



**TREE BOARD
MEETING AGENDA**

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

**Monday, December 12, 2022
7:00 PM**

1. Call to Order
2. Roll Call
3. Changes to Agenda
4. Approval of Minutes
 - a. Tree Board Meeting Minutes - November 7, 2022
5. Tree Board Member Reports
6. Coordinator's Report
7. Public Comment
8. Election of Chair and Vice Chair
9. Tree & Vegetation Preservation Ordinance Community Engagement Status Report
10. Tree & Vegetation Preservation Ordinance Gap Analysis
11. Arbor Day Discussion
12. Heritage Tree Nomination at 420 D Street
13. Heritage Tree Nomination at 6005 Tyee Dr SW
14. Heritage Trees Nomination at 5725 Littlerock Road SW
15. Next Meeting Date - 01/10/2023
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_rfvhIU7SH6wMVmOkmFAYg

Listen by Telephone

Call (253) 215-8782, listen for the prompts and enter the Webinar ID 816 5310 0364 and Passcode 875164.

Public Comment

The public is invited to attend the hearing and offer comment. The public may register in advance for this webinar to provide

comment: https://us02web.zoom.us/webinar/register/WN_rfvhIU7SH6wMVmOkmFAYg

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:

AJonesWood@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/Board Members and will not be read individually into the record of the meeting.

If you have any questions, please contact Sustainability Coordinator Alyssa Jones Wood at (360) 754-4140 or AJonesWood@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

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. 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.

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 Community Development Department at (360) 754-4180.

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CONVENE: 7:01 p.m.

PRESENT: Chair Trent Grantham and Boardmembers Brent Chapman, Michael Jackson, Tanya Nozawa, Dennis Olson, and Jim Sedore.

Excused absence: Boardmember Joel Hecker.

Staff: Water Resources and Sustainability Director Dan Smith, Parks and Recreation Director Chuck Denney, Planning Manager Brad Medrud, Transportation Manager Mary Heather Ames, Parks and Facilities Manager Stan Osborn, and Sustainability Coordinator Alyssa Jones Wood.

**CHANGES TO
AGENDA:** There were no changes to the agenda.

**APPROVAL OF
MINUTES: JOINT
TREE BOARD AND
PLANNING
COMMISSION
MEETING MINUTES
OCTOBER 11, 2022:**

MOTION: Boardmember Sedore moved, seconded by Boardmember Olson, to approve the October 11, 2022 Joint Tree Board and Planning Commission meeting minutes as presented. A voice vote unanimously approved the motion.

PUBLIC COMMENT: There were no public comments.

**TREE BOARD
MEMBER REPORTS:** There were no reports.

**COORDINATOR'S
REPORT:** Coordinator Jones Wood reported on the recent meeting between staff and the consultant selected to assist in the update of the landscape ordinance. The City mailed a postcard to more than 14,000 Tumwater addresses. The postcard was printed on 30% recycled content paper. The postcard invites the public to engage in the tree and vegetation preservation ordinance and other code updates. Information was included on the website link and the QR code to the Tumwater Tree City page for the three updates. Several community members have signed up to receive updates. No public comments have been submitted. Posters were printed on 100% recycled content paper. The posters will be displayed at various locations in the community.

Thurston Regional Planning Council is scheduled to release a white

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paper at the end of November on carbon sequestration. The paper is a work product as part of the Thurston Climate Mitigation Plan. Staff received a draft of the report. TRPC received many comments from staff from all the jurisdictions.

The next meeting will include elections for Board officer positions.

Manager Medrud shared information on the upcoming November 21, 2022 stakeholder community conversation as part of the update of the tree and vegetation preservation, and landscaping codes. Community members can attend either in-person or via zoom. The meeting starts at 7 p.m. The meeting will be an overview of the entire project. The second meeting is scheduled on Thursday, December 9 followed by a January 9, 2023 meeting. The last two sessions will focus on comments and issues generated from the first session.

Commissioner Sedore asked about the protocol for Boardmembers to submit comments during the online public forum. Manager Medrud advised that the Board can submit comments. The community has been notified of the website and the opportunity to provide comments through the postcard mailing, Nextdoor, and the City's Facebook page.

DISCUSSION:

**URBAN FORESTRY
MANAGEMENT PLAN
IMPLEMENTATION:**

Coordinator Jones Wood outlined the discussion format. Directors or representatives of the City's Community Development, Parks and Recreation, Transportation and Engineering, and Water Resources and Sustainability departments are available to review implementation of the Plan's actions and answer questions. Staff members provided self-introduction.

Coordinator Jones Wood reported on her meetings with each department to share information and learn about the status of actions scheduled from 2021 through 2024 in the Urban Forestry Management Plan. Approximately 49% of the actions are on track, 22% are delayed, 26% are scheduled to begin next year, and 3% are pending the receipt of grant funding.

Chair Grantham suggested focusing the discussion on the challenges affecting delayed actions that are not dependent upon funding.

Coordinator Jones Wood displayed and reviewed a spreadsheet of delayed actions:

- **Secure funding for a four-year cycle of tree trimming.** Coordinator Jones Wood responded to questions about the proposed budget for the action. An inventory of trees on City

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properties is needed to determine maintenance needs to assist in developing a budget proposal.

- **Establish new community and urban forestry maintenance enhancement funding sources.** The action is funding-dependent and requires determining needs to develop a budget request.
- **Establish new community and urban forestry maintenance enhancement funding sources.** Requires identification of the status to prepare a budget request.
- **Hire an urban forester, certified arborist, or urban ecologist on City staff or look to share that position with other jurisdictions or departments or as part of a wider City environmental manager position to manage the community and urban forest to assist in development review, respond to inquiries, and assess individual tree-health issues.** The action was not included in the 2023-2024 City Budget and has been deferred to the City's 2025-2026 budget. A City employee with the Parks and Recreation Department is a certified arborist with additional park employees seeking to become certified as well. Manager Osborn commented that Wayne Lobaugh has been with the City for many years and is a certified arborist. However, when any trees present a safety concern, the City typically contracts with Kevin McFarland from Sound Urban Forestry to complete an objective review of the tree's condition. Prior to the recent windstorm, facilities staff toured trails and parks to identify potentially dangerous trees for follow-up action.

Director Smith noted that another major challenge is the tremendous amount of leaves clogging storm drain systems throughout the City creating localized flooding on surface streets. Each year, the region experiences storms when leaves are changing during the fall. A component of the stormwater program is messaging the community on the "Rake a Drain" program encouraging residents to clear storm drains of leaves.

Boardmember Chapman inquired as to whether the new position occupied by Coordinator Jones Wood was sufficient to achieve some of the strategies. Coordinator Jones Wood advised that more assistance would be necessary with more experience in urban forestry. Director Smith noted that the action is one of the most challenging to achieve because of staffing capacity in the Stormwater Utility and the lack of funding additional positions or programs and activities for tree management. A significant amount of funding for those types of programs is from the general fund, which is subject to competitive requests from other areas of the City. Establishment of Coordinator Jones Wood's position was one step towards sustainability and forestry to assist in identifying different priorities to move forward. Beyond current

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programs and volunteer efforts to plant and maintain plantings, the City needs to consider additional funding to support programs, such as riparian restoration.

Coordinator Jones Wood added that the Transportation and Engineering Department has indicated interest in adding a certified arborist as one of the preferred qualifications for future openings to supplement educated and professional staff to work on forestry issues.

- **Develop incentives to promote tree retention, planting, and replanting.** Adoption of multiple code revisions will assist in moving this strategy forward. Manager Medrud added that as part of the Climate Mitigation Plan, other options are under consideration in terms of how the City supports preservation of trees in rural areas.
- **Maintain the citywide street tree inventory data on an ongoing basis by using municipal tree asset management software such as Lucity, TreePlotter, or TreeWorks with the geographic information system (GIS).** GIS staff is currently working on the Capital Facilities Plan (CFP). Following completion of the CFP, GIS staff capacity will become available to begin working on the strategy. GIS staff added 175 trees to the inventory this year.

Chair Grantham asked whether the information was shared with the Watershed Group working on tree preservation. Coordinator Jones Wood advised that she shared information on street tree inventory GIS data since the addition of the 175 trees. Manager Medrud addressed a question on how the City tracks trees removed or added. Staff continues to work through a process assisted by a tree planting process of connections between staff to ensure the inventory is updated based on continuing changes. Currently, the City's permit tracking software is unable to connect to the GIS system. The City is implementing a new system that will eventually provide expanded capacity to track and update the inventory.

Coordinator Jones Wood was asked whether information on the removal of trees is currently collected by the City. The City can track tree removals through tree removal permits issued by the City. Manager Medrud added that the City has not established a program for tracking removal of trees, which is another component of the new software that will enable tracking of additions and removal of trees. Removal of trees at this time is difficult to compile. Manager Osborn noted that not many trees were removed last week because of the storm. Staff tracks all plantings and removals for obtaining permits or for documenting

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conditions. The process of transferring all information to GIS has been difficult because of staffing capacity. Boardmember Chapman suggested the process might benefit from a grant through the Department of Natural Resources' Urban and Community Forestry Program next year. Coordinator Jones Wood noted the City is also required as part of reporting to qualify as a Tree City USA to submit the number of trees removed and planted by the City each year.

- **Develop a stable funding source and budget for annual maintenance and selective harvest of trees within developed landscaped City property, such as City street trees and City facilities and parks.**
- **Develop a stable funding source and budget for maintenance of natural forests on City lands such as critical or shoreline areas and their buffers and other such areas.** Staff intends to request funding during the next budget cycle. Chair Grantham inquired about interest by the Council and the Mayor to include additional funds for maintenance and education. Coordinator Jones Wood advised that a request was submitted for \$30,000 for each year of the next biennium. The budget request was reduced.

Director Smith noted that there are always opportunities to include messaging into environmental outreach and education programs funded by the Stormwater Program through Stream Team and other avenues.

Coordinator Jones Wood said the new stormwater permit for Western Washington includes a new section on tree retention and its importance for stormwater. Those efforts will eventually become a permit requirement.

Boardmember Chapman commented on the importance of tracking history on previous efforts and prior requests and including it within the documentation to create an historical record of actions to assist in achieving the desired goals.

- **Look for opportunities to build on and expand existing City educational outreach programs to increase the understanding of the value of the community and urban forest, as well as the responsibilities of the public and private landowners regarding its planting, maintenance, thinning, and harvest.** The strategy has been moved to 2025 because of the lack of staff capacity. The Board is scheduled to review next year's work program and can recommend adjustments to the program.
- **Develop education and incentive programs focused on maintaining the community and urban forest found on**

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private property. The strategy is delayed because of the lack of staff capacity. Chair Grantham offered that the strategy could be supported through the annual tree giveaway during the Arbor Day event or through information currently disseminated to the public.

- **Support and incentivize the use of large-canopy trees in appropriate areas to provide maximum benefits.** Chair Grantham suggested the action would be appropriate to include in the amendments to the ordinance. He recently completed a project for the City of Port Orchard, which requires a certain number of large, medium, and small trees within parking lots. It is often more advantageous to include the requirements within the codes. Manager Medrud affirmed that the strategy would be a component of the landscaping code discussions. Staff is also considering a canopy approach to tree preservation and ways to maximize canopies throughout the City. Coordinator Jones Wood said she would update the strategy to reflect activities beginning in 2023.
- **Coordinate with the Fire Department on actions to minimize fire risks associated with urban forestry.** The strategy has been delayed pending completion of the new Hazard Mitigation Plan. Manager Medrud said work on the plan began earlier in the year with the final version scheduled for completion by next summer. There has been interest in adding a component that speaks to community fire risk. Chair Grantham asked whether the action could be included in the code, as well as in terms of mitigating fire hazards. Manager Medrud replied that minimizing fire risks would likely be addressed as part of the City's codes pertaining to maintenance of properties. He offered to review the code to determine if language could be strengthened.
- **Remove trees and understory in specific situations identified in the Tumwater Annex to the Natural Hazard Mitigation Plan for the Thurston Region to guard against wildfire.** Chair Grantham asked whether the City has encountered any problems with fire caused by homeless encampments in the City. Manager Osborn advised that the City has not experienced any fire incidents; however, during tree trimming or removal, trees are chipped and the material is hauled to vegetation disposal sites. Typically, homeless encampments do not have fires outside during the evening, as it would identify the location of the encampment.

Director Smith noted that the City recently experienced a fire on public property at a wellfield adjacent to wetlands caused by several encampments. The fire destroyed a 200 square-foot structure. The incident resulted in no injuries requiring medical treatment. The Fire Department was challenged in terms of accessing the site to address the fire. It speaks to the challenges

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many unhoused individuals are facing in the community. Many of the City's greenbelts are areas of preservation for water that can be threatened when exposed to those types of activities.

- **Develop a program to work with public and private property owners in maintaining and providing for public safety with the community and urban forest.** The strategy has been moved to 2025 with Community Development serving as the lead.
- **Use a citywide work order system that enters all street tree work automatically as performed to assure quality data through consistent data collection methods and ensure an accurate progressive tree inventory.** The strategy was previously discussed with respect to GIS staffing capacity. Chair Grantham asked about the potential of tracking data other than through GIS. Manager Ames advised that the advantage of utilizing GIS is the visual nature of information. While some data is available and not included in the GIS system, adding data to GIS for mapping enhances the ease of viewing the information and ties the information together for ease of tracking and cross-referencing with other data points.

Boardmember Sedore asked whether the National Arbor Day Foundation or Washington Department of Natural Resources has information about what systems local municipalities are using to track information. It is likely annual conferences hosted by those entities include those topics because all cities are encountering similar issues. He suggested following up with the industry to learn about different processes rather than creating a new tracking system.

Boardmember Sedore supported the recommendation to track all funding requests and activities associated with each of the strategies because tracking can identify expectations for next steps.

Boardmember Chapman questioned whether delayed strategies have an assigned priority because it appears priority 3 is missing. Coordinator Jones Wood noted that because of the volume of priority 1 strategies it is likely no other priorities exist.

Coordinator Jones Wood reviewed questions provided previously by the Board for responses by staff members:

1. **For the priority Urban Forestry Management Plan goals and objectives identified in the next two years, what does your department see as the easiest to achieve and the most challenging and why?** Director Smith emphasized that the most challenging aspect is the addition of staff. High-level goals

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consist of 22 pages of actions for implementation. Having dedicated and a sustained funding source is necessary to add staff. Developing relationships with community organizations, businesses, and with volunteers with local expertise could provide some support to the City. The Transportation and Engineering teams have hired an intern to assist with some inventorying and GIS data entry. There are some strategies to explore; however, to achieve some progress on the strategies it will require a dedicated and sustainable funding strategy.

Manager Medrud added that code and regulation amendments would also contribute to achieving some of the strategies. Achievement of some of the strategies will involve a transition period, as infrastructure issues require efforts over an extended period.

Manager Ames reported that from a transportation and engineering perspective, staff considered the aspect of being stewards and connecting with protection and preservation elements in addition to maintenance of existing facilities.

Boardmember Chapman inquired as to the reception by staff of the strategies outlined in the Urban Forestry Management Plan, as many will be responsible for implementing most of the measures. Manager Medrud said permitting staff support the plan, as they are aware of issues that should be addressed through the regulation update process while also desiring a better way of administering tree removal whereby all parties understand the process.

Manager Osborn advised that parks maintenance staff is excited about having some defined parameters for completing work. The City not only has park properties to maintain, the City has wetlands, mitigation areas, trails, and other areas with trees to maintain. The program is an opportunity to address some of the issues and to gain more assistance through additional staffing to assist in completing the work.

Director Smith echoed similar sentiments as many of the goals and strategies in the plan are supported by staff because they represent the potential of the value that they contribute to the preservation of trees in the community while recognizing the challenges of integrating actions within work plans.

- 2. What are locations of good examples of trees planting by Tumwater five years ago, 10 years ago, and 20 years ago?** Manager Ames cited a project occurring less than five years ago involving the Israel Road/Tyee Drive area, a 10-year project

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involving the Littlerock Road improvement project, and Tumwater Boulevard improvements 20 years ago as good examples of tree plantings.

