



22500 Salamo Road  
West Linn, Oregon 97068  
<http://westlinnoregon.gov>

## CITY COUNCIL AGENDA

Tuesday, September 2, 2025

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1:00 p.m. – Work Session – Council Chambers & Virtual\*

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|-----------------------|------------------|
| 1. Call to Order      | [1:00 pm/5 min]  |
| 2. Approval of Agenda | [1:05 pm/5 min]  |
| 3. Public Comments    | [1:10 pm/10 min] |

The purpose of Public Comment is to allow the community to present information or raise an issue regarding items that do not include a public hearing. All remarks should be addressed to the Council as a body. This is a time for Council to listen, they will not typically engage in discussion on topics not on the agenda. Time limit for each participant is three minutes, unless the Mayor decides to allocate more or less time. Designated representatives of Neighborhood Associations and Community Advisory Groups are granted five minutes.

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|--|------------------|
| 4. Mayor and Council Reports                                     | [1:20 pm/10 min] |
| a. Reports from Community Advisory Groups                        |                  |
| 5. Proclamation  | [1:30 pm/5 min]  |
| a. National Preparedness Month                                   |                  |
| 6. Water Environment Services State of the District Presentation | [1:35 pm/20 min] |
| 7. Community Tree Ordinance and Tree Manual Technical Review     | [1:55 pm/20 min] |
| 8. Sewer System Development Charge Update                        | [2:15 pm/30 min] |
| 9. Next Steps on City General Fund Budget Needs & Opportunities  | [2:45 pm/15 min] |
| 10. City Manager Report  | [3:00pm/5 min]   |
| 11. Adjourn  | [3:05 pm]        |

*\*City Council meetings will be conducted in a hybrid format with some Councilors, staff, presenters, and members of the public attending virtually and others attending in person. The public can watch all meetings online via <https://westlinnoregon.gov/meetings> or on Cable Channel 30.*

*Submit written comments by email to City Council at [citycouncil@westlinnoregon.gov](mailto:citycouncil@westlinnoregon.gov). We ask that written comments be provided before noon on the day of the meeting to allow City Council members time to review your comments.*

*If you cannot attend the meeting in person and would like to speak live at a public meeting by videoconferencing software or by phone, please complete the form located at: <https://westlinnoregon.gov/citycouncil/meeting-request-speak-signup> by 12:00 pm the day of the meeting to be input into our system. Instructions on how to access the virtual meeting will then be provided to you by email prior to the meeting. If you miss the deadline and would like to speak at the meeting, please fill out the form and staff will send you a link as time allows.*

*The City abides by Public Meetings law. If you believe a violation has occurred, please [click here](#) to inform the staff of your concern.*

*To request an interpreter or other communication aid, please contact Kathy Mollusky at 503-742-6013 or [kmollusky@westlinnoregon.gov](mailto:kmollusky@westlinnoregon.gov).*

*When needed, the Council will meet in Executive Session pursuant to ORS 192.660(2).*

# PROCLAMATION

West Linn, Oregon

**WHEREAS**, disasters occur every day in human life, some man-made and some as a result of our natural environment; and

**WHEREAS**, some natural disasters are unpredictable in nature, such as the much anticipated Cascadia subduction zone earthquake, whereas others are becoming more frequent and severe as our climate changes; and

**WHEREAS**, we face longer wildfire seasons, more severe droughts, heavier rainfall, and more frequent flooding; and

**WHEREAS**, one way we can respond to the unpredictable and severe nature of natural disasters and emergencies is to be prepared to respond; and

**WHEREAS**, there are simple but important steps we can all take to ensure we know what to do and have what we need in the event of an emergency; and

**WHEREAS**, one simple step is for households to assemble disaster supplies and make a plan to reconnect after a tragedy; and

**WHEREAS**, each of us can do our part to prepare for emergencies and help our neighbors and others affected by disasters; and

**NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF WEST LINN**, joins others in this nation to observe the month of September once again as:

## NATIONAL PREPAREDNESS MONTH

We encourage West Linn residents to promote family and community disaster and emergency preparedness now and throughout the year. We also pay tribute to the courageous individuals who rush to the scene of disaster and respond to catastrophic emergencies for their dedication to our safety and security. We honor them with our renewed commitment to ourselves be prepared and self-reliant as we possibly can be.

DATED THIS 2<sup>nd</sup> DAY OF SEPTEMBER, 2025.

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RORY BIALOSTOSKY, MAYOR

ATTEST:

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KATHY MOLLUSKY, CITY RECORDER



# 2024 ANNUAL REPORT



CLACKAMAS

WATER  
ENVIRONMENT  
SERVICES



# Vision & Mission

## VISION

Be a collaborative partner in building a resilient clean water future where all people benefit, and rivers thrive.

## MISSION

Clackamas Water Environment Services (WES) produces clean water, protects water quality and recovers renewable resources. We do this by providing wastewater services, stormwater management, and environmental education.

It's our job to protect public health and support the vitality of our communities, natural environment, and economy.

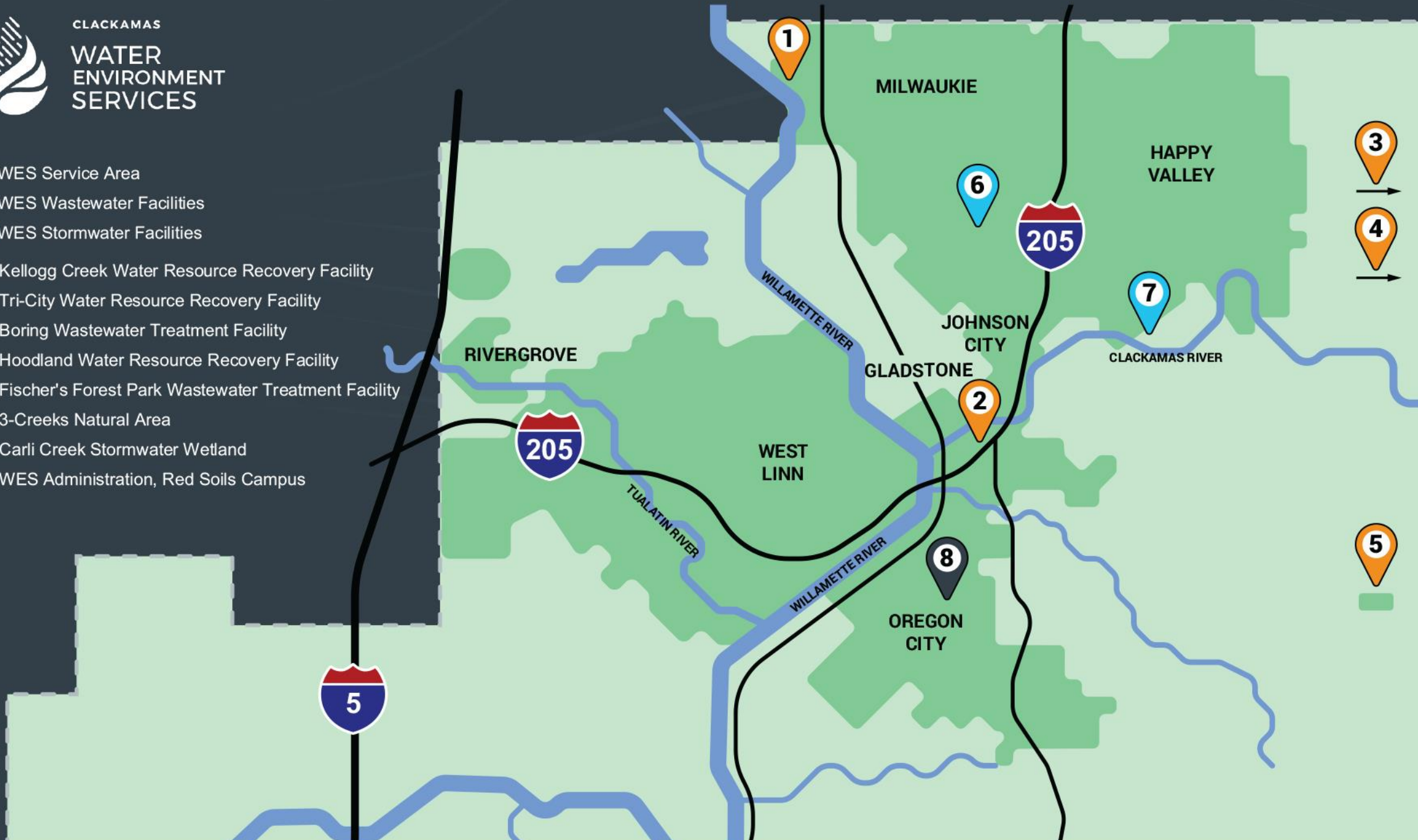




CLACKAMAS  
WATER  
ENVIRONMENT  
SERVICES

- WES Service Area
- WES Wastewater Facilities
- WES Stormwater Facilities

- 1 Kellogg Creek Water Resource Recovery Facility
- 2 Tri-City Water Resource Recovery Facility
- 3 Boring Wastewater Treatment Facility
- 4 Hoodland Water Resource Recovery Facility
- 5 Fischer's Forest Park Wastewater Treatment Facility
- 6 3-Creeks Natural Area
- 7 Carli Creek Stormwater Wetland
- 8 WES Administration, Red Soils Campus



