external and internal stakeholder groups

## Urban Forestry Management Plan – Street Tree Plan

## Scope of Work

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- 3) Explanatory materials to support the community and stakeholder meetings, public worksessions with the Tree Board, Planning Commission, and City Council, and adoption of the *Street Tree Plan* and supporting regulations
  - f. Review of the draft Public Engagement Plan by City staff, Tree Board, Planning Commission, and City Council
- 2. Implementation of the Public Engagement Plan
  - a. Conduct stakeholder meetings
    - 1) External stakeholders
    - 2) Internal stakeholders
  - b. Conduct a public open house, if needed
  - c. Conduct public worksessions with the Tree Board and Planning Commission
  - d. Conduct formal adoption of the *Street Tree Plan* and supporting regulations through the Tree Board, the Planning Commission, including a public hearing, General Government Committee briefing, City Council worksession, and City Council consideration and adoption
  - e. Prepare materials for the implementation of the Public Engagement Plan
- 3. Prepare the *Street Tree Plan*, which would include the following sections:
  - a. Introduction, describing the reasons why the City developed the *Street Tree Plan*, its benefits, and its purpose
  - b. Background, referring to the process for creating the *Street Tree Plan*, public engagement process updating regulations, and street tree surveys completed
  - c. Street tree planning, describing the vision for future street tree plantings, including:
    - 1) Arterials and connectors
    - 2) Guidance for other street types
    - 3) Street tree design recommendations
  - d. Street tree planting, containing recommendations for the following:
    - 1) Street tree planting and maintenance guidance
    - 2) Street tree management responsibilities
    - 3) Best management practices for street tree care
    - 4) Street tree planting list
    - 5) Street tree planting specifications and details

Urban Forestry Management Plan – Street Tree Plan  
 Scope of Work  
 March 9, 2022

- 6) Street tree pruning guidelines
- e. Shorter, individual documents derived from the *Street Tree Plan* for specific audiences and their needs:
  - 1) Residential property owners and homeowner associations
  - 2) City maintenance staff
  - 3) Tree cutting/landscape maintenance companies
4. Prepare amendments to the following, as needed:
  - a. Tumwater Municipal Code Amendments:
    - 1) TMC Title 12 *Streets, Sidewalks and Public Places* (TMC 12.08 *Street and Sidewalk Obstructions*, TMC 12.12 *Construction of Curbs and Sidewalks*, and TMC 12.24 *Street Trees*)
    - 2) Title 16 Environment (TMC 16.08 *Protection of Trees and Vegetation*)
    - 3) Title 17 Land Division (TMC 17.04 *Definitions*)
  - b. *Tumwater Development Guide*, Chapter 3 *General Engineering Considerations* and Chapter 4 *Transportation*, text and details
  - c. *Littlerock Road Subarea Plan*, Chapter 5 *Implementation*
  - d. *Tumwater Town Center Street Design Plan*
  - e. *Capitol Boulevard Community Zone Design Guidelines*
  - f. The ordinance should be assessed for compliance with the Growth Management Act (GMA) requirement to comply with the Attorney General's Guidance regarding takings

### Schedule

- May and June 2022 – RFP process and consultant selection
- July 2022 – Project start
- July 1, 2022 – June 1, 2023 – Department of Natural Resources grant money will be available
- December 31, 2022 – Project completion

### Notice of Intent and SEPA Review

- August 2022 – Submit Notice of Intent to Commerce
- August 2022 – SEPA Review



Urban Forestry Management Plan – Street Tree Plan  
 Scope of Work  
 March 9, 2022

Tree Board Meetings

- July 11, 2022 – Tree Board worksession
- August 8, 2022 – Tree Board worksession
- September 12, 2022 – Tree Board worksession

Planning Commission Meetings

- August 23, 2022 – PC worksession
- September 13, 2022 – PC worksession
- September 27, 2022 – PC hearing

City Council Meetings

- October 12, 2022 – GGC briefing
- October 25, 2022 – CC worksession
- November 15, 2022 – CC consideration

**Other Notes**

- The street tree survey completed as part of the development of the Urban Forestry Management will be used to determine which tree species caused the most infrastructure damage.
- At the December 14, 2021 City Council worksession on the Planning Division department work program, Councilmember Dahl recommended contacting the company she used that would like to review ‘tree’ related documents and plans. They also voiced interest in joining the Tree Board if there is room in the future. <https://www.doubledtreellc.com/>
- Also at the December 14, 2021 City Council worksession, Councilmember Schneider recommended avoiding the Bradford pear as a street tree.
- Staff has asked our Permitting Division staff if they could provide recent as-built plans and landscaping plans for recent projects such as Skyview to the Planning Commission and Tree Board. As part of this scope of work, staff will spend a worksession taking the Planning Commission and Tree Board through the development review process.
- Staff has reviewed materials related to the scope of work provided by Ben Thompson and his staff at the Washington State Department of Natural Resources.
- On December 16, 2021, the City issued the job posting for the new sustainability coordinator position, which will be taking lead on urban forestry projects in 2022. The position closed in January 2022 and staff are reviewing

## Urban Forestry Management Plan – Street Tree Plan

### Scope of Work

March 9, 2022

candidate for the position in February and March 2022. The new sustainability coordinator will be taking over as lead staff for the Tree Board, but Planning Division staff will continue to lead the work on the code update.

## Public Engagement Plan - Addendum

---

# STREET TREE PLAN AND CODE UPDATE

## CITY OF TUMWATER



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# 1 Introduction

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To implement the objectives of the Tumwater Urban Forestry Management Plan, the City identified review and revision of the City's municipal codes pertaining to urban forest management including the City's Street Tree Plan and *TMC 12.24 Street Trees* as a high priority action along with updates to *TMC 16.08 Protection of Trees and Vegetation* (Tumwater UFMP 2021). The public engagement efforts for the Street Tree Plan and code update will build off and be accomplished in concert with that of *TMC 16.08*. This document serves as an addendum to the Public Engagement Plan developed for the Tree and Vegetation Preservation Code Update dated September 28, 2022.

# 2 Engagement Goals and Strategies

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The goals and strategies outlined in the Public Engagement Plan for *TMC 16.08* will also guide the outreach process for *TMC 12.24*. This engagement effort aims to keep stakeholders informed and involved in all aspects of the Street Tree Plan and code update process, building from the stakeholder relationships established during the original public outreach activities.

The primary goals and strategies include:

- Educate and inform stakeholders regarding the current Street Tree Plan, critical topics for assessment and discussion, and the timeline and process for updating both the Street Tree Plan and code update.
- Learn about the community's understanding of and preferences for street tree management, maintenance, and permitting, which will serve as a guiding tree maintenance and management document for the City of Tumwater staff, industry professionals engaged in arboriculture and development, and property owners engaged in tree management.
- Seek insights and perspectives from community members on Street Tree regulations (*TMC 12.24 Street Trees*).
- Continue to engage stakeholders identified and measure success based on the metrics outlined in Sections 3 and 4 of the Tree Preservation Public Engagement Plan (September 2022).

### 3 Stakeholder Outreach and Engagement

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Stakeholder and interest groups identified for the Street Tree Plan and Title 12.24 are consistent with those outlined in Chapter 4 of the Public Engagement Plan for TMC 16.08. As noted earlier, the goal of stakeholder identification is to achieve a representative sample of the Tumwater community that considers both demographic trends and balances the broad and competing interests relevant to the street tree management. To achieve this goal, outreach and engagement efforts are structured to target the community's specific needs and profile. Further, targets help to determine the extent to which effective outreach is achieved.

### 4 Outreach Strategy

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The following table describes methods of notification that have been implemented as part of the larger urban forestry municipal code update to provide the public with project information and inform them of upcoming public participation opportunities. The City will continue to consider how best to reach key stakeholders and demographic groups identified in the Stakeholders section of the Public Engagement Plan.

#### 4.1 Notification Tools

The following table describes methods of notification used to promote the project and share opportunities for public participation.

Table 1. Summary of Notification Tools

Notification Tool	Key Actions	Due Date/Status	Lead
<b>Online Open House</b> The online open house will provide a homebase for information about the project and engagement opportunities, including links and schedules.	Build framework Populate content Soft (test) launch Launch	Ongoing; Launched as part of kick-off of TMC 16.08 outreach	Watershed
<b>Social Media Promotion</b> Use the City's established social media channels for broad engagement beyond the city limits to raise awareness of project goals and objectives, promote the project, and drive traffic to the online open house.	Regular and frequent posting across all social media channels	Ongoing; At project milestones (e.g., online open house launch, collateral mailing, and distribution); per Schedule of Outreach	City
<b>Direct Engagement</b> Project liaisons will forge and foster direct relationships with stakeholder groups identified. Direct engagement may include email, phone, or in-person communication; attendance at regular group meetings; and routing of project information and feedback between interest groups and the project team.	Regular communication with leadership or key representatives of each group	At least monthly, or as needed, throughout project duration	City



## 4.2 Stakeholder Meetings

Similar to the Tree and Vegetation Code (*TMC 16.08*) Update Project, a major component of the engagement effort will include a series of both internal and external stakeholder meetings. A total of two additional internal and three additional external stakeholder meetings are planned to specifically discuss the street tree plan and *TMC 12.24*. The purpose of the stakeholder meetings will be to facilitate discussions that build on the feedback received and inform subsequent steps in the ordinance update process. Priorities identified during the first round of stakeholder meetings for *TMC 16.08* will also inform stakeholder meetings, discussion topics, and strategies applicable to *TMC 12.24* and the Street Tree Plan. An outline of the scope of discussion for each stakeholder meeting is provided below.

### Internal Stakeholder Meeting (1 of 2)

- Attendees: City departments and staff
- Discussion: Scope of project, project schedule, scope of current ordinance
- Desired feedback: Concerns about the 2002 Street Tree Plan, experience with current code, primary concerns regarding street tree management.
- Exercises:
  - Priority setting (ex. “What do you see as the main priorities for street tree management? Tree species selection, soils, infrastructure impacts, climate change, canopy cover, environmental justice, etc.)
  - Rank priority
  - What are the key concerns affecting each priority?
  - What is the desired outcome for management of each priority?
  - Which of these priorities are inextricably linked? (Generate pairs or groups)

### Internal Stakeholder Meeting (2 of 2)

- Attendees: City departments and staff
- Discussion: Review revised draft of 2023 Street Tree Plan and *TMC 12.24*; solicit feedback on information to be included in targeted materials for specific audiences.
- Desired feedback: Questions and suggested refinement of the draft 2023 Street Tree Plan, draft code amendments.
- Identification, ranking, and breakdown of additional concerns or unaddressed issues.

### External Stakeholder Meeting (1 of 3)

- Attendees: Any external stakeholders

- Discussion: Scope of project, project schedule, scope of current ordinance
- Desired feedback: Concerns and questions about the Street Tree Planning process, the current code, experience with current code, primary concerns regarding street tree maintenance and management.
- Exercises:
  - Priority ranking (ex. “What do you see as the main priorities for Street Trees in Tumwater? (Rank top 3) species selection, infrastructure impacts, climate change, canopy cover, environmental justice, etc.)
  - “If we had a focused discussion about your TOP priority, would you be interested in participating in that session? If yes, provide your contact information.”

### External Stakeholder Meeting (2 of 3)

- Attendees: Select external stakeholder based on interest from External Stakeholder Meeting 1 (invite only).
- Discussion: Focused breakouts on priorities that emerged from External Stakeholder Meeting 1.
- Desired feedback: Gaps, targets for revision, focus areas within code
- Engagement questions:
  - What are the key concerns affecting this priority?
  - What is the desired outcome for management of this priority?
  - What are some methods or strategies for achieving the desired outcome?

### External Stakeholder Meeting (3 of 3)

- Attendees: Select external stakeholders chosen based on interests represented at External Stakeholder Meeting 2, but targeting equal representation across interest (invite only)
- Discussion: Breakouts on balanced interested that emerged from External Stakeholder Meeting 2
- Desired feedback: Actionable code guidance, compromise
- Engagement questions

## 5 Outreach Schedule

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To provide accountability and build trust with community stakeholders, the project team will maintain a regular schedule of outreach through the duration of project. In the initial phase of outreach and engagement, outreach will be interactive, including both outreach to and feedback from community members. Through the later project phase of code revision and outreach, the

project team will keep stakeholders informed of project progress and milestones. An outline and relative schedule of social media posting is provided after the overall schedule of outreach.

Table 2. Target Schedule of Outreach and Engagement

Date	Milestone / Notes
November 2022	<ul style="list-style-type: none"> <li>Complete draft addendum to the Public Engagement Plan to address updates to the 2002 Street Tree Plan and <i>TMC 12.24</i></li> <li>Finalize Public Engagement Plan</li> <li>Add additional content to online open house related to street trees and <i>TMC 12.24</i></li> </ul>
December 2022	<ul style="list-style-type: none"> <li>Develop draft Gaps Analysis of the Street Tree Plan and <i>TMC 12.24</i></li> </ul>
January 2023	<ul style="list-style-type: none"> <li>Joint Planning Commission - Tree Board Meeting to launch Street Tree Plan update effort; Discuss draft Gaps Analysis and gather priorities and feedback from board members.</li> <li>Internal Stakeholder Meeting #1</li> </ul>
1 <sup>st</sup> Quarter 2023	<ul style="list-style-type: none"> <li>External Stakeholder Meeting #1</li> <li>Work Session with Tree Board</li> </ul>
2 <sup>nd</sup> Quarter 2023	<ul style="list-style-type: none"> <li>Complete Development of First Draft of Street Tree Plan</li> <li>Internal Stakeholder Meeting #2</li> <li>External Stakeholder Meetings #2 and #3</li> <li>Develop revised draft of Street Tree Plan</li> <li>Joint PC-TB briefing and worksession – Ordinance</li> </ul>
3 <sup>rd</sup> Quarter 2023	<ul style="list-style-type: none"> <li>Briefings and worksessions with Planning Commission, City Council, and Government Committee</li> </ul>
4 <sup>th</sup> Quarter 2023	<ul style="list-style-type: none"> <li>Ordinance Adoption</li> </ul>

## Social Media Promotion

The following table provides an outline of key messages for social media promotion of external outreach and events along with a targeted timeline for posting relative to project milestones and events.

Table 3. Outline of Social Media Promotion

Milestone / Event	Key Messages	Relative Timing
Online open house updates	<ul style="list-style-type: none"> <li>○ Visit the Online Open House [provide direct link]</li> <li>○ Share project goals</li> <li>○ Share project timeline</li> <li>○ Sign up for project updates [provide direct link to sign up form]</li> <li>○ Who should participate? (Everyone!)</li> </ul>	Coincident with kick-off worksession with Planning Commission and Tree Board
External stakeholder meetings	<ul style="list-style-type: none"> <li>○ Are you interested in Street Trees?</li> <li>○ Sign up for project updates [provide direct link to sign up form]</li> <li>○ Save the Date [publish date]</li> <li>○ Register today! [share registration link]</li> <li>○ Reminder, meeting is tomorrow!</li> <li>○ Reminder, meeting is today!</li> </ul>	Starting at least 6 weeks before scheduled meeting
Project milestone achieved	<ul style="list-style-type: none"> <li>○ The City is making progress on the Street Tree Plan update! [share about milestone and share direct link, if available]</li> </ul>	Within 3 days of achievement
New content posted to online open house for public review	<ul style="list-style-type: none"> <li>○ The City needs your input about Street Trees! View the [content description] and share your feedback! [provide direct link]</li> <li>○ Reminder: your input is needed by [date]!</li> </ul>	Coincident with posting 2 weeks before feedback period is closed 1 week before feedback period is closed 1 day before feedback period is closing



## References

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Census.gov, Tumwater, WA: Quickfacts. Accessed, August 2022.

City of Tumwater Urban Forestry Management Plan. March 2021

TO: Planning Commission and Tree Board  
 FROM: Brad Medrud, Planning Manager  
 DATE: January 10, 2023  
 SUBJECT: Joint Planning Commission and Tree Board Worksession on Tree and Vegetation Preservation Regulation Update

---

1) Recommended Action:

Review the packet and be prepared for a discussion with the City's consultant and staff on the Gap Analysis for the Tree and Vegetation Preservation Code Update

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2) Background:

Trees are an essential part of the character of the City. As part of a healthy community and urban forest, they provide many environmental, economic, and community benefits. Trees and their associated vegetation work constantly to mitigate the negative effects of development, while protecting and enhancing lives within the community. In addition to environmental benefits such as improving and protecting water and air quality, directly and indirectly addressing the effects of climate change, and buffering urban noise, trees and their associated vegetation also have socioeconomic and aesthetic benefits, including promoting equity and environmental justice within the community by ensuring each neighborhood in the City receives community investment and support.

The Tumwater City Council made urban forestry one of four top priority actions for 2022-23. The City Council adopted the *Urban Forestry Management Plan* on March 2, 2021 after four years of entirely City-funded work by City staff, stakeholders, a consultant, the Tree Board, and the Planning Commission.

The City's urban forest consists of all trees and understory plants on public and private property in the City. It includes a diverse mix of vegetation that is managed by a broad group of individuals and groups that are located in a range of urban and natural settings including private properties, developed parks, rights-of-way, conservation areas, and other public lands.

The focus of the *Urban Forestry Management Plan* is the "The Right Tree in the Right Place." The *Urban Forestry Management Plan* guides the stewardship of the urban forest within the City through a series of implementation actions. The primary goals, objectives, and actions that address the preservation of trees and vegetation include:

**Goal 1.** Restore and enhance the community and urban forest.

**Objective 1.1.** Increase canopy cover in the City to expand the community and urban forest.

**Action B.** Ensure that landscaping regulations provide for the preservation of trees with potential and the planting of new trees and understory when removing existing trees and understory on public and private properties.

**Action C.** Require appropriate tree planting in new development and redevelopment, by emphasizing proper planning for trees, correct planting

techniques, and aftercare that supports the healthy establishment of newly planted trees.

**Goal 2.** Protect and preserve the community and urban forest, which includes trees, understory, habitat, and soils.

**Objective 2.1.** Use regulatory and non-regulatory approaches to protect and retain the community and urban forest to the extent practicable within the context of necessary growth and development.

**Action A.** Enforce tree protection regulations to protect healthy existing trees and forested areas and replace on public and private properties.

**Action J.** Designate, register, and promote heritage trees.

**Goal 4.** Balance the protection and support of the community and urban forest with other City strategic priorities, which include, in part, providing affordable housing, developing a walkable urban community, economic development, addressing climate change, and protecting endangered species.

**Objective 4.1.** Update the *Urban Forestry Management Plan* and supporting regulations regularly and ensure they work in harmony with other City strategic priorities.

**Action D.** Review tree preservation, landscaping, and street tree regulations regularly to ensure that they are working with other City strategic priorities, plans, and regulations, responding to changes in climate, and implementing the *Urban Forestry Management Plan*.

The tree and vegetation preservation regulation update is the next step in the City's implementation of the *Urban Forestry Management Plan*. As part of this project, the City's consultant, The Watershed Company, and City staff is working with stakeholders and the Tree Board, Planning Commission, and City Council to update the City's tree and vegetation preservation regulations (TMC 16.08 *Protection of Trees and Vegetation*), as well as review and update other relevant regulations and standards.

The City will also be updating the City's street tree regulations (TMC 12.24) and preparing a Street Tree Plan and updating City's landscaping regulations (TMC 18.47) this year.

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3) Alternative:

☐ None.

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4) Attachments:

- A. Gap Analysis – Tree and Vegetation Preservation Code Update
- B. TMC Chapter 16.08 *Protection of Trees and Vegetation*



## Municipal Code Gap Analysis

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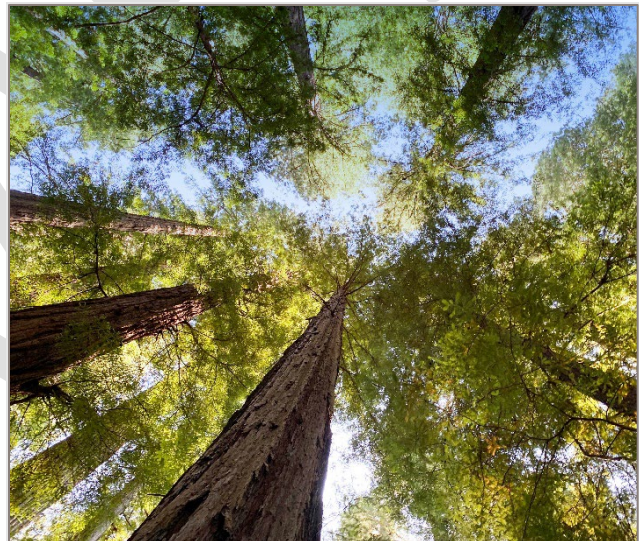
# TREE AND VEGETATION PROTECTION ORDINANCE (TMC 16.08) CITY OF TUMWATER

December 2022

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*Title-page image: Tree Canopy taken by Il Kern.*

The information contained in this report is based on the application of technical guidelines currently accepted as the best available science. All discussions, conclusions, and recommendations reflect the best professional judgment of the author(s) and they are based upon information available at the time the study was conducted. All work was completed within the constraints of budget, scope, and timing. The findings of this report are subject to verification and agreement by the appropriate local authorities. No other warranty, expressed or implied, is made.



Reference Number: 220421

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**watershedco.com**

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## Appendix A

Jurisdictional comparison summary

## Appendix B

TMC 16.08 Protection of trees and vegetation

# 1 Introduction

---

The City of Tumwater's urban forest provides environmental, health, and aesthetic benefits to the entire community. The urban forest is a dynamic ecological system that includes canopy trees as well as associated understory vegetation on both public and private land. It contributes to the City's character, economic vitality, and a variety of environmental and human health benefits such as reducing urban heat island effects, stormwater management and water quality improvement, erosion reduction, wildlife habitat and biodiversity, improving mental health and wellness, recreation, and mitigating the impacts of climate change. Like many cities in the Puget Sound region, the Tumwater community is faced with the need to support population growth and development while also ensuring environmental sustainability and promoting equity and environmental justice in its policies.

To meet this challenge, the City Council established "Be a Leader in Environmental Sustainability" as one of its Strategic Priorities in the City of Tumwater Strategic Priorities 2021-2026 with the goal of "Develop new approaches to tree preservation and urban forestry management." The City Tree Board, with support from the Community Development Department and community stakeholders, created the Urban Forestry Management Plan (UFMP), which was adopted by City Council on March 2, 2021. To achieve the objectives of the UFMP, the City established review and revision of the City's tree and vegetation preservation code (TMC 16.08 *Protection of trees and vegetation*) as a high priority action (UFMP 2021). In addition, the City will also be looking at other related codes, including TMC 12.24 *Street trees* and TMC 18.47 *Landscaping*, in 2023.

The challenge of municipal code updates for urban forest management lies in the fact that these are complex regional and watershed scale natural systems where regulatory practices differ across local jurisdictions. There are multiple approaches for how to regulate the retention and replacement of trees and vegetation within the urban setting. This includes a growing body of best practices for urban forest management informed by best available science regarding arboriculture<sup>1</sup> and silviculture best practices, urban tree canopy science, critical areas, stormwater management, climate change impacts and adaptation, and sustainable landscape strategies.

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<sup>1</sup> Best practices for arboriculture include but are not limited to the American National Standards Institute (ANSI) which are industry consensus standards developed by the Tree Care Industry Association written by the Accredited Standards Committee. ANSI standards cover everything from specific tree care specifications such as pruning and planting to worker safety.

Tree preservation code updates are also informed by the priorities, values, and resources of the community and will therefore need to be tailored to address the needs of specific neighborhoods, business districts, landowners, and existing City resources and balance competing priorities including developing to urban intensities, protecting federally listed prairie species, and providing affordable housing in a geographically constrained area. Furthermore, urban forest types vary by ecoregion and climate type; what may work in eastern Washington cities may not work for the species and habitat types found in western Washington. This Gap Analysis draws from industry best practices, trends in local urban forest management, and regulatory approaches from within the Puget Sound region.

## 1.1 Methodology

The Watershed Company (Watershed) met with City Staff, Tree Board, and Planning Commission to discuss the current tree and vegetation protection ordinance and recently launched a public engagement process to solicit input from external stakeholders. Priorities identified during stakeholder meetings and public comment provided on the Tumwater Urban and Community Forest Online Open House ([www.tumwatertreecity.com](http://www.tumwatertreecity.com)) coupled with existing code and policy review will inform and guide the tree and vegetation preservation code update process. This Gap Analysis is the first step in reviewing the current ordinance and framing discussion topics to be discussed and addressed by the Tree Board, Planning Commission, and City Council. Community members will also have the opportunity for further involvement by participating in public hearings in 2023.

## 1.2 Plan and Policy Review

Watershed reviewed TMC 16.08 and other city codes that reference tree management including Title 16 *Environment*, TMC 12.24 *Street trees*, and TMC 18.47 *Landscaping*. In addition, Watershed reviewed City and regional planning and policy documents to assess tree protection and management references, identify nexus with the existing tree preservation code, and note opportunities for revision. Those documents include the following:

- 2021 Tumwater Urban Forestry Management Plan
- Tumwater Town Center Street Design Plan
- Design Guidelines for Capitol Boulevard Community Zone
- Capitol Boulevard Corridor Plan
- Tumwater Development Guide
- Tumwater Citywide Design Guidelines

- Tumwater Brewery District Plan
- Tumwater Littlerock Road Subarea Plan

Watershed also completed a jurisdictional code comparison of other Washington jurisdictions within the Puget Sound region with similar land use and urban interfaces that are referenced throughout this document. See Appendix A for a table of findings. Additionally, Watershed staff reviewed other critical City and regional planning documents, including the Tumwater Comprehensive Plan and Thurston Climate Mitigation Plan, to ensure that the tree and vegetation protection code update is aligned with local climate change, sustainability priorities, and the Growth Management Act.