Director Smith referred to the Sapp Road Park as a project occurring 20 years ago. The park has hosted Stream Team projects and Water Resources projects to restore riparian areas and wetlands. The property was previously used to raise cattle. It was one of his first projects after joining the City. Trees on the property were planted over the last 20 years.

Boardmember Chapman said it appears the City's tree planting program is performing well; however, he has noticed the loss of understory shrubs, groundcovers, and perennials along streets.

Coordinator Jones Wood noted that she is unsure whether funding from the Tree Fund can be used to plant understory species.

Boardmember Sedore cited a path near the development of the Toyota Dealership with trees and understory. The path is used widely by the community and although the trees are performing well, understory plants have tended to transition to native plants.

3. **In your opinion what are the best species of trees for street trees and what are the worst?** Manager Ames advised that the best trees are based on the project location and circumstances, as no specific type of tree is effective in every situation.

Chair Grantham added that it is also dependent upon how the tree is planted.

Manager Medrud agreed with the phrase of "the right tree in the right place." However, with climate change, it is important to include flexibility in terms of the species of trees in different locations rather than relying on a list.

Boardmember Sedore supported entering specific information when trees are planted to afford a record over time of planting successes and failures.

4. **When public space is landscaped, who decides what plants to plant?** Manager Osborn advised of a project progressing to the second stage of a three-phased landscaping project for City Hall. He designed the landscaping for the front of the Police Station using a mix of native plants. The front of City Hall included the planting of flowering plums to replace the cherry trees responsible for damaging adjacent sidewalks. The City recently hired an employee with landscape design experience, who assisted in preparing the landscaping plan for the project.

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Boardmember Sedore reiterated his request to document all planting and removal activities to ensue against future occurrences in other locations in the City. Manager Osborn advised that the process included an assessment of the trees as well as completing the City's permitting process.

Boardmember Chapman asked whether the City has implemented the new state law requiring 25% of public landscaping developed as pollinator habitat. Manager Osborn explained how the City has completed plantings at Tumwater Historical Park to attract pollinators along the hillside near the Crosby House. With assistance from the Daughters of the Pioneers and a local girl scout troop, butterfly habitat seeds and native plants were planted. Plantings of butterfly habitat are considered for all small landscape projects in the City.

Boardmember Sedore said that it appears staff selects the plants for public property. Manager Ames responded that within the right-of-way as part of a transportation project, a landscape consultant involved in the project would recommend the selection of plants. It depends on the project. Staff has been guided by a street tree list in the past. The most recent list was updated and included in the Urban Forestry Management Plan.

Director Smith said Water Resources projects do not typically include landscaping requirements other than for stormwater ponds. Staff relies on a list of appropriate plants for those locations based on functions the plants might provide for stormwater treatment. Landscaping at a stormwater facility is guided by the City's Drainage Manual. The department also completes riparian restoration projects using native plants suited appropriately for the environment.

5. **Are there any groups that work with Parks and Public Works on plant issues? For example, the new trail segment east of Falls Terrace Restaurant was previously planted with a native plant garden that was labeled and maintained by a tribe. Today, the garden has been replaced by a retaining wall and signage. Did the tribe work with Tumwater on making and maintaining the garden, and if so, how did that work and would you recommend similar partnerships in the future for Tumwater Parks?** Director Denney responded that the specimen garden, the Washington native plant garden, was funded by a member of the Olympia Tumwater Foundation Board, who worked tirelessly and traveled weekly from Seattle to maintain the garden. The new pathway includes a rail, signage, plantings, and a retaining wall. During the work to complete that

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section of the Deschutes Valley trail through Brewery Park at Tumwater Falls approximately 18 months ago, an easement purchased by the City from the Olympia Tumwater Foundation included a requirement to relocate the garden. Approximately \$65,000 was designated from the trail project budget to relocate the garden directly below the office building located between the Foundation office and Tumwater Falls along the hillside. There has been no involvement by the tribe. The arrangement enabled the City to route the trail through the private park. The City continues to work closely with the Olympia Tumwater Foundation on a variety of other projects. The Foundation is responsible for maintaining the revegetated areas along both sides of the trail through the park.

Boardmember Sedore asked whether volunteer organizations are working with the City on plants. Director Denney advised that staff works with the Tumwater School District at the Fresh Farm located at Isabella Bush Park that was originated between an agreement with Garden Raised Bounty, the City, and the Tumwater School District. The farm has transitioned as an alternative high school program for Black Hills and Tumwater High Schools. The farm grows vegetables serving students, school lunch programs, food bank, and Tumwater Town Center for senior citizen lunches. The Parks and Recreation Department has an adopted parks program whereby groups, businesses, non-profits, and churches assist staff in various plantings, removing invasive ivy, or helping to clear trails, etc. Many in the community volunteer to work on City projects.

6. **Some trees have been labeled in past, such as Arbor Day memorial trees. What is the history, who is responsible, and have the labels ever stolen or vandalized?** Coordinator Jones Wood advised that she followed up with the Community Development Department, which indicated that in the past, trees were not labeled especially memorial trees if disease, construction or other damage occurred, as it would be painful and distressing for the memorial family. Boardmember Sedore cited some memorial trees that have labels. Based on the number of visitors to Tumwater Falls, he questioned the value of labeling some of the vegetation as a way to educate the public about the redwoods and other native plants at Tumwater Falls as a way to attract involvement and interest in the unique plants of Tumwater. Director Denney supported the idea of labeling, especially along trails. Staff would need to work with the Olympia Tumwater Foundation for areas located within the park.
7. **How does the City keep records of what kind and the number of trees that die each year due to disease, traffic accidents, vandalism, or other causes?** Chair Grantham indicated the

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question was previously addressed.

- 8. What types of trees require the most and least maintenance? For example, what kind of trees cause sidewalk lifting, what kind of trees do not cause sidewalk lifting, and what kind of trees are subject to the most wind and snow damage?** Manager Osborn advised that any birch species tends to suffer damage from winds and cold weather. Manager Ames added that damage may not be the result of the species but could be related to site prep for planting and frequency of watering. Damage to trees is much more than just the species of tree.

Boardmember Chapman noted that one of the main challenges Capitol Campus experiences are American sweetgum trees because they can be easily damaged during stormy weather. During the last storm, two sweetgum trees were damaged. He recommends against planting American sweetgum trees based on his experience at Capitol Campus. Director Denney noted that an American sweetgum tree is planted in the Mayor's Grove at Tumwater Historical Park, which was the favorite tree of former Mayor Wes Barclift.

Boardmember Sedore shared that based on his experience, maple trees tend to damage sidewalks while ash trees do not damage sidewalks. The City should not plant maple trees next to sidewalks. The information would be helpful in identifying proper trees for plantings.

Boardmember Chapman offered that the diversity of tree species can increase risks moving forward, which should be identified in the street tree plan.

- 9. How many and what kind of trees are removed? Is there a database of that information? How many and what kind of trees are planted? Is there a database with that information? When trees are planted by the City, is the planting documented of the species, variety, date, and location?** Coordinator Jones Wood advised that when street trees are planted, the information is entered into the street tree inventory. In terms of the number and type of trees removed, the City has the information from tree removal permits.

Manager Ames noted that information is available on the number and location of tree plantings. However, data has not historically been recorded on the species or age of trees.

Boardmember Chapman complimented staff for sharing information on tasks that have not been completed by reviewing the list of delayed strategies. He is hopeful staff is collecting a

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list of reasons. A comprehensive list of activities that are not being accomplished can reflect on the impacts that are occurring to the community or to the health of the urban forest system in the City. Documenting the information might be beneficial in identifying the gaps because of the lack of funding. Director Smith noted that much of the efforts being undertaken by Coordinator Jones Wood will be helpful, especially during the next budget cycle.

Coordinator Jones Wood reviewed information on the Urban Forestry Management Plan Sustainability Coordinator Implementation 2023-2024 Proposed Timeline and invited feedback and direction on tasks to defer or reprioritize. The Board offered no changes to the work plan.

DISCUSSION –
HERITAGE TREE:

Coordinator Jones Wood Past referred to maps titled “Heritage Trees of Tumwater” distributed by the City and the Tree Board featuring historical trees, champion trees, and landmark trees. The map has been used in public meetings as well as in communications such as newsletters. She asked for direction on updating the maps to clarify and identify Heritage Trees formally designated by the City.

Coordinator Jones Wood reported she worked with GIS staff to develop a map focused only on heritage trees and a map on heritage, champion, and memorial trees. She prepared a nomination for the chestnut tree to add to the finalized Heritage Tree map.

Boardmember Chapman asked whether the different tree designations are included on the maps. Coordinator Jones Wood advised that the definitions can be added to the maps. Landmark trees have no formal definition but the issue was generated from an email communication during the planning process to develop the Urban Forestry Management Plan.

Chair Grantham noted that based on his review of the Capitol Boulevard Corridor Plan, the London plane trees would be impacted by future transportation improvements, which should be addressed by either planning or public works. Coordinator Jones Wood shared that another staff member in Water Resources and Sustainability is contemplating the nomination of an English walnut tree located on City property slated for a future stormwater project. The conversation is focusing on whether the tree would be impacted by the tree and whether it is possible to move the project to lessen impacts to the tree.

Boardmember Sedore advocated for the planting of heritage trees during special events in a location that can maintained over the long term. He asked whether the City has original documentation on trees designated as

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heritage and any criteria for heritage tree designations. Coordinator Jones Wood advised that the nominations include the staff report and other background information provided to the Tree Board and the City Council during the designation process. Boardmember Sedore suggested the City should dedicate a webpage for heritage trees identifying the tree's history, species of the tree, photographs of the tree, and the location of the tree to enable access by the public. The information should be interesting, entertaining, and historically captured. Since the last meeting, he has read a series of Don Trosper's books about the history of New Market and the history of Tumwater. Many historic sites are mentioned in the books with the exception of trees other than the Garry Oak located off Old Highway 99. It is important to attract community interest and involvement in the environment. It is important to ensure there is a clear definition as to what qualifies a tree to be designated as a heritage tree, as well as seeking opportunities to plant more heritage trees throughout the City.

Coordinator Jones Wood described the City's process for documenting and nominating heritage trees and the type of information included in the submittal. Boardmember Sedore suggested providing a picture of each tree during each season of the year. Photographic information on the species of the trees distributed to the community during the Arbor Day event could include a picture of the tree during each season. He suggested establishing a tradition of mayors commemorating their tenure or an important event by planting a tree. The Tree Board should offer ideas by December of each year on the planting of the Arbor Day tree, which could be either a heritage or a memorial tree.

Coordinator Jones Wood advised of two nominations for heritage trees. She contacted Sound Urban Forestry to assess both trees. The assessments should be completed by the next meeting for the Board's consideration of the nominations. Additionally, the different classifications of trees can be problematic and should be clarified by the Board, as some of the designated trees may need to be resubmitted.

Boardmember Sedore spoke to the availability of expertise by Boardmembers who could share some of the responsibility of the work and research involved in designating trees. He asked whether members would be willing to assist the City in some of the work involved in researching the nomination of a heritage tree, such as assigning a subcommittee to assume the lead on specific requests.

Boardmember Jackson commented on the difficulty of identifying a location to plant a tree in the City. Boardmember Sedore recommended creating a mayor's grove or a memorial tree grove. Coordinator Jones Wood advised that City Administrator Doan has commented on the lack of space within the City to plant trees, which is why Director Smith is

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exploring options along wetlands and the Deschutes river to plant trees for multiple benefits. It was also mentioned that the City might need to purchase land to plant trees. Boardmember Chapman suggested the property located south of the library as a possible area because it is accessible to the public. He also suggested dedicating some land near the City's new Maintenance and Operations facility.

Coordinator Jones Wood added that the City is also planning to purchase land for prairie restoration as mitigation as part of the Habitat Conservation Plan.

Boardmember Sedore noted that several City parks are named for some individuals who were tied to the City. He suggested that when a tree dies within any park in the City, a replacement tree should be designated as a memorial tree.

DISCUSSION –
HERITAGE TREE
NOMINATION AT 420
D STREET:

Coordinator Jones Wood reported the previous nomination lacked information on the age of the tree. She added the age of the tree to the nomination form.

Boardmember Sedore recommended the arborist should also obtain a core sample of all nominated trees to ascertain the accurate age of the tree. He spoke with the owner of the tree who shared that although the house is older, she was unsure as to the age of the tree. The tree is a walnut tree and is not of a large diameter. He is unsure as to any history available to document the planting of the tree.

Coordinator Jones Wood said she spoke to the owner, who believes the tree is older as the photo of the tree was dated in the early 1900s.

The Board discussed establishing criteria but avoid creating requirements that might discourage owners from submitting nominations.

Boardmember Sedore asked about the possibility of identifying whether a pioneer lived at the residence. He offered to follow-up with the Olympia Tumwater Foundation to verify any available information pertinent to the property and recommended deferring the nomination until he can complete some research. The Board supported the recommendation.

DISCUSSION –
HERITAGE TREE
NOMINATION AT 6005
TYEE DR SW:

Coordinator Jones Wood reported the owner of the tree is William Rea.

Boardmember Sedore reported he contacted the owner, who lives in Los Angeles. The owner conducted some research, reviewed some maps, and identified the tree from a tree orchard owned by David Kindred of the Bush pioneer party. The owner followed up with an organization, the Lost Apple Project at Washington State University. Representatives with

TUMWATER TREE BOARD MEETING
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the project are considering the possibility that the tree is an unusual species and could be the oldest apple tree in Washington. He suggested deferring the nomination until more information is received from the owner. The tree is located on the property housing the Educational Services District (ESD) #113 facility.

Coordinator Jones Wood advised that ESD did not consent to the nomination. She is unsure as to the owner of the property, which is required prior to considering the nomination.

The Board supported deferring the nomination pending more information on the tree and ownership of the property.

**DRAFT TUMWATER
 TREE BOARD - 2023
 MEETING
 SCHEDULE:**

Coordinator Jones Wood reviewed the draft of the Tree Board 2023 meeting schedule. The joint meetings with the Planning Commission are scheduled on Tuesdays. Boardmember Chapman advised that he would be unable to attend a meeting on Tuesdays. Coordinator Jones Wood said she could pursue the possibility of alternating the meetings on Mondays and Tuesdays.

The December meeting agenda includes election of officers, two tree nominations, Arbor Day planning, and a tree preservation code worksession. Boardmember Chapman recommended including the memorial tree discussion as part of the Arbor Day discussion.

Coordinator Jones Wood queried members on possible locations for next September's field trip.

Boardmember Sedore requested a list of planting sites completed over the last five years.

Discussion followed on the potential of identifying properties for future tree plantings that could be toured in September.

Commissioner Sedore spoke to his concerns surrounding information that the Port of Olympia is seeking an increase in commercial air traffic at the airport and the construction occurring off 93rd Avenue and how those activities could impacts the City's tree canopy.

Boardmember Olson recommended compiling a list of recent developments to tour to identify any missed opportunities for expanding tree canopy in the City. Coordinator Jones Wood recommended the Board become actively involved in revisions to the codes and consider potential planting sites for tree plantings.

Boardmember Sedore referred to information on plants that enhance the native food web, which he would like to include as a topic of discussion,

**TUMWATER TREE BOARD MEETING
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as the traditional development model is not conducive or accommodating for native plants. The Board has the unique responsibility to the City of Tumwater to review those environmental issues and increase awareness and consciousness about the environment.

Coordinator Jones Wood shared that she recently located a dataset provided by the U.S. Department of Transportation listing all plants used by the agency. The information includes data on benefits to different species of pollinators. She is working to integrate the information within the classifications contained within the current landscape code.

**NEXT MEETING
DATE: -**

The next meeting is scheduled on Monday, December 12, 2022.

ADJOURNMENT:

With there being no further business, Chair Grantham adjourned the meeting at 9:18 p.m.

Prepared by Valerie L. Gow, Recording Secretary/President
Puget Sound Meeting Services, psmsoly@earthlink.net

TO: Tree Board
FROM: Alyssa Jones Wood, Sustainability Coordinator
DATE: December 12, 2022
SUBJECT: Election of Chair and Vice Chair

1) Recommended Action:

Nominate and vote on a new Chair and Vice Chair of the Tree Board.

2) Background:

The Tree Board's annual election of Chair and Vice Chair is due.

