CONVENE: 7:00 p.m.

PRESENT: Chair Trent Grantham and Boardmembers Brent Chapman, Brodrick Coval, Michael Jackson, Hannah Ohman, Jim Sedore, and Tanya Nozawa.

Staff: Community Development Director Michael Matlock, Water Resources and Sustainability Director Dan Smith, Parks and Facilities Manager Stan Osborn, Communications Manager Ann Cook, and Sustainability Coordinator Alyssa Jones Wood.

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

APPROVAL OF MINUTES: NOVEMBER 13, 2023, DECEMBER 11, 2023, & FEBRUARY 12, 2024:

MOTION: Boardmember Sedore moved, seconded by Boardmember Coval, to approve the minutes of November 12, 2023, December 11, 2023, and February 12, 2024 as published. A voice vote approved the motion unanimously.

TREE BOARD MEMBER REPORTS: Boardmember Sedore reported on a recent conservation with Karen Johnson, Schmidt House Curator, Olympia Tumwater Foundation, concerning the Japanese magnolia tree recently designated as a heritage tree. She asked about plans by the City to place a sign near the tree designating the tree as a Heritage Tree. According to staff, the City does not provide signage for heritage trees. He advised her of the possibility of the Foundation placing a sign near the tree.

Coordinator Jones Wood advised that the City does not place signs on memorial trees and subsequently extended the practice to heritage trees as well.

Boardmember Sedore asked whether the City has a list of all designated memorial trees. Coordinator Jones Wood said the City could identify some locations of trees planted as a memorial tree over the years. Boardmember asked about the possibility of the City placing signs on both memorial and heritage trees. He asked Boardmember Chapman about the practice of placing signs on designated trees on the State Campus. Boardmember Chapman said within the last ten years, only one sign was stolen from a designated tree on the campus. Boardmember Sedore asked the Board for feedback on whether to advance a recommendation to the City

Council to consider placing signs on City designated trees.

Boardmember Jackson said based on previous signs placed on City trees, the signs were eventually stolen. Boardmember Ohman said her concerns center on the potential of graffiti, as signs tend to serve as a target for graffiti. Boardmember Nozawa commented that the library placed small signs describing trees on the property. She supports placement of signs. Boardmember Coval asked for clarification as to whether the recommendation includes placement of signs on trees located on private properties or only for heritage trees located on City property. He questioned the intended audience if the tree is located on private property.

Boardmember Sedore said he is uncertain as to the number of designated trees located on private property other than the tree at the Schmidt House. Coordinator Jones Wood advised that many recently designated heritage trees are located on both private property and on City right-of-ways.

Boardmember Sedore commented that the City could seek the property owner's permission to place a sign on a designated tree. Boardmember Coval responded that he would not want the City wasting time and resources if a tree was located in an area not readily viewable to the public.

Chair Grantham added that the design and sign size would also be another consideration, as well as a budget to fund the expense.

Boardmember Sedore suggested the practice could follow other City systems in place for signage that would be comparable for placing signs on City-designated trees.

Boardmember Chapman added that the City's communications staff would likely have feedback on ensuring branding and consistency of messaging. Boardmember Sedore suggested following up with operations staff to receive feedback prior to forwarding a recommendation to the City Council. Coordinator Jones Wood offered to discuss the matter with operations staff on the feasibility and requirements for signage on both public and private properties.

Boardmember Coval recommended including the possibility of placing a QR code on signs to direct the viewer to websites for more information about the tree. Coordinator Jones Wood acknowledged the request.

Boardmember Sedore clarified that his recommendation pertains only to designated heritage trees within the City.