### *1.2.1 Urban Forestry Management Plan*

The goals and strategies that will guide the TMC 16.08 update process are derived from the UFMP. The UFMP guides the stewardship of the urban forest within the City through a series of implementation actions; its core focus is “The Right Tree in the Right Place.” The primary goals, objectives, and actions of the UFMP that specifically inform regulatory strategies and the code update of TMC 16.08 include:

#### ***Goal 1. Restore and enhance the community and urban forest.***

*Objective 1.1. Increase canopy cover in the City to expand the community and urban forest.*

*Action B. Ensure that landscaping regulations provide for the preservation of trees with potential and the planting of new trees and understory when removing existing trees and understory on public and private properties.*

*Action C. Require appropriate tree planting in new development and redevelopment, by emphasizing proper planning for trees, correct planting techniques, and aftercare that supports the healthy establishment of newly planted trees.*

*Action E. Support and incentivize the use of large-canopy trees in appropriate areas to provide maximum benefits.*

*Action F. Promote the use of native tree and understory species on public and private property to enhance desired wildlife habitat in the City.*

*Objective 1.2. Improve and maintain an optimal level of age distribution and species diversity of trees in the community and urban forest by increasing the use of desirable trees.*

*Action A. Designate tree species based upon specific purposes and site conditions for each project and maximize the benefits of trees while maintaining species diversity.*



***Goal 2. Protect and preserve the community and urban forest, which includes trees, understory, habitat, and soils.***

Objective 2.1. Use regulatory and non-regulatory approaches to protect and retain the community and urban forest to the extent practicable within the context of necessary growth and development.

Action A. Enforce tree protection regulations to protect healthy existing trees and forested areas and replace on public and private properties.

Action J. Designate, register, and promote heritage trees.

***Goal 3. Manage City-owned community and urban forestry resources for maximum benefit.***

Objective 3.1. Promote efficient and cost-effective management of the community and urban forest by selecting, situating, and maintaining urban trees appropriately to maximize benefits and minimize hazards, nuisances, hardscape damage, and maintenance costs.

Action B. Develop and enforce design phase and preconstruction coordination protocols to ensure “The Right Tree in the Right Place.”

***Goal 4. Balance the protection and support of the community and urban forest with other City strategic priorities, which include, in part, providing affordable housing, developing a walkable urban community, economic development, addressing climate change, and protecting endangered species.***

Objective 4.1. Update the Urban Forestry Management Plan and supporting regulations regularly and ensure they work in harmony with other City strategic priorities.

Action A. Ensure that mitigation and conservation areas created under an approved Habitat Conservation Plan are exempt from tree preservation regulations.

Action D. Review tree preservation, landscaping, and street tree regulations regularly to ensure that they are working with other City strategic priorities, plans, and regulations, responding to changes in climate, and implementing the Urban Forestry Management Plan.

The UFMP recognizes that there are different community and urban forest subtypes that may require different approaches to tree management based on environmental conditions and land use designations, as described in the City’s Comprehensive Plan. Environmental conditions account for the tree species and plant types most appropriate for a site, historic use and conditions, as well as soils, hydrology, and microclimates. Land use accounts for density of development within a subarea. Tree management differs in higher density urban land



developments compared with lower density residential areas or open space and critical areas. The tree and vegetation protection code update aims to integrate these concepts. The complete UFMP can be found at [www.tumwatertreecity.com](http://www.tumwatertreecity.com).

### 1.3 Internal and External Stakeholder Engagement

City and Watershed staff will be facilitating public meetings with external stakeholders between November 2022 and January 2023, collectively called Community Conversations, to educate the public on the tree and vegetation preservation code update and solicit feedback, concerns, and priorities for tree preservation within the City. These will be “hybrid” meetings hosted online, with in-person attendance provided at City Hall as well. An internal stakeholder session with City staff will be conducted in early January 2023 to enlist input from City employees who implement and enforce the City tree preservation code.

Additionally, the City is hosting an Online Open House website to engage community members that are unable to attend the stakeholder meetings. The Tumwater Urban and Community Forestry Online Open House invited all stakeholders to provide public comment and serves as a hub for project updates and background information ([www.tumwatertreecity.com](http://www.tumwatertreecity.com)). Public comment provided online and during stakeholder meetings will be summarized as an appendix in a final version of this Gap Analysis. Data will be assessed and integrated into the ordinance update as applicable and feasible.

### 1.4 Document Organization

Recommendations for updating the City’s existing tree and vegetation protection ordinance are provided in Section 2. Potential gaps are identified within each section by topic. Section 3 addresses additional regulatory or urban forest management topics not addressed within the analysis of the existing ordinance. The current tree ordinance (TMC 16.08) is found in Appendix B.

## 2 Analysis of Existing Ordinance

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### 2.1 Introduction

Section 2 of this Gap Analysis outlines specific recommendations or topics for further research and discussion, and it is organized by subsection of TMC 16.08. The subject ordinance (See Appendix B) would benefit from additional subsections by specific topics, particularly within TMC 16.08.050 *Permit required* and TMC 16.08.070 *Standards*. This would provide clarification and improve functionality for greater ease of use and application by the reader.

## 2.2 Purposes (TMC 16.08.020)

The City may consider updating the purpose and intent of the TMC 16.08 for policy consistency with the adopted 2021 UFMP. Currently there is one Purpose section for the code. This section should include an introductory paragraph that describes the recent UFMP planning efforts and the needs or issues faced by municipalities, developers, and landowners in managing trees in the urban environment. Other informative additions could include:

- Reference UFMP goals and policies that the code implements. Many UFMP elements are captured in the existing Purposes section of TMC 16.08. However, consider updating it to reference UFMP Goal 4 about the need to balance this with other City priorities as listed above.
- Add a statement addressing the City's canopy cover goals and the need for mitigation and consequences of required tree removal during land development, with the goal of enhancing the City's tree canopy to achieve an overall tree canopy cover of at least 39 percent citywide established by the UFMP. Specify that TMC 16.08 supports the canopy cover targets established in the UFMP which vary by land use type across the City (See Figure 1).
- Include a statement that reflects the UFMP's guiding principle of "Right Plant, Right Place" to manage trees and vegetation in accordance with industry standards, best management practices established by the International Society of Arboriculture (ISA) and the American National Standards Institute (ANSI) for Management of Trees During Site Planning, Development and Construction, Pruning, and Tree Risk Assessment.

Two important components of the UFMP are climate change resilience and equity. Consider adding specific language to this code section such as:

- (1) Mitigation of climate change through the absorption of greenhouse gases, reducing the heat island effect, and removing air pollutants.
- (2) Maintaining and increasing tree canopy and allocating urban forestry resources equitably throughout the City.

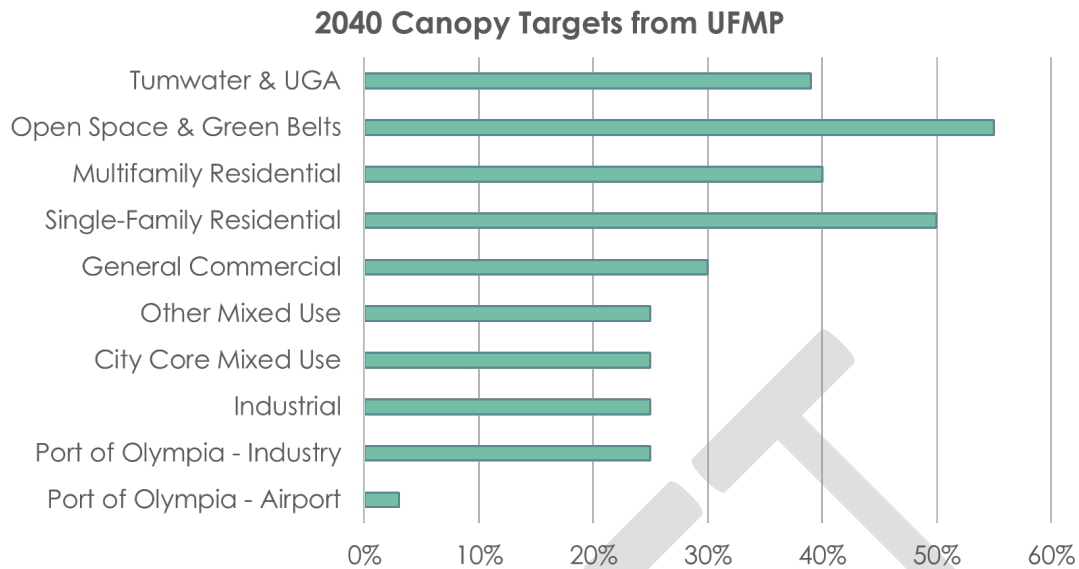


Figure 1. 2040 Canopy Targets by Land Use - Tumwater Urban Forestry Management Plan

### 2.3 Definitions (TMC 16.08.030)

One goal of this code update is to ensure that the revised ordinance is clear and easy to understand. To that end, additional terms are necessary to ensure the ordinance is accessible to City planners, industry professionals, and community members. As specific amendments are proposed, additional definitions may be needed to ensure conciseness within the ordinance. Furthermore, there may be definitions remaining that are no longer applicable and can be removed. Terms should be removed if not present in the code. Definitions should be crafted to reduce ambiguity and adhere to industry standards, best management practices established by ISA and ANSI. Definitions should also be reviewed for consistency across other chapters of the Tumwater municipal code including TMC 17.04 *Definitions* and TMC 18.04 *Definitions*. TMC 17.12 *General design standards* and TMC 18.42 *General land use regulations* address tree protection areas and should also be reviewed for consistency and updated as needed.

The first term that requires clarification is “tree.” TMC 16.08 currently defines a tree as “any healthy living woody plant characterized by one or more main stems or trunks and many branches and having a diameter of six inches or more measured four and one-half feet above ground level...” (TMC 16.08.030(T)). The City should consider refining the definition of trees as “significant” or “regulated.” The term “significant tree” is used in TMC 18.47.020(B) but is not used in TMC 16.08 or TMC 12.24. It is important to ensure consistent use of tree designations across all three urban forestry related codes. Other definitions to specify include hazard trees,

groves, hedges, nuisance trees, public trees, street trees, and viable tree (or healthy versus unhealthy tree).

Definitions that relate to each other and appear in the code in different sections include “Tree Protection Professional” and “Qualified Professional Forester.” Consider consolidating this definition and using one term throughout the code. Since not all arborists are experienced in tree risk assessment or managing tree protection during construction, consider specifying levels of experience and credentials required beyond the ISA certification. All arborists assessing tree health and safety should be Tree Risk Assessment Qualified (TRAQ). The ISA Tree Risk Assessment Qualification is a specialized certification that ISA credentialed arborists receive additional training in tree health assessments (aka hazard trees).

This code update approach proposes clarifying this definition and strengthening the professional requirement. Example requirements are found in the City of Mercer Island City Code *MICC 19.16.010* or the City of Burien *BMC 19.10.432*. One example from the City of Burien’s recent tree preservation code update (*BMC 19.10.432*) reads as follows:

*“Qualified Tree Professional*

*A qualified tree professional is: An individual with relevant education and training in arboriculture or urban forestry, having the International Society of Arboriculture (ISA) Tree Risk Assessment Qualification (TRAQ) and one of the following credentials:*

- 1. ISA certified arborist;*
- 2. ISA certified arborist municipal specialist;*
- 3. ISA board certified master arborist;*
- 4. American Society of Consulting Arborists (ASCA) registered consulting arborist (RCA);*
- 5. Society of American Foresters (SAF) certified forester for forest management plans.*

*A qualified arborist must also be able to prescribe appropriate measures for the preservation of trees during land development. Any provision in this title referring to using an arborist or qualified arborist or tree professional or qualified professional shall be interpreted to require using a qualified tree professional.”*

It is also important to use consistent terms throughout the ordinance as described in the definitions section. For example, “tree plan” is listed in the definitions section but labeled “Tree Replacement Plan” in TMC 16.08.050 *Permit required* and TMC 16.08.072 *Maintenance requirements*. Consistent terminology throughout the ordinance and other chapters of the municipal code will help City staff when assisting developers, homeowners, and other

customers. For example, TMC 14.08 *Approval, review and appeal authority* should also be reviewed as it includes Table 14.08.030 which defines the process for reviewing, approving and appealing tree plan applications.

Additional recommended definitions include but are not limited to the following:

- Caliper
- Crown
- DBH (Diameter-At-Breast-Height)
- Approved And Prohibited Plant List
- Pruning
- Tree Protection Zone (TPZ)
- Covenant
- Right Of Way (ROW)
- Forest Practices
- Maintenance/Performance Bond

Other items that need to be addressed include Forest Practices terms listed in the definitions section that do not appear directly in TMC 16.08 but they may be defined in a related code. For example:

- Conversion option harvest plan (COHP). This definition pertains to TMC 16.08.038 *Forest practice applications*.
- Class IV Forest Practices and other key terms with a reference to the definitions section of Revised Code of Washington (RCW) 76.09.

## 2.4 City tree protection professional (TMC 16.08.035)

The description and role of the City Tree Protection Professional could be clarified. For instance, does the City contract with the tree protection professional primarily to support the Community Development Department's permit review and ensure that tree inventories, replacement, and protection plans meet standards? This section assumes the reader already understands the role permitting and review process and role of the tree professional. If this is intended to serve as a general definition, consider moving this to the definitions section. The following information could be added here as applicable:

*The City tree protection professional is a City or contract employee who conducts the Community Development Department's urban forestry review of land clearing applications including the arborist report, tree protection and replacement plans, forest management plans, and accuracy of site plans to ensure consistency with City tree and development codes. The City tree protection professional may also verify hazard tree assessments for non-permitted tree removal requests.*

## 2.5 Forest practice applications (TMC 16.08.038)

The forest practices section would benefit from further explanation to put the provisions of RCW 76.09.070 in the context of the City's Comprehensive Plan and development within the City. This section could include an introduction or intent section that refers the reader to Objective 2.4 of the UFMP. Suggested language can be found in the City of Lacey tree protection and preservation code [LMC 14.32.045 Class IV Forest practice applications](#). The Lacey code section outlines rules regarding the Urban Growth Area and RCW 76.09.070, guidelines for conversions and timing; provisions for maintenance and thinning; and jurisdiction for processing of applications. Also, consider providing an FAQ or additional information to landowners on the City's website.

## 2.6 Tree account (TMC 16.08.040)

The existing Tree Account was established for the purposes of "acquiring, maintaining and preserving wooded areas, and for planting and maintaining trees within the City." All fines collected for violations of the ordinance are deposited into this account and the funds are used to plant trees on City-owned property or easements.

In keeping with the City's aim to integrate equity into its urban forest management practices, consider expanding use of the account to prioritize tree planting efforts where tree canopy goals fall short of the City's established canopy cover goals. The City could consider developing a homeowner tree give-a-way program that provides trees to be planted on private land and adjacent rights of way in specific neighborhoods or zone districts as needed to achieve equity and canopy cover goals outlined in the UFMP. Consider expanding this section to support potential future opportunities. The City of Burien provides for this in CH 19.26.100 *Tree replacement* in their 2022 ordinance update. The following suggested language is based on the City of Burien code:

*Tree account funds may be used for the City's urban forestry initiatives to achieve the objectives of the Urban Forestry Management Plan and the Thurston Climate Mitigation Plan including but not limited to forestry education, restoration activities, the purchase of land for the purpose of reforestation or preservation, the planting of individual trees, funding a tree give-away program, purchase, and installation of infrastructure to preserve existing trees and protect new trees, funding*

*for future monitoring efforts, and/or for enforcement of this chapter. Tree account monies may also be used for off-site replacement plantings at city-owned parks, public street rights-of-way, and other public or private open spaces. All trees to be replaced offsite shall meet the replacement standards of this section.*

## 2.7 Permit required – Applications – Requirements – Processing – Conditions of issuance (TMC 16.08.050)

### 2.7.1 User Guide – New Section

To improve usability and clarity of the permitting provisions, consider creating an introductory “user guide” to TMC 16.08.050. The user guide summarizes when a permit is needed, the required elements of the permit submittal, the review process and timeline, and conditions of issuance. Examples of user guide sections from other jurisdictions can be found in Burien Municipal Code (BMC) 19.26.010 and Kirkland Zoning Code (KZC) 19.40.

### 2.7.2 Permit Types and Requirements

The existing regulations apply to private property outside of critical areas, critical area buffers, and shoreline management areas.<sup>2</sup> The current ordinance requires a land clearing permit for any land clearing that involves tree removal in the City. The requirements for land clearing permits do not differentiate between large-scale land clearing for the construction of a single-family home, multifamily, or commercial development versus smaller scale tree removals on lots with existing development. If amendments are approved for land clearing permits, the City will need to review TMC 14 *Development code administration* and TMC 15.44 *Vesting of development rights* to ensure the new permitting requirements work with other approvals. TMC 16.08 does outline additional requirements or considerations for “timbered” properties and addresses forest practice applications for processing of Class IV applications per RCW 76.09.240.

The City could consider designating specific permit requirements based on the type of associated land clearing activity. As an example, the Cities of Kirkland (KZC 95.25 and .30) Burien (BMC 19.26.060 and .070), and Mercer Island (MICC 19.10.050 and .060) have provisions for tree retention, removal and replacement based on whether they are associated with development, with different permit submittal requirements. The City could consider creating criteria for (1) tree removal on private property, not associated with development (aka minor permits or tree removal permits) and (2) tree removal associated with large scale land clearing in preparation for a development project (aka major permits).

<sup>2</sup> The project team will not make amendments to the Critical Areas Ordinance or the Shoreline Master Plan as part of this ordinance update but may suggest future amendments to consider in the future.



TMC 16.08 outlines specifications for timbered property greater in size than one acre or commercial property with more than fifteen trees (TMC 16.08.050(D)). The City could also consider having a specific designation for tree removal on wooded property over a certain acreage that is being managed for forest health or timber versus development.

Adding more specificity to the permitting types and requirements as described above could allow the City to streamline the permitting process and more efficiently allocate staff resources for small-scale permit review versus large-scale development projects. This could also aid in enforcement of the code and aid in monitoring short- and long-term trends in tree removal types and processes.

Some Puget Sound jurisdictions provide applicants with a permitting checklist to ensure the applicant provides all required information for a complete permit application. This is more an internal programmatic recommendation versus a code recommendation but could be a useful tool for implementing code requirements and permit review. The City of Kirkland has a [Tree Removal Permitting Guide](#) on the City website to help applicants navigate their tree code.

### 2.7.3 Report and Site Plans

TMC 16.08.050 establishes permit submittal requirements that includes a report with a site plan, tree protection plan, and tree replacement plan. The report must describe existing environmental site conditions, property boundaries, location of proposed clearing, and a tree inventory and have tree protection and tree replacement plans drawn to scale. Each of these components would benefit from some clarification. The City could refine this by breaking out the data required on the 'to-scale' site plans versus a detailed arborist report that provides a narrative description of tree conditions, vegetation, and recommendations following best management practices. The report would supplement what is graphically depicted on the site plan. Recommended site plan requirements could include:

- (1) Name, address of the applicant and owner of the property
- (2) Legal description of the property
- (3) Date, north arrow, and scale
- (4) Topography showing contours not greater than ten-foot intervals of proposed clearing projects.
- (5) Boundary of critical areas such as wetlands, steep slopes, creeks, and shorelines.
- (6) Location of proposed improvements and needed excavation including but not limited to existing structures, new structures, additions to existing structures, appurtenances,



accessory structures, storm drain structures, utilities, driveways, and any required yard setbacks or perimeter buffering as defined under the City landscaping code.

- (7) The location, type, size, inventory tree number (if feasible/applicable), dripline, and critical root zone (CRZ) of regulated trees and groves and the location and type of other vegetation to be preserved/removed.<sup>3</sup> Those regulated trees proposed for removal should be marked with an “X” or ghosted out on the plan set for ease in permit evaluation.
- (8) The tree protection and replacement plan details (discussed below in Section 4.7.4 of this report) should be included in the final site plan submittal (This is already noted in TMC 16.08.050(C)(5)(e)).

TMC 16.08.050(D) states, “...the code administrator may modify the submittal requirements of subsections C and D of this section, on individual applications where the information is not needed or is unavailable.” The City should consider refining the administrative process and outlining what types of alternative documentation would be applicable. This topic could also be consolidated with or reference TMC 16.08.090 *Alternative plans*.

#### 2.7.4 Arborist Reports

TMC 16.08.050 establishes the requirement that applications for land clearing permits be accompanied by a “report” that includes many of the above-mentioned components such as a tree inventory, tree protection plan, and tree replacement plan, a timeline for implementing protection and/or replacement.

The “report” could be retitled “arborist report” with the requirement that it be completed by a certified professional arborist or forester as defined in the definitions section of TMC 16.08. Due to tree growth and changes in environmental conditions over time, specify that the report must have been completed within the last three years. In addition to the current requirements listed in TMC 16.08.050(C), the report should include the following information:

- (1) A map showing the location of existing regulated trees on the subject property *and* trees on adjacent properties whose CRZs extend into the subject property. When feasible/applicable, trees should be labeled by inventory number within the report that

<sup>3</sup> The Critical Root Zone (CRZ) is the area encircling the trunk of a tree equal to one foot radius for every inch of DBH. Example: a 24-inch DBH tree has a 24-foot radius CRZ measured from the face of the trunk. The dripline is the distance from the tree trunk that is equal to the furthest extent of the tree’s crown and is typically measured in all four cardinal directions (north, south, east, west). Depending on the tree species and canopy shape, the CRZ will sometimes extend beyond the tree’s dripline.

is consistent with the site plan so the arborist report can serve as a reference when evaluating permit applications.

- (2) A tree viability rating based on the overall health and structure of on-site regulated trees and estimated condition for off-site trees that may be impacted by construction or land clearing activities. Ratings should be based on the most recent edition of the *Guide for Plant Appraisers* written by the Council of Tree and Landscape Appraisers (CTLA) and published by ISA (CTLA 2020) (See Table 1).
- (3) Identification of groves or tracts of trees suitable for protection based on the topography, tree species, tree health, soil types, and project design limitations.
- (4) The feasibility of retaining regulated (aka significant) trees based on existing conditions and proposed development, including but not limited to new structures, additions to existing structures, appurtenances, accessory structures, utilities, and driveways.
- (5) Provide a summary of best practices and specifications for tree and soil protection measures. This includes the placement of construction fences, recommended on-site monitoring during construction activity (including areas of ingress/egress to the site), and tree protection measures based on ISA's current edition of *Managing Trees During Construction*.<sup>4</sup>

Should the City consider using minor versus major tree removal permit application types, the requirements and review process for minor tree removal not associated with development could be adjusted. For example, the minor permit could require a different application form accompanied by a minor site plan or aerial photograph showing the approximate location of regulated trees, clearly designating which trees are to be removed and retained. A planting plan would still be required for replacement plantings but would not necessarily require the more detailed site plan of a development project.

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<sup>4</sup> ISA's *Managing Trees During Construction* is a companion publication to the ANSI A300 Part 5: Tree, Shrub, and Other Woody Plant Maintenance – Standard Practices (Management of Trees and Shrubs During Site Planning, Site Development, and Construction).

Table 1. Assessment of plant condition considers health, structure, and form. Each may be described in rating categories that could be translated into a percent rating (CTLA 2020) as shown in this table or listed as 'viable' or 'nonviable'. Having clear documentation of assessment data will assist the City in urban forestry evaluations of permit applications.

Rating Category	Condition Components			Percent Rating
	Health	Structure	Form	
<b>Excellent - 1</b>	High vigor and nearly perfect health with little or no twig dieback, discoloration, or defoliation.	Nearly ideal and free of defects.	Nearly ideal for the species. Generally symmetric. Consistent with the intended use.	81% to 100%
<b>Good - 2</b>	Vigor is normal for species. No significant damage due to diseases or pests. Any twig dieback, defoliation, or discoloration is minor.	Well-developed structure. Defects are minor and can be corrected.	Minor asymmetries/deviations from species norm. Mostly consistent with the intended use. Function and aesthetics are not compromised.	61% to 80%
<b>Fair - 3</b>	Reduced vigor. Damage due to insects or diseases may be significant and associated with defoliation but is not likely to be fatal. Twig dieback, defoliation, discoloration, and/or dead branches may compromise up to 50% of the crown.	A single defect of a significant nature or multiple moderate defects. Defects are not practical to correct or would require multiple treatments over several years.	Major asymmetries/deviations from species norm and/or intended use. Function and/or aesthetics are compromised.	41% to 60%
<b>Poor - 4</b>	Unhealthy and declining in appearance. Poor vigor. Low foliage density and poor foliage color are present. Potentially fatal pest infestation. Extensive twig and/or branch dieback.	A single serious defect or multiple significant defects. Recent change in tree orientation. Observed structural problems cannot be corrected. Failure may occur at any time.	Largely asymmetric/abnormal. Detracts from intended use and/or aesthetics to a significant degree.	21% to 40%
<b>Very Poor - 5</b>	Poor vigor. Appears dying and in the last stages of life. Little live foliage.	Single or multiple severe defects. Failure is probable or imminent.	Visually unappealing. Provides little or no function in the landscape.	6% to 20%
<b>Dead - 6</b>				0% to 5%

## 2.7.5 Tree Protection and Replacement Plan

### 2.7.5.1 General Provisions

TMC 16.08.050(C)(5) *Tree protection plan* and TMC 16.08.050(C)(6) *Tree replacement plan* may require revision as needed to integrate other code provisions as part of this update, add clarity for the reader, and strengthen tree protections by outlining detailed requirements that are readily enforceable.