3) Alternatives:

☐ Postpone this action to the Tree Board's January 10, 2023 meeting.

4) Attachments:

TO: Tree Board
FROM: Alyssa Jones Wood, Sustainability Coordinator
DATE: December 12, 2022
SUBJECT: Tree & Vegetation Preservation Ordinance Community Engagement Status Report

1) Recommended Action:

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

2) Background:

The City is updating its Tree and Vegetation Preservation Regulation (TMC 16.08) in 2022 and 2023 as part of its implementation of the Tumwater Urban Forestry Management Plan. To engage the community in this process the City's consultant has created an online open house available at www.Tumwatertreecity.com and has held one public meeting so far which was held on November 21st. More engagement with the public is forthcoming, including a focus group scheduled on December 8th, 2022. This agenda item provides a status report on the City and consultant's Community Engagement work, successes, and opportunities for improvement related to the TMC 16.08 update to date.

3) Alternatives:

☐ None.

4) Attachments:

- A. Public Comment Portal as of November 29, 2022
- B. Stay Updated as of November 29, 2022

| Submitted On | Name | Email | Are you a resident of the City of Tumwater YN |
|---------------------|-------------------|-------|-------------------------------------------------------------------|
| 10/19/2022 14:16:11 | Kimberly Frappier | | Kirkland |
| 10/20/2022 12:48:51 | Brianna Feller | | Tumwater |
| 11/09/2022 14:03:01 | Steven Teitzel | | Y |
| 11/10/2022 18:43:51 | Patty May | | No, I live on Black Lake in the Tumwater School district however. |
| 11/15/2022 10:48:58 | Ronald Benson | | Olympia |

If you live outside of the City what are your
primary reasons for coming into the City
shopping work etc

Work

Tumwater

OLYMPIA

Olympia

Comment

Testing data storage in Google Document

Hi Brad! TEST

Unless the city is willing to provide for all costs of trees, maintenance, insurance, etc. there should be no requirements on the landowner in excess of those protections required under State Forest Practices Act RCW, 79.06, the Forest Practices Rules, Title 222 WAC, and the Stewardship of Non-industrial Forest and Woodlands, RCW 76.13.

I am very concerned about the environment. My neighboring property owners, frequently ignore the shoreline protection act and cut down trees for their own gain and desires.

I'm not sold on this initiative. It seems the actions do not match the words... Example: On the Post Card sent by the City of Tumwater, it states "Help Steward Tumwater's Urban and Community Forest", yet we have this massive construction projects which have irreversably changed the landscape and character of Tumwater. I am speaking of the Tumwater Corporate Center, the Costco Warehouse, the Future Casino, and the Future activities of the Port. None of these projects have any consideration for the homeowners that live close by. If you want a good example of how to integrate corporate parks and housing, look no further than Northwest Landing in Dupont. They did it right, Tumwater did not.

| Submitted On | Name | Email |
|---------------------|-------------------|-------|
| 10/19/2022 14:18:01 | Kimberly Frappier | |
| 10/20/2022 12:49:54 | Brianna Feller | |
| 10/21/2022 19:53:26 | Abi Ludwig | |
| 10/21/2022 20:33:59 | Sherrie Thissell | |
| | | |
| 10/25/2022 18:17:55 | Charlotte Persons | |
| | | |
| 11/09/2022 17:22:27 | Dave Stauffer | |
| 11/09/2022 18:05:32 | Vikki Berry | |
| 11/10/2022 10:42:42 | Bruce Kalish | |
| | | |
| 11/12/2022 11:57:33 | Reginald Cuffee | |
| 11/13/2022 21:04:19 | Ken Tewell | |
| 11/13/2022 21:04:36 | Paula Anna Tewell | |
| 11/17/2022 12:05:33 | Ken Stone | |
| | | |
| 11/18/2022 21:07:47 | Kelly Keeney | |
| | | |
| 11/21/2022 19:05:03 | Sarah Kellington | |
| 11/21/2022 19:20:35 | Stan Osborn | |
| 11/26/2022 12:53:30 | Deborah Alterman | |

Optional Message

Test for Stay Updated data storage
TEST

Please keep me updated on the Vegetation and Tree Preservation Update process and that for revising tree codes. I will be representing Black Hills Audubon Society..

In my community, we have huge maple trees lining the street which are ripping up the sidewalks. In accordance with Tumwater's "Urban Forest" commitment, what provisions does it include for community sidewalk restoration?

I would love to know if there are any prospects for a good size dog park in Tumwater. Olympia has managed to put in three of them and Lacey/Hawk's Prairie has one, that I know of. I can think of numerous area in Tumwater that would make for a beautiful dog park. I would love to be a part of a project like that.

Smiles,

Kelly~

TO: Tree Board
FROM: Alyssa Jones Wood, Sustainability Coordinator
DATE: December 12, 2022
SUBJECT: Tree & Vegetation Preservation Ordinance Gap Analysis

1) Recommended Action:

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

2) Background:

The City is updating its Tree and Vegetation Preservation Regulation (TMC 16.08) in 2022 and 2023 as part of its implementation of the Tumwater Urban Forestry Management Plan. The City's consultant, The Watershed Group, have produced the attached Gap Analysis following review of our existing Ordinance and preliminary community engagement.

3) Alternatives:

☐ None.

4) Attachments:

A. TMC 16.08 Gap Analysis

Municipal Code Gap Analysis

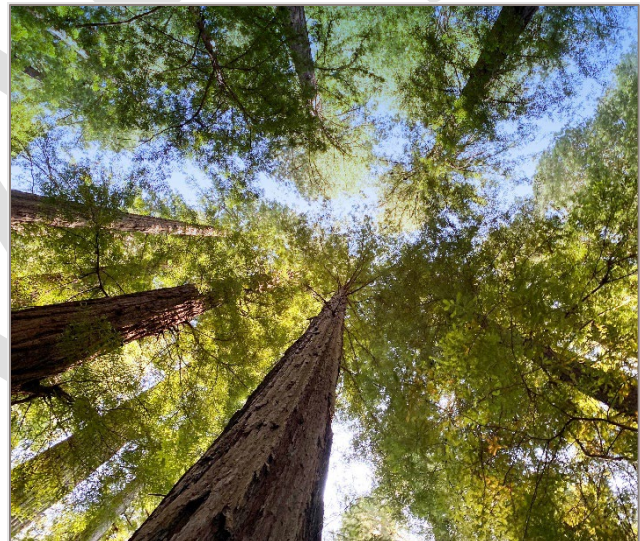
TREE AND VEGETATION PROTECTION ORDINANCE (TMC 16.08) CITY OF TUMWATER

December 2022

Prepared for:

Brad Medrud, AICP
Planning Manager
City of Tumwater
Community Development Department
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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.



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Project Contact:
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Environmental Planner | Urban Forester
ISA Certified Arborist®

watershedco.com

| | | |
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Municipal Code Gap Analysis
Tree and Vegetation Protection Ordinance (TMC 16.08)

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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 arboriculture¹ and silviculture best practices, urban tree canopy science, critical areas, stormwater management, climate change impacts and adaptation, and sustainable landscape strategies.

¹ 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) 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.

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). 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

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.

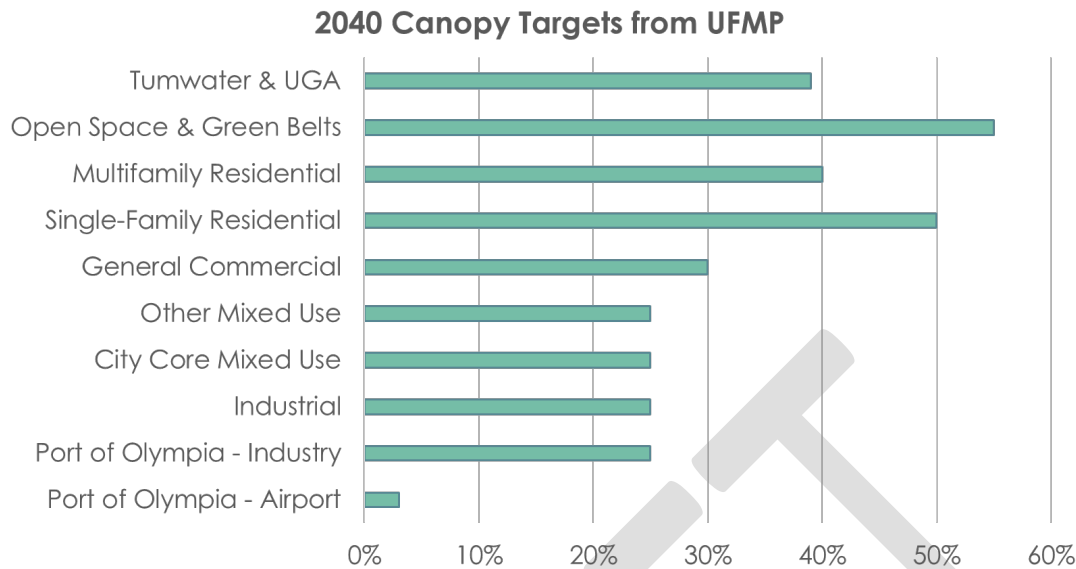


Figure 1. 2040 Canopy Targets by Land Use - Tumwater Urban Forestry Management Plan

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.² 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).

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

² 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.

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.³ 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 is consistent with the site plan so the arborist report can serve as a reference when evaluating permit applications.

³ 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.

- (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*.⁴

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.

⁴ 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 | |
| Excellent - 1 | 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% |
| Good - 2 | 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% |
| Fair - 3 | 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% |
| Poor - 4 | 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% |
| Very Poor - 5 | 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% |
| Dead - 6 | | | | 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)

2.12.1 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.

2.12.2 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.*

2.12.3 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). 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).

2.12.4 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

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 jurisdictions 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 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 TMC 16.08 considers amendments, updates and implication for 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.

3.8.2 TMC 18.47 *Landscaping*

Section under development.

3.8.3 *Tumwater Littlerock Road Subarea Plan*

- 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

The document primarily contains standards specific to street trees. However, 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

The document primarily contains standards specific to street trees. 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

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

Section under development.

3.8.9 Tumwater Brewery District Plan

- 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.

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
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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 |
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| | (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">Maximum 30% of trees on any parcel allowed to be removed within any 10-year period unless part of an approved development plan.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).Separate retention standard for sites that were formerly Christmas tree farms. | <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">Developing Single & Multi-family: 2-5 new or retained trees. Developed Single & Multi-family: Four new or retained trees per 5,000 ft.Developing Commercial or Industrial: Two new or retained trees per 10,000 ft.Developed Commercial, Industrial, Multi-family proposing addition, tree removal, or site disturbance: Two new or retained trees per 10,000 ft.Class IV Forest Practice Activity: replanting required when average stocking* falls below 80 ft squared per acre. <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">New Single Family, short subdivision, or subdivision: 30% of all significant trees in the developable site.Multi-family development, unit lot short subdivision, or unit lot subdivision: 25% of all significant trees in the developable site.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. | <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">Single family > 15,000 sf: 58%Single family 10,000-15,000 sf: 39%Single family less than 10,000 sf: 28%Multifamily lots: 15%Commercial lots: 15%Southern Gateway neighborhood: 5-15% | <p>Minimum tree credit requirement.</p> <ul style="list-style-type: none">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.Tree credits are derived from the size of a tree. See Table 19.26.050-2 Tree Credits for more information.Tree credits are assessed by existing healthy trees, replacement trees, and fee-in-lieu. | <p>Minimum tree density requirement.</p> <ul style="list-style-type: none">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.Tree units are based on the trunk size of the tree and vary by size. See the Olympia Urban Forestry Manual Table 4-A.Developing properties are required to meet a minimum tree density of 30 tree units/acre.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. | <p>Tree retention standards required by % of significant trees on parcel.</p> <ul style="list-style-type: none">At least 25 percent of significant trees on a given site shall be retained, excluding critical areas and critical area buffers, orAt least 30 percent of the significant trees on a given site (including critical areas and critical area buffers) shall be retained. |

| 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 |
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| Tree Replacement Standards | <p>1:1 replacement ratio.</p> <ul style="list-style-type: none">Replacement trees shall 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, the applicant shall plant a minimum of three trees for each tree cleared in excess of the standard. | <p>Replacement standards based on lot size.</p> <ul style="list-style-type: none">Developing Single & Multi-family: # of new trees based on lot size- anywhere from 2-5 treesDeveloped Single & Multi-family: four trees per 5,000 ft Developing Commercial or Industrial: Two trees per 10,000 ftDeveloped Commercial, Industrial, Multi-family proposing addition, tree removal, or site disturbance: Two trees per 10,000 ftClass IV Forest Practice Activity: replanting required when average stocking falls below 80 ft squared per acreEvery 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).Tree tract shall cover 5% or more of the site.Minimum replacement sizes are 2" caliper for deciduous and 7' tall for conifers. | <p>Replacement standards based on size of tree removed.</p> <ul style="list-style-type: none">One replacement tree for each significant tree between 6 and 10" DBH removed.Two trees for each significant tree between 10.1 and 14" DBH removed.Three replacement trees for each significant tree greater than 14" but less than 24" DBH removed.Minimum size for replacement trees is 1.5" caliper for deciduous and 6' in height for evergreen trees.Replacement trees shall be primarily native species. | <p>Replacement standards are based on canopy coverage calculated by City Arborist.</p> <ul style="list-style-type: none">Replacement species shall be selected from the approved general tree list maintained by the City.When removing native trees, native trees selected as replacements.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. | <p>Replacement standards based on required tree credits.</p> <ul style="list-style-type: none">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.This replacement is in addition to the minimum required tree credits in BMC 19.26.050-1.Two-inch caliper at the time of planting for deciduous or broadleaf trees and 6' in height for evergreen conifers. | <p>Replacement standards based on required tree density.</p> <ul style="list-style-type: none">Replacement trees shall meet the quality and size and be planted pursuant to standards delineated in the Urban Forestry Manual.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. | <p>1:1 replacement ratio or greater depending on replacement size, with 3 trees maximum.</p> <ul style="list-style-type: none">One existing significant tree of 8" in diameter for conifers or 12" diameter for all others equals 1 new tree.Each additional 3" in DBH equals 1 additional new tree, up to 3 trees per significant tree removed.Minimum size requirements for replacement trees: deciduous trees shall be at least 1.5" in caliper and evergreens 6' in height. |
| 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 |

| 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 |
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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">Groves mentioned but not clearly defined. | Historic trees, Groves of trees, and Specimen trees defined. Defined as unusual, rare, or high-quality trees. | <ul style="list-style-type: none">Landmark trees - 24" DBH or greater.Grove - Three or more significant trees with overlapping or touching crowns | <ul style="list-style-type: none">Exceptional trees - defined based on species and DBH.Landmark trees- 24" DBH or greater.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 | <ul style="list-style-type: none">Exceptional trees - trees greater than 30" DBH or based on diameter by species.See Table 19.26.040-1 Exceptional Tree Table with Threshold Diameters at Standard Height.Heritage trees - Any tree identified by size and species specific. | <ul style="list-style-type: none">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.Value is determined by factors such as association with historic figures, events, or properties, rare or unusual species, or exceptional aesthetic quality.Note entire chapter on Landmark tree protection (OMC 16.56). Includes provisions for groves. | 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. |

| 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 |
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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 TMC 12.24 Street trees.</p> | <ul style="list-style-type: none">• It is unlawful for any person or city department to top any street tree, park tree or other tree on public property.• Street trees can be counted towards tree replacement requirements for individual lots.• See Chapter 12.20 for planting location, species, and size requirements. | <p>Pertains to Street Trees Chapter 18.85:</p> <ul style="list-style-type: none">• 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.• Replacements shall meet the standards specified in the street tree plan for size, species, and placement.• 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.” | | <ul style="list-style-type: none">• The city shall maintain all trees and other vegetation on the city maintenance responsibility list established pursuant to this chapter.• No person shall prune or remove trees or other vegetation on the city property identified on the city maintenance responsibility list.• 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.• New trees planted in the right-of-way shall be selected from a list of recommended species approved by the city. | <ul style="list-style-type: none">• 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.• 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.• All or a portion of this mitigation may be met by planting replacement trees on the site.• 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. | <ul style="list-style-type: none">• 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.• 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.• 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. |

| 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 |
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| Code Enforcement/ Mitigation for Violations | <p>Corrective actions may include:</p> <ul style="list-style-type: none">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;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.Civil penalties such as withholding of permit issuance and corrective actions.Criminal penalties including fines and misdemeanor charges. | <p>Corrective actions may include:</p> <ul style="list-style-type: none">MitigationPotential Environmental Damage ReviewComprehensive plan for revegetationFee to City Tree Account | <ul style="list-style-type: none">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.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.The cost of the appraisal shall be paid by the person(s) who removed existing trees in violation of this chapter.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. | <ul style="list-style-type: none">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.Payment goes into the city tree account. Tree replacement required. | <ul style="list-style-type: none">Table 19.26.100-1 is a table containing number of required replacement trees for illegal removal of trees, based on DBH.Requires fines for illegal tree removal that range from \$700 to \$15,000.This allows for an education period prior to penalizing people who violate the code. | <ul style="list-style-type: none">Any person who violates the chapter shall be subject to a civil fee and/or be required to replace the trees.The city may use any reasonable means to estimate the tree loss or destruction of the illegally removed or damaged trees.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.The city shall place any sum collected in the city tree account. | <ul style="list-style-type: none">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.Removal of significant trees without a permit can result in a penalty of \$9,000 per tree.Removal of landmark trees without a permit can result in a penalty of \$15,000 per tree. |