COORDINATOR'S REPORT:

Coordinator Jones Wood reported on the receipt of over 60 public emails opposing the removal of the Davis Meeker Garry Oak tree located off Old Highway 99. The Board received a copy of the forester's extensive assessment of the tree's health following a recent incident of a large limb falling from the tree because of tree rot earlier in the summer. The City's process for removal of the tree from the register was shared with the Board as well. The City's contracted forester, Kevin McFarland, recommended removal of the tree because of its condition. Mr. McFarland provides all tree assessments for the City. The path forward for potential removal of the tree begins March 21, 2024 with the Historic Preservation Commission receiving and reviewing a recommendation to remove the tree from the historic register. The process for removing a heritage tree from the list does not involve the Tree Board because the process is considered an administrative process with oversight by the Community Development Department Director. The Historic Preservation Commission will forward a recommendation to the City Council for consideration. Any recommendation to remove the tree has been difficult as the tree has an historic tie to the City; however, the tree serves as serious hazard to motorists using Old Highway 99. The community received some incorrect messaging from sources unknown that the removal of the tree was linked to road construction, which is not the case. The removal of the tree and subsequent discussion occurred after a limb fell and following the completion of the assessment of the tree's health.

The bill passed on the Wildland-Urban Interface Code. Staff is working on amendments to adopt code language within the City's code. Staff anticipates reinitiating the review process in May for tree and vegetation protection ordinance amendments, landscaping code amendments, and finalizing the Street Tree Plan. Coordinator Jones Wood noted that the City's comments and participation in the proposed Wildland-Urban Interface Code legislative process enabled the protection of many trees in the City.

Director Dan Smith advised of his appreciation to the Board to receive public testimony on the Davis Meeker oak tree. The City Council is scheduled to receive a briefing on the assessment completed by Mr. McFarland. The Council also received a number of public comments.

PUBLIC COMMENT:

Kattarina Simmons, 8116 Countrywood Drive SE, said she was surprised to learn about the City's intent to remove a 400-year old tree. She understands the reason as it appears the City is not willingly removing a tree that can never be replaced. Her concern is a lack of a plan for salvaging wood from the historic tree to create

objects or mementos. She would like to see some actions to preserve the history, beauty, and the value of the tree rather than chipping the tree for wood chips or selling the tree. She urged the City to preserve trees for the sake of the children and the environment while also ensuring the safety of the public.

Teresa Jennings, 9204 Woodridge SE, offered no comments other than she is following the process.

Beowulf Brower, 7126 Foothill Loop SW, thanked the Board for its efforts to preserve trees and through efforts in the update of the Wildland-Urban Interface Code. Thanks to those efforts, many trees may continue to live. He is a certified arborist and tree assessor for Washington State Parks. His opinions do not reflect any official position of the Washington State Parks and Recreation Commission. His job is relevant because of the department's management of more old growth and heritage trees than any other state agency. The shop is located south of the oak tree in Millersylvania State Park. He drives by the oak tree at least once a week and marvels at the sight of the tree. As the tree is awe-inspiring, he anticipates the City will continue to receive many emails. He is not speaking to validate its retention based on his personal feelings but rather after a review of the reports submitted to the Board. Let's begin with the fact that no one can dispute – the prevailing wind measured by Olympia Regional Airport of flows at an average heading of 206° south by southwest on flat open terrain with no buffering for the tree. Under those conditions, even a healthy tree would be expected to lose limbs during severe wind events. This oak is no exception and is more apt to suffer damage based on its age. That is a fact. However, another fact is the road to the west of the tree and the hanger to the east results in the wind unlikely to blow limbs further than they currently extend to either side in the event of limb failure. Considering the decay, tree limbs that live half a century must fight off tens of thousands of injuries and pathogens and it cannot quarantine itself, move from bad ground, or even heal from the attack by pathogens that must consume it in order to live. If a person was 400 years old, they would look considerably worse. The most severe outcome of the tree failing is a complete stem break near the ground. The report by Tree Solutions describes (the tree) as having slightly more sound wood than required to support itself. On the surface, it appears to tip the needle towards retention; however, more must be considered. The notion of required sound wood is based on a study completed in 1980 on plantation-grown conifers that has been hotly debatable among arborists but it is applicable to deciduous trees and not necessarily applicable to deciduous trees with open spreading crowns. The stoutness of a tree, which directly correlates to the amount of leverage exerted by the wind is not