The Tree Protection and Replacement Plans should include the CRZ of all significant trees as well as the location of protected tree groves as defined in the code. The CRZ is also referred to as the tree protection zone (TPZ). Although the CRZ can be estimated by looking at the drip line of a tree, the CRZ typically extends beyond the boundary of the dripline. Should the City decide to regulate tree retention based on canopy cover by parcel, the tree protection plan should also indicate the proposed retained canopy cover on the parcel as a percentage of the total lot square footage (See section 2.10.3 for further discussion of tree retention standards).

### 2.7.5.2 Tree Protection Detail and Signage

The City could consider providing applicants more detailed requirements for tree protection. This could include an approved checklist and diagram to be provided to applicants at the pre-submittal meeting and then used by permitting staff to evaluate applications and conduct fencing inspections on development projects. The tree protection detail should provide for protections of trunk, canopy, and the critical root zone and include specifications for the type and location of fencing, treatment of roots exposed during construction, prohibition of stockpiling materials, vehicular traffic, or storage of machinery within the fencing area, and fencing signage requirements. The City may consider providing a TPZ engineering detail with instructions for contractors within the Tumwater Development Guide. Example details and best practices from other Puget Sound jurisdictions or industry professionals can be found on the following websites:

- International Society of Arboriculture ([Tree Protection \(isa-arbor.com\)](http://isa-arbor.com))
- City of Mercer Island ([Tree Protection During Construction](#))
- City of Kirkland ([Tree Fencing](#))

## 2.8 Performance and maintenance bond may be required (TMC 16.08.060)

There are no significant recommended revisions to this section. However, the City may add clarification that “all bond releases or assignment of funds returned to the applicant shall be approved in writing by the community development director.”

## 2.9 Standards (TMC 16.08.070)

### 2.9.1 Organization

TMC 16.08.070 requires reorganization and use of subheadings to improve clarity and conciseness. Specific provisions would benefit from subheadings including but not limited to the following:

- Management of public trees
- Tree retention standards
- Tree replacement standards
- Tree protection details and fencing
- Approved and prohibited tree lists
- Critical areas and their buffers
- Erosion control and soil protection requirements
- Stormwater management
- Schedule and timing
- Nuisance trees
- In lieu fee requirements
- Commercial tree farms

### 2.9.2 Tree Protection Designations

Like many jurisdictions within the Puget Sound Region, the City’s code currently regulates trees greater than or equal to six-inch DBH as well as Heritage Trees as defined in TMC 16.08.075. Some jurisdictions also have protections for large diameter trees based on their DBH often referred to as Landmark or Exceptional Trees. The threshold for Landmark or Exceptional trees varies across jurisdictions but is typically equal to or greater than 24-inch DBH (See Appendix A - Edmonds EMC 23.20, Shoreline SDC 20.50.360, and Kirkland KZC 95). The City

may consider creating a Landmark Tree designation to protect both large diameter trees and groves.

### *2.9.3 Tree Retention and Replacement Standards*

The tree retention standards found in TMC 16.08.070(Q) state, "...not more than thirty percent of the trees on any parcel of land shall be removed within any ten-year period, unless the clearing is accomplished as part of an approved development plan." On parcels not associated with development, a 1:1 tree replacement ratio is required when the retention standard is not met. TMC 16.08.070 (R) states that with a development proposal, a minimum of 20% of trees shall be retained with a 3:1 replacement ratio when the retention standards are not met. The introductory section includes language directing applicants to "leave healthy dominant and codominant trees well distributed throughout the site." TMC 16.08.070(R)(1), which outlines the required size, type, and condition of retained trees, lacks detailed specifications, protections, or incentives for large size classes except for the City's existing heritage tree designation.

#### *2.9.3.1 Quantifying Retention and Replacement Standards*

To determine the level of tree retention and replacement requirements, cities and counties throughout the Pacific Northwest and the United States use different methodologies. Commonly used strategies or approaches for quantifying tree retention and replacement include (1) a tree credit or density approach and (2) a canopy cover approach. Within these strategies, there is variation in application and implementation based on other City development and landscaping codes, community priorities, and City programmatic and staffing resources. Each of these methodologies has cost implications to the City and the applicant, which vary based on the level of in-house urban forestry staffing and the rigor of review requirements established in the City's tree preservation code.

Tree density consists of existing trees, replacement trees, or a combination of both. Tree density credit models are similar to a timber stocking level that quantifies density based on the trunk diameter (DBH) of existing trees. This is considered a general indicator of tree size and canopy cover over time. Parcels within the City or specific land use zones will then have specific minimum tree density credits that must be met. During the permit review, the existing tree credits are calculated based on trees retained versus removed. Tree credit methods are commonly used due to the ease of data collection regardless of expertise - does not require access to aerial imagery or online data sources and trunk size is easily quantifiable. In addition, tree diameter by species can be used as a correlate for canopy, age, and ultimate size when assessing retention values for specific species. Other Puget Sound jurisdictions that use variations of the tree density credit approach include Olympia, Burien, Kirkland, and Woodinville (See Appendix A and Reference section for link to City codes).

Another metric for tree retention standards used by the Cities of Edmonds (EMC 23.10) and Shoreline (SMC 20.50.350) is by measuring the percent of significant trees (six-inch DBH or greater) retained in the developable area of a parcel. Edmonds specifies minimum percent requirements based on the type of development (e.g., new single family, short subdivision, multi-family, or unit lot subdivisions) (See Appendix A).

Another methodology used to set minimum tree retention and replacement standards is the “canopy-based approach.” This approach is currently used by the City of Lake Forest Park (See LFPMC 16.14.070 Tree permit approval criteria and conditions). Tree canopy coverage is determined by measuring the canopy provided by existing trees to be retained as well as the projected canopy coverage provided by newly planted trees (at 30-year mark). Another example of this approach can be found in the Snohomish County Code (SCC 30.25.016 *Tree canopy requirements*) which specifies required tree canopy cover based on the type of residential development within the urban growth area. A lot’s canopy coverage would be calculated by the City’s qualified arborist or designee (e.g., on-call consulting arborist) for all permits requiring arborist review. Canopy cover goals are established for parcels within land use types (e.g., single-family, multi-family, and commercial). If the City chose to explore this methodology, minimum parcel level canopy retention requirements could be established based on the canopy cover goals per land use established in the UFMP. The challenge to this approach is in using projected future canopy of a newly planted sapling to calculate the anticipated tree replacement and the need for professional qualified arborists to conduct the calculations.

Each of these methodologies has cost implications to the City and the applicant, which vary based on the level of in-house urban forestry staffing available to review permit applications and the rigor of review requirements established in the City’s tree preservation code. The City could consider using a hybrid approach that sets minimum canopy requirements on parcels within a specific land use while prioritizing protections for trees of specific species (e.g., native conifers) and size classes (Landmark or Exceptional trees).

#### 2.9.4 Tree Replacement Standards

The City’s current tree preservation code requires a 1:1 replacement ratio on parcels not associated with development, when the retention standard is not met (TMC 16.08.070 (Q) and (R)(4)). Per TMC 16.08.070 (R)(3), on sites with an associated development proposal, a 3:1 replacement ratio is required when the standards of the chapter are not met.

The code states that replacement trees must consist of seedlings of the same or similar species to those trees removed, which shall be at least two years old. Where the standard is waived or modified, applicants are expected to plant a minimum of three trees for each tree cleared in excess of the standards established in the TMC 16.08.,



The approach to tree replacement standards will be driven in part by the City's approach to establishing and quantifying minimum tree requirements. Ideally, tree retention and replacement standards should be structured based on the size (DBH) and species of the trees removed to ensure that for example if an 18-inch diameter western redcedar is removed, it is not replaced by a deciduous ornamental cherry that will not replace the ecological values provided by the conifer even at maturity. If replacing in kind is not feasible due to design or development constraints, then a combination of on and off-site planting should be required – with species appropriate to the conditions be planted on-site and off-site planting of larger canopy trees be located at another appropriate location. Although there would still be a temporal loss in canopy cover, the goal is that eventually the canopy and the ecological value will be at some point replaced. For example, the City of Edmonds requires a 1:1 replacement for each significant tree between six and ten inches DBH removed; two trees for significant trees between 11 and 14 inches DBH removed; and three replacement trees for significant trees removed between 14 and 24 inches DBH removed (See Appendix A).

In terms of the specifications for replacement plantings, most jurisdictions use size (caliper and/or height) versus age, which the City currently requires. Typically, the minimum size for replacement trees is 1.5 to 2-inch caliper for deciduous trees and 6 to 7 feet in height for conifers.

#### *2.9.5 Tree Species Selection, Location, and Quality*

The current City code references species selection and preferences in various sections. Willow, cottonwood, and poplar trees are identified as nuisance species due to the invasive quality of their root systems and are excluded from tree retention calculation standards (TMC 16.08.070(R)(1)(b)). These are also included on the list of prohibited trees. The City also has a list of trees not allowed in public rights of way to minimize impacts to sidewalks and other infrastructure conflicts. The City may consider expanding its prohibited tree list to include trees known to be invasive in natural areas and open spaces such as English holly (*Ilex aquifolium*), which can create dense thickets – especially in upland forests of Western Washington, outcompete native vegetation, and is on the monitor list with the Washington State Noxious Weed Board (WANWCB).

The City should consider strengthening the location, species, and quality requirements for retention and replacement trees:

1. Location - This code update approach proposes adding more specificity to the location of replacement trees when on-site replacement planting is not feasible. Although the City's average urban tree canopy coverage is 39%, tree canopy cover is less in more heavily developed areas such as mixed use, industrial, and commercial zone districts. Loss of canopy cover in more urbanized neighborhoods has implications for stormwater



management, shading and cooling, property values, and livability. To minimize future canopy losses in a specific land use zone, the City should prioritize, whenever feasible, that replacement trees be planted in the same zone in which they were removed.

Replacement tree planting locations should include developments with high rates of impervious surface coverage to reduce the heat-island effect in these areas. The City should also specify that adjacent street trees and frontage improvements associated with development, should not count towards the canopy cover/retention credits on private property associated with a development project.

2. Species – The retention and replacement of native conifers (or other conifer species as approved by the City arborist) should be prioritized. Conifer species such as Douglas fir and western redcedar would ideally be retained or replaced in kind. Native deciduous trees (e.g., black cottonwood and red alder), small ornamental trees, and fruit trees, though valuable canopy, do not offer the same level of year-round ecosystem service benefits that conifers provide in Western Washington.
3. Quality – The quality or health of a retained tree should be included as a criterion when developing a tree retention plan. Trees in severe decline or that have been deemed a hazard by a Tree Risk Assessment Qualified (TRAQ) arborist should not be included in the canopy cover calculation/tree credits of a specified development. The City should develop specific tree health/hazard thresholds based on the International Society of Arboriculture tree assessment standards as noted in section 2.8.4 of this report.

#### *2.9.6 Preferred Tree List and Education Materials*

Growing healthy full-sized canopy trees in the built environment requires careful consideration of optimal growing conditions by species, proper planting practices, and protection of infrastructure (e.g., buildings, utilities, driveways, sidewalks, fences). To achieve this the City has developed an Approved Tree List ([Approved Street Tree Species | City of Tumwater, WA](#)) primarily for street trees directed to commercial, industrial, and residential development projects. The City could expand this list to provide homeowners and other landowners with “Right Tree, Right Place” guidance on preferred and prohibited tree species and planting practices aligned with planting specifications outlined in TMC 18.47 *Landscaping*.

Additionally, species selection and recommendations should be informed by current trends in the region’s changing climate. The University of Washington Climate Impacts Group predicts that Western Washington will likely see increasingly drier conditions and higher temperatures during the summer months, with potential increases in precipitation during the winter months. This increases stressors on urban trees such as drought, insect, and tree disease outbreaks. As the City develops its preferred tree lists and resources, species should be prioritized that

perform well under summer drought conditions and outline best practices for tree installation and establishment. The City should reference this resource in the applicable tree protection, landscaping, and development codes as well as provide access on the City's urban forestry website.

Example planting resources and tree lists include the Seattle Department of Transportation's Approved Street Tree List and City of Kirkland tree lists and homeowner education materials, both of which are linked in the References section for further consideration.

### 2.9.7 Critical Areas

Land clearing in wetlands and fish and wildlife habitat areas is regulated under TMC 16.28 and 16.32, respectively. Land clearing and tree removal are not explicitly called out as an allowed use or activity in TMC 16.08, nor are they identified as a prohibited use. The City should consider adding the provision that "no trees or ground cover shall be removed from critical areas or their buffer unless the proposed activity is consistent with the critical area standards" (Example language from City of Shoreline, SMC 20.50.350(A)).

### 2.9.8 Management of Public Trees

The City should consider adding a subsection specific to the protection and management of public trees and forests. Provisions for street trees would reference TMC 12.24 *Street trees*. TMC 16.08 could include added direction for trees within unimproved rights-of-way, public parks, and natural areas (not regulated by the critical areas ordinance). This should include restrictions on pruning, topping, and tree removal by private landowners who live adjacent to public land that are under the purview of the City maintenance department. This section could also outline provisions for when community stewardship of publicly managed trees is supported.

## 2.10 Maintenance requirements (TMC 16.08.072)

The maintenance requirements section may require restructuring depending on the revision direction taken for any new permitting requirements of the ordinance. The current ordinance requires a maintenance agreement be in place for three years from the date of the final plat or the date the trees are planted. One question to address is whether the maintenance agreement applies to those trees planted off-site when onsite replacement is not feasible.

## 2.11 Heritage trees designated (TMC 16.08.075)

The heritage tree designation could benefit from additional detail to provide a more detailed framework for how the City evaluates heritage trees in addition to other tree designations as discussed in Section 2.9.2 of this report. This section references a "tree removal permit" but does

not specify the specific requirements compared to the land clearing permit. Permit requirements related to heritage tree removal should be specified here.

## 2.12 Exemptions (TMC 16.08.080)

Exemptions to TMC 16.08 are generally consistent with exemptions found in tree preservation codes reviewed from other jurisdictions as part of this analysis. One provision where variation exists across municipalities is the allowance of a specified number of significant tree removals, without a permit, within a specified timeframe (See Appendix A). TMC 16.08.080 currently allows removal of up to six trees every three consecutive years on developed properties.

Minimum tree removal per parcel

Allowed tree removals within the existing code require revision to address inconsistencies. TMC 16.08.080(G) allows for the removal of not more than six trees from any parcel of land in three consecutive calendar years. This exemption does not apply to heritage or historic trees, or to trees located in a greenbelt or greenbelt zone, critical area and associate buffers, or tree topping.

In addition, TMC 16.08.070(Q) and (R) also reference thresholds. TMC 16.08.070(Q) states "...not more than thirty percent of the trees on a parcel of land shall be removed within a ten-year period, unless the clearing is accomplished as part of an approved development plan..." TMC 16.08.070(R) states, "...when land clearing is performed in conjunction with a specific development proposal not less than twenty percent of the trees, or not less than twelve trees per acre (whichever is greater), shall be retained." These provisions should be revisited and revised to ensure consistency. The City could consider adjusting the number of allowed removals in a given timeframe and/or requiring that tree removals will require a permit and replacement plan if proposed removals result in the parcel having less than a specified number of tree credits or canopy cover.

### 2.12.1 Minor pruning and thinning standard

Consider adding an exemption for minor pruning and thinning of trees that complies with ANSI A300 (Part 1 – 2017), Tree, Shrub, and Other Woody Plant Management – Standard Practices, to maintain long-term health of existing trees. Example language could include:

*Minor pruning or thinning of trees; provided, that such activity is consistent with the following requirements:*

1. *The selective removal of branches in the inner crown of the tree provided no more than 25 percent of a tree's leaf-bearing crown is removed. An even distribution of interior small branches and foliage on remaining limbs shall be maintained to avoid over-thinning or "lion-tailing."*

2. *Work involving the removal of more than 25 percent of a tree's crown mass shall demonstrate that the removal is necessary for the clearance of electrical distribution and service lines only.*
3. *The removal of the lower branches of a tree; provided, that the height of the pruned portion shall not exceed one-third of the total tree height and that removal of branches from the lower portion shall not exceed 25 percent of the tree's leaf-bearing crown; and*
4. *Mature and old growth trees are more susceptible to permanent damage or death from pruning. Pruning of mature trees should only be done as a corrective or preventative measure, such as the removal of decayed, rubbing, or crowded branches.*

### 2.12.2 Endangered Species and Habitat Conservation Plans

The City and the Port of Olympia's Olympia Regional Airport are home to unique flora and fauna of the South Puget Sound Prairie ecosystem. This is critical habitat for three federally listed protected under the Endangered Species Act including Olympia pocket gopher (*Thomomys mazama pugetensis*), streaked horned lark (*Eremophila alpestris strigata*), and Oregon spotted frog (*Rana pretiosa*). The City plans to incorporate an exemption to TMC 16.08 to allow for planned development, maintenance of City and Port facilities, and maintenance at conservation reserve sites within the City ([bushprairiehcp.org](http://bushprairiehcp.org)). This is supported by Action 4.4.1.A of the UFMP, which states, "Ensure that mitigation and conservation areas created under an approved Habitat Conservation Plan are exempt from tree preservation regulations" (UFMP 2021).

### 2.12.3 Habitat Corridors

Section under development.

## 2.13 Alternative plans (TMC 16.08.090)

Consider moving TMC 16.08.090 *Alternative plans* to the section where permitting criteria will be located, as this will apply to alternative reports or plans submitted in place of the required site plans and arborist report for a development project or land clearing permit. Consider naming section 'Modification plans', a modification approval may be tracked administratively within a land use decision or noted in an administrative report by City planning staff. This can be determined as amendments are developed and any other changes to the structure of the code are established.

## 2.14 Appeal procedure. (TMC 16.08.100)

No changes proposed, the appeals procedure is cross-referenced to the appropriate development code to avoid redundancy and consistent language during future code updates to the section.

## 2.15 Violation – Criminal penalties (TMC 16.08.110)

The City may consider adding the Community Development Director as the authority to withhold land use and clearing and grading permits unless prohibited by Tumwater Municipal Code or state law.

## 2.16 Violation – Civil penalties – Presumption – Other remedies (TMC 16.08.120)

Based on the date of the last code update on this section (2002), it is advisable to review the current minimum costs for tree replacement, materials, and installation in addition to the administration and staff time to process violations to match inflation.

Similar to section 2.15, above, the City may consider adding the Community Development Director as the authority to withhold land use and clearing and grading permits unless prohibited by Tumwater Municipal Code or state law.

# 3 Additional Recommendations and Considerations

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## 3.1 Early Review

To achieve the best outcomes for protection of large trees and groves during proposed development, urban forestry and tree retention codes should be discussed early and often in the design and development review process. For example, City of Lacey's tree protection and preservation code LMC 14.32.060 Application for permits states:

*“Prior to application for land use permits and actions such as a land division, commercial site plan review (SPR), or a conditional use permit (CUP), a pre-submission conference shall be required consistent with the requirements of Chapter 1 of the Development Guidelines and Public Works Standards. The pre-submission conference is designed to review the proposed action and identify permit requirements and issues an applicant may incur if the project is implemented. As part of this review, it should be made clear that the city of Lacey has an Urban Forest Management Plan and tree protection regulations that require early consideration of tree protection options, and that urban forest concepts and strategies shall be part of the early design considerations for new projects.*

*Location and design of major infrastructure, buildings, and planned uses must consider the tree protection opportunities to further the purposes of the Urban Forest Management Plan."*

The City may consider initiating this in its urban forestry (or preliminary application) review process.

### 3.2 Contractor Requirements

Consider requiring that any arboriculture or forestry professional working within the City be licensed and bonded, obtain a City endorsement to their State Business License, as well as submit a signed statement declaring their understanding of the City's urban forestry regulations. Jurisdictions with similar requirements include the City of Lacey and the City of Mercer Island

### 3.3 Climate Change Resilience

#### 3.3.1 Thurston Climate Mitigation Plan

Cities and towns in the Puget Sound region are already feeling the impacts of climate change including hotter summers, extended periods of summer drought, an increase in air pollution, extreme flooding, and increased rain events (Climate Impacts Group 2022). A healthy urban tree canopy helps to mitigate some of these impacts through carbon sequestration; the capture, filtration, and slow release of stormwater; and providing shade. The Thurston Regional Planning Council, a partnership between the Cities of Tumwater, Lacey, Olympia, and Thurston County, seeks to reduce climate polluting greenhouse gases and develop a regional framework to address this critical environmental issue. Together they developed the Thurston Climate Mitigation Plan (2021), which recognizes the important role that trees, vegetation, and healthy soils play in carbon sequestration as well as erosion reduction, stormwater management, and providing habitat. Strategy A5/A6/A7: *Preserve tree canopy and manage forests and prairies to sequester carbon* includes specific actions consistent with the UFMP including:

A6.5 Municipal Canopy. *Maximize tree canopy on jurisdiction owned or managed land, where appropriate in balance with other jurisdictional goals.*

A6.9 Tree Canopy Preservation. *Develop a tree canopy ordinance that establishes a baseline for current urban canopy and sets goals for future canopy to increase resilience. Combine direct cooling value (urban heat island mitigation) with carbon sequestration value when evaluating urban tree management.*

#### 3.3.2 Climate Change Impacts: Implications to the Ordinance

As much as trees and urban forests help to mitigate the impacts of climate change, they are also greatly affected by the shifts in temperature, precipitation, the growing season, and other



factors such as an increase in pest infestations that result from these changes. Heatwaves, drought, and flooding cause decline in tree health and increased mortality in some species. Although many tree species grow in a wide geographic range and may exhibit adaptations and “plasticity” in the face of changing growing conditions, the Puget Sound is starting to see decline of some of our key native species including bigleaf maple (Betzen et al 2021) and western redcedar (Fischer 2019) as well as challenges to tree establishment and vigor in other horticultural varieties.

As noted in the UFMP, the City will need to employ management strategies to ensure the resilience of the City’s urban forest. The City tree ordinance can serve as a tool in this regard by guiding tree species selection as noted earlier, timing of landscape plant installations, and monitoring protocols to assess tree health and potential pest outbreaks.

### 3.4 Urban Forestry Permitting Education Materials

The City may consider creating instructional materials for arborists, developers, and homeowners that aid in the interpretation and execution of the City code. This could include a checklist of requirements for permit submittal and examples of what is expected within the arborist report, site plan, tree replacement, and retention plan etc.

The City does not appear to have a Forest Practices form on the ‘Permit Applications, Planning Forms and Legal Forms’ on their application website page. Although not a common permit, a form or submittal checklist might be useful for applicants and staff to supplement the code and state law.

The City should consider providing an Approved Tree List for developers and homeowners to reference when selecting new or replacement trees to be planted. Providing such a list would educate developers and homeowners so that trees can be an integral part of a development plan and allow for site considerations at an early stage. The list could include species, approximate height and width, preferred soil type, shade and sun tolerance, and minimum required spacing. The list could be all inclusive and include specific species for street trees, or two separate lists could be created.

### 3.5 Incentives

The City may consider form-based design incentives such as cluster development and flexible setbacks, to encourage infill development and maximize tree retention. For example, the City of Shoreline allows the Director to grant reductions or adjustments to site development standards, including but not limited to variations of the area, width, or composition of required open space or landscaping, variations in parking lot design or access driveway requirements, variations in building setbacks, and variations of grading and stormwater requirements. The City should

consider further discussion with stakeholders and City departments to determine which incentives would work best with the jurisdiction's development codes and requirements.

### 3.6 Monitoring

As outlined in Objective 4.1 Action D of the UFMP (see Section 2.2 of this report), the City will review urban forestry regulations in the municipal code to evaluate their effectiveness in achieving other City strategic priorities, plans, and regulations, responding to changes in climate, and implementing the UFMP. This will begin with this code update anticipated to be completed by summer 2023 and then every four years. The City could consider including the monitoring requirements in the municipal code itself.

### 3.7 Wildfire Resilience at the Urban-Rural Interface

Washington State experienced record fires during the last decade and these continue to be a threat in our region with increases in the intensity and duration of summer drought. As the regional population is expected to grow and development pressures rise, homeowners are at increased risk to wildfires due to increasing in populations living within proximity to the "wildland urban interface." During the October 2022 work session with the Tree Board and Planning Commission, members raised the topic of wildfire resilience in the context of tree removal and protection. The City may explore whether the code could include specific provisions for landowners at the urban/rural interface seeking to manage forest stands for wildfire resilience versus for timber management or development. This could address tree removals required by homeowners on properties seeking to initiate wildfire readiness by creating defensible space to protect the perimeter of their property. This issue is also being addressed in the Thurston Hazard Mitigation Plan update that will be completed in 2023.