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| Tree Protection Plan (Permit) Requirements | <p>Report required for Land clearing permit.</p> <p>Application must include the following:</p> <ul style="list-style-type: none">• Tree inventory• Tree protection plan• Site plan• Tree replacement plan• Timeline for implementation• Monitoring of the tree protection/replacement plan. | <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">• 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.• 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.• 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. | <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">• 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.• 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.• 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. | <p>Permit categories include:</p> <ul style="list-style-type: none">• Minor tree permit (tree removal not associated with development)• Major tree permit (tree removal associated with development)• 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.• 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. | <ul style="list-style-type: none">• Soil and Vegetation Plan required for Tree removal permits and land development on property having a tree density below the minimum required.• 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. | <ul style="list-style-type: none">• Pre-construction meeting required prior to the commencement of clearing and grading activities.• Requires an Arborist or Qualified Professional to prepare a report documenting baseline conditions.• Requires applicant to prepare a tree plan that highlight retained trees, tree protection measures, calls out landmark trees, and replacement trees specifications.• 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. |

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| Maintenance Requirements | <ul style="list-style-type: none">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.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. | <ul style="list-style-type: none">Maintenance requirements are not included in LMC 14.32; however, they are included in LMC 16.80 Landscaping Requirements.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.City may accept contractual agreement or bond an alternative. | <ul style="list-style-type: none">Two-year maintenance bond required after installation of required site improvements and prior to issuance of a certificate of occupancy.The bond shall be for an amount of 15 percent of the performance bond or estimate. | <ul style="list-style-type: none">Applicants are required to maintain replacement trees until they are independently viable.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. | <ul style="list-style-type: none">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.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.Required replacement trees may not be removed during the three-year maintenance period.Following the maintenance period, all replacement trees shall be considered significant tree, even if below the size threshold. | <ul style="list-style-type: none">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.The applicant shall execute a covenant in a form agreeable to the city.For Multifamily Residential, Commercial, Industrial Developments, the applicant shall execute a covenant in a form agreeable to the city.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. | <ul style="list-style-type: none">Three-year maintenance bond and agreement with the city. Director may require monitoring in the form of a monitoring report.The bond amount shall not exceed the estimated cost of maintenance and protection measures for a minimum of three years. |

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| Recommended City Trees List | Approved Street Tree List and Prohibited Trees provided on City website. Approved Street Tree Species City of Tumwater, WA | Street tree and general tree list in Lacey Urban Forest Management Plan: https://cityoflacey.org/wp-content/uploads/sites/3/2022/03/UFMP-Documents/092621-FINAL.pdf | Tree List for homeowners provided on City website: Trees - City of Edmonds, WA (edmondswa.gov) | City approved tree list: https://www.cityofflp.gov/239/Tree-List | <ul style="list-style-type: none">BMC 19.65.340 contains an Invasive Plant ListBMC 19.65.350 contains a Nuisance tree species list | None provided in code, but Street Tree List on city website: Allowed Street Tree List.xlsx (revize.com) | Street tree list: http://www.shorelinewa.gov/home/showdocument?id=2454 |
| City Tree Account, Fee in lieu, and Mitigation | City Tree Account <ul style="list-style-type: none">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. | City Tree Account <ul style="list-style-type: none">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.Value of damage assessed using the current edition of the ISA "Guide for Plant Appraisal" as determined by the City Tree Protection Professional. | City Tree Fund <ul style="list-style-type: none">The developer may pay a fee-in-lieu for each replacement tree required but not replaced, with documentation.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.The fee shall be paid to the city prior to the issuance of a tree removal permit or associated development permit.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. | City Tree Account <ul style="list-style-type: none">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.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. | Fee-in-lieu <ul style="list-style-type: none">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.The fee-in-lieu amount shall cover the cost of a tree, installation (labor and equipment), maintenance for two (2) years, and fund administration.The applicant shall pay the fee-in-lieu amounts to Burien upon completion of a site inspection and confirmation.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. | City Tree Account <ul style="list-style-type: none">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. | Fee-in-lieu <ul style="list-style-type: none">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.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. |

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| Forest Practice Applications | TMC 16.08.038 | https://lacey.municipal.codes/LMC/14.32.045 | 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 TMC 16.08.080 . | List of exempt activities in LMC 14.32.050 . | List of exempt activities in EMC 23.10.040 . | List of exempt activities in LFPMC 16.14.050 Emergency Actions and LFPMC 16.14.100 Reasonable use exception | List of exempt activities in BMC 19.26.030(2) . | List of exempt activities in OMC 16.60.040 . | List of exempt activities in SMC 20.50.350 . |
| Tree Removal on Private Property (non-development) | <ul style="list-style-type: none">Allows removal of up to six trees from any parcel of land in three consecutive calendar years.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.Requires a letter of “waiver” for the exempt removals from the community development department prior to tree removal. | <ul style="list-style-type: none">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. | <ul style="list-style-type: none">Allows removal of non-significant trees as long as they are not protected by other means.Allows for the removal of nuisance and hazard trees. | 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">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.Up to five trees per year can be removed on lots greater than 20,001 SF. | <ul style="list-style-type: none">See OMC 16.60.040 Exemptions for tree removal provisions not associated with development.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. | 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;

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 zone⁵. 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,

⁵Unless 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)

TO: Tree Board
FROM: Alyssa Jones Wood, Sustainability Coordinator
DATE: December 12, 2022
SUBJECT: Arbor Day Discussion

1) Recommended Action:

Discuss and decide if it's the Tree Board's intention to hold the 2023 Arbor Day celebration as a stand-alone event or in coordination with the Parks & Recreation Department's Earth Day event.

2) Background:

In the past, the City's annual Arbor Day celebration has been held as a stand-alone event hosted by the Tree Board. However, during the COVID-19 pandemic, the event was joined with the Parks & Recreation Department's Earth Day event.

3) Alternatives:

☐ Postpone this action to the Tree Board's January 10, 2023 meeting.

4) Attachments:

TO: Tree Board
 FROM: Alyssa Jones Wood, Sustainability Coordinator
 DATE: December 12, 2022
 SUBJECT: Discussion – Heritage Tree Nomination at 420 D Street

1) Recommended Action:

Discussion item for Tree Board and then recommendation to City Council

2) Background:

After the City Council adopted the Urban Forestry Management Plan on March 2, 2021 by Ordinance No. 2020-004, the Tree Board began a discussion at their April 12, 2021 meeting of the actions that are the Tree Board's primary responsibility in implementing the Plan; among those actions are those that address heritage trees.

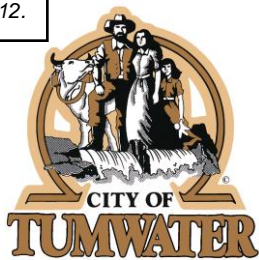
This nomination for a tree at 420 D Street was first brought to the Tree Board on August 8, 2022. The Tree Board requested this item return after having been evaluated by the City's Tree Professional to confirm species and age. This nominated tree at 420 D Street was assessed by the City's Tree Professional and brought to the November 7th, 2022 meeting. This nomination was deferred to the December 12, 2022 meeting after Board Members voiced a desire for more research on the tree and property. Board Member Jim Sedore volunteered to conduct this research and his findings are included as Attachments E and F here. This application is now submitted for consideration by the Tree Board and then a recommendation to the City Council for final action.

3) Alternatives:

☐ Schedule further discussion at the Tree Board's January 10, 2023 meeting

4) Attachments:

- A. Heritage Trees Discussion Memorandum
- B. Heritage Tree Nomination Form
- C. Photo & location of Tree
- D. Memorandum from Sound Urban Forestry
- E. Jim Sedore Research
- F. Jim Sedore Research Continued



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HERITAGE TREES

MEMORANDUM

TREE BOARD DISCUSSION – December 12, 2022

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Background

After the City Council adopted the Urban Forestry Management Plan on March 2, 2021 by Ordinance No. 2020-004, the Tree Board began a discussion at their April 12, 2021 meeting of the actions that are the Tree Board's primary responsibility in implementing the Plan.

At their April 12, 2021 meeting, the Tree Board asked staff to:

- Make sure that the City's designated heritage trees lists and maps are updated and current
- Look at adding memorial trees, such as the September 11, 2001 tree and Arbor Day trees such as those trees south of the library.
- Look into the process for adding signage for the heritage trees

Among the Urban Forestry Management Plan actions to be implemented, two addressed heritage trees:

Action 2.1.J. Designate, register, and promote heritage trees.

| Priority | Leads [Primary (P) & Secondary (S)] | Timing | Monitoring Action |
|----------|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| #2 | Community Development (P) Tree Board (S) | Start in Spring 2023 based on Peninsula Environmental Group work and update every five years thereafter | Track number of trees considered heritage trees on an ongoing basis |

Action 8.1.B. Identify tree specimens, including heritage trees, on City property that illustrate proper tree care and discuss in articles on the City website and social media.

| Priority | Leads [Primary (P) & Secondary (S)] | Timing | Monitoring Action |
|----------|---------------------------------------------------------------------------------------------|---------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| #2 | Community Development (P) Parks and Recreation (S) Public Works (S) Tree Board (S) | Start in Spring 2023 and evaluate every five years thereafter | Evaluate program as compared to the Goals, Objectives, and Actions of the Plan |

Definition and Resources

From the City's Heritage Trees website, heritage trees are:

“Trees that have historical significance, by virtue of age, association to a historical structure, district, person or event, rare or unique species, or significant stand (grove) of trees can be designated as Heritage Trees, and therefore provided with special protections.”

You can find out more about heritage trees on our website here:

<https://www.ci.tumwater.wa.us/departments/community-development/trees/heritage-trees>

And in TMC 16.08.075 *Heritage trees designated* here:

<https://www.codepublishing.com/WA/Tumwater/#!/Tumwater16/Tumwater1608.html#16.08.075>

Appendix 1 contains the definitions section of TMC 16.08 *Protection of Trees and Vegetation* as well as TMC 16.08.075 *Heritage trees designated*.

“Heritage trees” and “historic trees” are defined in TMC 16.08.030 as follows:

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.

Section 1.03(A) *The Community and Urban Forest: The Early Years* of the Urban Forestry Management Plan notes that:

*“Over one hundred years ago, the City contained a variety of native tree species. Maple, alder, cedar, ash, hazelnut, hemlock, fir, pine, willow, and Garry oak were predominant. In addition, the early settlers planted orchards for food and planted trees from their homelands for beauty, shade, and historical significance. The Mills and Mills Funeral Home and Memorial Park next to Pioneer Cemetery on Littlerock Road SW have ancient American chestnut (*Castanea dentata*) trees, a relic from the most abundant tree on the eastern coast before the 1900s.”*

Appendix 2 to the staff report contains an e-mail from Edible Forest Gardens discussing heritage trees.

Proposed Heritage Tree Nomination

Christina Randazzo filed a nomination form for a walnut tree at 420 W D St SW. Sound Urban Forestry estimates that this tree is approximately 65-75 years old.

Board Member Jim Sedore has done additional research on this tree and property which is included as item 9 E.

Next Steps

Staff suggests the Tree Board review the materials in the packet and discuss next steps at today’s meeting.

Staff Contact

Alyssa Jones Wood, LEED Green Associate, Sustainability Coordinator
City of Tumwater Water Resources & Sustainability Department
360-754-4140
ajoneswood@ci.tumwater.wa.us

Appendix 1 – TMC 16.08 Protection of Trees and Vegetation

[...]

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)

[...]

16.08.075 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).

Heritage Tree Memorandum

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)

Appendix 2 – E-Mail from Edible Forest Gardens

From: Edible Forest Gardens EFG edibleforestgardens@gmail.com

Sent: Sunday, September 20, 2020 10:29 AM

To: Tom Oliva

Cc: edibleforestgardens@gmail.com

Subject: Re: Fruit and nut trees in the Urban Forestry Management Plan

You have some good opportunities with those historic trees in Tumwater.

For example, you could ask Michael Dolan to take students from Bush Middle School to pick up butternuts from under the big tree at the Bush homestead, then plant them in pots, create a nursery site at the school and fence it in, with an automatic watering system for summer, then after a couple of years plant them at the school and around town. If they did it every fall they'd have a continual supply of new trees to plant. Of course that would depend on interest from a teacher and the principal. You could give maybe \$200 from the tree fund to Michael Dolan for teaching them.

You could also ask Michael Dolan to take students to the historic fruit trees in February to take cuttings that the students would keep in a refrigerator until April when Michael would help them graft them onto root stock and put them in pots to let them grow in the nursery. In a couple of years they'd have fruit trees to plant around the community and could keep doing it to have a continual supply to plant. I took cuttings from an old fruit tree along Hwy 99 likely planted by Bush, grafted them and am growing them, like I suggest above. It's a Northern Spy, a tasty heritage apple and a good keeper.

Kirsop Farm is in Tumwater. You could ask them to grow rows of nursery nut trees for you. Last spring my interns planted 3,500 chestnuts in rows at Calliope Farm in Olympia to grow chestnut trees they can plant around the community. They're Evergreen students.

These are just a few ideas of possibilities that could help you reach your goals while educating and engaging the community.

The trees would need to be planted in the "right place" by people who commit to care for them and glean from them responsibly in the fall.

I'll forward the Burnt Ridge story of the Bush butternut (an English walnut) separately.

A new entry to a form/survey has been submitted.

Form Name: Heritage Tree Nomination Form
Date & Time: 07/18/2022 2:30 PM
Response #: 18
Submitter ID: 11264
IP address: 2601:603:4d80:2250:12a2:97fe:9667:ad44
Time to complete: 8 min. , 57 sec.

Survey Details

Page 1

Heritage Tree Nomination Form

Trees that have historical significance, by virtue of age, association to a historical structure, district, person or event, rare or unique species, or significant stand (grove) of trees can be designated as Heritage Trees, and therefore provided with special protections.

Who is submitting this nomination?

(o) Landowner

Nominator contact information.

Nominator Name Christina
email Pickles.cr@gmail.com
Daytime Phone Number (360) 819-9170

What criteria does this tree meet?

(o) 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 resident or historical event.

Please provide an address or location of the tree(s).

420 w d st sw

Please provide as much information about the tree as you can (size, type, age).

The tree from what I have gathered is about 100yrs old. It sits on a homestead property with a house that was build in1894. The tree is a walnut tree and still produces nuts, when squirrels don't get them all... I have attached a picture of the house,date unknown, and you can see the tree in the picture on the right hand side...

The landowner must consent to the nomination prior to consideration. Has the landowner agreed to this nomination?

(o) Yes

Christina Randazzo Heritage Tree Nomination Form

Landowner contact information

Landowner Name Christina Randazzo
email Pickles.cr@gmail.com
Daytime Phone Number (360) 819-9170

If you have a a photo you would like to share, please upload it here.

