CONVENE: 6:02 p.m.

PRESENT:

Mayor Debbie Sullivan and Councilmembers Peter Agabi, Michael Althauser, Joan Cathey, Leatta Dahlhoff, Angela Jefferson, Eileen Swarthout, and Kelly Von Holtz.

Staff: City Administrator Lisa Parks, City Attorney Karen Kirkpatrick, Finance Department Director Troy Niemeyer, Fire Chief Brian Hurley, Community Development Department Director Michael Matlock, Administrative Services Department Director Michelle Sutherland, IT Department Director Lance Inman, Water Resources and Sustainability Department Director Dan Smith, Parks and Recreation Department Director Chuck Denney, Communications Manager Jason Wettstein, and Deputy City Clerk Tracie Core.

DAVIS MEEKER OAK TREE RISK ASSESSMENT FINAL REPORT BRIEFING:

City Administrator Parks introduced Todd Prager, Principle & Owner of Prager & Associates and Rick Till, Associate, to provide a report on the tree risk assessment of the Davis Meeker oak tree.

Mr. Prager and Mr. Till reviewed their qualifications and work experience as Certified Master Arborists.

Mr. Prager reported the Davis Meeker tree is an approximate 400-year old Oregon white oak tree that is native to the area. In 2023, an 18-inch diameter branch fell 40 feet onto the highway during mild weather. A prior risk assessment was initiated following the event and included sonic tomography at the trunk of the tree and a climbing inspection of various parts of the tree. Based on the assessment, the primary recommendation was to remove the tree.

Mr. Prager advised that his firm was contacted to complete another risk assessment of the tree. The assessment included a review of the initial assessment report and an independent risk assessment to include a review of all background information on the tree's history. The work included another aerial inspection of the tree, root crown excavation, and several sonic tomography readings at the base of the tree, the trunk, and stems of the tree. The results of the various forms of evaluation were analyzed with risk categorized using the International Society of Arboriculture's (ISA) tree assessment process. Following the categorization of risk, various mitigation options were identified to reduce risk for the Council's consideration. All the information is contained in a Level III Tree Risk Assessment Report provided to the City.

Mr. Till reviewed and described the ISA qualitative assessment process. Some ratings can vary between different assessors and in the context of the tree and the environment. Risk ratings are not definitive prescriptions of next steps but rather they provide context and

information for decision-makers and risk managers to make informed decisions.

Mr. Till shared photographs of the Davis Meeker oak tree and identified different sections of the tree that were evaluated using different assessment methods. He described the results of the assessments completed on the central stems, east branch leaning over the highway, and the southwest stem that branches out towards the airport hangar.

Mr. Till said the tree splits into two codominant trunks approximately 16 feet above ground. At that point, probing of that area revealed solid wood and no fungal fruiting bodies (decay). The union was determined to be sound based on the probing. Other sonic tomography readings were completed below the union to assess for decay or structural weakness as well as above the union in both stems.

The second co-dominant union is located higher in the tree to the southwest and was evaluated using sonic tomography. A previous failure occurred in 2012 during an ice storm. At that time, there were several documented failures because of the ice storm. The second co-dominant stem that experienced a failure reflects good wound wood growth that is indicative the tree is responding and adding more structural integrity to the tree.

Mr. Prager said the May 2023 failure precipitated the first risk assessment. That failure occurred from the central stem. He displayed a photo of the area of failure. The area includes discolored wood reflective of an older failure or damage that occurred prior to the 2023 incident. Another issue is the presence of fungal mycelium. Samples of the area were removed to determine the type of infection/disease. Wound wood growth is occurring from the failure indicative that the tree is responding to the failure that occurred.

Further up the tree along the central stem, a Kestrel cavity was identified housing a nest for falcon-type species. The cavity was probed to obtain a measurement of any decay that might be occurring. The results reflect that the stem is mostly hollow at that location.

Along the east branch, failure can be viewed from the ground. The timing of the failure is unknown but it is part of the history of failures experienced by the tree. The area is located over the highway, which is an important location for a failed branch.

Mr. Prager shared another view of the historic failure revealing wound wood growth over the failure that was used for comparison to wound wood growth resulting from the May 2023 failure. The aerial inspection of the tree identified numerous past failures of the tree.