### 3.8 Regulatory Linkages – Coordination with other City Plans and Guidelines

Several City policy and code documents were reviewed for language and content related to TMC 16.08, including TMC 12.24 *Street trees*, the Tumwater 2002 Street Tree Plan, Tumwater Comprehensive Plan Land Use Element, Tumwater Town Center Street Design, Design Guidelines for Capitol Boulevard Community Zone, Capitol Boulevard Corridor Plan, Tumwater Development Guide, and the Tumwater Brewery District Plan. While these documents primarily contain references applicable to TMC 12.24 *Street trees*, there are some sections in each that would benefit from TMC 16.08 code updates, as outlined below. The Gap Analysis for TMC 12.24 *Street trees* will be completed in the future and it will address street tree code updates at that time.



### 3.8.1 TMC 12.24 Street Trees

A separate Gap Analysis will be completed for TMC 12.24 *Street trees* and the Tumwater Street Tree Plan as part of this larger municipal code and plan update. As the project team considers amendments - implications for TMC 16.08, TMC 12.24, and the Street Tree Plan will be evaluated. A couple of items to be considered include:

- TMC 12.24.010 and TMC 12.24.020 could include reference to the new Approved Tree List, as both sections include certain species that are prohibited from being planted.
- TMC 12.24.050 *Fire hazards- abatement* should be updated for consistency with the above proposed Wildfire Resilience (Section 3.7), if included in the update of TMC 16.08.
- Contractor licensing requirements for tree removal contractors.
- Climate change resilience and best management practices identified for planting and maintenance in a changing environment.
- Updates to definitions and use of terms to ensure consistency across TMC 18.47, TMC 16.08, and TMC 12.24.

### 3.8.2 TMC 18.47 Landscaping

A separate gap analysis will be developed for TMC 18.47 *Landscaping* in 2023 as part of the City's urban forestry municipal code updates. As the City considers amendments and updates for TMC 18.47, implications for TMC 12.24 will be evaluated. The following outlines a preliminary list of revisions or updates that may be needed for consistency with TMC 12.24:

- Review landscaping plan requirements in TMC 18.47.020 to ensure consistency with updated tree retention plan requirements in TMC 16.08 *Protection of trees and vegetation* for depicting significant trees, critical root zones, tree protection fencing requirements, and appropriate species and spacing.
- Reference updated permitting requirements outlined in TMC 16.08 *Protection of trees and vegetation* and TMC 12.24 *Street Trees*.
- Section 18.47.020(L) could include a reference to the revised Approved Street Tree Species List.
- Review species choice in Section 18.47.020(N) to ensure consistency definition of invasive plant species and noxious weeds that are prohibited.
- Update maintenance recommendations in TMC 18.47.040 for consistency with those outlined in the updated Street Tree Plan and TMC 12.24, as it pertains to maintenance of street trees.

- Section 18.47.050.A.2.b could include a reference to the Approved Street Tree list and/or expand on street trees would be best to accomplish 75 percent coverage in four years and perform well in urban landscape conditions. Additionally, include reference to the Approved Street Tree List throughout TMC 18.47.050 B, D, and E.
- Updates to definitions and use of terms to ensure consistency across TMC 18.47, TMC 16.08, and TMC 12.24.

### *3.8.3 Tumwater Littlerock Road Subarea Plan*

This document serves to create an understanding of the existing conditions and desired design of the Littlerock Road Subarea. The overall vision for the development of this area was informed by public input. The area is 410 acres within city boundaries composed of commercial and multi-residential mixed uses. The goal of future development is to create a “village” that is “transit oriented and pedestrian friendly.” The build-out of the area brings forward two major concerns “provisions of adequate infrastructure to serve new development...and stormwater [management].” Significant development would impact existing trees as well as provide opportunities for new plantings. Most of the document describes the opportunities available in this subarea for growth and change as well as the overall vision for the area. Suggested road sections, detailing street trees and trees planted in the median, include six-foot-wide planter strips and 12-foot-wide median planter strips. Trees are a noted part of the existing infrastructure. The importance of preserving the existing urban forest as a way to offset significant development is emphasized. Consider the following updates:

- Section 2.1 Community Involvement could benefit from including updates pertaining to tree retention and tree protection standards. Additionally, include a reference to the new Approved Tree List.
- Section 3.2 Vision for the Subarea could include a reference to the new Approved Tree List.
- Section 5.1 Necessary Implementation Actions could include updated tree protection measures for existing trees to be retained, as well as requiring replacement trees or street trees to be selected from the new Approved Tree List.

### *3.8.4 Tumwater Town Center Street Design Plan*

This document provides recommendations for types of landscaping along specific streets and includes recommended tree species to be planted. This document could benefit from an in-depth look at the types of landscaping and species recommended to be planted, to ensure the species and landscaping types are consistent with the overall canopy and vegetation goals

identified in TMC 16.08. A table of the Approved Trees List, or reference to the list, would also be beneficial.

### *3.8.5 Design Guidelines for Capitol Boulevard Community Zone*

This document complements TMC 18.21 *CBC Capitol Blvd Community Zone District*. There are specific requirements listed for development regarding frontage improvements. According to this document, tree replacement is considered a major change and needs to follow the guidelines outlined within. Details include appropriate tree spacing, planting strip width, and sidewalk specifications for various types of projects. There are additional sections that discuss landscaping installation specifically as well as expected maintenance. These sections contain broad best management practices but do contain information that should be reviewed and referenced as the Street Tree Plan is updated in 2023.

Although this document primarily contains standards specific to street trees, the Applicability section includes reference to tree replacement standards that should be updated. Section C.3.4 Maintenance should be updated to reflect the maintenance standards contained in TMC 16.08 for consistency.

### *3.8.6 Tumwater Capitol Boulevard Corridor Plan*

This document focuses on economic conditions, transportation options and safety, and aesthetics of the Capitol Boulevard (Blvd). Street trees are addressed peripherally in the context of preservation in specific sections of the thoroughfare as well as identifying areas that would benefit from new street tree plantings as new development happens. Most of the document is dedicated to overarching goals and objectives for different segments of the Blvd, such as the addition of bus stops or the installation of new bike lanes. These objectives parallel the goals outlined in the UFMP. Listed goals include “choose appropriate species and locations for tree planting and attend to maintenance issues” (Goals and Objectives: Respect the environment). The document also notes the importance of parks and green spaces within the city scape.

Although this document primarily contains standards specific to street trees, the Goals and Objectives section could be updated with maintenance standards from TMC 16.08, rather than just stating, “...be aware of maintenance that comes with trees.” This section could also reference the new Approved Trees List where it states, “...choose appropriate species and locations for trees.”

### *3.8.7 Tumwater Development Guide*

This document is the presiding guide for regulations relating to development. Street, sidewalk, and public utility development are included. Street trees are discussed in Chapter 4. It states that all arterial and collector streets be planted with street trees. Specific tree species are listed as

are planting size requirements, tree spacing within a planting strip, and expected width of planting strips. A brief overview of maintenance expectations is also outlined. The maintenance responsibility in regard to development and the planting of street trees is noted as well.

Section 4.49 Street Trees (pages 4-40, 4-41, and 4-42) could be updated with the new Approved Trees List, in addition to updating the maintenance standards for residential and commercial projects for consistency.

### *3.8.8 Tumwater Citywide Design Guidelines*

This document contains design guidelines for projects that are not addressed by other City planning and design guidelines, with the intent of implementing the City's Comprehensive Plan vision. The guidelines apply to all new commercial, mixed use, residential, industrial, and institutional development projects that are not already addressed by specific district or corridor design guidelines, additions to existing buildings that increase gross floor area by 1,000 square feet or more or increase gross floor area by 50 percent or more, and exterior modifications of existing structures. Design guidelines are organized by land use type and they include guidelines for site planning, pedestrian access, amenities, and open space, parking areas, building, and lighting. The City may consider the following updates to the Design Guidelines based on updated best practices outlined in the revised STP or include by reference:

1. Update Section 1.A.1 Purpose to include purposes identified in Gap Analysis Section 2.2.
2. 1.A.2 Administrative Procedures is an opportunity to include a statement about incentives/variation allowances in development standards to encourage tree retention.
3. Consider adding a statement about trees and the aesthetics and functional benefits that selecting the appropriate street tree species can provide to the Intent bullet list in Section 2.B.2 Relationship to Street Front.
4. Opportunity to add a reference to the Approved Street Tree List in Figures 2.B.2-1 and 2.B.2-2.
5. Opportunity to add a reference to the Approved Street Tree List in Section 2.B.2.6 Streetscape.
6. There is an exception on page 2-8 regarding requirements for residential buildings on signature roads (section 2.B.2.5.b.3) that states that departures from maximum setbacks may be allowed to preserve existing large trees. "Existing large tree" could be defined with a specific DBH, or DBH based on species; allowed setback departures could be elaborated upon by clarifying within the document itself or adding a reference to the

new section in TMC 16.08 that discusses development incentives, including allowed setback reductions.

7. Section 2.B.4.2 Internal Roadways and Vehicular Circulation contains street tree requirements.
8. Section 2.B.5.1 Unified Site Plans (for lots with multiple buildings or a total area greater than 2 acres) criteria could include the preservation of large trees (to be defined) and groves.
9. Section 2.B.7.2(g) Integration of Stormwater Facilities into Site Design provides an opportunity to suggest the use of specific tree species best suited for biofiltration, LID, and stormwater management needs.
10. Section 2.B.2.8.1(a) discusses requirements for common open space in multifamily developments. In addition to the requirements outlined, the City could consider requiring the common open space area be located to preserve and retain landmark trees and/or groves, when possible.
11. Section 2.B.2.9.1 discusses requirements for non-residential open space. The City could consider requiring the open space to include landmark trees and/or groves when possible.
12. Section 2.B.11.1.b(2) could include a reference to the Approved Street Tree List.
13. Section 2.C.1.2(a) could reference the Approved Street Tree List.
14. Section 2.C.3.2(f) could include a direct reference to the Approved Street Tree List, and (m) could include a reference to the Approved Tree List.
15. Section 2.C.3.5(a) states that maintaining existing mature evergreen trees and including existing and new evergreens in site development is an important objective. When appropriate, the Director may also relax other standards, such as setbacks and geometric requirements, to promote the retention of mature trees. This section could be elaborated upon by clarifying within the document itself or adding a reference to the new section in TMC 16.08 that discusses development incentives, including allowed setback reductions. Further, this section includes the protection of roots and setbacks to maintain the tree's health and should be reviewed to include potentially any updates to tree protection measures.
16. Section 2.D.2 Parking Area Landscaping could include a list of trees best suited for improving water quality and stormwater management. Section 2.D.2.1(b) states that mature conifer trees over 24 inches in caliper may count as two trees (with regard to tree

retention standards). The City should consider updating this sentence to use DBH rather than caliper.

17. Section 2.E.1.1.a(1) includes the retention of a substantial number of large trees, especially native trees such as conifers, to accomplish the objective that the architectural design of new development must reflect and add to Tumwater's design character by incorporating distinctive and substantial landscaping to enhance the building's setting. The City should consider making the retention of large trees a requirement in this section rather than calling out the retention of large trees as an option to accomplish an objective. The goal would be to require new development to prioritize the preservation of high-retention value trees when possible.

### 3.8.9 Tumwater Brewery District Plan

This document describes the redevelopment vision for the Brewery District. It encompasses a *"series of recommended transportation enhancements, public realm improvements, a vision for building character and development intensity, and a set of implementation and phasing strategies."* As road improvements happen, street tree planting opportunities occur. The addition of trees helps to calm the overall atmosphere and creates a more welcoming environment. The document includes design recommendations and broad street tree placement recommendations (i.e., *"trees should be interspersed with on-street parking"*) and notes the importance of using trees and the landscape to help link together different areas. Trees are mentioned peripherally when building frontages are being improved. Consider the following updates:

- TMC 18.27.050 *Table of development standards* references "preservation of mature tree stands" in note (2). A definition of what constitutes a mature tree stand or alternate language could be included here for clarity.
- Goals/Objectives Section 1.3 could benefit from updating vegetation and tree replacement standards. This section could also include a reference to the new Approved Tree List.

### 3.8.10 Tumwater Stormwater Management Program Plan

Section under development. To include discussion of Low Impact Development (LID) requirements and the City's NPDES permit.

## 4 References

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JURISDICTIONAL COMPARISON SUMMARY

Topic	Tumwater TMC 16.08	Lacey LMC 14.32	Edmonds EMC 23.10	Lake Forest Park LFPMC 16.14	Burien BMC 19.26	Olympia OMC 16.56, 16.58, 16.60	Shoreline SDC 20.50.350 and .360
	(Current, last amended 2017, last substantial amendment 2006)	(UFMP updated 2021)	(Updated 2021)	(Updated 2017)	(Updated 2022)	(Updated 2021)	(Updated 2022)
Tree Retention Standards	<p>Tree retention standards required by percent of trees on parcel or number of trees per acre.</p> <ul style="list-style-type: none"><li>Maximum 30% of trees on any parcel allowed to be removed within any 10-year period unless part of an approved development plan.</li><li>When land clearing is performed in conjunction with a specific development proposal, minimum retention of 20% of the trees or 12 trees per acre (whichever is greater).</li><li>Separate retention standard for sites that were formerly Christmas tree farms.</li></ul>	<p>Tree standards applied are specific to the type of development and lot size. Requirements are based on either the number of saved or new trees.</p> <ul style="list-style-type: none"><li>Developing Single &amp; Multi-family: 2-5 new or retained trees. Developed Single &amp; Multi-family: Four new or retained trees per 5,000 ft.</li><li>Developing Commercial or Industrial: Two new or retained trees per 10,000 ft.</li><li>Developed Commercial, Industrial, Multi-family proposing addition, tree removal, or site disturbance: Two new or retained trees per 10,000 ft.</li><li>Class IV Forest Practice Activity: replanting required when average stocking* falls below 80 ft squared per acre.</li></ul> <p><i>*Stocking is a quantitative measure of the area occupied by trees relative to a desired or targeted tree density.</i></p>	<p>Tree retention standards required by percent of significant trees on parcel, specific to type of development.</p> <ul style="list-style-type: none"><li>New Single Family, short subdivision, or subdivision: 30% of all significant trees in the developable site.</li><li>Multi-family development, unit lot short subdivision, or unit lot subdivision: 25% of all significant trees in the developable site.</li><li>For developing properties with fewer than three significant trees, trees shall be retained and/or planted that will result in the site having at least three trees per 8,000 SF of lot area.</li></ul>	<p>Minimum Tree Canopy Requirement. Tree canopy cover goals are based on lot size and land use types.</p> <p>Tree canopy coverage is measured by the percentage of canopy provided by existing trees or projected canopy coverage of new trees and is calculated by the City's arborist.</p> <ul style="list-style-type: none"><li>Single family &gt; 15,000 sf: 58%</li><li>Single family 10,000-15,000 sf: 39%</li><li>Single family less than 10,000 sf: 28%</li><li>Multifamily lots: 15%</li><li>Commercial lots: 15%</li><li>Southern Gateway neighborhood: 5-15%</li></ul>	<p>Minimum tree credit requirement.</p> <ul style="list-style-type: none"><li>The required minimum tree credits for single-family and multi-family developments are one tree credit per 1,000 SF of developable area. For commercial, industrial, or non-residential lots, the minimum tree credit is 0.15 per 1,000 SF.</li><li>Tree credits are derived from the size of a tree. See <a href="#">Table 19.26.050-2 Tree Credits</a> for more information.</li><li>Tree credits are assessed by existing healthy trees, replacement trees, and fee-in-lieu.</li></ul>	<p>Minimum tree density requirement.</p> <ul style="list-style-type: none"><li>A minimum tree density of 30 tree units per acre is required on the buildable area of each site, except within the Green Cove Basin and in critical areas.</li><li>Tree units are based on the trunk size of the tree and vary by size. See the <a href="#">Olympia Urban Forestry Manual Table 4-A</a>.</li><li>Developing properties are required to meet a minimum tree density of 30 tree units/acre.</li><li>Commercial/Industrial/Multifamily (5 units or more) properties, proposing an addition or other site disturbance are required to replace a minimum tree density of one tree unit for every 500 sq. ft. of site area to be disturbed and three tree units for every one tree unit proposed for removal, up to the minimum tree density of 30 tree units per acre for the entire site.</li></ul>	<p>Tree retention standards required by % of significant trees on parcel.</p> <ul style="list-style-type: none"><li>At least 25 percent of significant trees on a given site shall be retained, excluding critical areas and critical area buffers, or</li><li>At least 30 percent of the significant trees on a given site (including critical areas and critical area buffers) shall be retained.</li></ul>

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Tree Replacement Standards	<p><b>1:1 replacement ratio.</b></p> <ul style="list-style-type: none"><li>Replacement trees shall consist of seedlings of the same or similar species to those trees removed, which shall be at least two years old.</li><li>Where the standard is waived or modified, the applicant shall plant a minimum of three trees for each tree cleared in excess of the standard.</li></ul>	<p><b>Replacement standards based on lot size.</b></p> <ul style="list-style-type: none"><li>Developing Single &amp; Multi-family: # of new trees based on lot size- anywhere from 2-5 trees</li><li>Developed Single &amp; Multi-family: four trees per 5,000 ft</li><li>Developing Commercial or Industrial: Two trees per 10,000 ft</li><li>Developed Commercial, Industrial, Multi-family proposing addition, tree removal, or site disturbance: Two trees per 10,000 ft</li><li>Class IV Forest Practice Activity: replanting required when average stocking falls below 80 ft squared per acre</li><li>Every commercial project over one-acre in size and every land division over two acres in size shall be required to designate a tree tract(s).</li><li>Tree tract shall cover 5% or more of the site.</li><li>Minimum replacement sizes are 2" caliper for deciduous and 7' tall for conifers.</li></ul>	<p><b>Replacement standards based on size of tree removed.</b></p> <ul style="list-style-type: none"><li>One replacement tree for each significant tree between 6 and 10" DBH removed.</li><li>Two trees for each significant tree between 10.1 and 14" DBH removed.</li><li>Three replacement trees for each significant tree greater than 14" but less than 24" DBH removed.</li><li>Minimum size for replacement trees is 1.5" caliper for deciduous and 6' in height for evergreen trees.</li><li>Replacement trees shall be primarily native species.</li></ul>	<p><b>Replacement standards are based on canopy coverage calculated by City Arborist.</b></p> <ul style="list-style-type: none"><li>Replacement species shall be selected from the approved general tree list maintained by the City.</li><li>When removing native trees, native trees selected as replacements.</li><li>All replacement trees shall meet the minimum standards for size and quality according to the current edition of the ANSI Z60.1 for nursery stock.</li></ul>	<p><b>Replacement standards based on required tree credits.</b></p> <ul style="list-style-type: none"><li>Any exceptional healthy tree required to be removed as part of a development permit requires replacement at a ratio of three trees for each tree removed and shall follow size and planting standards.</li><li>This replacement is in addition to the minimum required tree credits in BMC 19.26.050-1.</li><li>Two-inch caliper at the time of planting for deciduous or broadleaf trees and 6' in height for evergreen conifers.</li></ul>	<p><b>Replacement standards based on required tree density.</b></p> <ul style="list-style-type: none"><li>Replacement trees shall meet the quality and size and be planted pursuant to standards delineated in the Urban Forestry Manual.</li><li>Replacement trees shall be native species or well-adapted drought-tolerant vegetation, and at least 60% conifer trees, unless determined by the Urban Forester as not appropriate for site conditions.</li></ul>	<p><b>1:1 replacement ratio or greater depending on replacement size, with 3 trees maximum.</b></p> <ul style="list-style-type: none"><li>One existing significant tree of 8" in diameter for conifers or 12" diameter for all others equals 1 new tree.</li><li>Each additional 3" in DBH equals 1 additional new tree, up to 3 trees per significant tree removed.</li><li>Minimum size requirements for replacement trees: deciduous trees shall be at least 1.5" in caliper and evergreens 6' in height.</li></ul>
Significant Tree Threshold	6" DBH or greater (Though not labeled "significant" in code)	Not defined.	6" DBH or greater	6" DBH or greater	6" DBH or greater	6" DBH or greater	8" DBH or greater

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Protection of Large Trees or Groves	Heritage trees defined are unusual, rare, and high quality. <ul style="list-style-type: none"><li>Groves mentioned but not clearly defined.</li></ul>	Historic trees, Groves of trees, and Specimen trees defined. Defined as unusual, rare, or high-quality trees.	<ul style="list-style-type: none"><li>Landmark trees - 24" DBH or greater.</li><li>Grove - Three or more significant trees with overlapping or touching crowns</li></ul>	<ul style="list-style-type: none"><li>Exceptional trees - defined based on species and DBH.</li><li>Landmark trees- 24" DBH or greater.</li><li>Groves of trees- contiguous grouping of trees with overlapping canopies that are 12" DBH or greater and occupy a minimum of 7,000 SF in size</li></ul>	<ul style="list-style-type: none"><li>Exceptional trees - trees greater than 30" DBH or based on diameter by species.</li><li>See Table 19.26.040-1 Exceptional Tree Table with Threshold Diameters at Standard Height.</li><li>Heritage trees - Any tree identified by size and species specific.</li></ul>	<ul style="list-style-type: none"><li>Landmark trees - means a tree or group of trees designated as such by the city because of its exceptional value to the residents of the city.</li><li>Value is determined by factors such as association with historic figures, events, or properties, rare or unusual species, or exceptional aesthetic quality.</li><li>Note entire chapter on Landmark tree protection (OMC 16.56). Includes provisions for groves.</li></ul>	Landmark trees - greater than 30" DBH
Tree Protection Requirements	Requires temporary fencing around CRZ and field verification of retained trees by the city tree protection professional.	All requirements for protection of trees and vegetation detailed in plans prepared by the city's tree protection professional or in land clearing conditions required by staff such as fencing and other protection measures shall be satisfied.	Requires minimum 3-foot-tall fencing and signage along LOD spaced no further than 15' apart stating: "Tree and Soil Protection Area, Entrance Prohibited." Orange polyethylene laminar fencing is acceptable.	Conditions necessary to safeguard trees identified for protection.	Requires 6-foot-tall chain link fencing and sign stating, "Tree Protection Zone – Keep Out." Signage every twenty (20) feet around TPZ, fencing inspection.	Prior to initiating tree removal on the site, soils, vegetated areas, and individual trees to be preserved shall be protected from potentially damaging activities pursuant to standards in the Urban Forestry Manual.	Requires 6-foot-tall chain link fencing and "Tree Protection Area" signage around tree protection zone.
Incentives for Higher Level of Tree Protection	None specified.	None specified.	None specified.	None specified.	None specified.	None specified.	Reductions or adjustments to other site development standards, including but not limited to variations of the area, width, or composition of required open space or landscaping, variations in parking lot design or access driveway requirements, building setbacks, grading and stormwater requirements.