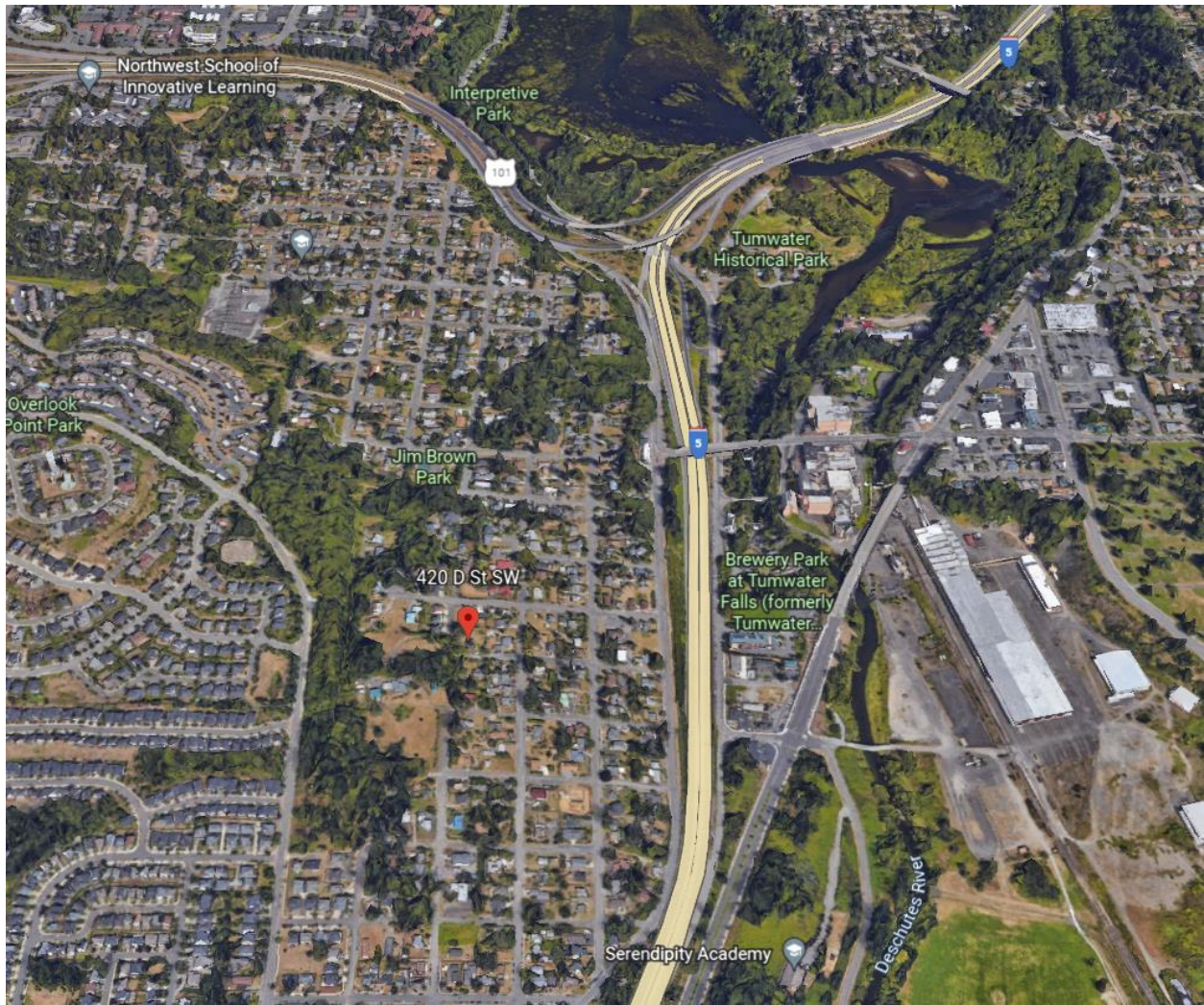
received_1178733385479166.jpeg



Photo taken in 2022



Photo taken in early 1900's, provided by Christina Randazzo



Location of Tree

SUF

SOUND URBAN FORESTRY, LLC

Appraisals ~ Site Planning ~ Urban Landscape Design and Management
Environmental Education ~ Risk Assessments

10/6/2022

City of Tumwater
Water Resources and Sustainability Department
Alyssa Jones Wood, Sustainability Coordinator
555 Israel Rd SW
Tumwater, WA 98501

RE: Proposed Heritage Tree – 420 D Street SW

Ms. Wood:

Upon the request of the City of Tumwater, I have conducted an assessment of a tree located at 420 D Street SW, as part of the City's Heritage Tree nomination process. I visited the site on September 14, 2022.

Findings

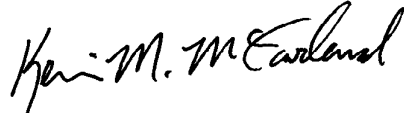
The identified tree is a Carpathian English Walnut (*Juglans regia* 'Carpathian'). It measures 19" DBH (diameter at breast height) with an approximate height of 42'. The overall health is good with no indications of disease, decay or significant structural issues. A past co-dominant stem failure occurred at 11' above grade but the area surrounding the point of failure appears solid with no associated decay and callus growth is normal.

There have been impacts within the southeast portion of the critical root zone by the increase of grade with sand and gravel (see photo). This has likely resulted in soil compaction as well.

Comments

Considering the small diameter of this tree, it is unlikely that it is the presumed age. However, it is probable that it is either a stump sprout or from the seed source of the original tree.

Professionally Submitted,

A handwritten signature in black ink that reads "Kevin M. McFarland". The signature is written in a cursive, flowing style.

Kevin M. McFarland, Principal
Consulting Forester, Contracted City of Tumwater Tree Protection Professional
ISA Certified Arborist PN-0373 & Tree Risk Assessment Qualified

Sound Urban Forestry, LLC
P.O. Box 489
Tahuya, WA 98588
360-870-2511

Location of Assessed Tree



Photo of Impacts within Critical Root Zone



From: [Liz & Jim Sedore](#)
To: [Alyssa Jones Wood](#)
Cc: [Trent Grantham - Tumwater Tree Board Chairperson](#)
Subject: Re: 420 D Street SW - Walnut Heritage Tree Nomination update
Date: Tuesday, November 29, 2022 4:01:45 PM

ALYSSA,
 Here's an update on the 420 D Street Walnut nomination:

A. Karen Johnson, Curator of the Olympia/Tumwater Foundation, has assisted, including:

- She visited the site and had difficulty finding the tree. I clarified the location of the tree and confirmed that it was a walnut tree.
- Concerning the property, Karen found:
- **1. the property at 420 was originally part of Nelson Barnes' donation land claim. Barnes was Tumwater's first mayor (1869-1870).**
- I have asked Karen to check the records to see if there is anything about Barnes planting trees.

B. On Nov 29 I talked with the owner, Christine Pickernell. I asked her where she got the old photo ("taken in early 1900's"). She got the photo from a friend of her son who was interested in the history of the property. She does not know how to contact her son's friend. I have asked her to contact the City if/when she gets more information about the source of the photo.

I sent a copy of the photo to Karen Johnson (Olympia/Tumwater Foundation) and asked if she could find the source of the photo.

I believe we need to determine the age of the tree to see who planted it. I have asked Alyssa to talk with the consulting arborist about how to determine the age of trees.

I will update you when I have more information.
 Thank you, Jim

On Tue, Nov 29, 2022 at 10:22 AM Alyssa Jones Wood <AJonesWood@ci.tumwater.wa.us> wrote:

Good morning Jim,

For the December Tree Board meeting will you have any additional information you'd like me to include in the packet related to the two Heritage Tree nominations you've been doing more research on? If so, would you be able to get that information to me by end of day Monday December 5th so I can get them incorporated into the packet in time for the December 7th publishing and distribution of the packet? Please let me know if you need anything.

Thank you!

Alyssa Jones Wood, LEED Green Associate & NWF Habitat Steward| (she/her/hers)

Sustainability Coordinator, Water Resources & Sustainability Department

City of Tumwater

555 Israel Road SW |Tumwater, WA 98501

(360) 754-4140

ajoneswood@ci.tumwater.wa.us | www.ci.tumwater.wa.us

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There are no ordinary people. You have never talked to a mere mortal. Nations, cultures, arts, civilisations—these are mortal, and their life is to ours as the life of a gnat. But it is immortals whom we joke with, work with, marry, snub, and exploit—immortal horrors or everlasting splendours. - C.S. Lewis - "The Weight of Glory"

Tumwater Tree Board Heritage Tree nomination – Walnut Tree at 420 D Street SW

Updated: 2022.12.01 by Jim Sedore

"The City of Tumwater Heritage Trees are:

Trees that have historical significance, by virtue of age, association to a historical structure, district, person or event, rare or unique species, or significant stand (grove) of trees can be designated as Heritage Trees, and therefore provided with special protections.

Heritage Trees fall under one of the following categories.

- **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.*
- **Specimen:** *Age, size, health, and quality factors combine to qualify the tree as unique among the species in Tumwater and Washington State.*
- **Rare:** *One or very few of a kind, or is unusual in some form of growth or species.*
- **Significant Grove:** *Outstanding rows or groups of trees that impact the city's landscape."*

<https://www.ci.tumwater.wa.us/departments/community-development/trees/heritage-trees>

Location: 420 D Street SW

- SE corner of the property along property line and road



Property owner: Christine L Randazzo (Pickernell)

- 360.819.9170
- Pickles.cr@gmail.com

Nominator: Christine Pickernell

- 360.819.9170
- Pickles.cr@gmail.com

Date nomination submitted: 2022.July.18

Tree species: Black walnut (Juglans nigra)

Estimated age of tree: Unknown

Diameter of tree: Radius BH approx. 8.5"

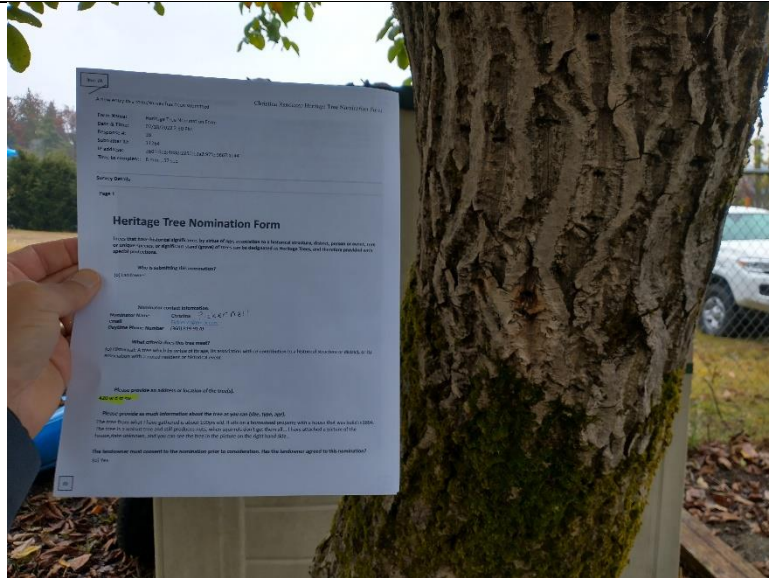
Photos:

1. Tree

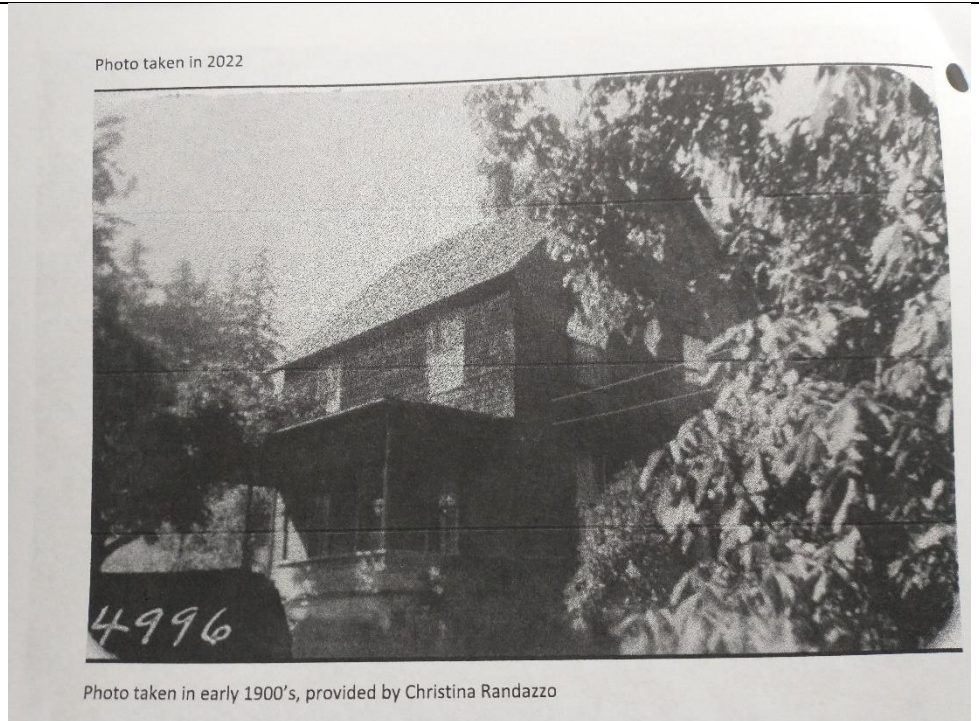
Date taken: 2022.11.03
by Jim Sedore
Juglans nigra - Black
Walnut



2. Size of the trunk BH approximately 8+1/2"



3. Old photo submitted with the nomination From



Source of this photo: (Thru Karen Johnson, Curator Olympia/Tumwater Foundation

- <https://www.geodata.org/quick-parcel-search.html> takes you to Thurston Geodata Center. On that page, go to Property Map.
- Click on Property Map which takes you to a map where you can zoom in on a property if you know where it is located.
- Once you've located the desired property, click on it. The parcel is then highlighted, and info about it appears in the upper left. In the case of 420 West D St SW, the info includes a parcel number (33202100500) and owner name (Randazzo, Michael & Christine), plus the official street address. Click on the > symbol at upper left (next to parcel number) for more info. A new screen will appear on the left; click on Assessor Info and another new screen will appear, with a lot of options. You can click on the Photo tab and pull up any photos of the property.
- On this particular property, the only photo I found was a fairly recent one. I checked with a friend at State Archives and she was able to pull up the 1939 photo.

It's kind of a convoluted process!

Findings:

Age of the Tree:

- We cannot determine the age of the tree.
- It is not clear if the tree in the 1938? photo is the same tree.

House – year built – 1890 – Thurston County Assessor

https://tcproperty.co.thurston.wa.us/propsql/basic_p.asp?pn=33202100500

From Olympia/Tumwater Foundation – Karen Johnson – curator:

- In her opinion, the walnut is not large enough to be ol.
- The property was originally claimed by Nelson Barnes, first mayor of Tumwater (1869-1870).
- There is no record of the tree being planted by Nelson Barnes.

Conclusions:

TO: Tree Board
 FROM: Alyssa Jones Wood, Sustainability Coordinator
 DATE: December 12, 2022
 SUBJECT: Discussion – Heritage Tree Nomination at 6005 Tyee Dr SW

1) Recommended Action:

Discussion item for Tree Board and then recommendation to City Council.

2) Background:

After the City Council adopted the Urban Forestry Management Plan on March 2, 2021 by Ordinance No. 2020-004, the Tree Board began a discussion at their April 12, 2021 meeting of the actions that are the Tree Board's primary responsibility in implementing the Plan; among those actions are those that address heritage trees.

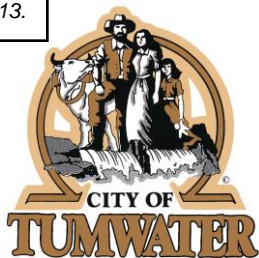
This tree was assessed by the City's Tree Professional and brought to the November 7th, 2022 meeting. This nomination was deferred to the December 12, 2022 meeting after Board Members voiced a desire for more research on the tree and property. Board Member Jim Sedore volunteered to conduct this research and his findings are included as Attachments E and F here. This application is now submitted for consideration by the Tree Board and then a recommendation to the City Council for final action.