# Financial Stewardship

*Carefully Managing Your Ratepayer Dollars*

**Your  
Rate  
Dollars  
at  
Work**

62%

Operations and  
Maintenance

9%

Debt  
Payments

29%

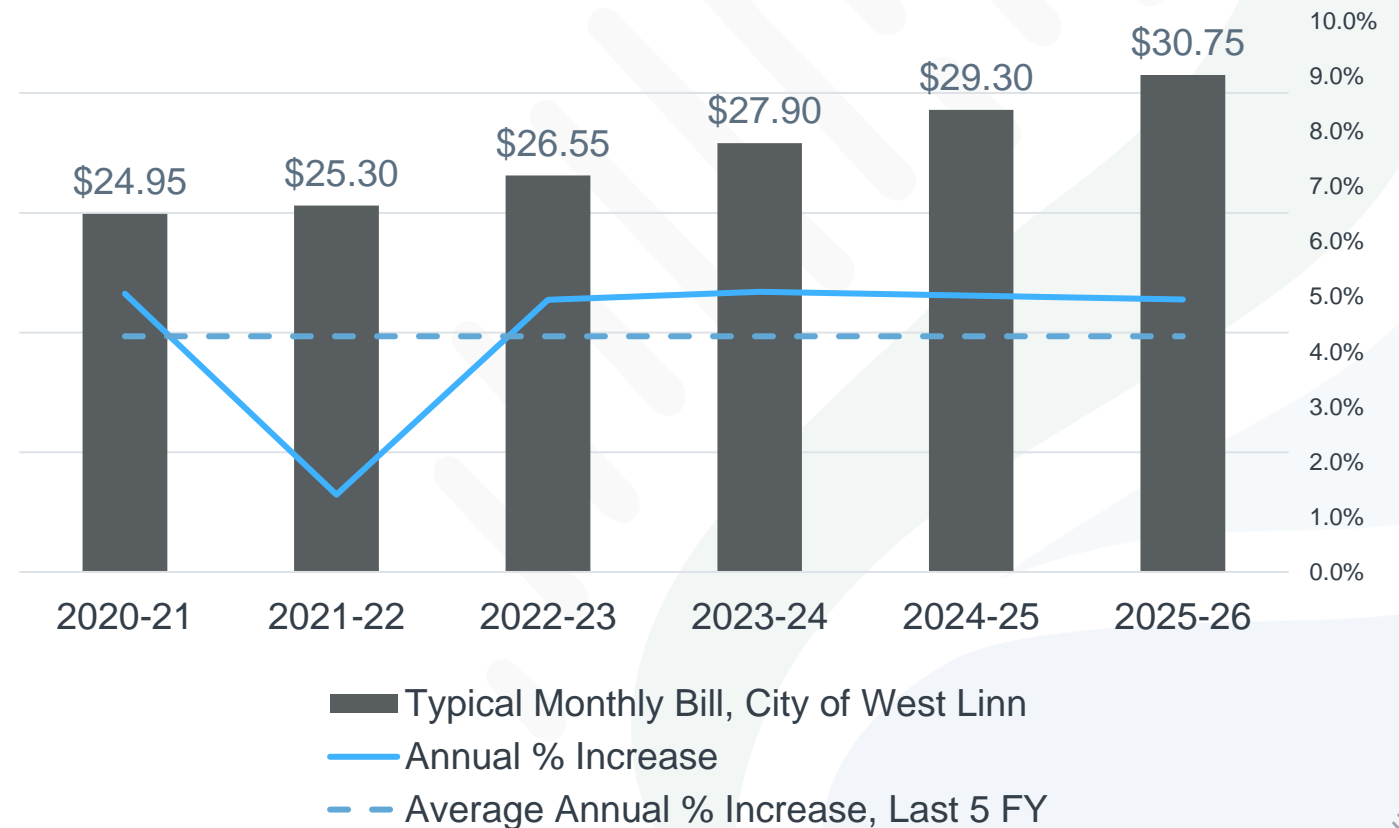
Infrastructure Financing  
and Reserves



# Commitment to reasonable and predictable rates

- The rate increase for customers in the City of West Linn for 2025-26 is 4.9% / \$1.45 per month.

West Linn Monthly Rate History





# Upgrading and Upsizing Aging Infrastructure

## *Tri-City Water Resource Recovery Facility Outfall Project*





CLACKAMAS

WATER  
ENVIRONMENT  
SERVICES

# Tri-City Water Resource Recovery Facility Outfall Project



# Willamette Pump Station and Force Main *Facility Operations*





# Willamette Pump Station and Force Main *Noise Mitigation*

- Establishing base line noise levels
- Meet high standards for noise limits
- Design to minimize noise and impacts
- Screening from trees and fencing
- Critically silenced equipment enclosures





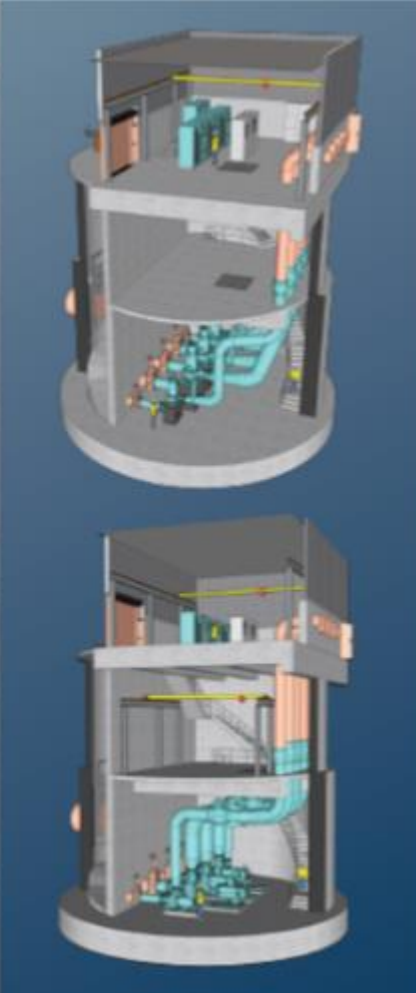
# Serving Your Wastewater Needs

## *Facility Operations*





# Tri-City Influent Pump Station Project



# Energy Conservation Wins



4.1% reduction in energy consumption



Enough to power 12 homes for a year



\$44,484 incentive check from Energy Trust of Oregon



# Partnering with West Linn

## *Community Events*

- West Linn Parks & Rec
  - Movies in the Park Sponsor
  - Music in the Park Sponsor
- Historic Willamette Main Street
  - Old Time Fair Parade Sponsor





# Partnering with West Linn

*Tri-City Water Resource Recovery Facility Tour | October 2024*



**Work Session Agenda Bill**

Date: April 29, 2025

To: Rory Bialostosky, Mayor  
Members, West Linn City Council

Through: John Williams, City Manager *JRW*

From: Megan Big John, Parks and Recreation Director

Subject: Community Tree Ordinance and Tree Manual Technical Review

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**Purpose:**

Overview of the Community Tree Ordinance and Tree Manual with suggested technical updates to bring both in compliance with state law, improve consistency in administrative decision making, reduce administrative costs, enhance public safety, and reduce risks to the City.

**Question(s) for Council:**

Does Council have questions about suggested revisions and policy updates for staff? Does Council wish to provide a public comment period for these revisions?

**Background:**

The City's Community Tree Ordinance and Tree Manual serve as foundational documents for the management, preservation, and regulation of trees within the urban environment. These tools are critical for ensuring public safety, maintaining the City's tree canopy, and supporting responsible development. However, in recent years, evolving state laws and practical implementation challenges have revealed the need to update these documents to ensure legal compliance, administrative consistency, and enhanced service delivery.

Staff from Planning, Engineering, Building, and Code Enforcement departments, in collaboration with the City's on-staff arborist and a consulting arborist, have conducted a comprehensive review of the current ordinance and manual. This multidisciplinary team has identified several areas where the existing documents are unclear, inconsistent, or outdated in light of new regulatory requirements and best practices. As a result, staff have developed a series of proposed technical amendments designed to address these gaps. We are calling these "technical amendments" because we tried to stay away from major policy decisions—those are needed too but would require much more community involvement.

**Discussion:**

The proposed updates to the Community Tree Ordinance and Tree Manual are intended to achieve several key objectives:

- **Compliance with State Law:** The revisions bring both documents into alignment with current state legislation, minimizing legal risks and ensuring the City's policies reflect up-to-date statutory requirements.
- **Improved Administrative Consistency:** By clarifying procedures and criteria for evaluating and issuing tree permits, the amendments provide staff with a standardized framework for decision-

making. This reduces the potential for inconsistent interpretations and improves overall transparency.

- **Reduced Administrative Costs:** Streamlining processes and reducing ambiguity in the permitting system will result in decreased time and resources required to process applications, allowing departments to operate more efficiently.
- **Enhanced Public Safety and Reduced Risk:** Clearer guidelines for tree maintenance and removal will help prevent hazardous situations and mitigate risk to the City.
- **Improved Customer Service and Community Understanding:** With a more accessible and consistent permitting process, residents and applicants will have a clearer understanding of the requirements and rationale behind permit approvals or denials.

In addition to the technical revisions, staff are also suggesting some policy changes aimed at further reducing administrative burdens, offsetting operational costs, and continuing to lower the City's liability exposure. The proposed changes that touch on policy issues will be flagged during the staff presentation.

Below is a summary of suggested updates. Full Tree Ordinance and Tree Manual recommendations, with explanations, can be found in attachments 1 and 2.

#### Tree Ordinance Technical update recommendations

- 8.510 Definitions
  - Update to industry standards and clarify
- 8.610 Contents of Application for Tree Removal
  - Administrative adjustments
- 8.640 Appeal
  - Specified notice and clarifies the City Arborist as the permit decision maker.
- 8.650 Time Limits
  - Clarifies that City Arborist is the approver
  - Clarifies the timeline the approval or appeal must be completed by.
- 8.720 Street Trees
  - Language update to keep clear lines between this code and CDC code.
- 8.750 Abatement
  - Additional clarifying language.
- 8.760 Tree Canopy Replacement Account
  - Includes language mitigation fees may be required by the CDC.
- 8.795
  - Clarifies that fees are specified in Master Fee Schedule

#### Tree Ordinance Policy considerations

- 8.540 Fees
  - Give option for Council to allow fees based on the Master Fee Schedule.
- 8.570 Development Review and Building Permit Process
  - Future opportunity to streamline the Municipal and Community Development Code
- 8.610 Contents of Application for Tree Removal
  - Allowance for the request of a Certified Arborist Report to help determine eligibility and site visits.
- 8.620 Permit Process
  - Clarification and Updates to notification process

- 8.63 Tree Removal Permit Criteria
  - Clarify criteria for determination of removal.
  - Require replacement for removal of street tree.
- 8.710 Heritage Tree
  - Changes shall to may for legal cost associated with tree encumbrance.
  - Removes the obligation for the for the Parks and Recreation Department to maintain the tree if located on private property.
- 8.720 Street Trees
  - Allowing the option for a street tree plan as there is currently not one. Suggest having a suggested listed of trees to choose from verse having a required tree per street.
  - Suggests removal of the fee in lieu for the City to be responsible to replace the tree.
- 8.740 Non-Compliance, Penalty, and Enforcement
  - Give the ability to suspend or revoke approved permit if incorrect is provided or if code is violated.

#### Tree Manual recommended update and policy changes

The Tree Manual is a technical document intended to guide tree practitioners in implementing the Tree Ordinance. The suggested updates and policy changes incorporate current industry-standard terminology and reflect advancements in tree care and management practices.

#### **Council Options:**

- 1) Provide feedback on proposed Tree Ordinance and Tree Manual Changes, and direct staff to bring the proposed ordinance and manual back for adoption at an upcoming business meeting (either at the next available meeting or in July following a public notice and comment opportunity.)
- 2) Request additional information from staff and hold a follow up work session.

#### **Staff Recommendation:**

Staff believes that implementing both the technical and policy changes as a unified package will provide the most benefit to the City and its residents. Doing so ensures operational improvements, reduces risk, and makes common-sense policy adjustments that support long-term program viability.

The proposed amendments represent a comprehensive and collaborative effort across City departments—including Planning, Engineering, Building, and Code Enforcement—with professional input from the City’s staff arborist and a consulting arborist.

While mostly technical, the proposals do impact a part of the code that is often of interest to our community. We recommend notifying the public (via our weekly email) and the NAP group of the proposed changes, and request comments by the end of June for a July Council decision.

#### **Attachments:**

1. 2025-04-23 Community Tree Ordinance Technical Revision
2. 2025-04-22 Tree Technical Manual Revision



Commentary: This set of proposed tree code amendments include technical updates to bring the code in compliance with state law, improve consistency in administrative decision making, reduce administrative costs, enhance public safety, and reduce City liability. Substantive amendments to the code are not proposed at this time. Changes that have potential policy implications will be further discussed at the work session.

## COMMUNITY TREE ~~ORDINANCE~~CODE

Commentary: The terms “ordinance” and “code” are used interchangeably throughout this document. The term “code” is proposed to be used instead of “ordinance” for consistency.