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Protection and Management of Public Trees	<p>Restrictions on planting willow, cottonwood, poplar, and any other trees the roots of which are likely to obstruct or injure sanitary sewers or other underground utilities, except as approved by the director of public works in accordance with a city-approved plan or project.</p> <p>See also <a href="#">TMC 12.24 Street trees.</a></p>	<ul style="list-style-type: none"><li>• It is unlawful for any person or city department to top any street tree, park tree or other tree on public property.</li><li>• Street trees can be counted towards tree replacement requirements for individual lots.</li><li>• See Chapter 12.20 for planting location, species, and size requirements.</li></ul>	<p>Pertains to Street Trees Chapter 18.85:</p> <ul style="list-style-type: none"><li>• When it is necessary to remove a street tree in connection with paving of a sidewalk, or the paving or widening of the portion of a street or highway used for vehicular traffic, the city shall replant the tree(s) or replace them. If conditions prevent replanting, this requirement may be satisfied if any equivalent number of trees are planted nearby in accordance with the street tree plan.</li><li>• Replacements shall meet the standards specified in the street tree plan for size, species, and placement.</li><li>• The permittee shall bear the costs of removal and replacement. Removal, planting and replacement of all street trees shall conform to the standards in the material labeled “Standards for Planting Street Trees Within the City of Edmonds.”</li></ul>		<ul style="list-style-type: none"><li>• The city shall maintain all trees and other vegetation on the city maintenance responsibility list established pursuant to this chapter.</li><li>• No person shall prune or remove trees or other vegetation on the city property identified on the city maintenance responsibility list.</li><li>• The owner of property adjacent to an improved or unimproved right-of-way not listed on the city maintenance list shall maintain street trees and other vegetation located within the maintenance area.</li><li>• New trees planted in the right-of-way shall be selected from a list of recommended species approved by the city.</li></ul>	<ul style="list-style-type: none"><li>• No City trees shall be cut down, killed, or removed for any reason without filing an application with the Urban Forester; procuring a permit for removal from the Urban Forester; and mitigating the loss of the removed tree(s) pursuant to the mitigation section of this ordinance.</li><li>• The mitigation value shall be calculated by the Urban Forester using the formula outlined the "Guide for Establishing Values of Trees and Other Plants," published by the International Society of Arboriculture and shall be paid into the City Tree Account.</li><li>• All or a portion of this mitigation may be met by planting replacement trees on the site.</li><li>• Vegetation Management Plans. When a private party (non-city) requests the removal of a public tree, the applicant shall be required to develop and implement a vegetation management plan for the property. The applicant shall be required to pay all costs.</li></ul>	<ul style="list-style-type: none"><li>• Planting of Public Trees: A right-of-way use permit shall be required and issued by the director of public works (hereafter “director”) for planting public trees in rights-of-way adjacent to an applicant’s property according to the variety and spacing approved in the Engineering Development Manual.</li><li>• Nonexempt Pruning and Removal of Public Trees: A right-of-way use permit shall be required and issued by the director for the nonexempt pruning or removal of public trees in rights-of-way adjacent to an applicant’s property.</li><li>• Maintenance of Public Trees: All planted trees and replacement trees shall be maintained in good health and condition by an applicant, or their successor in interest, in accordance with the issued right-of-way use permit or other authorizing permit.</li></ul>

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Code Enforcement/ Mitigation for Violations	<p>Corrective actions may include:</p> <ul style="list-style-type: none"><li>Restoration and replanting of surface vegetation with plant material similar in character and extent as existed prior to the unauthorized clearing;- Implementation of drainage and erosion control measures;</li><li>Replanting of trees equal in value to those lost through unauthorized clearing.</li><li>The value of the trees removed shall be determined by the city's tree protection professional using landscape tree appraisal methodology published in the current edition of the International Society of Arboriculture's Guide for Plant Appraisal.</li><li>Civil penalties such as withholding of permit issuance and corrective actions.</li><li>Criminal penalties including fines and misdemeanor charges.</li></ul>	<p>Corrective actions may include:</p> <ul style="list-style-type: none"><li>Mitigation</li><li>Potential Environmental Damage Review</li><li>Comprehensive plan for revegetation</li><li>Fee to City Tree Account</li></ul>	<ul style="list-style-type: none"><li>Penalty for illegal removal of trees shall be \$1,500 per tree less than 12 inches in diameter and the appraised value of trees twelve inches or more in diameter.</li><li>Removal of existing 12-inch diameter or larger trees in violation of this chapter will require an appraisal of the tree value by the city tree protection professional using trunk formula method in the current edition of the Guide for Plant Appraisal.</li><li>The cost of the appraisal shall be paid by the person(s) who removed existing trees in violation of this chapter.</li><li>Penalties shall be paid into the city tree fund. If diameter of removed tree is unknown, determination of the diameter size shall be made by the city arborist by comparing size of stump and species to similar trees in similar growing conditions.</li></ul>	<ul style="list-style-type: none"><li>Removal of existing trees in violation of Chapter 16.14 will require an appraisal of the tree value by the qualified arborist using the trunk formula method.</li><li>Payment goes into the city tree account. Tree replacement required.</li></ul>	<ul style="list-style-type: none"><li>Table 19.26.100-1 is a table containing number of required replacement trees for illegal removal of trees, based on DBH.</li><li>Requires fines for illegal tree removal that range from \$700 to \$15,000.</li><li>This allows for an education period prior to penalizing people who violate the code.</li></ul>	<ul style="list-style-type: none"><li>Any person who violates the chapter shall be subject to a civil fee and/or be required to replace the trees.</li><li>The city may use any reasonable means to estimate the tree loss or destruction of the illegally removed or damaged trees.</li><li>The fee here created may be collected by an action in any court of competent jurisdiction. The fee shall accrue to the city, and, if necessary, the city may place a lien against the property in the amount of the fee.</li><li>The city shall place any sum collected in the city tree account.</li></ul>	<ul style="list-style-type: none"><li>Where development activity has occurred that does not comply with the requirements of this subchapter, the requirements of any other section of the Shoreline Development Code, or approved permit conditions, the Director may require the site to be restored to as near pre-project original condition as possible.</li><li>Removal of significant trees without a permit can result in a penalty of \$9,000 per tree.</li><li>Removal of landmark trees without a permit can result in a penalty of \$15,000 per tree.</li></ul>

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Tree Protection Plan (Permit) Requirements	<p>Report required for Land clearing permit. Application must include the following:</p> <ul style="list-style-type: none"><li>• Tree inventory</li><li>• Tree protection plan</li><li>• Site plan</li><li>• Tree replacement plan</li><li>• Timeline for implementation</li><li>• Monitoring of the tree protection/replacement plan.</li></ul>	<p>Tree Protection Professional Report required on forested property greater in size than one acre or commercial property with one or more trees, or other sites deemed necessary.</p>	<ul style="list-style-type: none"><li>• Tree retention and protection plan required for short subdivision, subdivision, new multi-family, and new single-family development applications, as well as tree removal on developed sites not exempted by EDC 23.10.040.</li><li>• Tree removal associated with building permit, subdivision, or other land use approval will be reviewed with the associated project and will not require a separate tree removal permit.</li><li>• Tree Retention Plan components include tree inventory (containing numbering system, size, proposed tree status, brief health rating, and tree species), site plan, and an Arborist Report.</li></ul>	<p>Permit categories include</p> <p>Minor tree permit</p> <p>Major tree permit</p> <p>Utility permits</p> <p>Forest management</p> <ul style="list-style-type: none"><li>• Minor permits may be issued without review by the City arborist, whereas tree removal under major tree permits must be reviewed by the City's arborist.</li><li>• Minor tree permits are required for removal of two or less significant trees within a 3-year period (unless trees are protected or located in a critical areas or buffers), invasive tree removal, and removal of trees covered by an approved forest management permit.</li><li>• Major tree permits are required for landmark tree removal, removal of three or more significant trees in three-year period, minor development activity within the CRZ of significant trees, major development activity, and trees located in critical areas or buffers.</li></ul>	<p>Permit categories include:</p> <ul style="list-style-type: none"><li>• Minor tree permit (tree removal not associated with development)</li><li>• Major tree permit (tree removal associated with development)</li><li>• For Major Tree Removal permits, applicants shall submit a tree retention plan prepared by a qualified tree professional and development plan concurrent with a land use review application, grading permit, building permit, subdivision, or short subdivision application.</li><li>• The retention plan shall consist of a tree survey that identifies the location, size, and species of all significant trees on-site, labels any tree 18" or greater for the purpose of establishing wildlife habitat, and any tree designated as a Heritage tree.</li></ul>	<ul style="list-style-type: none"><li>• Soil and Vegetation Plan required for Tree removal permits and land development on property having a tree density below the minimum required.</li><li>• The scale of the project and the size and quantity of trees proposed for removal, preservation, and planting will determine which level of Soil and Vegetation Plan is required, as delineated in the Urban Forestry Manual. Permits are reviewed by Urban Forester.</li></ul>	<ul style="list-style-type: none"><li>• Pre-construction meeting required prior to the commencement of clearing and grading activities.</li><li>• Requires an Arborist or Qualified Professional to prepare a report documenting baseline conditions.</li><li>• Requires applicant to prepare a tree plan that highlight retained trees, tree protection measures, calls out landmark trees, and replacement trees specifications.</li><li>• If any construction work needs to be performed inside the dripline, critical root zone, or inner critical root zone, project arborist will be on-site to supervise work.</li></ul>

Topic	Tumwater TMC 16.08	Lacey LMC 14.32	Edmonds EMC 23.10	Lake Forest Park LFPMC 16.14	Burien BMC 19.26	Olympia OMC 16.56, 16.58, 16.60	Shoreline SDC 20.50.350 and .360
Maintenance Requirements	<ul style="list-style-type: none"><li>For areas dedicated as tree protection open space areas, street trees and single-family residential land divisions, the maintenance requirement of this section shall be in effect for three years from the date the final plat is approved, or the trees are planted.</li><li>For multifamily residential, commercial, and industrial developments, the maintenance requirement for all trees covered by the tree plan shall apply in perpetuity.</li><li>The applicant shall execute a covenant in a form agreeable to the city, which shall require that the applicant and his successors comply with the maintenance requirement imposed by this section.</li></ul>	<ul style="list-style-type: none"><li>Maintenance requirements are not included in LMC 14.32; however, they are included in LMC 16.80 Landscaping Requirements.</li><li>Under LMC 16.80, the city requires a maintenance assurance device to ensure compliance with the requirements of the chapter. Maintenance period is a minimum of two or three years from completion of planting, depending on the landscape type.</li><li>City may accept contractual agreement or bond an alternative.</li></ul>	<ul style="list-style-type: none"><li>Two-year maintenance bond required after installation of required site improvements and prior to issuance of a certificate of occupancy.</li><li>The bond shall be for an amount of 15 percent of the performance bond or estimate.</li></ul>	<ul style="list-style-type: none"><li>Applicants are required to maintain replacement trees until they are independently viable.</li><li>If canopy coverage falls below the approved coverage granted by latest tree removal permit, the property owner is required to plant replacement trees to achieve the approved canopy requirements.</li></ul>	<ul style="list-style-type: none"><li>Significant tree and exceptional tree shall be maintained for the life of the project and for three years following issuance of the certificate of occupancy.</li><li>A three-year tree maintenance agreement shall be recorded on the Burien City Attorney-approved document. Performance bonds or other appropriate security are required for three years after the planting or transplanting of vegetation to insure proper installation, establishment, and maintenance.</li><li>Required replacement trees may not be removed during the three-year maintenance period.</li><li>Following the maintenance period, all replacement trees shall be considered significant tree, even if below the size threshold.</li></ul>	<ul style="list-style-type: none"><li>Trees are to be maintained in a vigorous and healthy condition, free from diseases, pests and in accordance with the standards delineated in the Urban Forestry Manual.</li><li>The applicant shall execute a covenant in a form agreeable to the city.</li><li>For Multifamily Residential, Commercial, Industrial Developments, the applicant shall execute a covenant in a form agreeable to the city.</li><li>For residential developments containing five units or more, commercial, and industrial projects, the applicant will be required to post a surety having a face amount equal to 125 percent of the estimated amount necessary to guarantee the maintenance and replacement of soils, understory vegetation, and trees for a period of three years from the date the certificate of occupancy is issued by the city or from the date of final plat approval.</li></ul>	<ul style="list-style-type: none"><li>Three-year maintenance bond and agreement with the city. Director may require monitoring in the form of a monitoring report.</li><li>The bond amount shall not exceed the estimated cost of maintenance and protection measures for a minimum of three years.</li></ul>



Topic	Tumwater TMC 16.08	Lacey LMC 14.32	Edmonds EMC 23.10	Lake Forest Park LFPMC 16.14	Burien BMC 19.26	Olympia OMC 16.56, 16.58, 16.60	Shoreline SDC 20.50.350 and .360
Recommended City Trees List	Approved Street Tree List and Prohibited Trees provided on City website. <a href="#">Approved Street Tree Species   City of Tumwater, WA</a>	Street tree and general tree list in Lacey Urban Forest Management Plan: <a href="https://cityoflacey.org/wp-content/uploads/sites/3/2022/03/UFMP-Documents/092621-FINAL.pdf">https://cityoflacey.org/wp-content/uploads/sites/3/2022/03/UFMP-Documents/092621-FINAL.pdf</a>	Tree List for homeowners provided on City website: <a href="#">Trees - City of Edmonds, WA (edmondswa.gov)</a>	City approved tree list: <a href="https://www.cityofflp.gov/239/Tree-List">https://www.cityofflp.gov/239/Tree-List</a>	<ul style="list-style-type: none"><li>• BMC 19.65.340 contains an Invasive Plant List</li><li>• BMC 19.65.350 contains a Nuisance tree species list</li></ul>	None provided in code, but Street Tree List on city website: <a href="#">Allowed Street Tree List.xlsx (revize.com)</a>	Street tree list: <a href="http://www.shorelinewa.gov/home/showdocument?id=2454">http://www.shorelinewa.gov/home/showdocument?id=2454</a>
City Tree Account, Fee in lieu, and Mitigation	City Tree Account <ul style="list-style-type: none"><li>• In lieu of planting of replacement trees, the applicant may contribute a cash payment to the city's tree account in an amount equal to 125 percent of the retail value replacement cost.</li></ul>	City Tree Account <ul style="list-style-type: none"><li>• If the cost of restoration of the site is less than the true value of environmental damage at the site, the balance shall be paid to the city tree account. The city shall then utilize those funds for planting trees in other areas of the city.</li><li>• Value of damage assessed using the current edition of the ISA "Guide for Plant Appraisal" as determined by the City Tree Protection Professional.</li></ul>	City Tree Fund <ul style="list-style-type: none"><li>• The developer may pay a fee-in-lieu for each replacement tree required but not replaced, with documentation.</li><li>• The amount of the fee shall be \$1,000 multiplied by the number of trees necessary to satisfy the tree replacement requirements of this section and shall be deposited into the city's tree fund.</li><li>• The fee shall be paid to the city prior to the issuance of a tree removal permit or associated development permit.</li><li>• For each significant tree greater than 24 inches in DBH removed, a fee based on an appraisal of the tree value by the city tree protection professional using trunk formula method in the current edition of the Guide for Plant Appraisal shall be required.</li></ul>	City Tree Account <ul style="list-style-type: none"><li>• Removal of existing trees in violation of this chapter will require an appraisal of the tree value by the qualified arborist using the trunk formula method in the current edition of the Council of Tree and Landscape Appraisers' Guide for Plant Appraisal. The cost of the appraisal shall be paid by the person(s) who removed existing trees in violation of this chapter and are jointly and severally liable.</li><li>• In addition to tree replacement, the administrator shall require that the persons found in violation of this chapter, or the conditions of a permit pay the appraised value of the trees, paid into the city tree account.</li></ul>	Fee-in-lieu <ul style="list-style-type: none"><li>• For tree credit standard, if on-site trees cannot be retained and/or if new replacement trees cannot be planted, there is a fee-in-lieu option per BMC 19.26.100(5), where each fee-in-lieu will count as one (1) credit.</li><li>• The fee-in-lieu amount shall cover the cost of a tree, installation (labor and equipment), maintenance for two (2) years, and fund administration.</li><li>• The applicant shall pay the fee-in-lieu amounts to Burien upon completion of a site inspection and confirmation.</li><li>• Fee-in-lieu monies may be used for Burien's urban forestry initiatives to achieve the objectives of the Green Burien Partnership Urban Forest Stewardship Plan and Climate Action Plan. See code for full reference.</li></ul>	City Tree Account <ul style="list-style-type: none"><li>• When on-site and off-site locations are unavailable, then the applicant shall pay an amount of money approximating the current market value of the replacement trees into the City's Tree Account.</li></ul>	Fee-in-lieu <ul style="list-style-type: none"><li>• When an applicant demonstrates that the project site cannot feasibly accommodate all the required replacement trees, the Director may allow the payment of a fee in lieu of replacement at the rate set forth in Chapter 3.01 SMC.</li><li>• Fee Schedules, for replacement trees or a combination of reduction in the minimum number of replacement trees required and payment of the fee in lieu of replacement.</li></ul>

Topic	Tumwater TMC 16.08	Lacey LMC 14.32	Edmonds EMC 23.10	Lake Forest Park LFPMC 16.14	Burien BMC 19.26	Olympia OMC 16.56, 16.58, 16.60	Shoreline SDC 20.50.350 and .360
Forest Practice Applications	TMC 16.08.038	<a href="https://lacey.municipal.codes/LMC/14.32.045">https://lacey.municipal.codes/LMC/14.32.045</a>	N/A	N/A	N/A	Undeveloped property proposing a conversion option harvest are required to meet a minimum tree density of 200 tree units per acre.	N/A
Exemptions	List of exempt activities in <a href="#">TMC 16.08.080</a> .	List of exempt activities in <a href="#">LMC 14.32.050</a> .	List of exempt activities in <a href="#">EMC 23.10.040</a> .	List of exempt activities in <a href="#">LFPMC 16.14.050</a> Emergency Actions and <a href="#">LFPMC 16.14.100</a> Reasonable use exception	List of exempt activities in <a href="#">BMC 19.26.030(2)</a> .	List of exempt activities in <a href="#">OMC 16.60.040</a> .	List of exempt activities in <a href="#">SMC 20.50.350</a> .
Tree Removal on Private Property (non-development)	<ul style="list-style-type: none"><li>Allows removal of up to six trees from any parcel of land in three consecutive calendar years.</li><li>Not applicable to heritage or historic trees, trees located in a greenbelt or greenbelt zone, wetlands or critical areas and their buffers or to tree topping.</li><li>Requires a letter of “waiver” for the exempt removals from the community development department prior to tree removal.</li></ul>	<ul style="list-style-type: none"><li>Allows removal of up to three trees during a five-year period provided the minimum required ratio of four trees per each 5,000 SF of total lot area remain on the site or are replanted.</li></ul>	<ul style="list-style-type: none"><li>Allows removal of non-significant trees as long as they are not protected by other means.</li><li>Allows for the removal of nuisance and hazard trees.</li></ul>	Reasonable use exception that allows the applicant to apply for an exception from the requirements of chapter 16.14 if application of chapter will prevent any reasonable economic use of the property.	<ul style="list-style-type: none"><li>BMC 19.26.060-1 is a table of significant tree removal allowances. Private property owners can remove one tree per year on lots under 5,000 SF.</li><li>Up to five trees per year can be removed on lots greater than 20,001 SF.</li></ul>	<ul style="list-style-type: none"><li>See OMC 16.60.040 Exemptions for tree removal provisions not associated with development.</li><li>Allows removal of up to six trees per acre, up to a total of six trees from an undeveloped parcel within any twelve consecutive month period.</li></ul>	Allows the removal of up to six significant trees from any property during a three-year period.

## Appendix B

# TMC 16.08 PROTECTION OF TREES AND VEGETATION

### Chapter 16.08 PROTECTION OF TREES AND VEGETATION

#### Sections:

- [16.08.010 Short title.](#)
- [16.08.020 Purposes.](#)
- [16.08.030 Definitions.](#)
- [16.08.035 City tree protection professional.](#)
- [16.08.038 Forest practice applications.](#)
- [16.08.040 Tree account.](#)
- [16.08.050 Permit required – Applications – Requirements – Processing – Conditions of issuance.](#)
- [16.08.060 Performance and maintenance bond may be required.](#)
- [16.08.070 Standards.](#)
- [16.08.072 Maintenance requirements.](#)
- [16.08.075 Heritage trees designated.](#)
- [16.08.080 Exemptions.](#)
- [16.08.090 Alternative plans.](#)
- [16.08.100 Appeal procedure.](#)
- [16.08.110 Violation – Criminal penalties.](#)
- [16.08.120 Violation – Civil penalties – Presumption – Other remedies.](#)

#### **16.08.010 Short title.**

This chapter shall be known and may be cited as the “tree and vegetation protection ordinance” of the city.

(Ord. O2002-012, Amended, 07/16/2002; Ord. O94-029, Amended, 09/20/1994; Ord. 1190, Added, 05/16/1989)

#### **16.08.020 Purposes.**

The regulations are adopted for the following purposes:

- A. To promote public health, safety and general welfare of the citizens of Tumwater, and to retain as many existing mature trees as possible, without preventing the reasonable development and maintenance of land;
- B. To preserve and enhance the city’s physical and aesthetic character by preventing indiscriminate removal or destruction of trees and ground cover, and by encouraging development that incorporates existing trees and ground cover into site development practices;
- C. To retain trees and vegetation for their positive environmental effects including, but not limited to, the protection of wildlife habitat;

- D. To promote identification and protection of trees that have historical significance; are unusual due to their size, species, or age; are unusual for their aesthetic quality; or have other values or characteristics that make them worthy of protection;
- E. To prevent erosion and reducing the risk of landslides;
- F. To protect environmentally sensitive areas;
- G. To minimize surface water runoff and diversion. To reduce siltation and other pollution entering city storm sewer systems, other utility improvements, and the city's rivers, streams, and lakes;
- H. To retain trees and ground cover to assist in abatement of noise, to provide wind breaks, and for improvement of air quality;
- I. To promote building and site planning practices that are consistent with the city's natural topographical, soil, and vegetation features and to reduce landscaping costs for new development by utilizing existing trees and ground cover to help fulfill landscaping requirements;
- J. To ensure prompt development, restoration and replanting, and effective erosion control of property after land clearing;
- K. To promote conservation of energy;
- L. To educate the public regarding urban forestry;
- M. To implement objectives of the State Environmental Policy Act and Growth Management Act; and
- N. To implement and further the city's comprehensive plan and other related ordinances.

(Ord. O2006-014, Amended, 04/17/2007; Ord. O2002-012, Amended, 07/16/2002; Ord. O2000-012, Amended, 08/01/2000; Ord. O97-029, Amended, 03/17/1998; Ord. O94-029, Amended, 09/29/1994; Ord. 1190, Added, 05/16/1989)

#### **16.08.030 Definitions.**

- A. "Buildable area" is that portion of a parcel of land wherein a building, parking and other improvements may be located and where construction activity may take place. Buildable area shall not include streams, flood hazard areas, geological hazard areas or wetlands and their buffers as defined in TMC Chapter [18.04](#). For the purpose of calculating required tree protection open space area, existing and newly dedicated city rights-of-way shall not be included.
- B. "City" means the city of Tumwater, Washington.
- C. "Code administrator" means the director of the community development department or the director's designated representative.
- D. "Conversion option harvest plan (COHP)" means a voluntary plan developed by the landowner and approved by the Washington State Department of Natural Resources and the city of Tumwater, indicating the limits and types of harvest areas, road locations, and open space. This approved plan, when submitted to the Department of Natural Resources as part of the forest practice application and followed by the landowner, maintains the landowner's option to convert to a use other than commercial forest product production (releases the landowner from the six-year moratorium on future development).
- E. Critical Root Zone or CRZ. Unless determined otherwise by the tree protection professional, the root protection zone for trees means an area contained inside an area on the ground having a radius of one foot for every inch of tree diameter, measured from four and one-half feet above ground level, but in no event shall the root protection zone be less than a six-foot radius.

- F. “Drip line” of a tree means an imaginary line on the ground created by the vertical projections of the foliage at its circumference.
- G. “Environmentally sensitive area” means any lands with the following characteristics:
1. “Geologically hazardous areas” as defined in TMC Chapter [16.20](#);
  2. Lakes, ponds, stream corridors, and creeks as defined in TMC Chapter [16.32](#);
  3. Identified habitats with which endangered, threatened, or sensitive species have a primary association as defined in TMC Chapter [16.32](#);
  4. Wetlands as defined in TMC Chapter [16.28](#).
- H. “Grading” means excavation, filling, or any combination thereof. Excavation and grading is governed by the International Building Code (IBC).
- I. “Greenbelt” means certain designated areas of a project or development that are intended to remain in a natural condition, and/or private permanent open space, or serve as a buffer between properties or developments.
- J. “Greenbelt zone” means any area so designated on the official zoning map of the city and subject to the provisions of TMC Chapter [18.30](#).
- K. “Ground cover” means vegetation that is naturally terrestrial excluding noxious or poisonous plants and shall include trees that are less than six inches in diameter measured at four and one-half feet above ground level.
- L. “Hazardous tree” means any tree that, due to its health or structural defect, presents a risk to people or property.
- M. “Heritage tree(s)” means tree(s) designated by the city and their owners as historical, specimen, rare, or a significant grove of trees.
- N. “Historic tree” means any tree designated as an historic object in accordance with the provisions of TMC Chapter [2.62](#).
- O. “Land clearing” or “clearing” means any activity which removes or substantially alters by topping or other methods the vegetative ground cover and/or trees.
- P. “Open space” means unoccupied land that is open to the sky and which may or may not contain vegetation and landscaping features, subject to the provisions in TMC [17.04.325](#) and [17.12.210](#).
- Q. “Parcel” means a tract or plot of land of any size which may or may not be subdivided or improved.
- R. “Qualified professional forester” is a professional with academic and field experience that makes them an expert in urban forestry. This may include arborists certified by the International Society of Arboriculture, foresters with a degree in forestry from a Society of American Foresters accredited forestry school, foresters certified by SAF, or urban foresters with a degree in urban forestry. A qualified professional forester must possess the ability to evaluate the health and hazard potential of existing trees, and the ability to prescribe appropriate measures necessary for the preservation of trees during land development. Additionally, the qualified professional forester shall have the necessary training and experience to use and apply the International Society of Arboriculture’s Guide for Plant Appraisal and to successfully provide the necessary expertise relating to management of trees specified in this chapter.
- S. “Topping” is the removal of the upper crown of the tree with no consideration of proper cuts as per the current ANSI A300 Standard. Cuts created by topping create unsightly stubs that promote decay

within the parent branch and can cause premature mortality of a tree. Topping a tree is considered to be a removal, and may require a tree removal permit.

T. “Tree” means any healthy living woody plant characterized by one or more main stems or trunks and many branches, and having a diameter of six inches or more measured four and one-half feet above ground level. Healthy in the context of this definition shall mean a tree that is rated by a professional with expertise in the field of forestry or arbor culture as fair or better using recognized forestry or arbor cultural practices. If a tree exhibits multiple stems and the split(s) or separation(s) between stems is above grade, then that is considered a single tree. If a tree exhibits multiple stems emerging from grade and there is visible soil separating the stems, then each soil-separated stem is considered an individual tree. Appropriate tree species under six inches may be considered with approval of the city tree protection professional.

U. “Tree plan” is a plan that contains specific information pertaining to the protection, preservation, and planting of trees pursuant to this chapter.

V. “Tree protection open space” is a separate dedicated area of land, specifically set aside for the protection and planting of trees.