3) Alternatives:

☐ Schedule further discussion at the Tree Board's December 12, 2022 meeting

4) Attachments:

- A. Heritage Trees Discussion Memorandum
- B. Heritage Tree Nomination Form
- C. Photo & location of Tree
- D. Memorandum from Sound Urban Forestry
- E. Jim Sedore Research
- F. Jim Sedore Research Continued



HERITAGE TREES

MEMORANDUM

TREE BOARD DISCUSSION – December 12, 2022

Contents

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| Current Listed Heritage Trees | Error! Bookmark not defined. |
| Proposed Heritage Tree Nomination..... | 3 |
| Next Steps | 3 |
| Staff Contact..... | 3 |
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Background

After the City Council adopted the Urban Forestry Management Plan on March 2, 2021 by Ordinance No. 2020-004, the Tree Board began a discussion at their April 12, 2021 meeting of the actions that are the Tree Board's primary responsibility in implementing the Plan.

At their April 12, 2021 meeting, the Tree Board asked staff to:

- Make sure that the City's designated heritage trees lists and maps are updated and current
- Look at adding memorial trees, such as the September 11, 2001 tree and Arbor Day trees such as those trees south of the library.
- Look into the process for adding signage for the heritage trees

Among the Urban Forestry Management Plan actions to be implemented, two addressed heritage trees:

Action 2.1.J. Designate, register, and promote heritage trees.

| Priority | Leads [Primary (P) & Secondary (S)] | Timing | Monitoring Action |
|----------|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| #2 | Community Development (P) Tree Board (S) | Start in Spring 2023 based on Peninsula Environmental Group work and update every five years thereafter | Track number of trees considered heritage trees on an ongoing basis |

Action 8.1.B. Identify tree specimens, including heritage trees, on City property that illustrate proper tree care and discuss in articles on the City website and social media.

| Priority | Leads [Primary (P) & Secondary (S)] | Timing | Monitoring Action |
|----------|---------------------------------------------------------------------------------------------|---------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| #2 | Community Development (P) Parks and Recreation (S) Public Works (S) Tree Board (S) | Start in Spring 2023 and evaluate every five years thereafter | Evaluate program as compared to the Goals, Objectives, and Actions of the Plan |

Definition and Resources

From the City's Heritage Trees website, heritage trees are:

“Trees that have historical significance, by virtue of age, association to a historical structure, district, person or event, rare or unique species, or significant stand (grove) of trees can be designated as Heritage Trees, and therefore provided with special protections.”

You can find out more about heritage trees on our website here:

<https://www.ci.tumwater.wa.us/departments/community-development/trees/heritage-trees>

And in TMC 16.08.075 *Heritage trees designated* here:

<https://www.codepublishing.com/WA/Tumwater/#!/Tumwater16/Tumwater1608.html#16.08.075>

Appendix 1 contains the definitions section of TMC 16.08 *Protection of Trees and Vegetation* as well as TMC 16.08.075 *Heritage trees designated*.

“Heritage trees” and “historic trees” are defined in TMC 16.08.030 as follows:

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.

Section 1.03(A) *The Community and Urban Forest: The Early Years* of the Urban Forestry Management Plan notes that:

*“Over one hundred years ago, the City contained a variety of native tree species. Maple, alder, cedar, ash, hazelnut, hemlock, fir, pine, willow, and Garry oak were predominant. In addition, the early settlers planted orchards for food and planted trees from their homelands for beauty, shade, and historical significance. The Mills and Mills Funeral Home and Memorial Park next to Pioneer Cemetery on Littlerock Road SW have ancient American chestnut (*Castanea dentata*) trees, a relic from the most abundant tree on the eastern coast before the 1900s.”*

Appendix 2 to the staff report contains an e-mail from Edible Forest Gardens discussing heritage trees.

Proposed Heritage Tree Nomination

William Rea filed a nomination form for an apple tree at 6005 Tyee Drive SW. Sound Urban Forestry estimates that this tree is approximately 100-120 years old.

Board Member Sedore has done additional research on this tree and property that is included as Item 10 E.

Next Steps

Staff suggests the Tree Board review the materials in the packet and discuss next steps at today’s meeting.

Staff Contact

Alyssa Jones Wood, LEED Green Associate, Sustainability Coordinator
City of Tumwater Water Resources & Sustainability Department
360-754-4140
ajoneswood@ci.tumwater.wa.us

Appendix 1 – TMC 16.08 Protection of Trees and Vegetation

[...]

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;
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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.

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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)

[...]

16.08.075 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).

Heritage Tree Memorandum

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)

Appendix 2 – E-Mail from Edible Forest Gardens

From: Edible Forest Gardens EFG edibleforestgardens@gmail.com

Sent: Sunday, September 20, 2020 10:29 AM

To: Tom Oliva

Cc: edibleforestgardens@gmail.com

Subject: Re: Fruit and nut trees in the Urban Forestry Management Plan

You have some good opportunities with those historic trees in Tumwater.

For example, you could ask Michael Dolan to take students from Bush Middle School to pick up butternuts from under the big tree at the Bush homestead, then plant them in pots, create a nursery site at the school and fence it in, with an automatic watering system for summer, then after a couple of years plant them at the school and around town. If they did it every fall they'd have a continual supply of new trees to plant. Of course that would depend on interest from a teacher and the principal. You could give maybe \$200 from the tree fund to Michael Dolan for teaching them.

You could also ask Michael Dolan to take students to the historic fruit trees in February to take cuttings that the students would keep in a refrigerator until April when Michael would help them graft them onto root stock and put them in pots to let them grow in the nursery. In a couple of years they'd have fruit trees to plant around the community and could keep doing it to have a continual supply to plant. I took cuttings from an old fruit tree along Hwy 99 likely planted by Bush, grafted them and am growing them, like I suggest above. It's a Northern Spy, a tasty heritage apple and a good keeper.

Kirsop Farm is in Tumwater. You could ask them to grow rows of nursery nut trees for you. Last spring my interns planted 3,500 chestnuts in rows at Calliope Farm in Olympia to grow chestnut trees they can plant around the community. They're Evergreen students.

These are just a few ideas of possibilities that could help you reach your goals while educating and engaging the community.

The trees would need to be planted in the "right place" by people who commit to care for them and glean from them responsibly in the fall.

I'll forward the Burnt Ridge story of the Bush butternut (an English walnut) separately.

A new entry to a form/survey has been submitted.

Form Name: Heritage Tree Nomination Form
Date & Time: 07/30/2022 1:50 PM
Response #: 19
Submitter ID: 11296
IP address: 96.69.193.62
Time to complete: 36 min. , 49 sec.

Survey Details

Page 1

Heritage Tree Nomination Form

Trees that have historical significance, by virtue of age, association to a historical structure, district, person or event, rare or unique species, or significant stand (grove) of trees can be designated as Heritage Trees, and therefore provided with special protections.

Who is submitting this nomination?

(o) Other

Nominator contact information.

Nominator Name William Rea
email will.rea@gmail.com
Daytime Phone Number (925) 330-0325

What criteria does this tree meet?

(o) 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 resident or historical event.

Please provide an address or location of the tree(s).

6005 Tyee Dr SW

Please provide as much information about the tree as you can (size, type, age).

Possible apple tree of David Kindred, of the Bush party.

I have confirmed the tree was at least present before any 'modern' building was on the site via old aerial photographs. Oldest aerial found was from 1941.

DNA testing has confirmed that it is the variety "Gravenstein".

Property history after David Kindred I have so far:

William Rea Heritage Tree Nomination Form

Kindred donation claim purchased by James Dunlap from estate, 1876.
Bennett W. Johns bought NE/4 Sec 3 in 1876
Bennett W. Johns to Rebecca McNair 1894 NW/4 NW/4 NE/4
Rebecca McNair to B W Johns 1896 NW/4 NW/4 NE/4
B W Johns to Edward F Murray 1896 NW/4 NW/4 NE /4
Edward Murray to Thomas Roberts 1900 NW/4 NW/4 NE/4
Bennett W Johns(estate) to Myrtie Brash 1909 E/2 W/2 NW/4 NE/4
Myrtie Brash to Walter C Williams 1911 E/2 W/2 NW/4 NE/4

The landowner must consent to the nomination prior to consideration. Has the landowner agreed to this nomination?

(o) No

Landowner contact information

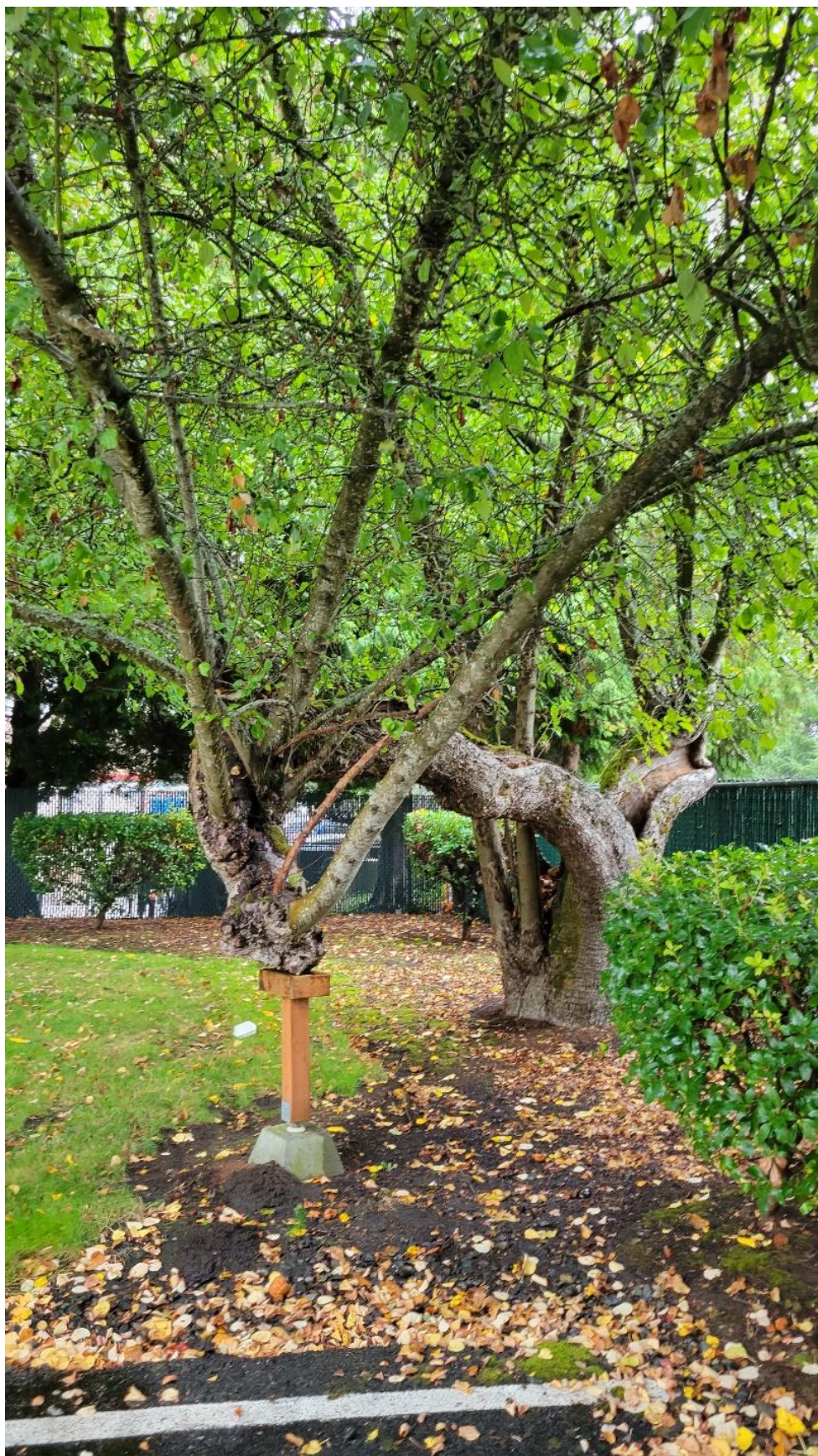
Landowner Name Capital Region ESD 113
email Not answered
Daytime Phone Number (360) 464-6700

If you have a a photo you would like to share, please upload it here.