Sonic tomography was completed at the base and along the trunk. The first reading at the base of the trunk compared the reading obtained late last year with the reading completed as part of the initial assessment. Recent readings corroborate the results of the prior readings revealing a similar pattern of decay in both stems. The reading at the base contained the most substantial portion of decay. Essentially, the tree has a thin shell wall of sound wood at the base of the trunk and significant decay in the interior of the base. Eight sonic tomography readings were performed on the trunk of the tree. Essentially, the results revealed insignificant strength loss along the remaining portion of the trunk with the most significant strength loss at the base of the tree. The readings reflect that the tree has substantial holding wood remaining for structural integrity.

Mr. Prager displayed photographs of areas on the tree depicting root crown excavations or air spading tests (blowing strong steam of air around the base of the tree trunk) to expose the root crown of the tree. The test reveals conditions at the base of the trunk, such as fungal fruiting bodies, decay, or root loss. An existing cavity at ground level was probed revealing sound wood surrounding the cavity with no significant decay or fungal fruiting bodies in the root crown area. The team was surprised at the good condition of the root crown when excavated.

Mr. Prager summarized the data. Some parts of the tree revealed significant decay while other areas are sound. The interior of the trunk experienced the worst strength loss. Along the stem, there is minimal strength loss although there have been several failures in the past both during calm weather and some that were precipitated by storm events. The tree risk assessment process involves considering the results and categorizing risk and assigning risk ratings. The consultant is responsible for providing risk ratings, options for mitigation, and residual risk ratings (remaining risk after mitigation measures). The City's role as the tree risk manager is to determine next steps based on the information provided in the assessment. Some factors for consideration are the amount of investment to support the tree and identifying the level of acceptable risk to the City.

Mr. Prager displayed two matrices of risk assessment of a *likelihood matrix* and a *risk-rating matrix*. Under the Likelihood Matrix, the likelihood of failure can range from imminent, probable, possible, and improbable. When considering the likelihood of failure, the timeframe is factored. The consultant team selected a timeframe of five years. Under the Risk Rating Matrix, the likelihood of failure and impact ranges from very likely, likely, somewhat likely, and unlikely. The consultant team analyzed several targets, such as the highway, airport hangar, parking,

and other targets surrounding the tree. The highest likelihood of failure the consultant team recommends is "possible" based on the outcome of the assessment. The recommendation is consistent with the previous arborist's assessment. The Likelihood Matrix finds that with a rating of "possible," the likelihood of impact (low, medium, & high) reflected a rating of "somewhat likely" under the high column.

The second matrix categorizes the risk ranging from low, moderate, high, and extreme (emergency). Should a significant branch fall from the tree and strike the highway, the incident would be a severe consequence if someone was injured or killed. The risk rating result of "somewhat likely" assigns a moderate risk, which reflects the highest rating from the analysis.

Mr. Till advised that the prior arborist report listed the likelihood of failure as "probable" and "likely of impact" as high, which alters the outcome. However, he is confident that the selection of "possible" is the best fit given the definition provided by the rating system. The terms for risk rating can be imprecise when considering the definition of probable, possible, and improbable requiring some practical wisdom and common sense in terms of interpreting the selections. The definitions do drive outcomes; however, the ratings reveal that the tree poses a moderate risk.

Mr. Till reviewed the definitions that guide the ratings. Essentially, under normal weather conditions, there is no expectation that the remaining branches on the tree would fail based on the visual inspection, updated sonic tomography, and fungal testing. Based on the available information, the "possible" definition is the best fit for normal weather conditions. The definitions are included and explained in the report.

Mr. Prager said the team considered the likelihood of the entire tree failing within the next five years and classified that likelihood as 'possible." The likelihood of the tree impacting any of the targets varied based on the orientation of the tree, prevailing winds, and the weight bearing of the tree. The highest likelihood of impact is if the tree fell towards the hangar with the lowest impact to the parking area or where people might be walking. The most significant target that was evaluated was Old Highway 99. The rating was "medium likelihood" of the entire tree falling onto Old Highway 99. The consequences of the tree falling onto the roadway or the hangar would be severe. However, despite the severe consequences, the risk rating reflects "low." The moderate risk rating was assigned to the hangar because it is a fixed target.