W. “Tree protection professional” is a certified professional with academic and field experience that makes him or her a recognized expert in urban tree preservation and management. The tree protection professional shall be either a member of the International Society of Arboriculture or the Society of American Foresters or the Association of Consulting Foresters, and shall have specific experience with urban tree management in the Pacific Northwest. Additionally, the tree protection professional shall have the necessary training and experience to use and apply the International Society of Arboriculture’s Guide for Plant Appraisal and to successfully provide the necessary expertise relating to management of trees specified in this chapter.

(Ord. O2013-017, Amended, 08/19/2014; Ord. O2013-025, Amended, 01/07/2014; Ord. O2011-002, Amended, 03/01/2011; Ord. O2006-014, Amended, 04/17/2007; Ord. O2002-012, Amended, 07/16/2002; Ord. O97-029, Amended, 03/17/1998; Ord. O94-029, Amended, 09/20/1994; Ord. 1311, Amended, 04/07/1992; Ord. 1190, Added, 05/16/1989)

#### **16.08.035 City tree protection professional.**

In the city’s interest of achieving professional assistance in the city’s tree protection efforts and achieving consistency in tree protection decisions; the city shall contract with a “city tree protection professional” that qualifies as a tree protection professional under the definition of this chapter. The tree protection professional shall be responsible for providing the information and services required of a tree protection professional described herein.

Individual applicants will be responsible for payment of costs of the tree protection professional for projects necessitating work to be performed by the tree protection professional with the exception that the code administrator may waive payment by the applicant for minor work of the tree protection professional in determining an exempt project; provided however, that the city shall be responsible for billing and collecting costs charged to the applicant and transferring payment to the tree protection professional unless the city has opted for some other mechanism of providing for the costs, such as inclusion of costs in application fees.

(Ord. O2002-012, Amended, 07/16/2002; Ord. O97-029, Added, 03/17/1998)

**16.08.038 Forest practice applications.**

Pursuant to RCW [76.09.240](#), requiring local jurisdictions to set standards for and to process class IV forest practice applications, such permits shall be processed as a land clearing permit, and shall meet the requirements of this chapter.

A. The application of this chapter to forest practice activities regulated by the Washington State Forest Practices Act (Chapter [76.09](#) RCW) shall be limited to:

1. General forest practices.

B. This chapter is intended to allow the city of Tumwater to assume jurisdiction for approval of general forest practices, approvals occurring in the city of Tumwater, as authorized under the Washington State Forest Practices Act, Chapter [76.09](#) RCW. Until such time as jurisdiction for these permits is transferred to the city by the State Department of Natural Resources, the city will act as the State Environmental Policy Act (SEPA) lead agency for all general forest practice approvals occurring within the city limits. This chapter shall rely upon existing definitions contained within the Washington State Forest Practices Act (Chapter [76.09](#) RCW), Rules for the Washington State Forest Practices Act (Chapter [222-16](#) WAC), and the Tumwater Municipal Code.

(Ord. O2006-014, Amended, 04/17/2007; Ord. O2002-012, Added, 07/16/2002)

**16.08.040 Tree account.**

There is hereby established within the city a “tree account” for the purposes of acquiring, maintaining and preserving wooded areas, and for planting and maintaining trees within the city.

A. Collections and Deposits. All fines collected for violations of this chapter shall be deposited into the tree account. All donations and mitigation fees collected related to the preservation of trees or the enhancement of wooded buffer areas shall also be deposited into the tree account.

B. Maintenance of Account. The tree account shall be maintained by the finance director as a separate, interest-bearing account.

C. Use of Funds. Funds in the tree account shall be used only upon appropriation by the city council. Funds may be withdrawn from the tree account with the approval of the code administrator, and may be used for any purpose consistent with the intent of this chapter. Funds used to plant trees may be used only on city-owned property, or on property upon which the city has been granted an easement for the purpose of establishing or maintaining trees or other vegetation.

(Ord. O2002-012, Amended, 07/16/2002; Ord. O94-029, Added, 09/20/1994)

**16.08.050 Permit required – Applications – Requirements – Processing – Conditions of issuance.**

A. No person, corporation, or other legal entity not exempt under TMC [16.08.080](#) shall engage in land clearing or tree removal in the city without having received a land clearing permit.

B. Requirement Established. The application for land clearing permit shall be submitted with any project permit as defined in TMC [14.02.020](#)(O), including single-family and duplex structures unless a land clearing permit was previously reviewed as part of prior project permit. A tree protection plan is required to obtain a land clearing permit and is also required for any land development not exempt under TMC [16.08.080](#). The tree protection plan shall be developed by a qualified professional forester and be submitted in conjunction with other environmental submittals and site plan development permits. For single-family homes on lots created prior to November 1994, the applicant has the option of using the city tree protection professional to prepare the permit application. This service will be provided at the same hourly rates charged to the city under its contractual arrangement with the tree protection professional.

C. An application for a land clearing permit shall be submitted on a form provided by the city. Accompanying such form shall be a report which includes the following information:

1. General vicinity map;
2. Date, north arrow and scale;
3. Property boundaries, the extent and location of proposed clearing and major physical features of the property (streams, ravines, etc.);
4. Tree Inventory. Drawn to scale on the preliminary or conceptual site plan: a map delineating vegetation types. Each type should include the following information:
  - a. Average trees and basal area per acre, by species and six-inch diameter class. For nonforested areas, a general description of the vegetation present.
  - b. Narrative description of the potential for tree preservation for each vegetation type. This should include soils, wind throw potential, insect and disease problems, and approximate distance to existing and proposed targets.
  - c. Description of any off-site tree or trees, which could be adversely affected by the proposed activity;
5. Tree Protection Plan. Drawn to scale on the site plan, grading and erosion control and landscape plans. It should include the following information:
  - a. Surveyed locations of perimeters of groves of trees and individual trees to be preserved, adjacent to the proposed limits of the construction. General locations of trees proposed for removal. The critical root zones of trees to be preserved shall be shown on the plans.
  - b. Limits of construction and existing and proposed grade changes on site.
  - c. Narrative description, buildable area of the site, and graphic detail of tree protection, and tree maintenance measures required for the preservation of existing trees identified to be preserved.
  - d. Timeline for clearing, grading and installation of tree protection measures.
  - e. Final tree protection plan will be drawn to scale on the above described plans and submitted with the final application packet;
6. Tree Replacement Plan. Drawn to scale on the site and landscape plans. The tree replacement plan shall be developed by a licensed Washington landscape architect, Washington certified nursery professional, ISA certified arborist, board certified horticulturist, qualified professional forester or Washington certified landscaper. It should include the following information:
  - a. Location, size, species and numbers of trees to be planted.
  - b. Narrative description and detail showing any site preparation, installation and maintenance measure necessary for the long-term survival and health of the trees.
  - c. Narrative description and detail showing proposed locations of required tree planting, site preparation, installation and maintenance within critical root zones of preserved groups or individual trees.
  - d. Cost estimate for the purchase, installation and three years' maintenance of trees;



7. A timeline for implementation and monitoring of the tree protection, and/or replacement plan;
8. A plan indicating how the site will be revegetated and landscaped;
9. A proposed time schedule for land clearing, land restoration, revegetation, landscaping, implementation of erosion controls, and any construction of improvements;
10. Information indicating the method to be followed in erosion control and restoration of land during and immediately following land clearing;
11. A note indicating that the city will have the right of entry upon the subject property for the purpose of performing inspections consistent with the provisions of this chapter;
12. The approved tree protection plan map will be included in contractor's packet of approved plans used for construction on the project; and
13. Other information as deemed appropriate to this chapter and necessary by the code administrator or city tree protection professional.

D. In addition to the requirements noted in subsection C of this section, on timbered property greater in size than one acre or commercial property with more than fifteen trees, or other sites the city deems necessary because of special circumstances or complexity, the code administrator may require review of the site and proposed plan and submittal of a report by the city's tree protection professional for compliance with the requirements of this chapter.

Further provided, that the code administrator may modify the submittal requirements of subsections C and D of this section, on individual applications where the information is not needed or is unavailable.

E. Each application shall be submitted with a fee established by resolution of the city council, to help defray the cost of handling the application, no part of which fee is refundable.

F. The code administrator shall notify the applicant whether the application is complete within twenty-eight calendar days of receipt of the application. If incomplete, the code administrator shall indicate in the notice the information required to make the application complete. The code administrator shall approve, approve with conditions or deny the permit within thirty calendar days of receipt of the complete application, or within thirty calendar days of completion of any environmental review, whichever is later. For applications such as site development proposals where there is more than a land clearing permit pending, the code administrator shall, whenever feasible, coordinate reviews, notices and hearings, and act upon the land clearing permit concurrently with other pending permits.

G. Any permit granted under this chapter shall expire eighteen months from the date of issuance, unless said permit is associated with another development permit. If it is associated with another development permit, the restrictions and deadlines of that approval will apply. Upon a written request, a permit not associated with another development permit may be extended by the code administrator for one six-month period. Approved plans shall not be amended without being resubmitted to the city. Minor changes consistent with the original permit intent will not require a new permit fee or full application standards to be followed. The permit may be suspended or revoked by the city because of incorrect information supplied or any violation of the provisions of this chapter.

H. Once issued, the permit shall be posted by the applicant on the site, in a manner so that the permit is visible to the general public.

(Ord. O2017-022, Amended, 12/05/2017; Ord. O2006-014, Amended, 04/17/2007; Ord. O2002-012, Amended, 07/16/2002; Ord. O97-029, Amended, 03/17/1998; Ord. O94-029, Amended, 09/20/1994; Ord. 1190, Added, 05/16/1989)

**16.08.060 Performance and maintenance bond may be required.**

A. The code administrator may require bonds and bond agreements in such form and amounts as may be deemed necessary to assure that the work shall be completed in accordance with the permit. Bonds, if required, shall be furnished by the applicant or property owner. A bond agreement shall provide assurance that the applicant has sufficient right, title and interest in the property to grant the city all rights set forth in the agreement.

B. In lieu of a bond, the applicant may file assigned funds or an instrument of credit with the city in an amount equal to that which would be required in a bond.

C. The amount of bonds or other assurance instrument shall not exceed the estimated cost of the total restoration, revegetation, planting or landscaping work planned, as determined by the code administrator.

D. The duration of any bond or other required surety shall be not less than three years from the date that said restoration, revegetation, planting or landscaping has been accepted by the code administrator.

(Ord. O2006-014, Amended, 04/17/2007; Ord. O2002-012, Amended, 07/16/2002; Ord. O94-029, Amended, 09/20/1994; Ord. 1190, Added, 05/16/1989)

**16.08.070 Standards.**

All land clearing not exempt under TMC [16.08.080](#) shall conform to the approved plan and the following standards and provisions unless alternate procedures that are equal to or superior in achieving the purposes of this chapter are authorized in writing by the code administrator:

A. No land clearing and/or ground surface level changes shall occur in a greenbelt zone as delineated on the official zoning map except as required for uses permitted in that zone. In addition, such land clearing and/or ground surface changes shall be subject to all other applicable standards and regulations;

B. Land clearing in designated greenbelt, open space, tree tract or buffer areas of approved and recorded subdivisions or approved projects which would substantially alter the character or purpose of said greenbelt or buffer areas is prohibited, except in cases involving land clearing plans approved by the code administrator for removal of hazard trees, invasive or noxious plant species and replanting with native plant and tree species;

C. Erosion control measures shall be provided by the applicant's professional engineer, in conformance with the Drainage Design Erosion Control Manual for the Thurston Region, Washington, as currently written and subsequently amended. The erosion control measures shall be reviewed and subject to approval by the code administrator. The requirement for a professional engineer may be waived by the code administrator on a case-by-case basis;

D. Land clearing shall be accomplished in a manner that will not create or contribute to landslides, accelerated soil creep, settlement and subsidence on the subject property and/or adjoining properties;

E. When land clearing occurs that does not include development, the proposal shall contain provisions for the protection of natural land and water features, vegetation, drainage, retention of native ground cover, and other indigenous features of the site;

- F. Land clearing shall be accomplished in a manner that will not create or contribute to flooding, erosion, or increased turbidity, siltation, or other form of pollution in a watercourse;
- G. Land clearing in wetlands, and fish and wildlife habitat areas shall be in accordance with the provisions of TMC Chapter [16.28](#), Wetland Protection Standards, and TMC Chapter [16.32](#), Fish and Wildlife Habitat Protection;
- H. During the months of November, December, and January, no land clearing shall be performed in areas with average slopes of fifteen percent or greater, or any slopes of forty percent or greater;
- I. During the months of November, December, and January, no land clearing shall be performed in areas with fine-grained soils and a slope greater than five percent. For the purposes of this section, fine-grained soils shall include any soil associations which are classified in hydrologic soil groups C or D, as mapped in the Thurston County Soil Survey, or as determined by a qualified soil scientist;
- J. Land clearing shall be undertaken in such a manner as to preserve and enhance the city's aesthetic character. The site shall be revegetated and landscaped as soon as practicable, in accordance with the approved revegetation plan. Where the construction schedule does not provide for revegetation of the site prior to October 15 of any year, all disturbed areas shall be hydro seeded or otherwise revegetated on an interim basis. The revegetation plan shall include plantings along public streets and adjoining property boundaries, especially between areas of differing intensities of development. For land clearing permits that are part of a specific development proposal, land use development shall be initiated or a vegetative screen or buffer established within six months of the date of initiation of land clearing activities;
- K. Land clearing shall be conducted so as to expose the smallest practical area of soil to erosion for the least possible time, consistent with the construction schedule. Provisions shall be made for interim erosion control measures;
- L. Land clearing activities shall be limited to the hours of 7:00 a.m. to 8:00 p.m. on weekdays and 9:00 a.m. to 8:00 p.m. on Saturdays in accordance with TMC Chapter [8.08](#);
- M. Open burning of land clearing debris is prohibited. Slash shall be properly disposed of off site or chipped and applied to the site within six months of the completion of the land clearing. Chipped material deposited on the site shall be spread out or other means used to prevent fire hazard;
- N. Any trees to be retained shall be flagged or otherwise marked to make it clear which tree or groups of trees are to be retained;
- O. Any trees or groups of trees to be retained shall have temporary fencing installed around the critical root zone<sup>5</sup>. Temporary fencing must be adequate to protect the critical root zone of trees designated for retention. On construction sites where circumstances warrant, the code administrator may require more substantial tree protection fencing, as necessary, to protect intrusion of construction activity into the CRZ areas. Machinery and storage of construction materials shall be kept outside of the CRZ of trees designated for retention. The code administrator may require fencing beyond the CRZ if, in the code administrator's determination, such additional protection is needed to protect the tree from damage. Trees designated for retention shall not be damaged by scoring, ground surface level changes,

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<sup>5</sup>Unless determined otherwise by the tree protection professional, the critical root protection zone for trees means an area contained inside an area on the ground having a radius of one foot for every inch of tree diameter, measured from four and one-half feet above ground level, but in no event shall the critical root zone be less than a six-foot radius.

compaction of soil, attaching objects to trees, altering drainage or any other activities that may cause damage of roots, trunks, or surrounding ground cover;

P. Any trees designated for retention shall be field verified by the city tree protection professional before land clearing begins;

Q. Not more than thirty percent of the trees on any parcel of land shall be removed within any ten-year period, unless the clearing is accomplished as part of an approved development plan. Such clearing shall be done in such a way as to leave healthy dominant and codominant trees well distributed throughout the site (taking into account the interdependency of the trees) unless, according to the determination of the city tree protection professional, this requirement would conflict with other standards of this section. For every tree removed at least one replacement tree shall be planted. Replacement trees shall consist of seedlings of the same or similar species to those trees removed, which shall be at least two years old. In lieu of this planting of replacement trees, the applicant may contribute a cash payment to the city's tree account in an amount equal to one hundred twenty-five percent of the retail value replacement cost. The time schedule for the planting of replacement trees shall be specified in the approved plan. If a land clearing permit is applied for as part of a development plan within ten years of clearing under this subsection, all trees removed under this standard will be counted towards required tree retention/replacement when a land clearing permit is issued;

R. When land clearing is performed in conjunction with a specific development proposal not less than twenty percent of the trees, or not less than twelve trees per acre (whichever is greater), shall be retained.

Provided, however, where it can be demonstrated that the trees on a site were planted as part of a commercial Christmas tree farm, then no less than seventeen percent or twelve trees per acre, whichever is less, shall be retained. Commercial tree farm status must be verified by the city tree protection professional.

#### 1. Size, Type and Condition of Retained Trees.

- a. For the purpose of calculating tree retention standards, trees twenty-four inches or greater in diameter measured four and one-half feet above ground level shall count as two trees.
- b. Species such as willow, cottonwood, poplar and other species, the roots of which are likely to obstruct or injure site improvements, sanitary sewers or other underground utilities, shall not be considered trees for the purpose of calculating tree retention standards if located within the buildable portion of the lot.
- c. A tree must meet the following standards in order to be counted for the purpose of meeting tree retention standards:
  - i. Must have a post-development life expectancy of greater than ten years;
  - ii. Must have a relatively sound and solid trunk with no extensive decay or significant trunk damage;
  - iii. Must have no major insect or pathological problems;
  - iv. Must have no significant crown damage;
  - v. Should be fully branched and generally proportional in height and breadth for the tree age;
  - vi. Must be windfirm in their post-development state.

2. These standards may be waived or modified by the code administrator if the applicant provides substantial evidence demonstrating that strict compliance would make reasonable use of the property impracticable for three or more of the following reasons:

- a. Removal of the tree or trees is needed to enable use of a solar system. A waiver for this reason must be accompanied by a bond assuring completion of the solar system within the timeframe associated with the underlying building permit issued for the project.
- b. The tree retention standard cannot be achieved because of the necessity of complying with applicable zoning and development requirements including, but not limited to, residential densities, open space requirements for active recreation, floor area ratios (FAR), parking requirements, stormwater requirements, street construction requirements, etc.
- c. The tree retention standard cannot be achieved because the tree or trees do not have a reasonable chance of survival once the site is developed or modified and may pose a threat to life or property if retained.
- d. The applicant has made reasonable efforts to reconfigure or reduce the building footprint(s), site access, on-site utility systems and parking area(s) to avoid impacts to trees on the property.
- e. For commercial and industrial land uses, the project pro forma demonstrates that economically viable use of the property cannot be achieved while meeting the tree retention standards in this chapter. This standard is presumed to be met without a pro forma if the area disturbed by development of the property would be less than eighty-five percent of the land.
- f. The granting of the waiver or modification will not result in increasing the risk of slope failure, significant erosion or significant increases in surface water flows that cannot be controlled using best management practices.

3. Where the standard is waived or modified, the applicant shall plant not less than three trees for each tree cleared in excess of the standard.

- a. These replacement trees shall be at least two inches in diameter measured at a height of six inches above the root collar.
- b. Replacement trees shall be planted on the same parcel as the proposed development, unless the code administrator approves of an alternate location.
- c. Replacement trees must first be planted in a “tree protection open space.” The tree protection open space shall be comprised of a minimum of five percent of the buildable area for the purpose of retaining existing trees and/or for the planting of replacement trees. Replacement trees in the tree protection open space shall be a mix of native coniferous and deciduous trees. The tree protection open space shall be a contiguous area. The tree protection open space is required to be eighty percent covered by tree canopy after fifteen years utilizing retained and/or replacement trees. Approved trees and their CRZ area within a critical area buffer may count for up to fifty percent of the required tree protection open space. Stormwater facilities can be considered as part of the tree protection open space if trees can be retained and/or planted successfully and not disable the operating functions of the facility.

d. If more replacement trees are required than necessary to meet the canopy requirement in the tree protection open space, then these trees (either native and/or nonnative species) can be planted elsewhere on the parcel(s).

e. If the city tree protection professional determines that more replacement trees are required than can be planted in the tree protection open space and the rest of the parcel, then the applicant shall contribute a cash payment to the city's tree account in an amount determined by the current city fee resolution.

4. In situations where a parcel of land to be developed does not meet the retention standards above in an undeveloped state, the applicant shall be required to reforest the site to meet the applicable standard outlined above at a 1:1 ratio as a condition of project approval.

5. In determining which trees shall be given the highest priority for retention, the following criteria shall be used:

- a. Heritage or historic trees;
- b. Trees which are unusual due to their size, age or rarity;
- c. Trees in environmentally sensitive areas;
- d. Trees that act as a buffer to separate incompatible land uses;
- e. Trees which shelter other trees from strong winds that could otherwise cause them to blow down;
- f. Trees within greenbelts, open space, tree protection open space or buffers;
- g. Trees with significant habitat value as identified by a qualified wildlife biologist or by the city tree protection professional; and
- h. Trees which are part of a continuous canopy or which are mutually dependent, as identified by a qualified professional forester or the city tree protection professional;

S. In addition to the provisions of this chapter, the cutting or clearing of historic trees requires the issuance of a certificate of appropriateness in accordance with TMC Chapter [2.62](#).

(Ord. O2013-017, Amended, 08/19/2014; Ord. O2006-014, Amended, 04/17/2007; Ord. O2002-012, Amended, 07/16/2002; Ord. O97-029, Amended, 03/17/1998; Ord. O94-029, Added, 09/20/1994)

#### **16.08.072 Maintenance requirements.**

A. Maintenance Requirement. Trees are to be maintained in a vigorous and healthy condition, free from diseases, pests and weeds. Trees which become diseased, severely damaged or which die shall be removed by the owner as soon as possible but no later than sixty days after notification by the city. As it pertains to this section, all replacement trees that die shall be replaced with healthy trees of the same size and species as required by the approved tree protection plan for the property. If retained trees die due to construction damage or negligence on the part of the applicant, the city tree protection professional shall determine the appraised landscape value of the dead trees, and the applicant shall plant the equivalent value of trees back onto the site. In the event that space is not available for the required replacement trees (as determined by the city tree protection professional), the equivalent value shall be paid into the tree fund.

B. For areas dedicated as tree protection open space areas, street trees and single-family residential land divisions, the maintenance requirement of this section shall be in effect for three years from the date the final plat is approved or the trees are planted. The tree plan shall be a condition of approval

and identified on the face of the plat. The applicant shall also execute a covenant in a form agreeable to the city, which shall require the applicant and his successors to comply with the maintenance requirement of this section. The covenant shall obligate both the property owner and the homeowner's association and shall be recorded with the county auditor. The recording fee shall be paid by the applicant.

C. For multifamily residential, commercial, and industrial developments, the maintenance requirement for all trees covered by the tree plan shall apply in perpetuity. The applicant shall execute a covenant in a form agreeable to the city, which shall require that the applicant and his successors comply with the maintenance requirement imposed by this section. The covenant shall be binding on successor property owners and owners' associations. The covenant shall be recorded with the county auditor and the recording fee shall be paid by the applicant.

D. Maintenance Agreement. Each development to which the maintenance requirement for this chapter applies and that contain a heritage tree(s) shall also be subject to a maintenance agreement. The code administrator shall require the applicant to execute a maintenance agreement with the city, in a form acceptable to the city attorney, which shall include the provisions of the maintenance requirement in this chapter, to ensure the survival and proper care of any heritage trees identified in the tree plan.

E. Failure to Maintain. Retained trees, replacement trees and street trees as per the requirements of this chapter and/or TMC Chapter [18.47](#), Landscaping, shall be maintained according to the American National Standards Institute, current edition of the American National Standards, ANSI A300. Failure to regularly maintain the trees as required in this section shall constitute a violation of this chapter and, if applicable, the plat covenant.

(Ord. O2006-014, Added, 04/17/2007)

**16.08.075 Heritage trees designated.**

A. Trees can be nominated for designation by citizens, the Tumwater tree board, or city staff.

1. Application for heritage tree designation must be submitted to the community development department. The application must include a short description of the trees, including address or location, and landowner's name and phone number. The application must be signed by both the landowner and nominator.
2. The tree board reviews the application and makes a recommendation to the city council.
3. All heritage trees will be added to city tree inventory and public works maps.

B. Trees that are designated as heritage trees shall be classified as follows:

1. Historical – A tree which by virtue of its age, its association with or contribution to a historical structure or district, or its association with a noted citizen or historical event.
2. Specimen – Age, size, health, and quality factors combine to qualify the tree as unique among the species in Tumwater and Washington State.
3. Rare – One or very few of a kind, or is unusual in some form of growth or species.
4. Significant Grove – Outstanding rows or groups of trees that impact the city's landscape.

C. The city will provide an evaluation and recommendation for tree health and care and will provide up to one inspection annually upon request of the landowner. The city may, at its discretion, provide a plaque listing the owner's name and/or tree species/location.

D. Heritage Tree Removal.

1. A tree removal permit is required for removal of any heritage tree(s).
2. The city tree protection professional shall evaluate any heritage trees prior to a decision on the removal permit. Recommendations for care, other than removal, will be considered.
3. Dead or hazardous trees are exempt from a tree removal permit after verification by the city tree protection professional.

E. Heritage Tree Declassification. Any heritage tree may, at any time, be removed from heritage tree status at the request of the landowner after providing two weeks' written notice to the community development department. Unless an agreement can be reached to preserve the tree, the tree will be removed from the heritage tree inventory list and the plaque, if any, will be removed.