### 8.500 Purpose.

The purpose of Sections [8.500](#) to [8.798](#) is to ensure that the City and any areas that may become part of the City of West Linn will continue to realize the benefits provided by its urban forest, and to establish a process and standards which will minimize uncontrolled cutting or destruction of trees or wooded areas within West Linn. It is the intent of Sections [8.500](#) to [8.798](#) to establish, maintain, and increase the quality of tree cover on public and private lands within the City; maintain City trees in a healthy and nonhazardous condition through good arboricultural practices; and to provide a stable and sustainable urban forest. Sections [8.500](#) to [8.798](#) also recognize the value of the urban forest for its effect [on](#) enhancement of the urban environment in the following ways:

1. Healthy, well-maintained trees enhance business and residential environmental and property values.
2. Trees reduce air pollution by trapping dust on their leaves and in their bark, while also absorbing gaseous and liquid pollutants in their leaves and roots and returning oxygen to the atmosphere.
3. Tree roots stabilize the soil and impede erosion.
4. Trees reduce summer heat by blocking direct sunlight and glare. Evaporation of moisture from the leaves cools the surrounding air and moderates temperatures. Trees preserve and enhance water quality in streams and rivers.
5. Trees soften the geometric rigidity and hard surfaces of streets and buildings.
6. Trees muffle and buffer city noises.

7. Trees are recognized by a majority of residents as an essential component to community livability and quality of life. Trees foster a sense of connection to the natural environment and are widely considered to be a key component to the overall aesthetics of a community.

It is the goal of the City of West Linn, through implementation of this ~~ordinance~~code and through other measures designed to encourage and promote tree conservation and planting on both public and private lands, to maintain and increase tree canopy coverage within the City. In addition to and separate from this ~~ordinance~~code are standards concerning trees and tree protection in the Community Development Code (CDC).

[Section 8.500 added by Ordinance No. 1503, adopted May 5, 2004]

## 8.510 Definitions.

**Basal Flare:** That portion of a tree where there is a rapid increase in diameter at the confluence of the trunk and root crown.

**Building footprint:** The two-dimensional configuration of an existing building's perimeter boundaries as measured on a horizontal plane at ground level.

**Business Days:** ~~When West Linn City Hall is open to the public for business Monday through Friday -- exempting any holidays.~~

**Calendar Days:** All days as noted on a calendar, inclusive of weekends and holidays.

**Certified Arborist:** An individual who ~~has either~~ obtained certification as an arborist from the International Society of Arboriculture, ~~or who is a member of the American Society of Consulting Arborists.~~

Commentary: The definition of Business Days is updated to clarify that it means when City Hall is open for business. The definition of Certified Arborist is simplified to refer only to the ISA certification since members of American Society of Consulting Arborists are also ISA certified arborists.

**City Arborist:** ~~The person designated as such by the City Manager. The City Arborist may be employed by the City of West Linn directly, or be a contracted arborist.~~

**City Manager:** The City Manager or their designee.

**City Right of Way:** Land that is not owned by a private individual or company that has been either deeded or dedicated to the City for a public transportation purpose. As referred to with a road, the area of the road and area adjacent to the road in City ownership.

Commentary: Added that this definition refers to transportation right of way and does not include rights of way for other uses such as utility easements.

**DBH:** Diameter at Breast Height is a tree's trunk diameter (~~circumference~~) at 4-1/2 feet or 54 inches above ~~the highest natural~~ ground level unless otherwise specified for multi-trunked, leaning, or other irregular trees in the most recent edition of the Guide for Plant Appraisal. ~~DBH measured in this fashion is considered the accepted method for measuring the size of a tree, by both industry and scientific standards.~~

Commentary: DBH is trunk diameter, not circumference, and measurement methods can vary based on tree form. Revised DBH measurement definition to refer to the industry standards in the Guide for Plant Appraisal.

**Dead Tree:** A tree that is dead or has been damaged beyond repair or is in an advanced state of decline (where an insufficient amount of live tissue, green leaves, limbs, or branches exists to sustain life) and has been determined to be such by a certified arborist.

**Disturbance:** All of the various activities from construction or development that may damage trees.

**Drip line area:** The area under the tree's canopy as defined by an imaginary vertical line extending downward from the outermost tips of a tree's natural length branches to the ground.

**Erosion:** Detachment and movement of soil, rock fragments, mulch, fill, or sediment.

**Excessive pruning:** Removal of more than one-third of the functioning leaf, stem, or root area of a tree in any twelve-month period, or removal of foliage so as to cause the unbalancing of a tree. Removal of more than one-third of functioning leaf, stem, or root area is considered a tree removal.

**Groves:** A group of two or more trees with meeting or overlapping canopies. The trees need not be the same species.

**Hazard tree:** Any tree with a structural defect and/or disease which makes it subject to a high imminent or probability-probable likelihood of failure, and which threatens persons or property, including other trees based on an extreme or high overall risk rating over the next five-year timeframe according to an ISA Qualified Tree Risk Assessor using the ISA Tree Risk Assessment process.

**Hazard tree owner or responsible party:** The property owner or responsible party with the largest percentage of a Hazard tree trunk immediately above the basal flare. In cases where the Hazard tree consists of a branch instead of an entire tree, the hazard tree owner or responsible party is the person who owns or is responsible for the property from where the branch originates. The hazard tree owner or responsible party:

a. Owns the Hazard tree;

b. Is the entity or person acting as an agent for the owner of the Hazard tree by agreement that has authority over the Hazard tree, is responsible for the Hazard tree's maintenance or management, or is responsible for Hazard tree abatement;

c. Is any person occupying the property with the Hazard tree, including bailee, lessee, tenant or other having possession; or

d. Is the person who is alleged to have committed the acts or omissions resulting in the Hazard tree or allowed the Hazard tree to exist on the property.

**Hazardous Growth Habit:** The development of a tree that, due to a combination of structural defect, disease, or existing disturbance, is subject to an imminent or probable likelihood high probability of failure; and such failure would result in a threat to persons or improved property based on an extreme or high overall risk rating over the next five-year timeframe according to an ISA Qualified Tree Risk Assessor using the ISA Tree Risk Assessment process.

Commentary: Updated the definitions of hazard tree with current tree risk assessment terminology to require a high or extreme risk rating over a five-year timeframe. Also required that ISA Qualified Tree Risk Assessors are the people qualified to categorize risk. The definition of Hazard tree owner or responsible party is added for the new Hazard tree dispute resolution process.

**Heritage Tree:** A tree designated by the City Council as having significant historic or community value to the City of West Linn.

**ISA:** International Society of Arboriculture.

**Injury:** A wound resulting from any activity, including but not limited to excessive pruning, cutting, trenching, excavating, altering the grade, or paving/compaction within the tree protection zone of a tree. Injury shall include bruising, scarring, tearing or breaking of roots, bark, trunk, branches, or foliage, herbicide or poisoning, or any other action foreseeably leading to the death or permanent damage to tree health.



**Permit Fee:** ~~A fee for tree removal permits shall be established by Council resolution.~~

Commentary: Permit Fee is not a definition but rather is a standard and should be removed from the definitions section.

**Project Arborist:** A certified arborist hired by an applicant who will handle tree related issues and correspondence with the City Arborist regarding permits under this code.

Commentary: Defined terms in the Tree Technical Manual are shifted to the code so all definitions are in one place. The definition for project arborist has been modified to distinguish it from the CDC.

**Protected Tree:** All trees ~~that are specifically designated to be saved on private property pursuant to an approved development permit, or~~ for which the City Manager has not issued a tree removal permit. Protected trees are to be indicated on building permits ~~or development plans submitted for approval.~~

**Protected Tree Fencing:** A temporary enclosure erected around a tree to be protected at the boundary of the tree protection zone. The fence serves three primary functions: 1) to keep the foliage crown, branch structure and trunk clear from direct contact and damage by equipment, materials, or disturbances; 2) to preserve roots and soil in an intact and non-compacted state; and 3) to identify the tree protection zone in which no soil disturbance is permitted and activities are restricted.

**Soil Compaction:** The compression of soil particles that may result from the movement of heavy machinery and trucks, storage of construction materials, structures, paving, etc., within the tree protection zone. Soil compaction can result in atrophy of roots and potential death of the tree, with symptoms often taking years to manifest.

**Street Tree:** Any tree planted by the City or authorized to be planted by another party in a Right of Way and designated as such. Street Trees do not include existing native or non-native trees or new plantings that are not authorized by the City.

**Topping:** The severe cutting back of a tree's limbs within the tree's crown so as to remove the natural canopy and disfigure the tree.

**Tree:** For the purposes of determining whether a tree removal permit is required, the following definition of Tree is used. Only those trees that meet or exceed the size standards stipulated in this definition require permits to be removed. It is to be explicitly understood, however, that

within this Ordinance there are some references to “Tree” or “Trees” (such as with street trees or replacement trees) where the term “Tree” is used (because it would be cumbersome to invent a different term) but to which the size requirements do not apply.

Any woody, perennial plant, deciduous, evergreen, or coniferous, having a main stem or trunk of a minimum of 6 inch DBH for Oregon white oak, Pacific madrone, and Pacific dogwood, and 12 inch DBH for all other tree species. ~~Trees with multiple trunks will be measured at the 54-inch standard and computed as a total DBH.~~ Plants that otherwise meet the above description but are typically grown as shrubs will not be considered trees. Some typical examples of these we see commonly are hazelnut, photinia, and laurel.

(Note: Also see Exemptions - Section 8.560)

Commentary: Removed the reference to measuring multi stemmed trees since that is covered in the definition of DBH.

**Tree Appraisal:** A method of determining the monetary value of a tree as it relates to the real estate value of the property, neighborhood, or community. When required, a certified arborist determines the appraisal by adjusting a tree’s basic value by its condition, location, and species using the most recent edition of the Guide for Plant Appraisal, published by the Council of Tree and Landscape Appraisers.

**Tree Canopy:** For the purposes of determining tree removal, it is the sum total of the branch and leaf structure of a tree including the trunk and/or trunks. When referred to as the City tree canopy, it refers to the total ground area that is shielded by tree foliage as would be determined from an aerial view of the City.

~~**Tree Protection and Preservation Plan:** A plan prepared by a certified arborist that outlines measures to preserve protected trees on a project site. This plan shall include requirements for pre-construction, treatments during demolition and/or construction, establishment of a tree protection zone for each tree, tree monitoring and inspection schedule, and provide for continuing maintenance of those trees after construction according to the requirements in this Manual.~~

Commentary: This term is not used in the code so recommended to be struck.

**Tree Protection Zone (TPZ):** ~~Unless otherwise specified by a project arborist or City Arborist, the area of temporary fenced tree enclosure.~~ The Tree Protection Zone is a restricted activity zone where no soil disturbance is permitted, unless otherwise approved. The TPZ will normally

Commentary: Reordering of sentence for readability.

be measured at  $\frac{3}{4}$  foot radius per caliper inch for any given tree. Unless otherwise specified by a project arborist or City Arborist, the area of temporary fenced tree enclosure.