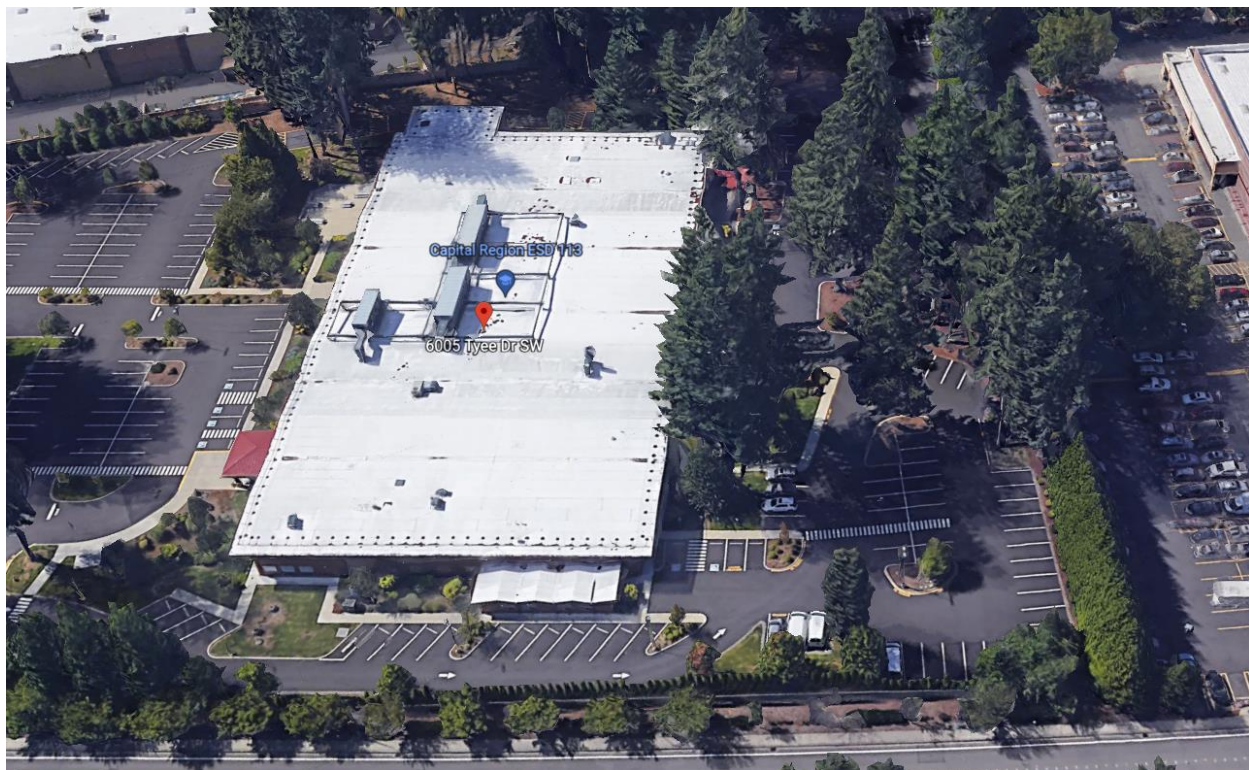
IMG_3847 (2).jpg

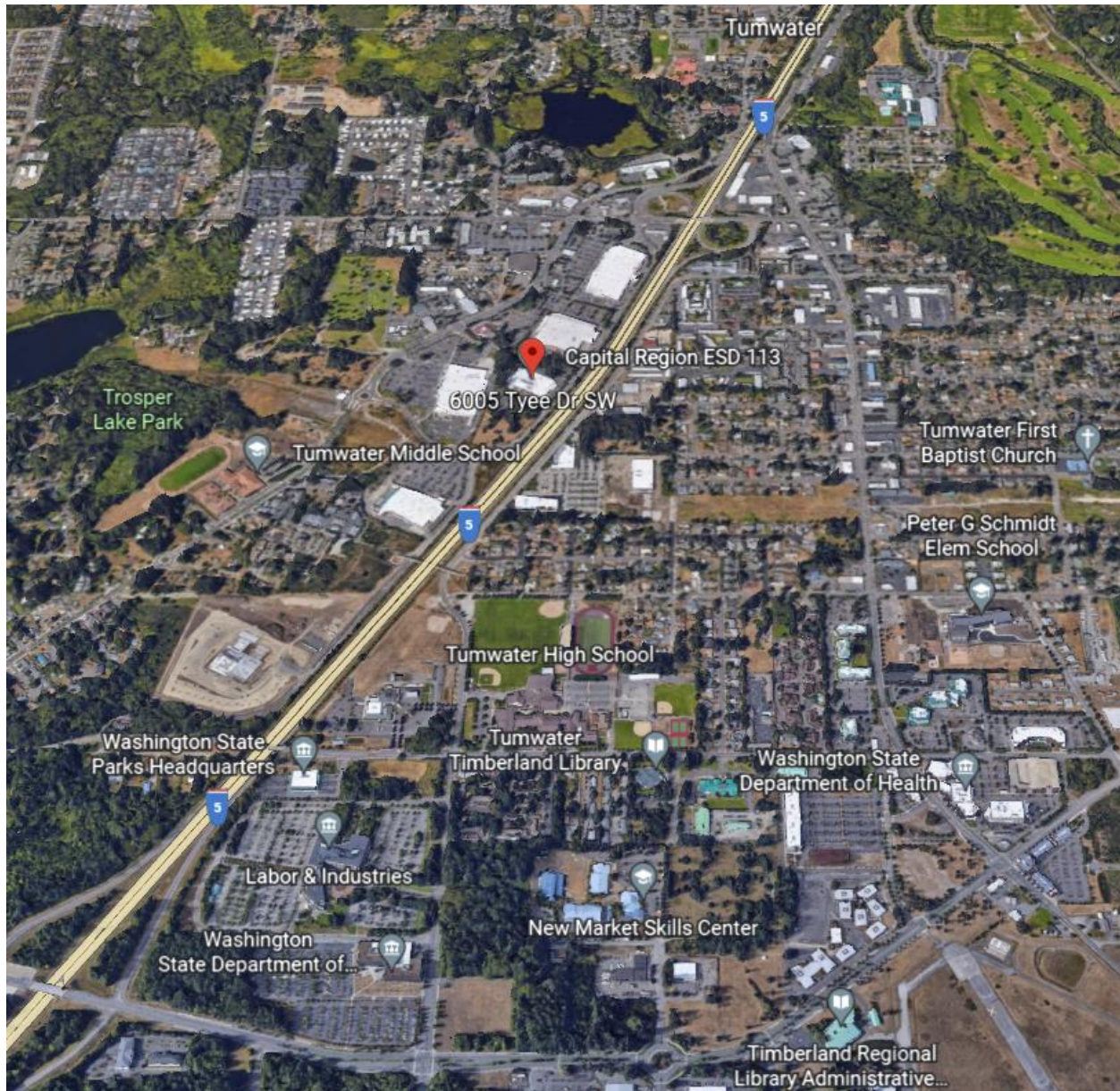
Thank you,
City of Tumwater, WA

This is an automated message generated by Granicus. Please do not reply directly to this email.









Location of Tree

SUF

SOUND URBAN FORESTRY, LLC

Appraisals ~ Site Planning ~ Urban Landscape Design and Management
Environmental Education ~ Risk Assessments

10/6/2022

City of Tumwater
Water Resources and Sustainability Department
Alyssa Jones Wood, Sustainability Coordinator
555 Israel Rd SW
Tumwater, WA 98501

RE: Proposed Heritage Tree – 6005 Tyee Drive SW

Ms. Wood:

Upon the request of the City of Tumwater, I have conducted an assessment of a tree located at 6005 Tyee Drive SW, as part of the City's Heritage Tree nomination process. I visited the site on September 14, 2022.

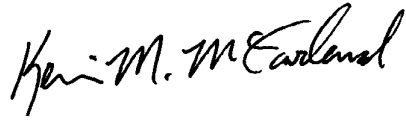
Findings

The identified tree is an apple (*Malus domestica*) It measures 35" DBH (diameter at breast height) with an approximate height of 30'. The overall health is fair. It has been topped in the past. There is significant decay within the base and upper co-dominant stems (see photos) but this is typical of the species and support is being provided.

Comments

Due to the decay within the scaffold branches, I would recommend this tree be selectively pruned to improve the structure and reduce end weight.

Professionally Submitted,

A handwritten signature in black ink that reads "Kevin M. McFarland". The signature is written in a cursive, flowing style.

Kevin M. McFarland, Principal
Consulting Forester, Contracted City of Tumwater Tree Protection Professional
ISA Certified Arborist PN-0373 & Tree Risk Assessment Qualified

Sound Urban Forestry, LLC
P.O. Box 489
Tahuya, WA 98588
360-870-2511

Location of Assessed Tree



View of Tree



Photos of Decay within Scaffold and Stem





From: [Liz & Jim Sedore](#)
To: [Alyssa Jones Wood](#)
Cc: [Trent Grantham - Tumwater Tree Board Chairperson](#)
Subject: Re: 6005 Tyee Drive Heritage Tree Nomination update
Date: Tuesday, November 29, 2022 3:28:45 PM

ALYSSA,
Update on the Heritage tree nominations:

1. 6005 Tyee Drive Apple tree belonging to Education Service District 113

A. The **Facilities Manager of ESD 113, Mr Otos**, has given **"Landowner consent"** for the tree to be nominated.

B. On Nov 30 I am meeting with **Cathy McCause, ESD Office Technician 2**. She has done some research on the tree and property. She contacted the "Lost Apple Project" (https://en.wikipedia.org/wiki/Lost_Apple_Project). **I will update you after talking with Cathy.**

C. **Karen Johnson, Curator of the Olympia/Tumwater Foundation**, has done a lot of research on the property. She has found:

- Two previous landowners were mayors of Tumwater; **Bennett Johns was Tum mayor in 1874, James Dunlap in 1876**
- She writes: **"looks like ESD land was indeed originally part of the Kindred claim.** (Your city mapping staff might be able to correct/corroborate this.)
- She writes: ***"a tree ring core would be the definitive answer as to age, which would give you a much tighter window as to who might have planted the tree. Let's say the core says the tree is 150 years old, which would take it back to 1872. The tree then could have been planted either by Johns or Dunlap, if they planted a seedling of a few years of age. If the tree proves to be older than that, then you could safely assume (but not scientifically prove) it was planted by the Kindreds."***
- She writes: ***:your "Kindred apple" seems to be Gravenstein. Gravenstein apples were described in the 17th and 18th centuries, so have certainly been around long enough to have been planted here in the mid-1800s***
-
- I asked her:
- **1. Were there Any historic events at this location—I was unable to find any; the specific tree site seems to have just been a random portion of the Kindred property, located quite a ways from their home/outbuildings (likewise a good distance from the Ferguson home/outbuildings).**
-
- **2. Were there any historical references to planting trees on this property—I found no such references, other than the rather vague 1893 news item.**
-
- She wrote: ***If the age of the apple tree has not been determined, this tree could have been planted by the Kindred family; planted by someone later than the Kindred family; could have been part of the 1893 Westfall orchard; or could have been a random tree grown by chance from an apple core discarded by humans or animals.***

D. I contacted **William Rea, the nominator.**

He has an association with the Lost Apple project and took a DNA sample of the tree in 2021. The DNA sample identified the variety as "**Gravenstein**," a common "pioneer" apple variety.

- He research the land ownership and found the following
- *Kindred Estate to James Dunlap in 1876.*
James Dunlap to Bennett W. Johns in 1876
Bennett W. Johns to Rebecca McNair in 1894
Rebecca McNair to Bennett W. Johns in 1896
Bennett W. Johns to Edward F Murray in 1896
Edward Murray to Thomas Roberts in 1900
Bennett W Johns(estate) to Myrtie Brash in 1909
Myrtie Brash to Walter C Williams in 1911

-

On Tue, Nov 29, 2022 at 10:22 AM Alyssa Jones Wood <AJonesWood@ci.tumwater.wa.us> wrote:

Good morning Jim,

For the December Tree Board meeting will you have any additional information you'd like me to include in the packet related to the two Heritage Tree nominations you've been doing more research on? If so, would you be able to get that information to me by end of day Monday December 5th so I can get them incorporated into the packet in time for the December 7th publishing and distribution of the packet? Please let me know if you need anything.

Thank you!

Alyssa Jones Wood, LEED Green Associate & NWF Habitat Steward| (she/her/hers)

Sustainability Coordinator, Water Resources & Sustainability Department

City of Tumwater

555 Israel Road SW |Tumwater, WA 98501

(360) 754-4140

ajoneswood@ci.tumwater.wa.us | www.ci.tumwater.wa.us

--

There are no ordinary people. You have never talked to a mere mortal. Nations, cultures, arts, civilisations—these are mortal, and their life is to ours as the life of a gnat. But it is immortals whom we joke with, work with, marry, snub, and exploit—immortal horrors or everlasting splendours. - C.S. Lewis - "The Weight of Glory"

Tumwater Tree Board Heritage Tree nomination – “Kindred” Apple Tree at 6005 Tyee Drive

Updated: 2022.12.02 by Jim Sedore

"The City of Tumwater Heritage Trees are:

Trees that have historical significance, by virtue of age, association to a historical structure, district, person or event, rare or unique species, or significant stand (grove) of trees can be designated as Heritage Trees, and therefore provided with special protections.

Heritage Trees fall under one of the following categories.

- **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.*
- **Specimen:** *Age, size, health, and quality factors combine to qualify the tree as unique among the species in Tumwater and Washington State.*
- **Rare:** *One or very few of a kind, or is unusual in some form of growth or species.*
- **Significant Grove:** *Outstanding rows or groups of trees that impact the city's landscape."*

<https://www.ci.tumwater.wa.us/departments/community-development/trees/heritage-trees>

Location: 6005 Tyee Drive

- NE corner of the property

Property owner: Education Service District 113

- Ed Otos – Facilities Manager
- 360.464.6700

Nominator: William Rea

- will.rea@gmail.com

Date nomination submitted: 2022.July.30

Tree species: Apple

Estimated age of tree: Unknown

Diameter of tree:

Photos:

1. Tree

Date taken: 2022.11.30
by Jim Sedore
Gravenstein apple

**2. David Kindred –**

Euro-American settler
and property owner
previous to 1876.

We could NOT find any
record that David Kindred
planted this tree.

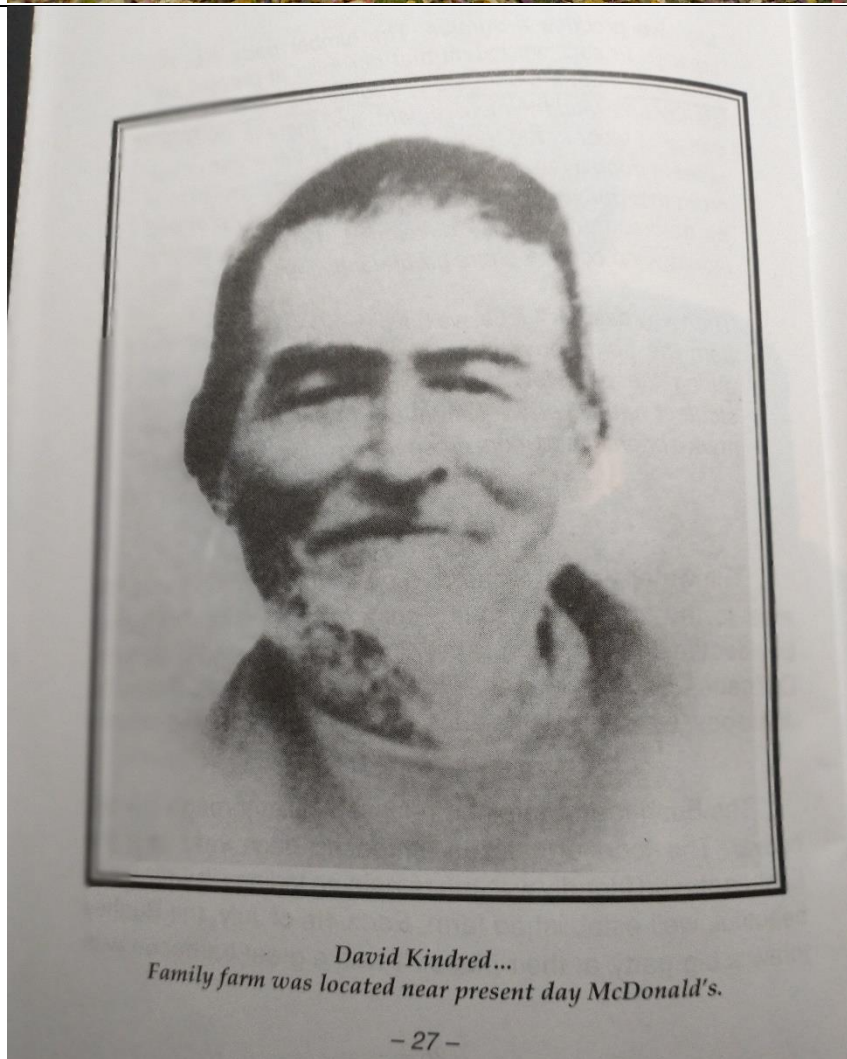
BIRTH: 1788
Boonesborough, Madison
County, Kentucky, USA

DEATH: 8 Nov 1873
(aged 84–85)

Inscription on
tombstone:

- THEY SETTLED IN
TUMWATER 1845
- FIRST SCHOOL HELD
IN THEIR HOME 1849

<https://www.findagrave.com/memorial/48331761/david-kindred>



Map: 1937 Metsker map (properties in question are in Township 17 North Range 2 West Section 3). The red rectangle at left shows the approximate borders of pioneer Jesse Ferguson's land claim. **The red rectangle at right shows the approximate borders of the pioneer Kindred family claim. The yellow trapezoid depicts the rough boundaries of the ESD land. So it looks like ESD land was indeed originally part of the Kindred claim.** (Your city mapping staff might be able to correct/corroborate this.)



Map from The Olympia/Tumwater Foundation
– Karen Johnson - curator

Findings:

1. Age – Undetermined

- City arborist was unwilling to take a core sample and count rings. The tree is probably hollow at DBH.
- Brent Chapman (Tumwater Tree Board Member) suggests another technique for estimating age, <https://www.treehugger.com/estimating-forest-trees-age-1343321>. This involves measuring the DBH & multiplying x a "Species Growth Factor."

The US Forest Service published an article "Big Trees, Old Trees and Growth Factor Tables" (https://www.fs.usda.gov/nrs/pubs/jrnl/2018/nrs_2018_smith-k_002.pdf) on this technique which concludes:

*"The desire to know tree age from a simple measurement of size is understandable. **Variation in ring width makes that a difficult proposition, at least to some degree of accuracy.** The best contribution of the growth-factor tables may be to help connect people to the remarkable trees in the landscape. Although unlikely to be adequate for the arborist or other technical specialist, the tables may help to satisfy public imagination and curiosity."*

The USFS author, Kevin T. Smith< is a supervisory plant physiologist for the U.S. Forest Service in Durham, New Hampshire. A longtime ISA member, Smith is on the Executive Council of the Tree Ring Society.

2. **Significant events at this site** – Comments from Karen Johnson, Curator of the Olympia/Tumwater Foundation:

A. *"I have found no mention of apple trees for the Kindred claim, either in text or on maps. I checked with Dr. Jewell Dunn, who works at the State Archives and has done extensive research on the Kindreds. She knows of no mention of apple trees relevant to the Kindreds. And she has probably read everything there is to read about the family."*

B. *"The Kindreds were the original owners of the property....Would the Kindreds (land owners previous to 1876) have planted an apple tree quite a distance from their home? Maybe. No way to tell. (**Their home was in the northeast corner of their land claim, whereas the disputed tree is in the southwest corner.**) Early GLO maps denoted only homes and outbuildings, with no info on trees. Nor did the surveyor's field notes mention trees (other than native trees, which were often used as corner markers for land boundaries. **If the apple tree in question existed at the time of a GLO survey, it likely would have been too small/young to make it onto a surveyor's map or notes.**)"*

C. Two former Tumwater Mayors owned this property

- **Bennett Johns was Tum mayor in 1874**
- **James Dunlap in 1876**

Dunlap bought the property from Kindred in 1876. Johns bought part of the property from Dunlap in 1876.