(Amended during 2011 reformat; O2006-014, Amended, 04/17/2007; Ord. O2002-012, Amended, 07/16/2002; Ord. O2000-012, Added, 07/18/2000)

**16.08.080 Exemptions.**

The following shall be exempt from the provisions of this chapter; provided however, the code administrator may require reasonable documentation verifying circumstances associated with any proposal to remove trees under any of the following exemptions:

- A. Land clearing in emergency situations involving immediate danger to life or property. For every tree cleared under this exemption, at least one replacement tree shall be planted. Except for the number of trees, replacement trees shall conform to the standard for replacement trees described in TMC [16.08.070\(R\)](#);
- B. Land clearing associated with routine maintenance by utility companies such as the power company and telephone company. Utility companies shall notify the community development department at least two weeks prior to the start of work and shall follow appropriate vegetation management practices;
- C. Land clearing performed within any public right-of-way or any public easement, when such work is performed by a public agency and the work relates to the installation of utilities and transportation facilities (such as streets, sidewalks and bike paths). To the greatest extent possible, all such work shall conform to the standards set forth in this chapter;
- D. Land clearing within ten feet (when required for construction) of the perimeter of the single-family or duplex dwellings and associated driveways or septic systems must be indicated on the plot plan submitted to the building official with an application for a building permit. This exemption does not apply to land clearing located within environmentally sensitive areas, or to areas subject to the provisions of the shoreline master program;
- E. Clearing of dead, diseased, or hazardous trees, after verification by the city tree protection professional. For every tree cleared under this exemption, at least one replacement tree shall be planted. Except for the number of trees, replacement trees shall conform to the standard for replacement trees described in TMC [16.08.070\(R\)](#);
- F. Clearing of trees that act as obstructions at intersections in accordance with the municipal code;
- G. The removal of not more than six trees from any parcel of land in three consecutive calendar years. This exemption does not apply to heritage or historic trees, or to trees located in a greenbelt or greenbelt zone, or in wetlands or critical areas and their buffers or to tree topping. A letter of "waiver" for the exempt removals must be obtained from the community development department prior to tree removal;



H. Land clearing associated with tree farming operations specifically preempted by Chapter [76.09](#) RCW, Washington Forest Practices Act; provided, that a harvesting and reforestation plan is submitted to the code administrator prior to any land clearing;

I. Clearing of noxious ground cover for the purposes of utility maintenance, landscaping, or gardening. This exemption applies solely to ground cover, for protected trees clearing must conform to subsection G of this section;

J. Clearing of trees that obstruct or impede the operation of air traffic or air operations at the Olympia Airport. The tree replacement standards of this chapter must be met. Trees should be replanted outside the air operations area;

K. Clearing of not more than six trees every three consecutive calendar years on developed properties, when such clearing is necessary to allow for the proper functioning of a solar-powered energy system. Such clearing may be done only after verification of the need to clear the trees, issuance of a waiver letter, and the issuance of a building permit for such a system by the code administrator.

(Amended during 2011 reformat; O2006-014, Amended, 04/17/2007; Ord. O2002-012, Amended, 07/16/2002; Ord. O97-029, Amended, 03/17/1998; Ord. O94-029, Amended, 09/20/1994; Ord. 1311, Amended, 04/07/1992; Ord. 1190, Added, 05/16/1989)

#### **16.08.090 Alternative plans.**

Required tree mitigation must conform to the standards contained in this chapter unless alternate plans that are equal to or superior in achieving the purposes of this chapter are authorized in writing by the code administrator. The code administrator may modify or waive the requirements of this chapter only after consideration of a written request for any of the following reasons:

A. Special circumstances relating to the size, shape, topography or physical conditions, location, or surroundings of the subject property, or to provide it with use rights and privileges permitted to other properties in the vicinity and zone in which it is located;

B. Improvement as required without modification or waiver would not function properly or safely or would not be advantageous or harmonious to the neighborhood or city as a whole;

C. The proposed modification would result in an increased retention of mature trees and/or naturally occurring vegetation on the site;

D. The proposed modification represents a superior result than that which could be achieved by strictly following the requirements of this chapter, the proposed modification complies with the stated purpose of TMC [16.08.020](#) and the proposed modification will not violate any city of Tumwater codes or ordinances.

Any modifications under this chapter shall be as limited as possible to achieve the aim of relating required mitigation for tree protection to the impacts caused by the individual development.

(Ord. O2006-014, Amended, 04/17/2007; Ord. O2002-012, Amended, 07/16/2002; Ord. 1190, Added, 05/16/1989)

#### **16.08.100 Appeal procedure.**

Any person aggrieved by a decision or an action of the code administrator in the enforcement or implementation of this chapter may, within fourteen calendar days of such decision or action, file a written appeal to the hearing examiner. Any decision of the hearing examiner may be appealed to the Thurston County superior court in accordance with the provisions of TMC Chapter [2.58](#).

(Ord. O2017-022, Amended, 12/05/2017; Ord. O2006-014, Amended, 04/17/2007; Ord. O2002-012, Amended, 07/16/2002; Ord. O94-029, Amended, 09/20/1994; Ord. 1259, Amended, 11/06/1990; Ord. 1190, Added, 05/16/1989)

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**16.08.110 Violation – Criminal penalties.**

A. Any person who violates the provisions of this chapter or fails to comply with any of the requirements shall be guilty of a misdemeanor and subject to the penalties set forth in TMC [1.12.010](#). In keeping with the city's concern regarding protection of the environment, the court should consider the imposition of minimum fines of no less than \$1,000 per occurrence. Each day such violation continues shall be considered a separate, distinct offense. In cases involving land clearing in violation of this chapter, the clearing of any area up to the first acre shall be considered one offense, and the clearing of each additional acre and of any additional fractional portion that does not equal one more acre shall each be considered a separate and distinct offense.

B. Any person who commits, participates in, assists or maintains such violation may be found guilty of a separate offense and suffer the penalties as set forth in subsection A of this section.

C. In addition to the penalties set forth in subsections A and B of this section, any violation of the provisions of this chapter is declared to be a public nuisance and may be abated through proceedings for injunctive or similar relief in superior court or other court of competent jurisdiction.

D. Upon determination that a violation of the provisions of this chapter has occurred, the building official shall withhold issuance of building permits for the affected property until corrective action is taken by the responsible party. However, if mitigating circumstances exist and reasonable commitments for corrective action are made, the building official may issue building permits. Such corrective action may include:

1. Restoration and replanting of surface vegetation with plant material similar in character and extent as existed prior to the unauthorized clearing;
2. Implementation of drainage and erosion control measures;
3. Replanting of trees equal in value to those lost through unauthorized clearing. The value of the trees removed shall be determined by the city's tree protection professional using landscape tree appraisal methodology published in the current edition of the International Society of Arboriculture's Guide for Plant Appraisal.

(Ord. O2002-012, Amended, 07/16/2002; Ord. O97-029, Amended, 03/17/1998; Ord. O94-029, Amended, 09/20/1994; Ord. 1311, Amended, 04/07/1992; Ord. 1190, Added, 05/16/1989)

**16.08.120 Violation – Civil penalties – Presumption – Other remedies.**

A. As a supplement or alternative to the remedies set forth in TMC [16.08.110](#), the code administrator shall have the authority to seek civil penalties for violation of the provisions of this chapter.

Any person, corporation, partnership or other entity being the owner of real property or holder of timber rights upon such property who violates the provision of this chapter or fails to comply with any of its requirements shall upon a proper showing be deemed to have committed a class 1 civil infraction as defined by TMC [1.10.120](#)(D)(1). Civil liability shall also attach to others who violate the provisions of this chapter, whether or not such violation occurs at the direction of the owners or holder of timber rights.

As provided by law, the Tumwater municipal court is hereby vested with jurisdiction to hear civil infraction cases under this chapter. Said cases shall be heard by the court without jury and upon a finding that the infraction has been committed by a preponderance of the evidence.

The code administrator shall have the authority to charge as a separate violation each such tree removed or destroyed.

B. Presumption. For purposes of administration and prosecution of alleged violations of this chapter, there is hereby created a rebuttable presumption that the person whose name appears on tax records of the Thurston County assessor, with respect to the real property in question, has responsibility for ensuring that violations of provisions of this chapter do not occur on the property in question.

C. In addition to the penalties set forth in this chapter, any violation of the provisions of this chapter is declared to be a public nuisance and may be abated through proceedings for injunctive or similar relief in superior court or other court of competent jurisdiction.

D. Upon determination that a violation of the provisions of this chapter has occurred, the building official shall withhold issuance of building permits for their affected property until corrective action is taken by the responsible party. However, if mitigating circumstances exist and reasonable commitments for corrective action are made, the building official may issue building permits. Such corrective action may include:

1. Restoration of surface vegetation with plant material similar in character and extent as existed prior to the unauthorized clearing;
2. Implementation of drainage and erosion control measures;
3. Replanting of trees equal in value to those lost through unauthorized clearing. The value of the trees removed shall be determined by the city's tree protection professional using landscape tree appraisal methodology published in the current edition of the International Society of Arboriculture's Guide for Plant Appraisal.

(Amended during 2011 reformat; O2002-012, Amended, 07/16/2002; Ord. O97-029, Amended, 03/17/1998; Ord. O94-029, Added, 09/20/1994)

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AND VEGETATION

**Chapter 16.08**

**PROTECTION OF TREES AND VEGETATION**

Sections:

- 16.08.010 Short title.
- 16.08.020 Purposes.
- 16.08.030 Definitions.
- 16.08.035 City tree protection professional.
- 16.08.038 Forest practice applications.
- 16.08.040 Tree account.
- 16.08.050 Permit required – Applications – Requirements – Processing – Conditions of issuance.
- 16.08.060 Performance and maintenance bond may be required.
- 16.08.070 Standards.
- 16.08.072 Maintenance requirements.
- 16.08.075 Heritage trees designated.
- 16.08.080 Exemptions.
- 16.08.090 Alternative plans.
- 16.08.100 Appeal procedure.
- 16.08.110 Violation – Criminal penalties.
- 16.08.120 Violation – Civil penalties – Presumption – Other remedies.

**16.08.010 Short title.**

This chapter shall be known and may be cited as the “tree and vegetation protection ordinance” of the city.

(Ord. O2002-012, Amended, 07/16/2002; Ord. O94-029, Amended, 09/20/1994; Ord. 1190, Added, 05/16/1989)

**16.08.020 Purposes.**

The regulations are adopted for the following purposes:

- A. To promote public health, safety and general welfare of the citizens of Tumwater, and to retain as many existing mature trees as possible, without preventing the reasonable development and maintenance of land;
- B. To preserve and enhance the city’s physical and aesthetic character by preventing indiscriminate removal or destruction of trees and ground cover, and by encouraging development that incorporates existing trees and ground cover into site development practices;
- C. To retain trees and vegetation for their positive environmental effects including, but not limited to, the protection of wildlife habitat;

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- D. To promote identification and protection of trees that have historical significance; are unusual due to their size, species, or age; are unusual for their aesthetic quality; or have other values or characteristics that make them worthy of protection;
- E. To prevent erosion and reducing the risk of landslides;
- F. To protect environmentally sensitive areas;
- G. To minimize surface water runoff and diversion. To reduce siltation and other pollution entering city storm sewer systems, other utility improvements, and the city's rivers, streams, and lakes;
- H. To retain trees and ground cover to assist in abatement of noise, to provide wind breaks, and for improvement of air quality;
- I. To promote building and site planning practices that are consistent with the city's natural topographical, soil, and vegetation features and to reduce landscaping costs for new development by utilizing existing trees and ground cover to help fulfill landscaping requirements;
- J. To ensure prompt development, restoration and replanting, and effective erosion control of property after land clearing;
- K. To promote conservation of energy;
- L. To educate the public regarding urban forestry;
- M. To implement objectives of the State Environmental Policy Act and Growth Management Act; and
- N. To implement and further the city's comprehensive plan and other related ordinances.

(Ord. O2006-014, Amended, 04/17/2007; Ord. O2002-012, Amended, 07/16/2002; Ord. O2000-012, Amended, 08/01/2000; Ord. O97-029, Amended, 03/17/1998; Ord. O94-029, Amended, 09/29/1994; Ord. 1190, Added, 05/16/1989)

**16.08.030 Definitions.**

- A. "Buildable area" is that portion of a parcel of land wherein a building, parking and other improvements may be located and where construction activity may take place. Buildable area shall not include streams, flood hazard areas, geological hazard areas or wetlands and their buffers as defined in TMC Chapter 18.04. For the purpose of calculating required tree protection open space area, existing and newly dedicated city rights-of-way shall not be included.
- B. "City" means the city of Tumwater, Washington.
- C. "Code administrator" means the director of the community development department or the director's designated representative.
- D. "Conversion option harvest plan (COHP)" means a voluntary plan developed by the landowner and approved by the Washington State Department of Natural Resources and the city

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of Tumwater, indicating the limits and types of harvest areas, road locations, and open space. This approved plan, when submitted to the Department of Natural Resources as part of the forest practice application and followed by the landowner, maintains the landowner's option to convert to a use other than commercial forest product production (releases the landowner from the six-year moratorium on future development).

E. Critical Root Zone or CRZ. Unless determined otherwise by the tree protection professional, the root protection zone for trees means an area contained inside an area on the ground having a radius of one foot for every inch of tree diameter, measured from four and one-half feet above ground level, but in no event shall the root protection zone be less than a six-foot radius.

F. "Drip line" of a tree means an imaginary line on the ground created by the vertical projections of the foliage at its circumference.

G. "Environmentally sensitive area" means any lands with the following characteristics:

1. "Geologically hazardous areas" as defined in TMC Chapter 16.20;
2. Lakes, ponds, stream corridors, and creeks as defined in TMC Chapter 16.32;
3. Identified habitats with which endangered, threatened, or sensitive species have a primary association as defined in TMC Chapter 16.32;
4. Wetlands as defined in TMC Chapter 16.28.

H. "Grading" means excavation, filling, or any combination thereof. Excavation and grading is governed by the International Building Code (IBC).

I. "Greenbelt" means certain designated areas of a project or development that are intended to remain in a natural condition, and/or private permanent open space, or serve as a buffer between properties or developments.

J. "Greenbelt zone" means any area so designated on the official zoning map of the city and subject to the provisions of TMC Chapter 18.30.

K. "Ground cover" means vegetation that is naturally terrestrial excluding noxious or poisonous plants and shall include trees that are less than six inches in diameter measured at four and one-half feet above ground level.

L. "Hazardous tree" means any tree that, due to its health or structural defect, presents a risk to people or property.

M. "Heritage tree(s)" means tree(s) designated by the city and their owners as historical, specimen, rare, or a significant grove of trees.

N. "Historic tree" means any tree designated as an historic object in accordance with the provisions of TMC Chapter 2.62.

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- O. “Land clearing” or “clearing” means any activity which removes or substantially alters by topping or other methods the vegetative ground cover and/or trees.
- P. “Open space” means unoccupied land that is open to the sky and which may or may not contain vegetation and landscaping features, subject to the provisions in TMC 17.04.325 and 17.12.210.
- Q. “Parcel” means a tract or plot of land of any size which may or may not be subdivided or improved.
- R. “Qualified professional forester” is a professional with academic and field experience that makes them an expert in urban forestry. This may include arborists certified by the International Society of Arboriculture, foresters with a degree in forestry from a Society of American Foresters accredited forestry school, foresters certified by SAF, or urban foresters with a degree in urban forestry. A qualified professional forester must possess the ability to evaluate the health and hazard potential of existing trees, and the ability to prescribe appropriate measures necessary for the preservation of trees during land development. Additionally, the qualified professional forester shall have the necessary training and experience to use and apply the International Society of Arboriculture’s Guide for Plant Appraisal and to successfully provide the necessary expertise relating to management of trees specified in this chapter.
- S. “Topping” is the removal of the upper crown of the tree with no consideration of proper cuts as per the current ANSI A300 Standard. Cuts created by topping create unsightly stubs that promote decay within the parent branch and can cause premature mortality of a tree. Topping a tree is considered to be a removal, and may require a tree removal permit.
- T. “Tree” means any healthy living woody plant characterized by one or more main stems or trunks and many branches, and having a diameter of six inches or more measured four and one-half feet above ground level. Healthy in the context of this definition shall mean a tree that is rated by a professional with expertise in the field of forestry or arbor culture as fair or better using recognized forestry or arbor cultural practices. If a tree exhibits multiple stems and the split(s) or separation(s) between stems is above grade, then that is considered a single tree. If a tree exhibits multiple stems emerging from grade and there is visible soil separating the stems, then each soil-separated stem is considered an individual tree. Appropriate tree species under six inches may be considered with approval of the city tree protection professional.
- U. “Tree plan” is a plan that contains specific information pertaining to the protection, preservation, and planting of trees pursuant to this chapter.
- V. “Tree protection open space” is a separate dedicated area of land, specifically set aside for the protection and planting of trees.
- W. “Tree protection professional” is a certified professional with academic and field experience that makes him or her a recognized expert in urban tree preservation and management. The tree protection professional shall be either a member of the International Society of Arboriculture or the Society of American Foresters or the Association of Consulting Foresters, and shall have specific experience with urban tree management in the Pacific



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Northwest. Additionally, the tree protection professional shall have the necessary training and experience to use and apply the International Society of Arboriculture's Guide for Plant Appraisal and to successfully provide the necessary expertise relating to management of trees specified in this chapter.

(Ord. O2013-017, Amended, 08/19/2014; Ord. O2013-025, Amended, 01/07/2014; Ord. O2011-002, Amended, 03/01/2011; Ord. O2006-014, Amended, 04/17/2007; Ord. O2002-012, Amended, 07/16/2002; Ord. O97-029, Amended, 03/17/1998; Ord. O94-029, Amended, 09/20/1994; Ord. 1311, Amended, 04/07/1992; Ord. 1190, Added, 05/16/1989)

**16.08.035 City tree protection professional.**

In the city's interest of achieving professional assistance in the city's tree protection efforts and achieving consistency in tree protection decisions; the city shall contract with a "city tree protection professional" that qualifies as a tree protection professional under the definition of this chapter. The tree protection professional shall be responsible for providing the information and services required of a tree protection professional described herein.

Individual applicants will be responsible for payment of costs of the tree protection professional for projects necessitating work to be performed by the tree protection professional with the exception that the code administrator may waive payment by the applicant for minor work of the tree protection professional in determining an exempt project; provided however, that the city shall be responsible for billing and collecting costs charged to the applicant and transferring payment to the tree protection professional unless the city has opted for some other mechanism of providing for the costs, such as inclusion of costs in application fees.

(Ord. O2002-012, Amended, 07/16/2002; Ord. O97-029, Added, 03/17/1998)

**16.08.038 Forest practice applications.**

Pursuant to RCW 76.09.240, requiring local jurisdictions to set standards for and to process class IV forest practice applications, such permits shall be processed as a land clearing permit, and shall meet the requirements of this chapter.

A. The application of this chapter to forest practice activities regulated by the Washington State Forest Practices Act (Chapter 76.09 RCW) shall be limited to:

1. General forest practices.

B. This chapter is intended to allow the city of Tumwater to assume jurisdiction for approval of general forest practices, approvals occurring in the city of Tumwater, as authorized under the Washington State Forest Practices Act, Chapter 76.09 RCW. Until such time as jurisdiction for these permits is transferred to the city by the State Department of Natural Resources, the city will act as the State Environmental Policy Act (SEPA) lead agency for all general forest practice approvals occurring within the city limits. This chapter shall rely upon existing definitions contained within the Washington State Forest Practices Act (Chapter 76.09 RCW), Rules for the Washington State Forest Practices Act (Chapter 222-16 WAC), and the Tumwater Municipal Code.

(Ord. O2006-014, Amended, 04/17/2007; Ord. O2002-012, Added, 07/16/2002)

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**16.08.040 Tree account.**

There is hereby established within the city a “tree account” for the purposes of acquiring, maintaining and preserving wooded areas, and for planting and maintaining trees within the city.

- A. Collections and Deposits. All fines collected for violations of this chapter shall be deposited into the tree account. All donations and mitigation fees collected related to the preservation of trees or the enhancement of wooded buffer areas shall also be deposited into the tree account.
- B. Maintenance of Account. The tree account shall be maintained by the finance director as a separate, interest-bearing account.
- C. Use of Funds. Funds in the tree account shall be used only upon appropriation by the city council. Funds may be withdrawn from the tree account with the approval of the code administrator, and may be used for any purpose consistent with the intent of this chapter. Funds used to plant trees may be used only on city-owned property, or on property upon which the city has been granted an easement for the purpose of establishing or maintaining trees or other vegetation.

(Ord. O2002-012, Amended, 07/16/2002; Ord. O94-029, Added, 09/20/1994)

**16.08.050 Permit required – Applications – Requirements – Processing – Conditions of issuance.**

- A. No person, corporation, or other legal entity not exempt under TMC 16.08.080 shall engage in land clearing or tree removal in the city without having received a land clearing permit.
- B. Requirement Established. The application for land clearing permit shall be submitted with any project permit as defined in TMC 14.02.020(O), including single-family and duplex structures unless a land clearing permit was previously reviewed as part of prior project permit. A tree protection plan is required to obtain a land clearing permit and is also required for any land development not exempt under TMC 16.08.080. The tree protection plan shall be developed by a qualified professional forester and be submitted in conjunction with other environmental submittals and site plan development permits. For single-family homes on lots created prior to November 1994, the applicant has the option of using the city tree protection professional to prepare the permit application. This service will be provided at the same hourly rates charged to the city under its contractual arrangement with the tree protection professional.
- C. An application for a land clearing permit shall be submitted on a form provided by the city. Accompanying such form shall be a report which includes the following information:
  1. General vicinity map;
  2. Date, north arrow and scale;
  3. Property boundaries, the extent and location of proposed clearing and major physical features of the property (streams, ravines, etc.);

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4. Tree Inventory. Drawn to scale on the preliminary or conceptual site plan: a map delineating vegetation types. Each type should include the following information:
  - a. Average trees and basal area per acre, by species and six-inch diameter class. For nonforested areas, a general description of the vegetation present.
  - b. Narrative description of the potential for tree preservation for each vegetation type. This should include soils, wind throw potential, insect and disease problems, and approximate distance to existing and proposed targets.
  - c. Description of any off-site tree or trees, which could be adversely affected by the proposed activity;
5. Tree Protection Plan. Drawn to scale on the site plan, grading and erosion control and landscape plans. It should include the following information:
  - a. Surveyed locations of perimeters of groves of trees and individual trees to be preserved, adjacent to the proposed limits of the construction. General locations of trees proposed for removal. The critical root zones of trees to be preserved shall be shown on the plans.
  - b. Limits of construction and existing and proposed grade changes on site.
  - c. Narrative description, buildable area of the site, and graphic detail of tree protection, and tree maintenance measures required for the preservation of existing trees identified to be preserved.
  - d. Timeline for clearing, grading and installation of tree protection measures.
  - e. Final tree protection plan will be drawn to scale on the above described plans and submitted with the final application packet;
6. Tree Replacement Plan. Drawn to scale on the site and landscape plans. The tree replacement plan shall be developed by a licensed Washington landscape architect, Washington certified nursery professional, ISA certified arborist, board certified horticulturist, qualified professional forester or Washington certified landscaper. It should include the following information:
  - a. Location, size, species and numbers of trees to be planted.
  - b. Narrative description and detail showing any site preparation, installation and maintenance measure necessary for the long-term survival and health of the trees.
  - c. Narrative description and detail showing proposed locations of required tree planting, site preparation, installation and maintenance within critical root zones of preserved groups or individual trees.
  - d. Cost estimate for the purchase, installation and three years' maintenance of trees;

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7. A timeline for implementation and monitoring of the tree protection, and/or replacement plan;
8. A plan indicating how the site will be revegetated and landscaped;
9. A proposed time schedule for land clearing, land restoration, revegetation, landscaping, implementation of erosion controls, and any construction of improvements;
10. Information indicating the method to be followed in erosion control and restoration of land during and immediately following land clearing;
11. A note indicating that the city will have the right of entry upon the subject property for the purpose of performing inspections consistent with the provisions of this chapter;
12. The approved tree protection plan map will be included in contractor's packet of approved plans used for construction on the project; and
13. Other information as deemed appropriate to this chapter and necessary by the code administrator or city tree protection professional.

D. In addition to the requirements noted in subsection C of this section, on timbered property greater in size than one acre or commercial property with more than fifteen trees, or other sites the city deems necessary because of special circumstances or complexity, the code administrator may require review of the site and proposed plan and submittal of a report by the city's tree protection professional for compliance with the requirements of this chapter.

Further provided, that the code administrator may modify the submittal requirements of subsections C and D of this section, on individual applications where the information is not needed or is unavailable.

E. Each application shall be submitted with a fee established by resolution of the city council, to help defray the cost of handling the application, no part of which fee is refundable.

F. The code administrator shall notify the applicant whether the application is complete within twenty-eight calendar days of receipt of the application. If incomplete, the code administrator shall indicate in the notice the information required to make the application complete. The code administrator shall approve, approve with conditions or deny the permit within thirty calendar days of receipt of the complete application, or within thirty calendar days of completion of any environmental review, whichever is later. For applications such as site development proposals where there is more than a land clearing permit pending, the code administrator shall, whenever feasible, coordinate reviews, notices and hearings, and act upon the land clearing permit concurrently with other pending permits.