**Tree Removal:** Any of the following: (1) Complete removal, such as cutting to the ground or extraction, of a tree; (2) Taking any action foreseeably leading to the death of a tree or permanent damage to its health; including but not limited to excessive pruning, cutting, girdling, poisoning, over watering, unauthorized relocation or transportation of a tree, or trenching, excavating, altering the grade, compacting the soil or paving within the drip line area of a tree; (3) removal of more than one-third of functioning leaf and stem area of a tree in any 12-month period, or removal of foliage so as to cause the unbalancing of a tree is considered as removal for purposes of this ordinancecode. For fruit-bearing trees, see Section 8.560.

**Visually Prominent:** ~~Visible~~ At least one half of the canopy height or width is visible from a publicly accessible vantage point within 1000 feet of the tree. ~~Removal of a visually prominent tree would result in a marked difference in a view from an adjacent property or from a public right-of-way.~~

Commentary: Added more specificity to the definition to improve consistency in how visually prominent trees are identified.

[Section 8.510 added by Ordinance No. 1503, adopted May 5, 2004; Section 8.510 amended by Ordinance No. 1542, adopted November 27, 2006.]

## 8.520 Permit Authority.

The City Manager, or designee, shall have the authority to issue tree removal permits. In the absence of the City Manager, the City Council shall delegate this authority to another City employee.

[Section 8.520 added by Ordinance No. 1503, adopted May 5, 2004]

## 8.530 City Approval Required.

Unless specifically exempted, any removal of a tree as defined by this ordinancecode within the City of West Linn on public or private lands shall require a tree removal permit.

[Section 8.530 added by Ordinance No. 1503, adopted May 5, 2004]

## 8.535 Business License Required.

It shall be unlawful for any person to engage in the business, occupation or profession of tree pruning or removal within the corporate limits of the City of West Linn without first obtaining a business license therefore as provided in sections 7.000 to 7.080 of this code.

[Section 8.535 added by Ordinance No. 1503, adopted May 5, 2004]

## 8.540 Fees.

The City Council shall have the authority to set a tree removal permit fee schedule, and approve appropriate permit application forms. Such fees shall be ~~adopted by Ordinance of the City Council. The fee for a tree removal permit shall be zero.~~adopted by resolution and specified in the Master Fees and Charges Document.

[Section 8.540 added by Ordinance No. 1503, adopted May 5, 2004]

Commentary: This amendment allows the City to review their tree removal permit fees annually and adjust as needed based on administrative costs and other considerations. For example, costs for a development project or removal of a large number of trees could be set at a different level than someone removing a dead tree from a residential property.

## 8.560 Exemptions.

ORCHARD TREES, TREE FARMS, AND COMMERCIAL NURSERIES EXEMPTION: The City shall not require a permit for removal of trees that are being grown for orchard trees, tree farms and commercial nurseries.

FRUIT BEARING TREES, NON-COMMER-CIAL, EXEMPTION: Recognizing that the generally accepted pruning of some trees, such as fruit-bearing trees, requires significantly more pruning without damage to the trees, such pruning shall be exempt from the permitting process.

[Section 8.560 added by Ordinance No. 1503, adopted May 5, 2004]

## 8.570 Development Review and Building Permit Process.

### A. Development Review

1. Any tree which has been approved for removal through the development review process (governed by the Community Development Code, or CDC), either as part of the provision of public improvements or as part of the ultimate development of the site, shall not require an additional tree-removal permit. However, any tree not approved for removal through the development review process, ~~but later is found to require removal during the public improvement or grading review process,~~ shall require approval of a tree removal permit by the City. ~~In such cases, in addition to the findings in Section 8.630, the City may consider whether alternative public improvements or grading plans are feasible and can result in saving the threatened tree.~~



~~2. Non-compliance with CDC governed trees shall result in enforcement in accordance with section 8.740 of this code, in addition to any penalties set forth in the CDC.~~

## B. Building Permits

1. Trees that are within the otherwise approved footprint of a project requiring a building permit will not need an additional permit for removal.
2. The City may require the applicant to make minor modifications to a building plan to save significant trees on the property, provided other City mandated regulations, such as lot setback distances, are met. Minor modifications include but are not limited to moving the footprint to a different location on the lot and changes to the driveway shape and location.

C. Details and specifications regarding tree protection and removal ~~for trees governed by the CDC and building permits under this code~~ can be found in the City's Tree Technical Manual.

[Section 8.570 added by Ordinance No. 1503, adopted May 5, 2004; Section 8.570 amended by Ordinance No. 1542, adopted November 27, 2006.]

Commentary: These revisions are made to help keep the line between this code and the CDC clear. This code section doesn't need the struck language "but later is found to require . . ." in order for the regulation to stand that if a tree's removal is not approved through a CDC process, then it is approved through this process. For the particular issue that the struck language is meant to address - trees that are originally preserved as part of an approved development application but turns out they need to be removed pursuant to that development - that should be addressed on the CDC side of things. Either as an application amendment or as a condition of approval.

# TREE REMOVAL

## 8.610 Contents of Application for Tree Removal.

A permit shall be required to remove any tree in West Linn ~~unless such permit is waived by the City Manager~~. For the purposes of this ~~ordinance code~~, only trees meeting the criteria set forth in the definitions section (8.510) and Street Trees section (8.720) are required to get a permit. Trees of smaller diameter than the standards stipulated in WLMC 8.510 do not require a permit to be removed.

Commentary: Strike because criteria not clearly established.

**The application shall include:**

1. A completed Tree Removal Permit Application. This includes the following information:

- a. The tree owner's name, address, ~~and email address, and~~ phone number;
- b. The site address for the tree removal;
- c. The number, diameter, and species of trees requested to be removed;
- d. Reasons justifying the removal, referencing the criteria in section 8.630;
- e. The tree owner's signature and date;
- f. The owner's consent to the City entering the site for the purpose of section 8.620(2)(a); and
- g. The permit applicant's name, address, email address, phone number, signature, and date (if different from tree owner).

Commentary: Requires the applicant to include their email address so that decisions can be emailed rather than sent by US mail. Clarifies that both the tree owner and applicant need to sign off on the permit application if they are different people. Requires the owner's consent to enter a site for an inspection.

2. A site plan of the property upon which the tree proposed for removal is located. Applicants may use maps available through the City's GIS mapping system. The site plan should show the following:

- a. The location of the tree(s) to be removed;
- b. The location of any existing building footprint(s);
- c. The location of any new or planned building expansion(s). (This applies to construction that is exempt from permitting under the Building Code.);
- d. The location of any paved or concreted areas on the property.

3. After clearly marking the tree(s) on the property with brightly colored tape, the applicant shall take and include with the application photograph(s) of the tree(s) to be removed and the surrounding area.

4. The applicant may, at their discretion, submit a report by an Certified aArborist ~~on the health and structure of the tree(s) to be removed and the impact of such removal upon surrounding trees to demonstrate that the applicable approval criteria are met.~~ In no way should this be construed to mean that the City requires such a report for all applications, except as noted below. Reports from other qualified professionals (engineers, appraisers, etc.) may also be included in the application but are not required for all applications.

- a. If the ~~application is being made on the criteria in Section 8.630 A-2 "damaged root structure that will lead to death," then a formal report from an arborist is required.~~ City Arborist is not able to clearly determine whether the applicable approval criteria are met based on the submitted application materials, additional information may be required from the applicant including but not limited to reports by a Certified Arborist.

Commentary: These revisions grant the City authority to require arborist reports for tree removal applications in cases where the burden of proof for tree removal has not been met by the applicant. It is also intended to limit liability for the City in situations involving the proposed removal of hazardous trees. The burden of proof should be placed on the applicant to prove the criteria is met in more nuanced tree removal situations rather than requiring the City Arborist to determine, for example, whether there are hazardous trees on private property.

[Section 8.610 added by Ordinance No. 1503, adopted May 5, 2004; Section 8.610 amended by Ordinance No. 1542, adopted November 27, 2006.]

## 8.620 Permit Process.

~~Upon receipt of a permit request for tree removal, the City Manager shall take the following steps:~~

Upon receipt of an application for a Tree Removal Permit, the City Arborist or designee, shall take the following steps:

1. Determine if the application is complete. A complete application shall include all information requested on the application and as defined in Section 8.610 - Contents of Application for Tree Removal.

If the application is incomplete, notify the applicant within 10 business days of the deficiencies and information necessary to complete the application.

2. Once the application is complete:

a. The City will visit the site, if necessary, to identify and verify the specific tree(s) requested for removal and will note the following:

- (1) The accuracy of the application, including the location of the tree(s);
- (2) That the tree(s) are visibly identified with brightly colored tape;
- (3) The diameter and species of the tree(s).

Commentary: This revision allows discretion regarding whether a site visit by the City is required. In some applications, it may be obvious that a tree is dead and that no site visit is necessary. Approvals when site visit are not necessary save staff time and are more efficient.

b. The City will determine the level of notification needed based on the approval criteria in section 8.630.

(1) If any approval criteria A.1.a. through ~~dj.~~ apply, then ~~no~~-notification is ~~needed~~not required, and the decision of the City Arborist is final after issuance, with no appeal right.

(2) If only approval criteria A.1.~~ak. through or dj.~~ and both denial criteria A.2.a. and ~~eb.~~ do not apply, ~~the City shall erect~~ a sign shall be erected on-in the ~~right of way~~right-of-way ~~on abutting~~ the subject property, clearly visible ~~from to~~ the public ~~right-of-way~~, giving notice of the proposed tree cutting, including the same or similar information as provided on the property owner notice below. The sign shall be placed on the property at least 10 business days prior to the issuance of a decision on the permit. If the property has no frontage on a public right-of-way, a second sign shall be placed on the nearest such right-of-way directing individuals to the property.

(3) For all other trees the City shall, in addition to the sign notification described above, notify ~~all property owners within 500 feet of the property for which the permit is being requested~~the general public about the permit request via the City website. The notice shall be ~~posted to the website sent via US Mail~~ at least 10 business days prior to the issuance of a decision, and shall include the following:

- (a) The address (or legal description) of the property
- (b) A copy of the applicant's site plan

- (c) A description of the trees to be removed including the diameter and species
- (d) The reasons stated by the property owner justifying the removal
- (e) The expected City Manager's Arborist's decision date
- (f) How to request a copy of the decision on the application
- (g) The appeal rights and process (see Section 8.640)
- (h) The address and contact information of the City staff person for questions and comments

3. Within 20 business days of completion of the application, issue a decision on the permit request, using the decision-making criteria defined in Section 8.630. The City shall email a copy of the decision to the applicant and any other individual or organization requesting a copy of the decision within two business days of the decision. Upon special request, additional information may be included with the emailed decision, including, but not limited to the appeal rights and process, public comments received by the City, and comments on how the decision criteria in section 8.630 were applied.

4. Final ~~Decision~~decision date and ~~Issuance~~issuance of permit: When any approval criteria 8.630.A.1.a. through j. are satisfied, the decision of the City Arborist becomes final immediately and the permit will be issued. For all other tree removal permit criteria, Aa decision of the City Arborist becomes final 10 ~~business-calendar~~ days after ~~it (the decision) is issued~~the mailing date of the decision. ~~If the decision is to grant the permit, the permit shall be issued only after the decision becomes final. If there is no appeal filed, the decision of the City Arborist becomes final 10 business days after it (the decision) is issued. The permit to remove the tree(s) will not be issued until the decision becomes final. In the event that an appeal is timely filed under 8.640 of this code, then the City Arborist's decision shall not become final until the appeal is resolved.~~

[Section 8.620 added by Ordinance No. 1503, adopted May 5, 2004; Section 8.620 amended by Ordinance No. 1542, adopted November 27, 2006.]