D. The inscription on the David Kindred tombstone at the Masonic Memorial Park in Tumwater says,

THEY SETTLED IN TUMWATER

1845

FIRST SCHOOL HELD

IN THEIR HOME 1849

Karen Johnson, curator of the Olympia/Tumwater Foundation says,

"I've seen only anecdotal references to early schools in the Tumwater area. I'm not sure we'd ever be able to prove conclusively that the first school was on Kindred land, as many pioneers held informal schools in their log cabins. George and Isabella Bush were said to have had a very early school on their land, and it was open to pioneer and native American children."

*So the 1849 date for a Kindred school may be accurate--**no way to say for sure.**"*

Conclusions:

1. Altho the tree is old. We can find no historical record of when it was planted. Currently we have no way of determining how old the tree is.
2. There is no record of any significant events occurring at this site other than, **perhaps**, the first school in Tumwater (New Market), in David Kindred's home. However, one early settler and 2 early Tumwater Mayors owned this property previous to 1877. However, there is no record that any of these men planted this tree.

TO: Tree Board
FROM: Alyssa Jones Wood, Sustainability Coordinator
DATE: December 12, 2022
SUBJECT: Discussion – Heritage Trees Nomination at 5725 Littlerock Road SW

1) Recommended Action:

Discussion item for Tree Board and then recommendation to City Council.

2) Background:

After the City Council adopted the Urban Forestry Management Plan on March 2, 2021 by Ordinance No. 2020-004, the Tree Board began a discussion at their April 12, 2021 meeting of the actions that are the Tree Board's primary responsibility in implementing the Plan; among those actions are those that address heritage trees.

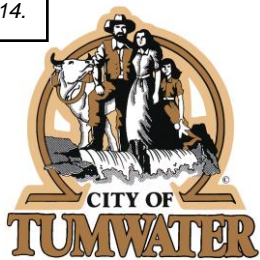
On October 21, 2022 staff member and Tumwater resident Alyssa Jones Wood nominated the two Champion American chestnut trees at Mills & Mills Funeral Home as heritage trees. These trees were assessed by the City's Tree Professional on November 22, 2021. This application is now submitted for consideration by the Tree Board and then a recommendation to the City Council for final action.

3) Alternatives:

☐ Schedule further discussion at the Tree Board's January 10, 2023 meeting

4) Attachments:

- A. Heritage Trees Discussion Memorandum
- B. Heritage Tree Nomination Form
- C. Photo & location of Tree
- D. Memorandum from Sound Urban Forestry



HERITAGE TREES

MEMORANDUM

TREE BOARD DISCUSSION – December 12, 2022

Contents

| | |
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| Current Listed Heritage Trees | Error! Bookmark not defined. |
| Proposed Heritage Tree Nomination..... | 3 |
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| Staff Contact..... | 3 |
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Background

After the City Council adopted the Urban Forestry Management Plan on March 2, 2021 by Ordinance No. 2020-004, the Tree Board began a discussion at their April 12, 2021 meeting of the actions that are the Tree Board's primary responsibility in implementing the Plan.

At their April 12, 2021 meeting, the Tree Board asked staff to:

- Make sure that the City's designated heritage trees lists and maps are updated and current
- Look at adding memorial trees, such as the September 11, 2001 tree and Arbor Day trees such as those trees south of the library.
- Look into the process for adding signage for the heritage trees

Among the Urban Forestry Management Plan actions to be implemented, two addressed heritage trees:

Action 2.1.J. Designate, register, and promote heritage trees.

| Priority | Leads [Primary (P) & Secondary (S)] | Timing | Monitoring Action |
|----------|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| #2 | Community Development (P) Tree Board (S) | Start in Spring 2023 based on Peninsula Environmental Group work and update every five years thereafter | Track number of trees considered heritage trees on an ongoing basis |

Action 8.1.B. Identify tree specimens, including heritage trees, on City property that illustrate proper tree care and discuss in articles on the City website and social media.

| Priority | Leads [Primary (P) & Secondary (S)] | Timing | Monitoring Action |
|----------|---------------------------------------------------------------------------------------------|---------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| #2 | Community Development (P) Parks and Recreation (S) Public Works (S) Tree Board (S) | Start in Spring 2023 and evaluate every five years thereafter | Evaluate program as compared to the Goals, Objectives, and Actions of the Plan |

Definition and Resources

From the City's Heritage Trees website, heritage trees are:

“Trees that have historical significance, by virtue of age, association to a historical structure, district, person or event, rare or unique species, or significant stand (grove) of trees can be designated as Heritage Trees, and therefore provided with special protections.”

You can find out more about heritage trees on our website here:

<https://www.ci.tumwater.wa.us/departments/community-development/trees/heritage-trees>

And in TMC 16.08.075 *Heritage trees designated* here:

<https://www.codepublishing.com/WA/Tumwater/#!/Tumwater16/Tumwater1608.html#16.08.075>

Appendix 1 contains the definitions section of TMC 16.08 *Protection of Trees and Vegetation* as well as TMC 16.08.075 *Heritage trees designated*.

“Heritage trees” and “historic trees” are defined in TMC 16.08.030 as follows:

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.

Section 1.03(A) *The Community and Urban Forest: The Early Years* of the Urban Forestry Management Plan notes that:

“Over one hundred years ago, the City contained a variety of native tree species. Maple, alder, cedar, ash, hazelnut, hemlock, fir, pine, willow, and Garry oak were predominant. In addition, the early settlers planted orchards for food and planted trees from their homelands for beauty, shade, and historical significance. The Mills and Mills Funeral Home and Memorial Park next to Pioneer Cemetery on Littlerock Road SW have ancient American chestnut (Castanea dentata) trees, a relic from the most abundant tree on the eastern coast before the 1900s.”

Appendix 2 to the staff report contains an e-mail from Edible Forest Gardens discussing heritage trees.

Proposed Heritage Tree Nomination

Alyssa Jones Wood filed a nomination form for the two American chestnut trees at 5725 Littlerock Road SW. Per the plaque at the site the trees were planted in 1846 and are therefore 176 years old.

Next Steps

Staff suggests the Tree Board review the materials in the packet and discuss next steps at today’s meeting.

Staff Contact

Alyssa Jones Wood, LEED Green Associate, Sustainability Coordinator
City of Tumwater Water Resources & Sustainability Department
360-754-4140
ajoneswood@ci.tumwater.wa.us

Appendix 1 – TMC 16.08 Protection of Trees and Vegetation

[...]

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)

[...]

16.08.075 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)

Appendix 2 – E-Mail from Edible Forest Gardens

From: Edible Forest Gardens EFG edibleforestgardens@gmail.com

Sent: Sunday, September 20, 2020 10:29 AM

To: Tom Oliva

Cc: edibleforestgardens@gmail.com

Subject: Re: Fruit and nut trees in the Urban Forestry Management Plan

You have some good opportunities with those historic trees in Tumwater.

For example, you could ask Michael Dolan to take students from Bush Middle School to pick up butternuts from under the big tree at the Bush homestead, then plant them in pots, create a nursery site at the school and fence it in, with an automatic watering system for summer, then after a couple of years plant them at the school and around town. If they did it every fall they'd have a continual supply of new trees to plant. Of course that would depend on interest from a teacher and the principal. You could give maybe \$200 from the tree fund to Michael Dolan for teaching them.

You could also ask Michael Dolan to take students to the historic fruit trees in February to take cuttings that the students would keep in a refrigerator until April when Michael would help them graft them onto root stock and put them in pots to let them grow in the nursery. In a couple of years they'd have fruit trees to plant around the community and could keep doing it to have a continual supply to plant. I took cuttings from an old fruit tree along Hwy 99 likely planted by Bush, grafted them and am growing them, like I suggest above. It's a Northern Spy, a tasty heritage apple and a good keeper.

Kirsop Farm is in Tumwater. You could ask them to grow rows of nursery nut trees for you. Last spring my interns planted 3,500 chestnuts in rows at Calliope Farm in Olympia to grow chestnut trees they can plant around the community. They're Evergreen students.

These are just a few ideas of possibilities that could help you reach your goals while educating and engaging the community.

The trees would need to be planted in the "right place" by people who commit to care for them and glean from them responsibly in the fall.

I'll forward the Burnt Ridge story of the Bush butternut (an English walnut) separately.

A new entry to a form/survey has been submitted.

Form Name: Heritage Tree Nomination Form
Date & Time: 10/21/2022 1:47 PM
Response #: 20
Submitter ID: 11431
IP address: 198.187.0.26
Time to complete: 4 min. , 4 sec.

Survey Details

Page 1

Heritage Tree Nomination Form

Trees that have historical significance, by virtue of age, association to a historical structure, district, person or event, rare or unique species, or significant stand (grove) of trees can be designated as Heritage Trees, and therefore provided with special protections.

Who is submitting this nomination?

(o) City

Nominator contact information.

Nominator Name Alyssa Jones Wood
email AJonesWood@ci.tumwater.wa.us
Daytime Phone Number (136) 075-4140

What criteria does this tree meet?

(o) Specimen: Age, size, health, and quality factors combine to qualify the tree as unique among the species in Tumwater and Washington State.

Please provide an address or location of the tree(s).

5725 Littlerock Road

Please provide as much information about the tree as you can (size, type, age).

This is a nomination for the two American chestnut trees at Mills & Mills Funeral Home. These two chestnuts are recognized as "champion trees" by American Forests and should be recognized and protected under the City's Heritage Tree program as well.

The landowner must consent to the nomination prior to consideration. Has the landowner agreed to this nomination?

(o) Yes

Alyssa Jones Wood Heritage Tree Nomination Form

Landowner contact information

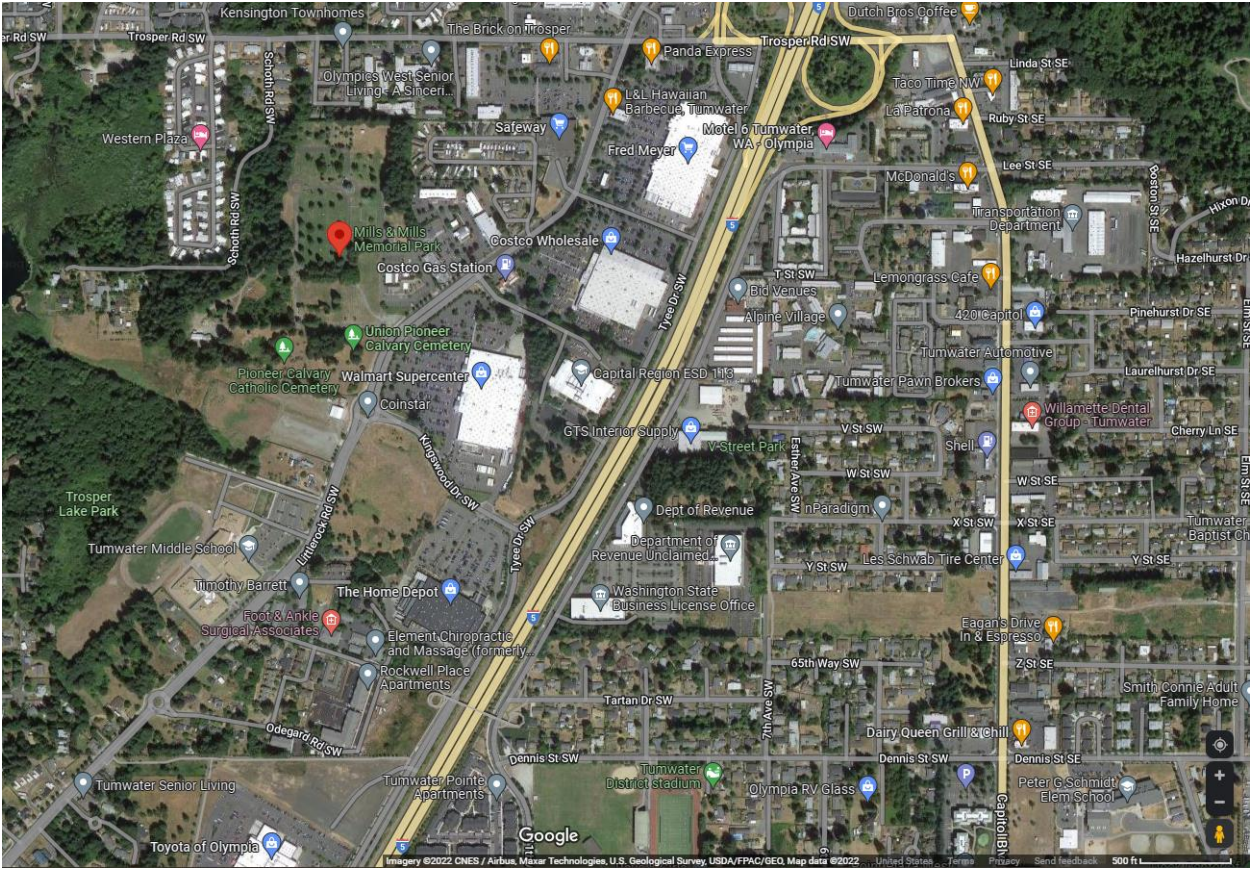
Landowner Name Mills & Mills Funeral Home
email Not answered
Daytime Phone Number (360) 357-7743

If you have a a photo you would like to share, please upload it here.

Thank you,
City of Tumwater, WA

This is an automated message generated by Granicus. Please do not reply directly to this email.







Location of Trees

SUF

SOUND URBAN FORESTRY, LLC

Appraisals ~ Site Planning ~ Urban Landscape Design and Management
Environmental Education ~ Risk Assessments

11/29/2022

City of Tumwater
Water Resources and Sustainability Department
Alyssa Jones Wood, Sustainability Coordinator
555 Israel Rd SW
Tumwater, WA 98501

RE: Proposed Heritage Trees – Mills & Mills Funeral Home and Memorial Park Chestnut Trees

Ms. Wood:

Upon the request of the City of Tumwater, I have conducted an assessment of two chestnut trees located within the Mills & Mills Funeral Home and Memorial Park property at 5725 Littlerock Road SW, as part of the City's Heritage Tree nomination process. I visited the site on November 22, 2022.

Findings

The identified chestnut trees are located within a raised roundabout to the west of the main funeral building. They are situated on each side of a memorial wall (see aerial and photos).

Tree #1: American chestnut, (*Castanea dentata*), 79" DBH. Approximate height of 100'. Overall condition is fair. The main stem splits at 5' into co-dominants. There is some bulging at the inclusion between the stems on the north side of the tree. No signs of active separation. Previously topped at 45-50'. Fungal fruiting bodies associated with Brown Cubical Rot (*Laetiporus sulphurrus*) are found at the site of a past large diameter scaffold branch cut on the north side. Decay is present within the main and co-dominant stems. Root flare is growing into the cement base of the memorial.

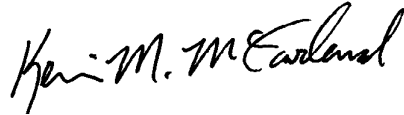
Tree #2: American chestnut, 79" DBH. Approximate height of 115'. Overall condition is fair. Open cavity is found on the north side of the tree, at the location of a past co-dominant stem failure. Decay is present at the site of a large wound from a past scaffold branch failure on the south side at 22' above grade. Previously topped at 45-50'.

Comments

Due to the structures and amount of decay, both of the assessed trees would benefit from pruning to clean the crowns of dead/damaged branches and reduce stress load. I would also recommend the cement at the base of the trees be cut to accommodate the expanding root flares.

Per the plaque at the site, the trees were planted in 1846 and therefore are 176 years old.

Professionally Submitted,



Kevin M. McFarland, Principal
Consulting Forester, Contracted City of Tumwater Tree Protection Professional
ISA Certified Arborist PN-0373 & Tree Risk Assessment Qualified

Sound Urban Forestry, LLC
P.O. Box 489
Tahuya, WA 98588
360-870-2511

Locations of Nominated Trees



Photo of Trees within Memorial Roundabout



Bulging Inclusion on North Side of Tree #1



Base of Tree #1



Open Cavity on Tree #2



Base of Tree #2