G. Any permit granted under this chapter shall expire eighteen months from the date of issuance, unless said permit is associated with another development permit. If it is associated with another development permit, the restrictions and deadlines of that approval will apply. Upon a written request, a permit not associated with another development permit may be extended by the code administrator for one six-month period. Approved plans shall not be

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amended without being resubmitted to the city. Minor changes consistent with the original permit intent will not require a new permit fee or full application standards to be followed. The permit may be suspended or revoked by the city because of incorrect information supplied or any violation of the provisions of this chapter.

H. Once issued, the permit shall be posted by the applicant on the site, in a manner so that the permit is visible to the general public.

(Ord. O2017-022, Amended, 12/05/2017; Ord. O2006-014, Amended, 04/17/2007; Ord. O2002-012, Amended, 07/16/2002; Ord. O97-029, Amended, 03/17/1998; Ord. O94-029, Amended, 09/20/1994; Ord. 1190, Added, 05/16/1989)

**16.08.060 Performance and maintenance bond may be required.**

A. The code administrator may require bonds and bond agreements in such form and amounts as may be deemed necessary to assure that the work shall be completed in accordance with the permit. Bonds, if required, shall be furnished by the applicant or property owner. A bond agreement shall provide assurance that the applicant has sufficient right, title and interest in the property to grant the city all rights set forth in the agreement.

B. In lieu of a bond, the applicant may file assigned funds or an instrument of credit with the city in an amount equal to that which would be required in a bond.

C. The amount of bonds or other assurance instrument shall not exceed the estimated cost of the total restoration, revegetation, planting or landscaping work planned, as determined by the code administrator.

D. The duration of any bond or other required surety shall be not less than three years from the date that said restoration, revegetation, planting or landscaping has been accepted by the code administrator.

(Ord. O2006-014, Amended, 04/17/2007; Ord. O2002-012, Amended, 07/16/2002; Ord. O94-029, Amended, 09/20/1994; Ord. 1190, Added, 05/16/1989)

**16.08.070 Standards.**

All land clearing not exempt under TMC 16.08.080 shall conform to the approved plan and the following standards and provisions unless alternate procedures that are equal to or superior in achieving the purposes of this chapter are authorized in writing by the code administrator:

A. No land clearing and/or ground surface level changes shall occur in a greenbelt zone as delineated on the official zoning map except as required for uses permitted in that zone. In addition, such land clearing and/or ground surface changes shall be subject to all other applicable standards and regulations;

B. Land clearing in designated greenbelt, open space, tree tract or buffer areas of approved and recorded subdivisions or approved projects which would substantially alter the character or purpose of said greenbelt or buffer areas is prohibited, except in cases involving land clearing plans approved by the code administrator for removal of hazard trees, invasive or noxious plant species and replanting with native plant and tree species;

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- C. Erosion control measures shall be provided by the applicant's professional engineer, in conformance with the Drainage Design Erosion Control Manual for the Thurston Region, Washington, as currently written and subsequently amended. The erosion control measures shall be reviewed and subject to approval by the code administrator. The requirement for a professional engineer may be waived by the code administrator on a case-by-case basis;
- D. Land clearing shall be accomplished in a manner that will not create or contribute to landslides, accelerated soil creep, settlement and subsidence on the subject property and/or adjoining properties;
- E. When land clearing occurs that does not include development, the proposal shall contain provisions for the protection of natural land and water features, vegetation, drainage, retention of native ground cover, and other indigenous features of the site;
- F. Land clearing shall be accomplished in a manner that will not create or contribute to flooding, erosion, or increased turbidity, siltation, or other form of pollution in a watercourse;
- G. Land clearing in wetlands, and fish and wildlife habitat areas shall be in accordance with the provisions of TMC Chapter 16.28, Wetland Protection Standards, and TMC Chapter 16.32, Fish and Wildlife Habitat Protection;
- H. During the months of November, December, and January, no land clearing shall be performed in areas with average slopes of fifteen percent or greater, or any slopes of forty percent or greater;
- I. During the months of November, December, and January, no land clearing shall be performed in areas with fine-grained soils and a slope greater than five percent. For the purposes of this section, fine-grained soils shall include any soil associations which are classified in hydrologic soil groups C or D, as mapped in the Thurston County Soil Survey, or as determined by a qualified soil scientist;
- J. Land clearing shall be undertaken in such a manner as to preserve and enhance the city's aesthetic character. The site shall be revegetated and landscaped as soon as practicable, in accordance with the approved revegetation plan. Where the construction schedule does not provide for revegetation of the site prior to October 15 of any year, all disturbed areas shall be hydro seeded or otherwise revegetated on an interim basis. The revegetation plan shall include plantings along public streets and adjoining property boundaries, especially between areas of differing intensities of development. For land clearing permits that are part of a specific development proposal, land use development shall be initiated or a vegetative screen or buffer established within six months of the date of initiation of land clearing activities;
- K. Land clearing shall be conducted so as to expose the smallest practical area of soil to erosion for the least possible time, consistent with the construction schedule. Provisions shall be made for interim erosion control measures;
- L. Land clearing activities shall be limited to the hours of 7:00 a.m. to 8:00 p.m. on weekdays and 9:00 a.m. to 8:00 p.m. on Saturdays in accordance with TMC Chapter 8.08;

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M. Open burning of land clearing debris is prohibited. Slash shall be properly disposed of off site or chipped and applied to the site within six months of the completion of the land clearing. Chipped material deposited on the site shall be spread out or other means used to prevent fire hazard;

N. Any trees to be retained shall be flagged or otherwise marked to make it clear which tree or groups of trees are to be retained;

O. Any trees or groups of trees to be retained shall have temporary fencing installed around the critical root zone. Temporary fencing must be adequate to protect the critical root zone of trees designated for retention. On construction sites where circumstances warrant, the code administrator may require more substantial tree protection fencing, as necessary, to protect intrusion of construction activity into the CRZ areas. Machinery and storage of construction materials shall be kept outside of the CRZ of trees designated for retention. The code administrator may require fencing beyond the CRZ if, in the code administrator's determination, such additional protection is needed to protect the tree from damage. Trees designated for retention shall not be damaged by scoring, ground surface level changes, compaction of soil, attaching objects to trees, altering drainage or any other activities that may cause damage of roots, trunks, or surrounding ground cover;

P. Any trees designated for retention shall be field verified by the city tree protection professional before land clearing begins;

Q. Not more than thirty percent of the trees on any parcel of land shall be removed within any ten-year period, unless the clearing is accomplished as part of an approved development plan. Such clearing shall be done in such a way as to leave healthy dominant and codominant trees well distributed throughout the site (taking into account the interdependency of the trees) unless, according to the determination of the city tree protection professional, this requirement would conflict with other standards of this section. For every tree removed at least one replacement tree shall be planted. Replacement trees shall consist of seedlings of the same or similar species to those trees removed, which shall be at least two years old. In lieu of this planting of replacement trees, the applicant may contribute a cash payment to the city's tree account in an amount equal to one hundred twenty-five percent of the retail value replacement cost. The time schedule for the planting of replacement trees shall be specified in the approved plan. If a land clearing permit is applied for as part of a development plan within ten years of clearing under this subsection, all trees removed under this standard will be counted towards required tree retention/replacement when a land clearing permit is issued;

R. When land clearing is performed in conjunction with a specific development proposal not less than twenty percent of the trees, or not less than twelve trees per acre (whichever is greater), shall be retained.

Provided, however, where it can be demonstrated that the trees on a site were planted as part of a commercial Christmas tree farm, then no less than seventeen percent or twelve trees per acre, whichever is less, shall be retained. Commercial tree farm status must be verified by the city tree protection professional.

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1. Size, Type and Condition of Retained Trees.
  - a. For the purpose of calculating tree retention standards, trees twenty-four inches or greater in diameter measured four and one-half feet above ground level shall count as two trees.
  - b. Species such as willow, cottonwood, poplar and other species, the roots of which are likely to obstruct or injure site improvements, sanitary sewers or other underground utilities, shall not be considered trees for the purpose of calculating tree retention standards if located within the buildable portion of the lot.
  - c. A tree must meet the following standards in order to be counted for the purpose of meeting tree retention standards:
    - i. Must have a post-development life expectancy of greater than ten years;
    - ii. Must have a relatively sound and solid trunk with no extensive decay or significant trunk damage;
    - iii. Must have no major insect or pathological problems;
    - iv. Must have no significant crown damage;
    - v. Should be fully branched and generally proportional in height and breadth for the tree age;
    - vi. Must be windfirm in their post-development state.
2. These standards may be waived or modified by the code administrator if the applicant provides substantial evidence demonstrating that strict compliance would make reasonable use of the property impracticable for three or more of the following reasons:
  - a. Removal of the tree or trees is needed to enable use of a solar system. A waiver for this reason must be accompanied by a bond assuring completion of the solar system within the timeframe associated with the underlying building permit issued for the project.
  - b. The tree retention standard cannot be achieved because of the necessity of complying with applicable zoning and development requirements including, but not limited to, residential densities, open space requirements for active recreation, floor area ratios (FAR), parking requirements, stormwater requirements, street construction requirements, etc.
  - c. The tree retention standard cannot be achieved because the tree or trees do not have a reasonable chance of survival once the site is developed or modified and may pose a threat to life or property if retained.



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- d. The applicant has made reasonable efforts to reconfigure or reduce the building footprint(s), site access, on-site utility systems and parking area(s) to avoid impacts to trees on the property.
  - e. For commercial and industrial land uses, the project pro forma demonstrates that economically viable use of the property cannot be achieved while meeting the tree retention standards in this chapter. This standard is presumed to be met without a pro forma if the area disturbed by development of the property would be less than eighty-five percent of the land.
  - f. The granting of the waiver or modification will not result in increasing the risk of slope failure, significant erosion or significant increases in surface water flows that cannot be controlled using best management practices.
3. Where the standard is waived or modified, the applicant shall plant not less than three trees for each tree cleared in excess of the standard.
- a. These replacement trees shall be at least two inches in diameter measured at a height of six inches above the root collar.
  - b. Replacement trees shall be planted on the same parcel as the proposed development, unless the code administrator approves of an alternate location.
  - c. Replacement trees must first be planted in a “tree protection open space.” The tree protection open space shall be comprised of a minimum of five percent of the buildable area for the purpose of retaining existing trees and/or for the planting of replacement trees. Replacement trees in the tree protection open space shall be a mix of native coniferous and deciduous trees. The tree protection open space shall be a contiguous area. The tree protection open space is required to be eighty percent covered by tree canopy after fifteen years utilizing retained and/or replacement trees. Approved trees and their CRZ area within a critical area buffer may count for up to fifty percent of the required tree protection open space. Stormwater facilities can be considered as part of the tree protection open space if trees can be retained and/or planted successfully and not disable the operating functions of the facility.
  - d. If more replacement trees are required than necessary to meet the canopy requirement in the tree protection open space, then these trees (either native and/or nonnative species) can be planted elsewhere on the parcel(s).
  - e. If the city tree protection professional determines that more replacement trees are required than can be planted in the tree protection open space and the rest of the parcel, then the applicant shall contribute a cash payment to the city’s tree account in an amount determined by the current city fee resolution.
4. In situations where a parcel of land to be developed does not meet the retention standards above in an undeveloped state, the applicant shall be required to reforest the site to meet the applicable standard outlined above at a 1:1 ratio as a condition of project approval.

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5. In determining which trees shall be given the highest priority for retention, the following criteria shall be used:

- a. Heritage or historic trees;
- b. Trees which are unusual due to their size, age or rarity;
- c. Trees in environmentally sensitive areas;
- d. Trees that act as a buffer to separate incompatible land uses;
- e. Trees which shelter other trees from strong winds that could otherwise cause them to blow down;
- f. Trees within greenbelts, open space, tree protection open space or buffers;
- g. Trees with significant habitat value as identified by a qualified wildlife biologist or by the city tree protection professional; and
- h. Trees which are part of a continuous canopy or which are mutually dependent, as identified by a qualified professional forester or the city tree protection professional;

S. In addition to the provisions of this chapter, the cutting or clearing of historic trees requires the issuance of a certificate of appropriateness in accordance with TMC Chapter 2.62.

(Ord. O2013-017, Amended, 08/19/2014; Ord. O2006-014, Amended, 04/17/2007; Ord. O2002-012, Amended, 07/16/2002; Ord. O97-029, Amended, 03/17/1998; Ord. O94-029, Added, 09/20/1994)

**16.08.072 Maintenance requirements.**

A. Maintenance Requirement. Trees are to be maintained in a vigorous and healthy condition, free from diseases, pests and weeds. Trees which become diseased, severely damaged or which die shall be removed by the owner as soon as possible but no later than sixty days after notification by the city. As it pertains to this section, all replacement trees that die shall be replaced with healthy trees of the same size and species as required by the approved tree protection plan for the property. If retained trees die due to construction damage or negligence on the part of the applicant, the city tree protection professional shall determine the appraised landscape value of the dead trees, and the applicant shall plant the equivalent value of trees back onto the site. In the event that space is not available for the required replacement trees (as determined by the city tree protection professional), the equivalent value shall be paid into the tree fund.

B. For areas dedicated as tree protection open space areas, street trees and single-family residential land divisions, the maintenance requirement of this section shall be in effect for three years from the date the final plat is approved or the trees are planted. The tree plan shall be a condition of approval and identified on the face of the plat. The applicant shall also execute a covenant in a form agreeable to the city, which shall require the applicant and his successors to comply with the maintenance requirement of this section. The covenant shall obligate both the

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property owner and the homeowner's association and shall be recorded with the county auditor. The recording fee shall be paid by the applicant.

C. For multifamily residential, commercial, and industrial developments, the maintenance requirement for all trees covered by the tree plan shall apply in perpetuity. The applicant shall execute a covenant in a form agreeable to the city, which shall require that the applicant and his successors comply with the maintenance requirement imposed by this section. The covenant shall be binding on successor property owners and owners' associations. The covenant shall be recorded with the county auditor and the recording fee shall be paid by the applicant.

D. Maintenance Agreement. Each development to which the maintenance requirement for this chapter applies and that contain a heritage tree(s) shall also be subject to a maintenance agreement. The code administrator shall require the applicant to execute a maintenance agreement with the city, in a form acceptable to the city attorney, which shall include the provisions of the maintenance requirement in this chapter, to ensure the survival and proper care of any heritage trees identified in the tree plan.

E. Failure to Maintain. Retained trees, replacement trees and street trees as per the requirements of this chapter and/or TMC Chapter 18.47, Landscaping, shall be maintained according to the American National Standards Institute, current edition of the American National Standards, ANSI A300. Failure to regularly maintain the trees as required in this section shall constitute a violation of this chapter and, if applicable, the plat covenant.

(Ord. O2006-014, Added, 04/17/2007)

**16.08.075 Heritage trees designated.**

A. Trees can be nominated for designation by citizens, the Tumwater tree board, or city staff.

1. Application for heritage tree designation must be submitted to the community development department. The application must include a short description of the trees, including address or location, and landowner's name and phone number. The application must be signed by both the landowner and nominator.
2. The tree board reviews the application and makes a recommendation to the city council.
3. All heritage trees will be added to city tree inventory and public works maps.

B. Trees that are designated as heritage trees shall be classified as follows:

1. Historical – A tree which by virtue of its age, its association with or contribution to a historical structure or district, or its association with a noted citizen or historical event.
2. Specimen – Age, size, health, and quality factors combine to qualify the tree as unique among the species in Tumwater and Washington State.
3. Rare – One or very few of a kind, or is unusual in some form of growth or species.

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4. Significant Grove – Outstanding rows or groups of trees that impact the city's landscape.

C. The city will provide an evaluation and recommendation for tree health and care and will provide up to one inspection annually upon request of the landowner. The city may, at its discretion, provide a plaque listing the owner's name and/or tree species/location.

D. Heritage Tree Removal.

1. A tree removal permit is required for removal of any heritage tree(s).

2. The city tree protection professional shall evaluate any heritage trees prior to a decision on the removal permit. Recommendations for care, other than removal, will be considered.

3. Dead or hazardous trees are exempt from a tree removal permit after verification by the city tree protection professional.

E. Heritage Tree Declassification. Any heritage tree may, at any time, be removed from heritage tree status at the request of the landowner after providing two weeks' written notice to the community development department. Unless an agreement can be reached to preserve the tree, the tree will be removed from the heritage tree inventory list and the plaque, if any, will be removed.

(Amended during 2011 reformat; O2006-014, Amended, 04/17/2007; Ord. O2002-012, Amended, 07/16/2002; Ord. O2000-012, Added, 07/18/2000)

**16.08.080 Exemptions.**

The following shall be exempt from the provisions of this chapter; provided however, the code administrator may require reasonable documentation verifying circumstances associated with any proposal to remove trees under any of the following exemptions:

A. Land clearing in emergency situations involving immediate danger to life or property. For every tree cleared under this exemption, at least one replacement tree shall be planted. Except for the number of trees, replacement trees shall conform to the standard for replacement trees described in TMC 16.08.070(R);

B. Land clearing associated with routine maintenance by utility companies such as the power company and telephone company. Utility companies shall notify the community development department at least two weeks prior to the start of work and shall follow appropriate vegetation management practices;

C. Land clearing performed within any public right-of-way or any public easement, when such work is performed by a public agency and the work relates to the installation of utilities and transportation facilities (such as streets, sidewalks and bike paths). To the greatest extent possible, all such work shall conform to the standards set forth in this chapter;

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D. Land clearing within ten feet (when required for construction) of the perimeter of the single-family or duplex dwellings and associated driveways or septic systems must be indicated on the plot plan submitted to the building official with an application for a building permit. This exemption does not apply to land clearing located within environmentally sensitive areas, or to areas subject to the provisions of the shoreline master program;

E. Clearing of dead, diseased, or hazardous trees, after verification by the city tree protection professional. For every tree cleared under this exemption, at least one replacement tree shall be planted. Except for the number of trees, replacement trees shall conform to the standard for replacement trees described in TMC 16.08.070(R);

F. Clearing of trees that act as obstructions at intersections in accordance with the municipal code;

G. The removal of not more than six trees from any parcel of land in three consecutive calendar years. This exemption does not apply to heritage or historic trees, or to trees located in a greenbelt or greenbelt zone, or in wetlands or critical areas and their buffers or to tree topping. A letter of “waiver” for the exempt removals must be obtained from the community development department prior to tree removal;

H. Land clearing associated with tree farming operations specifically preempted by Chapter 76.09 RCW, Washington Forest Practices Act; provided, that a harvesting and reforestation plan is submitted to the code administrator prior to any land clearing;

I. Clearing of noxious ground cover for the purposes of utility maintenance, landscaping, or gardening. This exemption applies solely to ground cover, for protected trees clearing must conform to subsection G of this section;

J. Clearing of trees that obstruct or impede the operation of air traffic or air operations at the Olympia Airport. The tree replacement standards of this chapter must be met. Trees should be replanted outside the air operations area;

K. Clearing of not more than six trees every three consecutive calendar years on developed properties, when such clearing is necessary to allow for the proper functioning of a solar-powered energy system. Such clearing may be done only after verification of the need to clear the trees, issuance of a waiver letter, and the issuance of a building permit for such a system by the code administrator.

(Amended during 2011 reformat; O2006-014, Amended, 04/17/2007; Ord. O2002-012, Amended, 07/16/2002; Ord. O97-029, Amended, 03/17/1998; Ord. O94-029, Amended, 09/20/1994; Ord. 1311, Amended, 04/07/1992; Ord. 1190, Added, 05/16/1989)

**16.08.090 Alternative plans.**

Required tree mitigation must conform to the standards contained in this chapter unless alternate plans that are equal to or superior in achieving the purposes of this chapter are authorized in

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writing by the code administrator. The code administrator may modify or waive the requirements of this chapter only after consideration of a written request for any of the following reasons:

- A. Special circumstances relating to the size, shape, topography or physical conditions, location, or surroundings of the subject property, or to provide it with use rights and privileges permitted to other properties in the vicinity and zone in which it is located;
- B. Improvement as required without modification or waiver would not function properly or safely or would not be advantageous or harmonious to the neighborhood or city as a whole;
- C. The proposed modification would result in an increased retention of mature trees and/or naturally occurring vegetation on the site;
- D. The proposed modification represents a superior result than that which could be achieved by strictly following the requirements of this chapter, the proposed modification complies with the stated purpose of TMC 16.08.020 and the proposed modification will not violate any city of Tumwater codes or ordinances.

Any modifications under this chapter shall be as limited as possible to achieve the aim of relating required mitigation for tree protection to the impacts caused by the individual development.

(Ord. O2006-014, Amended, 04/17/2007; Ord. O2002-012, Amended, 07/16/2002; Ord. 1190, Added, 05/16/1989)

**16.08.100 Appeal procedure.**

Any person aggrieved by a decision or an action of the code administrator in the enforcement or implementation of this chapter may, within fourteen calendar days of such decision or action, file a written appeal to the hearing examiner. Any decision of the hearing examiner may be appealed to the Thurston County superior court in accordance with the provisions of TMC Chapter 2.58.

(Ord. O2017-022, Amended, 12/05/2017; Ord. O2006-014, Amended, 04/17/2007; Ord. O2002-012, Amended, 07/16/2002; Ord. O94-029, Amended, 09/20/1994; Ord. 1259, Amended, 11/06/1990; Ord. 1190, Added, 05/16/1989)

**16.08.110 Violation – Criminal penalties.**

A. Any person who violates the provisions of this chapter or fails to comply with any of the requirements shall be guilty of a misdemeanor and subject to the penalties set forth in TMC 1.12.010. In keeping with the city's concern regarding protection of the environment, the court should consider the imposition of minimum fines of no less than \$1,000 per occurrence. Each day such violation continues shall be considered a separate, distinct offense. In cases involving land clearing in violation of this chapter, the clearing of any area up to the first acre shall be considered one offense, and the clearing of each additional acre and of any additional fractional portion that does not equal one more acre shall each be considered a separate and distinct offense.

B. Any person who commits, participates in, assists or maintains such violation may be found guilty of a separate offense and suffer the penalties as set forth in subsection A of this section.

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C. In addition to the penalties set forth in subsections A and B of this section, any violation of the provisions of this chapter is declared to be a public nuisance and may be abated through proceedings for injunctive or similar relief in superior court or other court of competent jurisdiction.

D. Upon determination that a violation of the provisions of this chapter has occurred, the building official shall withhold issuance of building permits for the affected property until corrective action is taken by the responsible party. However, if mitigating circumstances exist and reasonable commitments for corrective action are made, the building official may issue building permits. Such corrective action may include:

1. Restoration and replanting of surface vegetation with plant material similar in character and extent as existed prior to the unauthorized clearing;
2. Implementation of drainage and erosion control measures;
3. Replanting of trees equal in value to those lost through unauthorized clearing. The value of the trees removed shall be determined by the city's tree protection professional using landscape tree appraisal methodology published in the current edition of the International Society of Arboriculture's Guide for Plant Appraisal.

(Ord. O2002-012, Amended, 07/16/2002; Ord. O97-029, Amended, 03/17/1998; Ord. O94-029, Amended, 09/20/1994; Ord. 1311, Amended, 04/07/1992; Ord. 1190, Added, 05/16/1989)

**16.08.120 Violation – Civil penalties – Presumption – Other remedies.**

A. As a supplement or alternative to the remedies set forth in TMC 16.08.110, the code administrator shall have the authority to seek civil penalties for violation of the provisions of this chapter.

Any person, corporation, partnership or other entity being the owner of real property or holder of timber rights upon such property who violates the provision of this chapter or fails to comply with any of its requirements shall upon a proper showing be deemed to have committed a class 1 civil infraction as defined by TMC 1.10.120(D)(1). Civil liability shall also attach to others who violate the provisions of this chapter, whether or not such violation occurs at the direction of the owners or holder of timber rights.

As provided by law, the Tumwater municipal court is hereby vested with jurisdiction to hear civil infraction cases under this chapter. Said cases shall be heard by the court without jury and upon a finding that the infraction has been committed by a preponderance of the evidence.

The code administrator shall have the authority to charge as a separate violation each such tree removed or destroyed.

B. **Presumption.** For purposes of administration and prosecution of alleged violations of this chapter, there is hereby created a rebuttable presumption that the person whose name appears on tax records of the Thurston County assessor, with respect to the real property in question, has responsibility for ensuring that violations of provisions of this chapter do not occur on the property in question.

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C. In addition to the penalties set forth in this chapter, any violation of the provisions of this chapter is declared to be a public nuisance and may be abated through proceedings for injunctive or similar relief in superior court or other court of competent jurisdiction.

D. Upon determination that a violation of the provisions of this chapter has occurred, the building official shall withhold issuance of building permits for their affected property until corrective action is taken by the responsible party. However, if mitigating circumstances exist and reasonable commitments for corrective action are made, the building official may issue building permits. Such corrective action may include:

1. Restoration of surface vegetation with plant material similar in character and extent as existed prior to the unauthorized clearing;
2. Implementation of drainage and erosion control measures;
3. Replanting of trees equal in value to those lost through unauthorized clearing. The value of the trees removed shall be determined by the city's tree protection professional using landscape tree appraisal methodology published in the current edition of the International Society of Arboriculture's Guide for Plant Appraisal.

(Amended during 2011 reformat; O2002-012, Amended, 07/16/2002; Ord. O97-029, Amended, 03/17/1998; Ord. O94-029, Added, 09/20/1994)