Commentary: Along with the next section, this is the most substantively modified section. The purpose of this set of revisions to:

- 1) Provide a more consistent process for City decision making; and
- 2) Reduce administrative work for public notifications.

The proposal is to allow tree removal permit decisions to be made by staff without public notice for permit criteria that involve either minimal staff discretion or technical arborist expertise (i.e. 8.630.1(a) through (j)). For decisions that involve large elements of judgement (i.e. 8.630.1(k) and (l)), public notice will be required. For trees that are large and/or prominently visible, the highest level of public notice will be required. However, mailing notice to property owners within 500 feet of the tree will be replaced with posting notice to the City's website which could include a list serve for people interested in tree removals. A physical sign posted in the neighborhood will continue to be provided for discretionary decisions, though the City may require the sign to be posted by the applicant rather than the City depending on staff availability. Also, decisions will be emailed to the applicant rather than mailed. Note that currently tree removal permit applications do not include any required fees so costs associated with mailings and public notices are covered by the City.

## 8.630 Tree Removal Permit Criteria.

A. In making a determination whether to grant a permit, the City shall consider ~~the criteria listed below. The decision shall include findings that cite each of these~~the below-listed criteria. ~~These criteria are meant to be guides, and the varying importance or weight of each in determining the appropriateness of tree removal shall be as expressed in the findings:~~

1. The City shall grant the tree removal permit if the application satisfies any of aAny of the following criteria, ~~except for criteria 8.630.1.(k) and (l), shall be considered as aspects likely to warrant approval of a tree removal permit:~~

- (a) The tree is determined to be dead, or dying and not recoverable.
- (b) The tree is determined to have a significantly damaged root structure that will adversely impact the health and stability of the tree. Such a determination shall be based upon a report provided by the applicant. The report shall be reviewed and verified by the City Arborist.
- (c) The tree is determined to exhibit a hazardous growth habit.
- (d) The tree is interfering with utility service in such a manner that full restoration or maintenance of service requires removal of the tree.

- (e) The tree encroaches in the public right-of-way so as to cause damage to improvements within the public right-of-way such as street pavement and sidewalks.
- (f) The tree is causing structural damage that includes, but is not limited to, foundations, water lines and sewer lines.
- (g) The basal flare of the tree is within 10 feet of an existing building footprint.
- (h) An existing building footprint lies within the drip line of the tree.
- (i) Trees that have been maintained in the applicant's property for the purpose of growing fruit which are no longer bearing fruit or have suffered a significant reduction in fruit bearing.
- (j) Removal of trees is being done for thinning purposes to enhance the health of other trees.
- (k) ~~In the absence of denial criteria listed below, R~~emoval is for the owner's landscape improvement but does not jeopardize the aesthetics of the neighborhood.
- (l) The removal would allow solar access for an otherwise extremely shaded property.

2. If criteria 8.630.1.(k) or (l) are the only reasons for tree removal, the tree is healthy and of sound structure, and any of the following criteria is met, the permit shall be denied:~~Any of the following criteria shall be considered as aspects likely to warrant denial of a tree removal permit:~~

- (a) The tree is visually prominent.
- ~~(b) The tree is generally healthy and of sound structure.~~
- ~~(c)~~ (b) The tree is of significant size.
- ~~(d)~~ (c) The tree is part of a larger grove or grouping of trees, and its removal will adversely affect the health and safety of the remaining trees within the grove or grouping.
- ~~(e)~~ (d) The tree is on land that is sloped, and removal of the tree may exacerbate erosion or soil slumping in the vicinity of the tree.
- ~~(f)~~ (e) The tree acts as a privacy barrier for adjacent properties.
- ~~(g)~~ (f) Tree removal is solely to improve a view.

Commentary: Along with the previous section, this is the most substantively modified section. The purpose of this set of revisions to provide a more consistent process for City decision making.

The proposal is to approve tree removal permit applications without public notice for permit criteria that involve either minimal staff discretion or technical arborist expertise (i.e. 8.630.1(a) through (j)). For decisions that involve large elements of judgement (i.e. 8.630.1(k) and (l)), public notice will be required before a decision is made so the public can weigh in on the decision. If trees are generally healthy, of sound structure, and meet any of the following criteria in staff's opinion, the tree removal permit application will be denied:

- (a) The tree is visually prominent.
- (b) The tree is of significant size.
- (c) The tree is part of a larger grove or grouping of trees, and its removal will adversely affect the health and safety of the remaining trees within the grove or grouping.
- (d) The tree is on land that is sloped, and removal of the tree may exacerbate erosion or soil slumping in the vicinity of the tree.
- (e) The tree acts as a privacy barrier for adjacent properties.
- (f) Tree removal is solely to improve a view.

If the tree is not generally healthy or of sound structure, the tree removal permit application will be approved.

B. The City shall deny a tree removal permit if any of the following criteria is met:

1. The tree is designated by the City of West Linn as a heritage tree, unless one of the criteria in subsections (A)(1)(a) through (d) of this section applies and the hearing is followed, as noted in Section 8.710.
2. The tree is located within an open space drainageway, drainageway transition area, wetland, wetland transition area, Willamette River Greenway area, or Tualatin River protection zone as defined by the West Linn Community Development Code, unless one of the criteria in subsections (1)(a) through (d) of this section apply.
3. The tree is protected by an existing tree conservation easement, unless criterion in subsections (1)(a) through (d) of this section apply.

C. Except as otherwise required by this code, it is encouraged, but not mandated, that the property owner replace a tree that is removed except street trees and other trees that were required to be planted or preserved by the Code require one replacement tree for each tree approved for removal.

Commentary: Added criteria for when tree replacement is required which include the approved removal of street trees, and the approved removal of other trees that were mandated to be planted or preserved by code. These other trees can include but not be limited to trees required for parking lot shading or significant trees required to be preserved with development.

[Section 8.630 added by Ordinance No. [1503](#), adopted 05-05-2004; Section 8.630 amended by Ordinance No. [1542](#), adopted 11-27-2006.]

## 8.640 Appeal.

~~Any~~ decision of the City Arborist regarding a tree removal permit may be appealed, unless expressly prohibited in this code, to the ~~Hearings Officer pursuant to the administrative appeals process in Section 1.400 et seq. In addition to the notice requirements in Section 1.410(2)(b), City Manager.~~ The written notice of appeal shall include a statement from the appellant listing the errors the appellant believes the City Arborist has made in issuing the decision. A notice of tree removal permit appeal shall be filed on a City application form and include applicable fees specified in the Master Fees and Charges Document.

Commentary: Specified that the notice of appeal needs to be on the City's application form and include the fee established in the Master Fees and Charges document. Also specified that permit decisions are made by the City Manager.

[Section 8.640 added by Ordinance No. [1503](#), adopted 05-05-2004; Section 8.640 amended by Ordinance No. [1542](#), adopted 11-27-2006; amended by Ordinance No. [1621](#), adopted 04-21-14.]

## 8.650 Time Limits.

If the City Arborist does not issue a decision within 20 business days from the submittal of a complete tree ~~cutting-removal permit~~ application, or ~~the City Council does not consider~~ an appeal ~~is not scheduled for hearing within thirty calendar days after the appeal was filed of the City Manager's decision within 30 business days of the filing of such appeal~~, the permit shall be deemed to be approved.

An approved tree ~~-~~removal permit shall be valid for 12 months from the date of issuance.

Commentary: Corrected terminology to "tree removal permit" consistent with other sections of this chapter.

[Section 8.650 added by Ordinance No. [1503](#), adopted 05-05-2004; Section 8.650 amended by Ordinance No. [1542](#), adopted 11-27-2006.]



## 8.710 Heritage Trees.

1. Heritage trees shall be those trees designated by the City Council following review of a nomination form submitted by a citizen and accepted, in writing, by the property owner. If a proposed Heritage Tree is on private property, the property owner must give written consent to the Heritage Tree Application before such application can proceed. ~~The written consent of the property owner shall include provisions for the City to have reasonable access to the tree for maintenance and such necessary pruning as is required at the City's discretion.~~ It shall also be expressly understood that the Heritage Tree designation, once approved by the City Council, shall be an encumbrance on the property containing the heritage tree and shall be listed as a deed restriction. Such legal costs associated with this provision ~~shall may~~ be borne by the City at its discretion.

2. The following criteria shall be used:

Minimum circumference at five feet above ground level = point value 5

Rapid growing (Douglas Fir, Giant Sequoia, etc.) – 138"

Moderate growing (Oregon White Oak, Scarlet Oak) – 107"

Slow and smaller growing (Ginkgo, Madrone) – 86"

Location factor point values:

- 6 Commercial areas
- 5 Yard adjacent to street
- 4 Side yard
- 3 Wooded lot within subdivision
- 1 Forested area

Condition factor point values:

- 5 Excellent – perfect form, little or no dead wood, all limbs have good attachments, no sign of decay
- 4 Very good – good form, multi-leaders, but with good attachments, 10% or less large dead wood
- 2 Good – unbalanced or incomplete crown, tight limb angles, 15% – 20% larger dead wood

- 1 Poor – evidence of some decay, 20%  
– 30% larger dead wood, history of  
being topped
- 0 Very poor – structurally unsound,  
extensive decay, dieback, poor form,  
unbalanced or greatly reduced  
crown.

Historical factor is determined by the tree's relative historic significance. Historic significance may be determined by the tree's association with historic or famous events, the cultural history of the nation, State, community or person or persons who have significantly contributed to the history of the nation, state or community. Local historians may be called upon for research assistance for this category. Point values:

- 5 Very significant
- 4 Significant
- 3 Somewhat significant
- 2 Marginally significant
- 1 Not significant

Formula: size x location x condition x historical factor = heritage tree points

Trees shall accumulate a minimum of 180 points to receive consideration as a heritage tree.

3. Upon a tree being designated as a ~~Heritage~~ heritage Tree, a plaque so designating may be placed upon or near said tree. It shall become the obligation of the Parks and Recreation Department to maintain such tree if on public property or in the public right of way. Heritage trees on private property must be maintained by the property owner, after receiving written authorization from the City Arborist for specific maintenance or pruning.

4. A Heritage Tree may not be removed without a public hearing at least 30 days prior to the proposed date of removal.

~~4. This section is intended to give, and does hereby give full and complete authority to the City Manager over any and all heritage trees in the City upon written consent of private property owners.~~

[Section 8.710 added by Ordinance No. 1503, adopted May 5, 2004; Section 8.710 amended by Ordinance No. 1542, adopted November 27, 2006.]

Commentary: Item 4 is deleted because the other code provisions provide the City sufficient authority over heritage trees including the option to designate them, maintain them, and approve their removal. Other changes in this section shift the risk of maintaining heritage trees on private property to the private property owner. This is a policy change and can be discussed at the work session.