factored. He encouraged the Board to consider the article authored by Frank Whren on the one-third rule that delves deeply into the topic. To see the theory in practice, he encouraged members to visit Schafer State Park and stand inside one of the maples in the old campground. The tree is older than the country and is deserving of its modest journey that might provide a better perspective. The fact that Tree Solutions recommends retention and being acquainted with Scott Baker, the tree undertaker, he is inclined to agree with the company based solely on its reputation. What should be done? Retrenchment is a good option because it deserves the option. However, another option not listed by Tree Solutions or Mr. McFarland is to make the tree stronger. A large maple tree is located on Capitol Campus in much worse decay than the Davis Meeker oak tree. It is extraordinarily well braced and cabled and cannot fail in any impactful way. Tree Solutions as well as other local companies are well versed in the practice. He really likes the oak tree and urged consideration of serious time and effort to retain the tree as hundreds of thousands of people drive past the tree each year. The tree is a well-known local landmark and is well loved by the community.

An identified member of the public commented that if there are multiple people within the industry that indicate there are other options for a tree that is special and 400 years old, she believes it is the City's responsibility to pursue options especially if the tree is still viable and alive. If it is only a matter of weakening with age, she questioned who among the population is not aging.

Mr. Brower added that if a family member who by some act of nature happened to be 400 years old and visited a doctor and was told to seek hospice care, the patient and family would likely be inclined to seek a second opinion. He recognized that three companies have been consulted on the issue, but questioned whether it would be harmful to invite a fourth expert, especially if the City wants to retain the tree by explore other viable options. He expects that the expert would consider the option of cabling and bracing given the fact that the tree stem facing the hanger is sound. The tree at the State Capitol is braced to a guidepost. The removal of the tree of that magnitude would be expensive. It might not be a terrible idea to conduct an appraisal of the tree so the City can complete a benefit cost analysis of removal versus retention. The tree provides ecosystem services that are quantifiable monetarily. The City should consider completing a tree and plant appraisal qualification through the American Society for Consulting Arborists. A number of members in the area could provide the consultation.

Cindy Cooper, 12085 Ebbets Drive SW, said she attended the City

Council worksession. The Council will make the ultimate decision about the fate of the tree. Anyone having comments about the tree might want to direct comments to City Administrator Parks or Councilmember Joan Cathey. No one has considered another possible option of moving the road away from the tree to eliminate the liability of the tree. At least for 20 years, the tree was subject of discussion by the Department of Transportation, which prompted the placement of the road barrier to accommodate the safety of the tree. It is worth considering in terms of rerouting the highway versus the long-term care and retrenchment costs for the tree.

ANNUAL CHAIR AND VICE CHAIR ELECTION:

Chair Grantham invited nominations for Chair and Vice Chair.

MOTION:

Boardmember Sedore moved, seconded by Boardmember Chapman to nominate and elect Trent Grantham as Chair and Michael Jackson as Vice Chair for 2024. A voice vote approved the motion unanimously.

CITY OWNED TREE INVENTORY & COMMUNITY URBAN FOREST MAINTENANCE PLAN:

Coordinator Jones Wood reported the Plan was funded by a $40,000 grant from the Department of Natural Resources Urban and Community Forestry Program with a $20,000 match from the City's Tree Fund. The project supports six actions in the Urban Forestry Management Plan. The Plan references "American Short Ton" rather than the "Metric Ton" resulting in a difference in the numbers.

The Plan refers to trees in natural areas, street trees, and inventory trees. In 2018, many members of the Board were involved in the street tree inventory process as part of the development of the Urban Forestry Management Plan. This effort included volunteers to groundtruth street tree data and in prioritized areas the City maintains. Boardmember Sedore assisted in identifying some species of trees. Many trees that had been removed were reflected in the updated inventory. Inventory trees are trees located on City-owned properties, such as City Hall, Tumwater Library, and in some parks. Because of the lack of funding, many natural areas were not inventoried in-depth, and rather utilized a sample-based inventory approach. Those sites primarily include parks, stormwater ponds, wellhead sites, and other natural areas heavily forested with the exception of trees located in Historical Park. Of the inventoried trees, 65.1% were in good condition. Collectively, the trees store a substantial amount of carbon. I-Tree ecosystem services were estimated for inventoried trees and canopy of trees located in natural areas, as well as susceptibility of pests and diseases. Ninety-five percent of trees inventoried were determined to be susceptible to 44

emerging pests and diseases.