Mr. Till added that part of the risk analysis considered the crown weight of the tree, which is mostly to the southwest reducing the probability of the entire tree falling onto the highway because the massive weight is located to the southwest. The same analysis was applied to the central

stem, which was rated lower as the mass of the central stem and the crown weight are located more to the southwest.

Mr. Prager described the analysis and ratings for different areas of the tree. Each risk rating includes mitigation options. The most important is crown reduction pruning as discussed in the prior arborist report as a mitigation option. Crown reduction reduces the mass of the tree producing less surface area exposed to wind forces and it repositions the center of gravity of the tree to reduce the number of potential failures. The report does not include specifics as to the amount of reduction pruning or identify the areas of pruning. If implemented, the residual risk of the tree would be lower.

Mr. Prager shared a chart of risk management alternatives with pros and cons to assist the Council in evaluating different risk mitigation options:

- A. Basic Prune/Root Zone Management/Monitor
- B. Reduction Prune/Supplemental Support/Root Zone Management/Monitor
- C. Target Management/Reduction Prune/Supplemental Support/Root Zone Management/Monitor
- D. Tree Removal

Mr. Prager reported the team recommends Option B if the City chooses to retain the tree because it significantly reduces risk; however, reduction pruning can cause significant impact to the tree by reducing the tree's ability to photosynthesize and if too aggressive, the tree could decline. Another consideration with a supplemental support system is the requirement to regularly maintain, monitor, and adjust the systems to remain effective, creating ongoing cost and responsibility for the City.

Mr. Prager commented on the subjectivity of the risk assessment process, as the terms are not necessarily intuitive and could generate different opinions on possible versus probable or likelihood of failure. The team modeled the outcomes using different models for comparison of results.

Mr. Till provided additional information on the two other modeling programs. After running the models, one model generated an acceptable level of risk. The second model indicated that with the amount of sound wood around the perimeter of the trunk, there is a robust safety factor providing some confidence that the risk of full tree failure is within an acceptable range. Information on the modeling is included in the report.

City Administrator Parks reviewed some preliminary cost projections for Option B and Option D. Cost factors need to account for preparation of an expert work plan and cost estimate, arborist supervision required for ongoing work, labor market volatility and economic uncertainty, and Department of Archeology and Historical Preservation (DAHP) annual

permitting costs. Steps in the process to retain the tree include the DAHP permit process, advertising and selection of a contractor, development of a work plan, and implementation of the work plan. Ongoing work would be necessary beyond five years.

Using the assessment report, staff developed a preliminary spreadsheet outlining the various risk mitigation options for Option B, description of the tasks, frequency of tasks, and low and high cost estimates of each mitigation measure. For example, for basic pruning, the cost estimate from the report is \$2,000 for limited deadwood pruning. The estimate for traffic control can vary dependent on contracted labor or traffic control provided by staff. The spreadsheet is a work in progress and will be refined as the Council moves forward to identify the preferred option.

Councilmember Althauser questioned the source of funds for management and long-term maintenance of the tree. City Administrator Parks advised that grants would be unlikely and that the costs would be from the general fund.

Councilmember Agabi asked whether the rate of decay could be calculated per year as a way to gauge its eventual demise. Mr. Till replied that it is not possible to calculate the rate of decay. Trees can adapt to decay and have for millions of years by co-evolving with fungi existing within the tree. As the tree adds new growth, the tree compartmentalizes internal decay. Dependent upon how it occurs, decay can be compartmentalized and it does not necessarily expand at a consistent rate through time. Oregon white oak is generally considered to be decay-resistant than other tree species. The rate of decay is likely quite slow in relation to the tree's residual strength.

Mayor Sullivan noted the importance of ensuring a commitment for ensuring continued assessments are completed to ascertain if changes are occurring and to identify the cause.

Councilmember Swarthout questioned the possibility of establishing a donation fund to cover the costs of caring for the tree. City Administrator Parks affirmed the possibility of establishing a separate fund for the collection of donations. Director Niemeyer said such a fund would be established separately to ensure proper tracking of fund expenditures related only to the tree.

Mayor Sullivan cautioned that over time, the community may lose interest. To maintain the tree over time, a substantial plan would be required.

Councilmember Dahlhoff asked about the possibility of the urban forester assuming the responsibility of monitoring the tree. City

Administrator Parks affirmed the possibility as the position was established to support the stormwater utility and technical support for all tree code implementations. A five-year review would entail a professional assessment similar to the assessment recently completed involving aerial arborists and sonic tomography.