## 8.720 Street Trees.

**A. Street Tree Plan and List of Trees.** Street trees shall not fall under the definition of tree as provided in the definition portion of this ~~ordinance~~code.

1. It is in the best interest of the City that a Street Tree Plan be developed and established for the planting, maintenance and replacement of trees in and along its streets. This section is adopted for the purpose of providing for such a plan and for the establishment of regulations necessary to carry out its purpose.

2. The City ~~shall~~may prepare or cause to be prepared a Street Tree Plan for the planting and maintenance of trees in the streets of the City.

Commentary: Provides the City the option for creating a street tree plan since the City does not currently have one and does not have plans to create one in the near future.

3. The Street Tree Plan should include, but shall not be limited to, a series of maps of City streets upon which is designated a scheme for the planting of trees and the designation of streets for certain types of trees. Such maps shall show the interval between existing trees and the approximate place where each new tree is to be planted.

4. A survey of the street trees presently existing in the City and their condition may be taken.

5. Approval and amendments of the Street Tree Plan shall be based on consideration of the following criteria:

- a. Existing and planned street width.
- b. Existing and planned utilities.
- c. Pedestrian and vehicular traffic.
- d. Proposed trees are included in the City Arborist's listing of approved species.

6. The City Arborist shall maintain a list of approved varieties of trees that may be planted on any street within the City in accordance with the Street Tree Plan. Approval shall be based upon

Commentary: Nuisance characteristics of trees will be determined administratively when developing the list.

considerations such as maturity, height, susceptibility to disease or pests, ~~reasonable expected freedom from nuisance characteristics~~ and general suitability for any particular locations. The City Arborist's listing of approved varieties shall not prevent the seeking of approval of unlisted varieties.

## **B. Funding.**

1. A separate account ~~shall~~may be established and maintained for revenues and expenditures created by the street tree program.
2. ~~Property owners of new developments will~~ may be required to pay a set amount per street tree in new developments. The money collected will be used by the City to purchase and install street trees and the amount will be based on the current price of 1.75 inch caliper nursery stock installed to City standards. The number of trees in new developments will be set at two per lot, and four for corner lots, for single family homes, with a minimum 1.5 inch caliper, installed to City standards. For multi-family housing and commercial developments the number of trees will be based on linear feet of street frontage with one tree per 25-40 feet of frontage. If this requirement is found to conflict with CDC tree requirements, the CDC shall govern.

Commentary: 1. Provides the City the option for creating a street tree funding program since the City does not currently have one and does not have plans to create one in the near future. 2. Consider moving this section to Planting of Street Trees, or keeping it in the Funding section but clarify that property owner/developer pays.

## **C. Planting of Street Trees.**

1. The City may plant street trees along the streets of the City in accordance with ~~the a~~ Street Tree Plan or approved development plan in accordance with the CDC.

Commentary: The intent of this revision is to keep the lines between this code section and the CDC clear

2. ~~It shall be unlawful for any person to plant or set out any tree or authorize or cause or procure any person to plant or set out any tree in or upon any part of any street or public right-of-way without:~~
  - a. ~~Obtaining from the City Arborist a written permit to do so; and;~~
  - b. ~~Complying in all respects with the conditions set forth in such written permit and with the provisions of this ordinance.~~



32. All applications for ~~such a street tree planting~~ permit ~~for existing development~~ shall describe work to be done and the variety, size and precise location of each tree to be planted. Street tree planting for new development is governed by the Community Development Code. Upon review of the application:

a. If the City Arborist has found that the proposed planting is in accord with ~~the a~~ Street Tree Plan, the City Arborist shall grant a permit, and the trees shall become part of the City's street tree inventory.

b. If the City Arborist finds that the proposed planting is not in accord with ~~the a~~ Street Tree Plan, but that the trees proposed to be planted have a reasonable likelihood of prospering and the application specifies the location, variety and grade of each tree and method of planting, including among other things, the supplying of suitable soil, then the City Arborist may grant a permit, and the tree shall become part of the City's street tree inventory.

4. The permit shall be good ~~only for the planting season stated~~ up to 90 days from the date of issuance.

5. All street trees shall be planted in accordance with specifications in the Tree Technical Manual.

Commentary: These revisions provide the option for the City to require street tree planting permits but does not obligate them to do so since there is not currently a street tree planting permit program. Added language that street tree planting permits are for planting street trees where there is existing development. Planting street trees for new development is governed by the Community Development Code. Clarified that permits are valid for 90 days (about 3 months) rather than referring to a planting season.

#### **D. Protection of Street Trees.**

1. It shall be unlawful for any person to attach or keep attached to any tree in or upon any public street or to the guard or stake intended for the protection of such tree, any ropes, wires, chains, or other device whatsoever, except that the same may be attached to any tree as support or protection thereof.

2. During the erection, repair, alteration or removal of any buildings or structure, it shall be unlawful for the person in charge of such erection, repair, alteration or removal to leave any tree in or upon any street in the vicinity of such building or structure without a good and sufficient guard or protector as to prevent injury to such tree arising out of, or by reason of

such erection, repair, alteration or removal. See West Linn Tree Technical Manual for details regarding tree protection during construction.

#### **E. Permit Requirements and Conditions.**

The City maintains sole authority over the planting, pruning and removal of all trees and foliage on City property, including, but not limited to, street trees in the City's Right of Way. Private individuals shall only be allowed to prune, remove or plant any tree on City property, including the Right of Way, with express written permission of the City. However, such small scale and minor pruning of street trees in the City's right of way directly abutting private property shall be done by that property owner to maintain minimum sidewalk and road clearance as described in Section [8.720.F](#). Any such minor pruning shall only be deemed exempt from this permitting provided that it is the minimum reasonable amount necessary to achieve the clearance minima.

Should a citizen so desire, a request can be made to the City to have a City tree removed. The request will be reviewed, utilizing the guidelines for tree removal as presented ~~herein~~ [in section 8.630](#). Minimum size thresholds shall not apply for street trees.

Commentary: Clarified where the applicable tree removal permit criteria are located.

#### **F. Maintenance.**

1. It shall be the responsibility of the property owner adjacent to any street tree to maintain the tree according to the tree maintenance standards detailed in the City's Tree Technical Manual. Maintenance includes replacement of trees that are dead, or in need of replacement due to injury, disease, etc. ~~A fee may be paid to the City in lieu of replacement. In this case the City shall replace the tree at the time of its regular scheduled street tree plantings.~~

2. All street trees must be pruned ~~to ISA Pruning Standards for Shade Trees~~ [in a manner that is consistent with the most recent version of the ANSI A300 pruning standards and corresponding ISA Best Management Practices](#). See pruning guidelines in Tree Technical Manual for details.

Commentary: Removed option for property owner to pay fee to City for street tree replacement. The City does not have capacity for a street tree replacement program and rely on adjacent property owners to maintain and replace street trees. References for tree maintenance have been updated to address current industry standards.

3. Street trees having branches projecting into the street or sidewalk shall be pruned by the owners of the property adjacent to where the trees are growing and shall be done according to

the requirements for tree branch clearance over street and sidewalk areas, and signs as set forth in this [ordinancecode](#).

4. Limbs of trees may be allowed to project over the sidewalk area at an elevation of not less than 7 1/2 feet above the sidewalk level, and over the street area at an elevation of not less than 10 feet above the street level. However, on any street designated as an arterial and where parking has been prohibited, limbs of trees shall be pruned to a height of not less than 13 feet above the street level. Trees, which are not trimmed so as to meet the above specifications, shall be deemed to present an unreasonable risk of harm to persons or property.

5. The City may cause to be pruned and maintained, all of the trees within the City street right-of-way.

6. A private utility maintaining its utility system in a street may prune or cause to be pruned in accordance with the terms and conditions of their franchise agreement with the City.

7. It shall be unlawful for any person, firm, or City department to top any street tree, park tree, or other tree on public property. Topping is defined as the severe cutting back of limbs to stubs larger than three inches in diameter within the tree's crown to such a degree so as to remove the normal canopy and disfigure the tree. Trees severely damaged by storms or other causes, or certain trees under utility wires or other obstructions where other pruning practices are impractical, may be exempted by the City Arborist.

[Section 8.720 added by Ordinance No. [1503](#), adopted 05-05-2004; Section 8.720 amended by Ordinance No. [1542](#), adopted 11-27-2006.]

## **8.730 Emergency Permit Process.**

(1) The City Manager or designee shall have the authority to issue an emergency tree-removal permit if the condition of the tree presents an immediate danger of collapse, and/or represents a clear and present hazard to persons or property.

For purposes of this section, a hazardous growth habit which will likely result in failure of the tree prior to consideration of the permit through the normal process means that the tree is already leaning, with the surrounding soil heaving, or showing other clear signs of imminent failure, and that the problem cannot be resolved through pruning, trimming, or other preventive maintenance.

(2) An emergency tree-removal permit shall not require mailed or posted notice.

(3) An emergency tree-removal permit denial may not be appealed to the City Council.

(4) If the City Manager denies an emergency tree-removal permit, the applicant may apply for a tree-removal permit through the standard process.

(5) A property owner may remove a tree which they have determined is in imminent danger of falling and/or posing a threat to life and/or property prior to the ability of the City to consider issuing an emergency tree removal permit (e.g., on a weekend day). In such cases, within five business days of the tree's removal, the property owner shall provide written and photographic documentation of the condition of the tree prior to removal. If the City Manager does not agree with the property owner's decision, the property owner may be subject to enforcement and mitigation action pursuant to Section [8.740](#).

(6) Any officer of the Police Department or the Fire District may also require removal of a tree if, in the judgment of the officer during the performance of their public duties, the tree is in a hazardous or dangerous condition threatening life and/or property.

[Section 8.730 added by Ordinance No. [1503](#), adopted 05-05-2004; Section 8.730 amended by Ordinance No. [1542](#), adopted 11-27-2006.]

## **8.740 Non-Compliance, Penalty, and Enforcement.**

Any violation of the terms of Sections [8.500](#) to [8.798](#) is a Class A violation. Each tree involved in the violation constitutes a separate offense. In addition, the city attorney shall institute any necessary legal proceedings to enforce the provision of this section. These rights shall be in addition to any other remedies allowed by law. Upon discovery of a violation, the City shall notify the violator of the alleged violation and of the procedures and potential penalties associated with said violations.

The City Manager shall make a determination of whether the violation was knowing, willful and intentional on the part of the violator. If the City Manager determines that there is ample reason to believe that the violation was accidental or unintentional, the violator shall be permitted the opportunity to mitigate the violation through voluntary compliance process as found in subsection (1) of this section. Intentional violators shall be subject to penalties as listed on subsection (2) of this section as well as the tree replacement requirements of subsection (1)(a) of this section. Fines and penalties shall be submitted to the West Linn Municipal Court pursuant to the rules and procedures and authority of the Municipal Court to assess fines and other penalties for violation of the West Linn Municipal Code.

(1) Voluntary Compliance Process. A voluntary compliance agreement shall contain the following:

- (a) A commitment by the violator to submit and carry out a tree replacement program that is approved by the City Manager. The agreement shall require at minimum the planting of replacement trees at a 1:1 inch per inch (~~circumference~~**dbh**) ratio to the trees removed illegally. The size and quality of the mitigation nursery stock shall be approved

Commentary: Circumference and dbh are two different metrics. DBH appears to be the intended metric based on the reading of paragraph.



by the City. If the applicant's property is deemed inadequate in size to accommodate the replacement trees, then a fee may be paid into the Tree Canopy Replacement Fund at the minimum rate for installation of a 1.75 inch caliper tree to City standards.