Within natural areas, 87% of sample trees were in fair or better condition. Tumwater's natural areas store quite a bit of carbon. The report evaluated different ecosystem services calculated by using I-Tree. Additional ecosystem services and benefits are provided to other species that are not part of the I-Tree model. The Plan considered stormwater, air pollution, public health related to air pollution, and carbon sequestration.

Of all trees inventoried, approximately $4.3 million of maintenance would be required. The Urban Forestry Management Plan dictates a four-year maintenance cycle, which was divided by four to establish a budget need of $850,839 per year for required maintenance. The current budget for tree maintenance is approximately $200,000. The City's annual report to Tree City USA documents expenses from all City departments working on trees of approximately $1 million to include removal, permits, planting, irrigation, and staff resources.

Maintenance actions recommended include increasing species diversity and new and replacement tree plantings.

The inventory sampled 42 plots of eight different natural areas comprised of a stormwater site, Sapp Road Park, Barnes Boulevard Southwest natural areas, Linwood Isabella Bush Park, Palermo Pocket Park, City maintenance shop and well, Henderson Boulevard, Pioneer Park, Trosper Lake natural area, and Tumwater Hill Park. Other City properties were inventoried tree by tree.

Of the inventoried trees, Douglas fir and red maple each comprised nearly 9% of the entire tree population. Norway maple trees are the most abundant trees followed by the Callery pear, red maple, and Douglas fir.

Boardmember Chapman noted that many communities list Norway maple trees and Callery pear as noxious weeds as they invade native plant communities and violate services provided by native plant communities. Although the trees provide benefits as trees, they also create problems with many outlawed or discouraged in many communities across the United States.

Discussion ensued on the number of native species included on the list. Boardmember Sedore noted that with the exception of Douglas fir trees, most other species were planted by the City and the community. Retailers and nurseries have replaced many native species with non-native species.

Boardmember Chapman expressed interest in learning how the data affects the recommended list of street trees.

Boardmember Sedore offered that his assumption is that many of the non-native species were selected by developers as street trees as opposed to native trees. Chair Grantham agreed, as they are essentially ornamental trees with specific growth habits, resiliency, and are readily available.

Coordinator Jones Wood reported the inventory tree resource include a mix of 110 unique species with 19% of those species native to Washington. Together the highest number of species comprise 34% of the overall tree population. In natural areas, 16 species dominate with Bigleaf maple, Douglas fir, red alder, and Western red cedar.

Boardmember Chapman suggested the Plan include an asterisk next to native trees.

Coordinator Jones Wood reported that all species have vulnerability to pests and disease. Urban forest managers should pursue the best management practice that no single species should represent greater than 10% of the total population and no single genus more than 20%. The Norway maple exceeds this rule at the genus level at 31.2% of the overall population. The Plan includes age distribution of inventoried trees. Graphs in the Plan denote natural areas or inventoried trees. Some individual trees in natural areas were particularly large. Within natural areas, the average diameter was 18". Some of the largest trees in natural areas included a Bigleaf maple with a diameter (DBH) of 122", a Douglas-fir with a DBH of 42", and a Western red cedar with a DBH of 81". The age distribution of Tumwater's natural areas reflect a moderately established population, characterized by many young trees dispersed among larger and older trees. In total, nearly 42% of trees are 12-inches or less in diameter.

Within inventoried trees, tree condition ratings reflect very good condition at 65.1%, good condition at 23.4%, 4.8% fair, less than 1% were poor, less than 1% were critical, less than 1% were dead, and 4.9% were in excellent condition.

Tree in natural areas are overall fair or in better condition with 87% rated as fair or better condition. Approximately 5.7% were rated as poor, less than 1% were rated as critical, and 6.2% were rated as dead.

The Board noted that trees in the natural areas were not rated as very

good. Coordinator Jones Wood explained that the sampling was random and likely did not capture all trees within the randomized plots. The Plan includes details on the size of the sample and how results were collected.