Councilmember Dahlhoff encouraged consideration of utilizing the Department of Enterprise Service Statewide Contract Service. She also recommended identifying the line item within the general fund that would support efforts for maintaining the tree.

Councilmember Cathey commented that she believes the environment, air, and water are becoming more important to people. Fading interest by the community would likely not occur as the community supports saving the tree. She supports pursuing efforts to save the tree, as there are opportunities to seek funding within the environmental realm. Additionally, people establish foundations or initiate different types of instruments to support an effort. The tree generated responses from people living outside the United States who care about environmental issues of climate change. The City is in the midst of a good time to take a risk as well as a critical step to save an historic tree that served as a trail marker and contributed to the creation of Tumwater. She urged consideration of exploring other ways of funding, such as creating a foundation.

Councilmember Von Holtz supported the comments and suggested it might be an opportunity for the Tree Board and the Historic Preservation Commission to work jointly to develop a plan for raising funds. The Council, through hundreds of emails and public comments, has learned that the tree is not a fleeting issue as the community loves the tree and wants it saved.

Mayor Sullivan noted that once the Council selects an option, a budget adjustment would be necessary regardless of the option. She stressed the importance of the Council solidifying the option to ensure future Councils honor the commitment.

Councilmember Dahlhoff recommended scheduling a joint meeting between the Council, Tree Board, and the Historic Preservation Commission.

Mayor Sullivan advised that work will be ongoing by staff. City Administrator Parks added that staff developed the initial spreadsheet and will continue to develop specific strategies and work plans. The selection of any option will require additional efforts to establish a work plan, cost estimate/budget, and maintenance plan.

The Mayor and Council thanked and acknowledged Mr. Prager and Mr. Till for their professionalism and time to complete the assessment and the report.

LEASE AGREEMENT WITH KAUFMAN HOLDINGS, INC. FOR 821 AIRPORT COURT:

Director Denney reported funds were included in the budget for the Parks and Recreation Department to lease space and move from City Hall to afford space to accommodate the Police Department's new body worn camera program and new employees. Following discussions, the management team recommended moving Parks and Recreation Department administration from City Hall to a new space.

Last October, the department began evaluating spaces in the City of Tumwater based on size, prices, and conversion of space to accommodate the functions of Parks and Recreation administration. Five building spaces were identified that would meet the need. One site is near the airport located east of the Davis Meeker oak tree. That site would be the least costly and is configured properly to accommodate required office space and public interaction. Today, department employees are located in five buildings throughout the City. The move provides an opportunity to improve efficiencies and consolidate some employee workplaces.

Department administrative staff, the Director, the Recreation Manger, the Arts Coordinator, and the Volunteer Coordinator from Old Town Center would relocate to the new site. The Recreation Supervisor would move to Old Town Center to manage recreation coordinators working at the center to ensure a cohesive team working in one facility.

The proposal is a three-year lease agreement with Kaufman Holdings. The building was used during the pandemic by Washington State Department of Transportation (WSDOT) for office space. WSDOT remodeled the building which enables the department to move in with minimal improvements necessary. The monthly rent is \$6,600. The amount was included in the department's budget for 2025 and 2026. The goal is to move in April and begin remodeling the City Hall space to accommodate the needs of the Police Department.

Staff requests the Council place the proposed lease on the Consent Calendar for the March 18, 2025 Council meeting with a recommendation and authorization for the Mayor to sign.

Councilmember Dahlhoff asked to receive a copy of the comparison of the costs between the five locations.

Councilmember Swarthout questioned language in the agreement citing Triple Net (NNN) of \$1,705.34 in addition to the monthly lease rate of \$6,600. Director Denney explained that the amount covers additional

expenses of waste disposal and utility costs. etc.

VOTE OF AFFIRMATION:	By a unanimous vote of affirmation, the Council approved moving the request to the Consent Calendar for the March 18,, 2025 Council meeting with a recommendation and authorization for the Mayor to sign the agreement.
MAYOR/CITY ADMINISTRATOR'S REPORT:	There were no reports.
ADJOURNMENT:	With there being no further business, Mayor Sullivan adjourned the meeting at 7:51 p.m.

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