(b) Payment of a fee deposit, calculated based upon anticipated staff time devoted to investigation of the violation and review and approval of the voluntary compliance agreement and related compliance inspections. The actual staff time shall be tracked and charged against the fee deposit. At the conclusion of the process, any unused funds in the deposit shall be refunded. If the deposit funds run out prior to completion of the voluntary compliance process, the violator shall pay an additional deposit calculated as necessary to complete the process. If the violator does not pay such an additional deposit, the voluntary compliance process shall be terminated and the City Manager shall initiate enforcement action against the violator.

(c) Trees that have been planted as part of a mitigation planting will not be covered by the minimum thresholds for trees requiring a permit for removal.

(2) Penalties. Any person, firm, or corporation causing the illegal removal of a tree who does not enter into a voluntary compliance agreement may upon conviction be fined a sum not to exceed the equivalent of three times the appraised value of the tree based on the latest revision of the [Guide for Plant Appraisal by the Council of Tree and Landscape Appraisers](#) evaluation method plus cost of prosecution including attorney's fees for each tree removed, but in any case an amount not less than \$500.00.

Commentary: Added the title of publication.

(3) Suspension/Revocation of Tree Permit. The City Arborist may, in writing, suspend or revoke a tree permit issued under the provisions of this code whenever the permit is issued in error on the basis of incorrect information supplied, or if its issuance (or activity thereunder) is in violation of any code or regulation of any other provisions of the City code. Suspensions or revocations may be appealed under section 8.640.

Commentary: The City does not currently have the option to revoke a tree permit. The CSO recommended to adapt the following building code language to grant authority for revoking tree permits: 8.050 Plans and Permits: (8) Suspension/Revocation.

[Section 8.740 added by Ordinance No. [1503](#), adopted 05-05-2004; Section 8.740 amended by Ordinance No. [1542](#), adopted 11-27-2006; amended by Ordinance No. [1621](#), adopted 04-21-14.]

## 8.745 Tree-Topping Prohibited.

[Section 8.745 added by Ordinance No. 1503, adopted 05-05-2004; Section 8.745 deleted by Ordinance No. 1542, adopted 11-27-2006.]

## 8.750 Abatement.

(1) The following trees are nuisances and are subject to abatement under Chapter 5 of the Municipal Code:

a. Hazard trees;

b. Trees infested with a disease or invasive insects, that in the opinion of the City Arborist, could lead to decline or spread of disease to other trees in the City;

c. Any tree located in the street right-of-way, or which encroaches from private property into the street right-of-way because of age, disease or other debilitating cause, death, insecure root system, or any other condition which, in the opinion of the City, causes its continued existence to be detrimental to the public interest; and

d. Any tree that is otherwise, in the opinion of the City Arborist, an imminent hazard to persons or property.

~~(1) When any tree located on private property is dead (and deemed to create a hazard) or infested with a disease or insects or is, in the opinion of the City Arborist, infectious and may spread such disease or insects to other trees in the City or otherwise an imminent hazard to persons or property, the City may remove or treat the tree or cause same to be removed or treated. Such removal or treatment shall be the responsibility of the property owner.~~

~~(2) The City may abate or remove, or cause to be abated or removed, any tree located in the street right-of-way, or which encroaches from private property into the street right-of-way because of age, disease or other debilitating cause, death, insecure root system, or any other condition which, in the opinion of the City, causes its continued existence to be detrimental to the public interest.~~

~~(34) If sections of this code the Community Tree Ordinance impose an undue hardship on an~~

Commentary: This code section is revised to simply declare trees with certain conditions to be nuisances subject to abatement under the City's nuisance code. References to the CDC are revised to delineate this code from the CDC.

individual property owner, assistance by a grant-in-aid may be available through the City Manager's office pursuant to the City's Grant-In-Aid Policy.

[Section 8.750 added by Ordinance No. 1503, adopted 05-05-2004; Section 8.750 amended by Ordinance No. 1542, adopted 11-27-2006.]

## 8.760 Tree Canopy Replacement Account.

(1) An account shall be established and maintained for various tree related revenues and expenditures.

Sources of revenue for this account include the following:

- (a) Fees paid as part of voluntary compliance mitigation.
- (b) Fees paid as part of development mitigation as may be required by the CDC.

Commentary: This revision was recommended to delineate this code from the CDC.

- (c) Fines paid for noncompliance.
- (d) Gifts received by the City for the purpose of tree canopy replacement.

(2) Expenditures for this account may include but are not limited to the following:

- (a) New tree installations on City property.
- (b) Natural area restorations on City property.
- (c) Street tree replacement programs.
- (d) New street tree installations in older neighborhoods.

[Section 8.760 added by Ordinance No. 1542, adopted 11-27-2006.]

## 8.795 Fees/Classification of Fees and Costs.

Fees shall be ~~established specified in the Master Fees and Charges Document by Ordinance of the City Council and may be amended from time to time.~~ The City Council determines that the fees and costs imposed by this ordinance code are not a tax subject to the property tax limitations of Article XI, Section 11(b) of the Oregon Constitution.

Commentary: References that tree fees will be included in the Master Fees and Charges Document which is reviewed and amended as needed on an annual basis.

[Section 8.795 added by Ordinance No. 1503, adopted 05-05-2004.]

## **8.797 Disclaimer of Liability.**

Nothing contained in Section [8.500](#) to [8.798](#) shall be deemed to impose any liability upon the City, its officers or employees, or to relieve the owner of any private property from the duty to keep any tree, shrub or plant on his or her property or under his or her control in such condition as to prevent it from constituting a hazard or an impediment to travel or vision upon any public right-of-way, park, or public place within the City.

[Section 8.797 added by Ordinance No. [1503](#), adopted 05-05-2004.]

## **8.798 General Provisions.**

If any provision or any portion thereof contained in this article is held to be unconstitutional, invalid or unenforceable, the remainder of this article, or portion thereof, shall be deemed severable, shall not be affected and shall remain in full force and effect.

[Section 8.798 added by Ordinance No. [1503](#), adopted 05-05-2004.]



# **WEST LINN TREE** **TECHNICAL MANUAL**

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## **INTRODUCTION**

This tree Technical Manual is a separately published document issued by the City Manager, through the Departments of Parks and Recreation, Planning and Building and Engineering to establish specific technical regulations, standards, and specifications necessary to implement the Community Tree Ordinance, and to achieve the City's tree preservation goals. These goals are intended to provide consistent care and serve as benchmark indicators to measure achievement in the following areas:

- Ensure and promote preservation of the existing tree canopy cover within city limits.
- Provide standards of maintenance required for protected and city-owned trees.
- Provide standards for preservation and enhancement of existing trees on privately owned property.
- Provide a standardized content for tree reports required by the City.
- Establish criteria for determining when a tree is unsafe and a possible threat to the public health, safety, and welfare.
- Provide standards for the replacement of trees permitted to be removed.
- Increase the survivability of trees during and after construction events by providing protection standards and best management practices.

## **DEFINITIONS**

**See Community Tree Ordinance Section 8.510 for Definitions.**

**~~Basal flare:~~** ~~That portion of a tree where there is a rapid increase in diameter at the confluence of the trunk and root crown.~~

**~~Building footprint:~~** ~~The two-dimensional configuration of an existing building's perimeter boundaries as measured on a horizontal plane at ground level.~~

**~~Business days:~~** ~~Monday through Friday—exempting any holidays.~~

**~~Calendar Days:~~** ~~All days as noted on a calendar, inclusive of weekends and holidays.~~

**~~Certified Arborist:~~** ~~An individual who has either obtained certification as an arborist from the International Society of Arboriculture, or who is a member of the American Society of Consulting Arborists.~~

**City Arborist:** The person designated as such by the City Manager.

**City Manager:** The City Manager or his/her designee.

**City Right of Way:** Land that is not owned by a private individual or company that has been either deeded or dedicated to the City for a public purpose. As referred to with a road, the area of the road and area adjacent to the road in City ownership.

**Compaction:** Compression of the soil structure or texture by any means that creates an upper layer that is impermeable. Compaction is injurious to roots and the health of a tree.

**DBH:** Diameter at Breast Height is a tree's diameter at 4 1/2 feet or 54 inches above the highest natural ground level. DBH measured in this fashion is considered the accepted method for measuring the size of a tree, by both industry and scientific standards.

**Dead Tree:** A tree that is dead or has been damaged beyond repair or is in an advanced state of decline (where an insufficient amount of live tissue, green leaves, limbs, or branches exists to sustain life) and has been determined to be such by a certified arborist.

**Disturbance:** All of the various activities from construction or development that may damage trees.

**Drip line Area:** The area under the tree's canopy as defined by an imaginary vertical line extending downward from the outermost tips of a tree's natural length branches to the ground.

**Erosion:** Detachment and movement of soil, rock fragments, mulch, fill, or sediment.

**Excessive pruning:** Removal of more than one third of the functioning leaf, stem, or root area of a tree in any twelve month period, or removal of foliage so as to cause the unbalancing of a tree. Removal of more than one third of functioning leaf, stem, or root area is considered a tree removal.

**Groves:** A group of two or more trees with meeting or overlapping canopies. The trees need not be the same species.

**Hazard tree:** Any tree with a structural defect and/or disease which makes it subject to a high probability of failure, and which threatens persons or property, including other trees.

**Hazardous Growth Habit:** The development of a tree that, due to a combination of structural defect, disease, or existing disturbance, is subject to a high probability of failure; and such failure would result in a threat to persons or improved property.

**Heritage Tree:** A tree designated by the City Council as having significant historic or community value to the City of West Linn.