The current replacement value of Tumwater's inventoried tree resource is nearly $11.9 million for the inventoried tree population. The replacement value accounts for the historical investment in trees over their lifetime. Urban forests have important functional benefit values based on the environmental functions the trees perform. In addition to air quality benefits of producing oxygen and filtering out particulates, trees slow down and absorb stormwater as well as remove pollutants. Urban trees improve air quality in five fundamental ways by absorbing gaseous pollutants such as ozone, sulfur dioxide, and nitrogen dioxide through leaf surfaces, reduce emissions from power generation by reducing energy consumption, increase oxygen levels through photosynthesis, provide transpiration of water and shade provision resulting in lower local air temperatures, a reduction of ozone levels, and intercepting particulate matter. Tumwater's inventoried trees provide annual environmental benefits valued at $18,010. The annual environmental benefits provided by the inventoried tree resource are conservative estimates. Bigleaf maple, Douglas fir, and Norway maple remove the most pollutants. Overall, Northern red oak produce the greatest volume of VOC emissions and 19% of total emissions, largely because of size and prevalence in the inventory.

Each year, approximately 8,733 pounds of nitrogen dioxide, sulfur dioxide, small particulate matter, and ozone are intercepted or absorbed by Tumwater's trees in natural areas, for a total value of $27,898.

Inventoried trees within Tumwater are estimated to have stored 1,968 tons of carbon in woody and foliar biomass valued at $335,667. Annually, the inventoried tree resources directly sequester an additional 26.7 tons of carbon. Among prevalent inventoried tree species, Bigleaf maple contributes the most per tree to atmospheric carbon removal sequestering a gross 3.3 tons of carbon annually.

Trees in natural areas within Tumwater are estimated to have stored 4,002.7 tons of carbon in woody and foliar biomass valued at $682,654. Annually, trees in natural areas directly sequester an additional 159.4 tons of carbon valued at $27,182.

Boardmember Sedore pointed out the radical difference in numbers between inventoried trees and natural areas. Coordinator Jones

Wood said much of the difference could be attributed to the environmental conditions of the tree site. Additionally, the I-Tree analysis uses a different tool for each measurement. I-Tree Eco used for inventoried trees provided much more data while I-Tree Canopy was used for natural areas. The difference could also be attributed to two different modeling tools but the figures are supported by the U.S. Forest Service through peer reviewed science. For the City's purpose in determining carbon sequestration, staff considered the sum of the two different evaluations and how they compare to emissions of City operations.

Boardmember Sedore said the Plan lacks any mention of Quercus garryana (oak tree species native to Pacific Northwest) as the species offers tremendous value to the ecosystem, which is not measured in any of the Plan's criteria. Coordinator Jones Wood explained how the I-Tree modeling program analyzes a single tree without a program. Metrics of the tree are inputted (species, DBH, building proximity, etc.) utilizing drop down options which likely includes Oregon white oak that can be inputted to produce the value of each tree. I-Tree Eco could be run if data are available on Garry oaks. It is possible to produce a report identifying the location of Garry oaks within the inventory. Nancy Partlow requested and received inventory results for Garry oak. Garry oaks is only a small percentage of the overall inventory, which is why it is not reflected in any of tables in the Plan.

Tumwater's inventoried tree resources are estimated to contribute to the avoidance of more than 829,870 gallons of stormwater runoff annually through the interception of precipitation on the leaves and bark of trees for an average of 172 gallons per tree. Bigleaf maples are major contributors.

Boardmember Chapman commented that conifers often receive more credit for stormwater mitigation rather than deciduous species. Coordinator Jones Wood noted that Bigleaf maple provides 27.2% of the estimated avoided runoff equal to $8.70 per tree versus the Western red cedar at $3.44 per tree.

The Plan also includes information on aesthetic, property value, and socioeconomic benefits of trees and annual benefits of most prevalent species. The Bigleaf maple is providing the greatest overall tree benefit at approximately $18 per tree. The Plan includes inventory tree resource data based on value per tree.

Currently, the City invests $1 million annually with 25% for administration, 20% for pruning, 10% for irrigation, 10% for removal, and 15% for inspections with the remaining 20% for litter

removal, tree planting, maintenance, infrastructure, liability claims, and pest and disease control based on data submitted annually to Tree City USA.

Boardmember Chapman inquired about the status of hiring an urban forester. Coordinator Jones Wood advised of a recent meeting with a local non-profit. Representatives from the non-profit are scheduled to meet with the U.S. Forest Service to ascertain whether the City can use its state environmental health disparities index as justification for funding the position. One of the City's census tracts is considered to have a high environmental health disparity rating. The City can also utilize the environmental justice screening tool to determine air quality impacts in the City to determine if the tools combined would be allowed by the U.S. Forest Service.

The Plan also speaks to urban forest pests and pathogens. According to the analysis, 4,624 (95%) of the 4,980 trees are susceptible to pests and pathogens with the potential risk estimated at nearly $11.3 million. Anticipating and monitoring for those threats is an important part of urban forest management.

Of the 4,890 inventoried trees, 7.3% are recommended for some sort of maintenance tree care and 14% have a primary defect. The Plan includes recommended tree maintenance and primary defects of trees. Lists can be provided to tree maintenance personnel. The cost of tree care is estimated at approximately $582,469 per year.

An analysis to identify the most suitable planting locations was conducted by analyzing each planting location to assign a priority ranking for benefit factors such as stormwater, urban heat island, and environmental equity (social equity). Maps were produced of proposed planting priority areas.

Coordinator Jones Wood reported a final report would be submitted to the Department of Natural Resources.

Boardmember Sedore referred to the collection of acorns from the Davis Meeker oak tree. He asked whether staff has been involved in those efforts. Coordinator Jones Wood responded that Parks staff collected approximately 40 acorns from the tree, as well as Mr. McFarland's collection of 66 acorns. The acorns are in cold storage or have been started in pots. The intent is to plant the trees or provide the trees to community members with appropriate planting and growing space. Some conversations addressed planting some of the trees at the Trails End Park.

Coordinator Jones Wood invited feedback and questions regarding

the Plan.

Boardmember Sedore pointed out a discrepancy of two different figures within the inventory for natural areas in the Plan. He added that the consultant plans to review the document and revise the information.

Coordinator Jones Wood reported on her contact with the Squaxin Island Tribe. She was able to work with a tribal member who provided insight on all the species that the Tree Board will be giving away at the Arbor Day Celebration. The plant handouts now include traditional cultural uses and citations recognizing the tribal member who provided the information.

OTHER BUSINESS: Boardmember Jackson advised the Board on the importance of considering the outcomes of any amendments the Board might recommend for the tree and vegetation preservation ordinance once the review is reinitiated. He cited several examples of jurisdictions with stringent regulations and some of the negatives outcomes. One example is a client who lives in the City of Edmonds, which has stringent protection regulations for trees and vegetation. The client owned a parcel for a number of years and decided to build on the lot several years ago. He was unable to obtain a building permit due in part to the existence of one dogwood tree on the parcel. The client viewed the city's action as extortion as the City refused to issue a building permit as the mitigation was unreasonable. His client sued the city. After several years, the court ruled in his client's favor. Because of the delay in developing the parcel, monetary losses were substantial and the city has agreed to pay him for his losses because of one dogwood tree.

Another recent action is occurring by Thurston County to change its code on March 19, 2024. He recently obtained a copy of the new code. Thurston County has switched to requiring 100, two-year old tree seedling per acre. For most development of a single home, it is possible to work within the confines of a code; however, in practice for larger developments it is nearly impossible to meet the code. Thurston County also has changed the code definitions for trees recognizing significant trees, landmark trees (above 24" DBH), and heritage trees (above 40" DBH). A local development of a marijuana growing operation had a patch of trees the owner was able to save because the area was not needed for development. Under the new county rules, planting 100 trees would not be problematic for that particular property. The Board has attempted to change the City's retention of 12 trees per acre but was unsuccessful. He urged the Board to consider unrealistic outcomes for development proposals.

NEXT MEETING DATE: The next meeting is scheduled on Monday, April 8, 2024.

ADJOURNMENT: **With there being no further business, Chair Grantham adjourned the meeting at 8:31 p.m.**

Prepared by Valerie L. Gow, Recording Secretary/President
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