**~~I.S.A.:~~** ~~International Society of Arboriculture.~~

**~~Injury:~~** ~~A wound resulting from any activity, including but not limited to excessive pruning, cutting, trenching, excavating, altering the grade, or paving/compaction within the tree protection zone of a tree. Injury shall include bruising, scarring, tearing or breaking of roots, bark, trunk branches or foliage, herbicide or poisoning, or any other action foreseeably leading to the death or permanent damage to tree health.~~

**~~Major Pruning:~~** ~~Removal of over 20 percent of the tree's canopy, or disturbance of over 10 percent of a tree's root system.~~

**~~Project Arborist:~~** ~~A certified arborist hired by a design review applicant who will handle tree related issues and correspondence with the City Arborist regarding developments in the City. A Project Arborists specific duties are outlined later in this document.~~

**~~Protected Tree:~~** ~~All trees that are specifically designated to be saved on private property pursuant to an approved development permit, or for which the City Manager has not issued a tree removal permit. Protected trees are to be indicated on building permit or development plans submitted for approval.~~

**~~Protected Tree Fencing:~~** ~~A temporary enclosure erected around a tree to be protected at the boundary of the tree protection zone. The fence serves three primary functions: 1) to keep the foliage crown, branch structure and trunk clear from direct contact and damage by equipment, materials, or disturbances; 2) to preserve roots and soil in an intact and non-compacted state; and 3) to identify the tree protection zone in which no soil disturbance is permitted and activities are restricted.~~

**~~Soil Compaction:~~** ~~The compression of soil particles that may result from the movement of heavy machinery and trucks, storage of construction materials, structures, paving, etc. within the tree protection zone. Soil compaction can result in atrophy of roots and potential death of the tree, with symptoms often taking years to manifest.~~

**~~Street Tree:~~** ~~Any tree existing on or in the City's road right of way.~~

**~~Topping:~~** ~~The severe cutting back of a tree's limbs within the tree's crown so as to remove the natural canopy and disfigure the tree.~~

**~~Tree:~~** ~~For the purposes of determining whether a tree removal permit is required, the following definition of Tree is used. Only those trees that meet or exceed the size standards stipulated in this definition require permits to be removed. It is to be explicitly understood, however, that within this Ordinance there are some references to "Tree" or "Trees" (such as with street trees or replacement trees) where the term "Tree" is used (because it would be cumbersome to invent a different term) but to which the size requirements do not apply.~~

~~Any woody, perennial plant, deciduous, evergreen, or coniferous, having a main stem or trunk of a minimum 20-inch circumference (6.37-inch diameter DBH) (for Oregon white oak, Pacific madrone or native dogwood), or a minimum 38-inch circumference (12.1-inch diameter DBH) (all other tree species). Trees with multiple trunks will be measured at the 54-inch standard and computed as a total circumference.~~

~~**Tree Appraisal:** A method of determining the monetary value of a tree as it relates to the real estate value of the property, neighborhood, or community. When required, a certified arborist determines the appraisal by adjusting a tree's basic value by its condition, location, and species using the most recent edition of the *Guide for Plant Appraisal*, published by the Council of Tree and Landscape Appraisers.~~

~~**Tree Canopy:** For the purposes of determining tree removal, it is the sum total of the branch and leaf structure of a tree including the trunk and/or trunks. When referred to as the City tree canopy, it refers to the total ground area that is shielded by tree foliage as would be determined from an aerial view of the City~~

~~**Tree Protection and Preservation Plan:** A plan prepared by a certified arborist that outlines measures to preserve protected trees on a project site. This plan shall include requirements for pre-construction, treatments during demolition and/or construction, establishment of a tree protection zone for each tree, tree monitoring and inspection schedule, and provide for continuing maintenance of those trees after construction according to the requirements in this Manual.~~

~~**Tree Protection Zone (TPZ):** unless otherwise specified by a project arborist or City Arborist, the area of temporary fenced tree enclosure. The Tree Protection Zone is a restricted activity zone where no soil disturbance is permitted, unless otherwise approved.~~

~~**Tree Removal:** Any of the following: (1) Complete removal, such as cutting to the ground or extraction, of a tree; (2) Taking any action foreseeably leading to the death of a tree or permanent damage to its health; including but not limited to excessive pruning, cutting, girdling, poisoning, over watering, unauthorized relocation or transportation of a tree, or trenching, excavating, altering the grade, compacting the soil or paving within the drip line area of a tree; (3) removal of more than one-third of functioning leaf and stem area of a tree in any 12-month period, or removal of foliage so as to cause the unbalancing of a tree is considered as removal for purposes of this ordinance.~~

~~**Visually Prominent:** Visible from 1000 feet of the tree. Removal of a visually prominent tree would result in a marked difference in a view from an adjacent property or from a public right-of-way.~~

Commentary: A cross reference to the definitions section of the Community Tree Ordinance is provided rather than duplicating the same definitions in two places. There were some minor differences in definitions between the Tree Manual and Community Tree Ordinance, so this proposed change will eliminate any discrepancies.

## **TREE MAINTENANCE GUIDELINES**

This chapter establishes the minimum standard of care and maintenance for West Linn's



trees. These standards apply to all persons who own or are engaged in the business of repairing, maintaining, or preserving these trees. The following standards of care are set forth for pruning (including utility, fire and traffic encroachment), planting, watering, soil and nutrient requirements, insect, disease and fruit control. Guidelines for selecting an arborist are also given. These standards and guidelines are based on sound arboricultural principles and are applicable to trees, shrubs and woody plants. All owners of trees are to follow the required maintenance standards set forth in this Manual. If special pruning or situations require a variance from these standards, it is the responsibility of the certified arborist and property owner to clarify why the changes are needed and review them with the City Arborist.

## PROHIBITED ACTS

Improper maintenance may constitute a prohibited act as defined by the West Linn Municipal Code, and a violation which may be subject to penalty. The following permitted and prohibited maintenance practices for trees apply:

- **Excessive Pruning:** Excessive pruning shall be considered a prohibited act.
- **Topping:** Topping shall be considered a prohibited act.
- **Other prohibited actions:** Taking any action foreseeably leading to the death of a tree or permanent damage to its health, including but not limited to excessive pruning, cutting, girdling, poisoning, over watering, unauthorized relocation or transportation of a tree, or trenching, excavating, altering the grade, or paving within the dripline area of a tree.

## PRUNING STANDARDS

The most compelling reason to prune trees is to develop a strong, safe framework. All work to be performed on trees shall be in accordance with the standards set forth in this manual. All specifications for working on trees shall be written and shall be administered by a qualified arborist, and shall be designed to promote the preservation of tree structure and health. All work on trees shall be in accordance with the most current industry standards which are the ANSI A300 Tree Care Standards, ANSI Z133 Safety Standards, and corresponding ISA Best Management Practices. Climbing and pruning practices shall not injure the tree except for the pruning cuts. To reduce the probability of insect infestation, disease or infection, seasonal recommendations apply, except when public safety is a concern. All species should not be pruned during the flush of spring shoot growth. Trees with thin bark should not be pruned in summer when sunscald injury may be a factor. Deciduous trees are best pruned November-February. Hazardous trees of any species may be pruned any time of the year for abatement reasons.

Commentary: Cross references to tree care industry standards are explicitly provided.
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### **Mature Trees**

~~There are six types of pruning that may be required on mature trees. Prior to entering the tree, the tree worker is required to be familiar with these types of pruning as stated in the Performance Standards, ANSI, A300-1995. 'Species-specific' pruning promotes the~~

~~natural shape of the tree (i.e. excurrent, decurrent, vase-shaped, fast growing, etc.) The six pruning types are:~~

- ~~• Crown Cleaning~~
- ~~• Crown Thinning~~
- ~~• Crown Raising~~
- ~~• Crown Restoration~~
- ~~• Crown Reduction~~
- ~~• Utility Pruning~~

Commentary: Pruning types have evolved since the 1995 version of the ANSI A300 standards. This section is deleted in place of the reference to the most recent ANSI standards and ISA BMPs in the previous section.

## Distressed Trees

Distressed trees require as much leaf area as possible to overcome stressed conditions. To avoid additional injury, the following measures shall be followed for these trees:

- If a tree has been damaged by injury or disturbance, delay pruning until deadwood becomes evident (typically 1-3 years after injury). ~~Crown cleaning~~ Removal of dead, broken, and other pruning for risk reduction is then recommended.
- Trees that have received little or no care or maintenance may need moderate ~~crown thinning~~ pruning, reduction of end weights or entire crown restoration.

Commentary: Removed reference to specific pruning types from previous ANSI standards.

## Young Trees

By pruning trees early, it will improve life expectancy and is a proven, cost-effective measure. Added benefits are also reflected in safer trees with fewer branch failures. For trees that serve as a replacement tree, they shall be pruned in the following way:

- Prune during the second year after planting to improve their structure, and only minor crown cleaning every 3-7 years thereafter. Refer to ~~ISA Tree Pruning Guidelines~~ ISA Best Management Practices.
- Do not top the main leader except to position the lowest main branch. Other main branches should be spaced at least 18-inches apart when possible to alleviate a tight grouping of branches.
- Select permanent branching and allow temporary low branching on the lowest part of the trunk to remain.

Commentary: Referenced ISA BMPs for standards and provided more flexibility for branch spacing.

## FERTILIZING

This section outlines performance standards for fertilizing and apply only if fertilizing is specified. Fertilizing mature trees is generally not necessary. Fertilizing may be specified for trees that will be impacted by upcoming disturbance, grade changes or a modified environment. Benefits gained from the increase stored resources may aid the tree to overcome the stress caused by disturbance.

## Specifications

Fertilizing, if specified, shall be performed to the following standards:

- Method of application: The method shall be subsurface injection, on approximate 3-foot centers (within the root ball on young trees; 2-feet out on older trees) and out to the approximate dripline perimeter. Specific situations may justify other variations such as vertical mulch, soil-fracture or surface-broadcast methods.
- Material and Rates: Unless specified otherwise, fertilizer formula shall be a slow-release, complete fertilizer with chelate trace elements (e.g. 22-14-14 or 20-20-20) and mixed at label rates not to exceed 4-pounds nitrogen per 100-gallons of water. Extraordinary-Some cases may require soil and tissue sampling to correct target deficiencies.
- Amount: Unless specified otherwise, volume shall be determined by mixing 10-gallons of water per inch of trunk diameter when measured at 54-inches above natural grade.
- Timing: Timing should not be detrimental to tree health. Best results are derived from applications made during the prior growing season. Apply fertilizer between May and September for best results.

Commentary: Modified language to increase flexibility of treatments.

## WATERING

Newly installed trees, including drought tolerant species, are dependent upon supplemental irrigation until established, typically for at least two years. Periods of extreme heat, wind or drought may require more or less water than recommended in these specifications. The method and amount that is applied may vary depending upon soil composition, heat, wind, companion plantings, rainfall amounts. The watering of trees or their replacements shall follow the standards set forth in this manual.

### New Trees

During the establishment period (at least ~~1~~ 2 years) trees should be watered thoroughly to their root depth as frequently as needed. The minimum standards shall be as follows:

- 3 months in the ground: 4 times per month or as necessary
- 6 months in the ground: 2 times per month or as necessary
- 12 months in the ground: 1 time per month or as necessary

Commentary: Modified establishment timeframes to account for realities of tree establishment due to climate change.

## **Mature trees**

- 1 time per month during irrigation season (usually June through September)

## **Watering Methods**

The following options shall fulfill the watering requirements. One or more of the following may be utilized dependent upon unique circumstances subject to the City Arborist determination. The options are as follows:

- Automated Watering Systems. All new trees shall be provided with one of the following automatic watering systems. Other city maintained systems shall be per Parks Department specifications.
- Bubbler heads (Preferred). One or two bubbler heads mounted on flexible tubing are to be placed adjacent to or on top of the root ball. The placement of bubbler within an aeration tube is not allowed.
- Drip Loop system. A continuous loop of drip tubing circling around the trunk at a point two-thirds out from the trunk to the edge of the root ball (for new trees 36-inch box size and greater, a second loop of drip tubing is required at a point just beyond the root ball on native soil).
- Hand watering systems. Recommended for trees that are part of a development project that must be watered to insure tree survival during the course of construction until automatic irrigation is installed.
- Flood watering. Newly installed trees must be 'flood or basin-watered' on top of the root ball to allow the water to infiltrate through the root zone.
- Subsurface injections using a hydraulic spray pump (practical for use in hard, compacted soils or steep hillsides).
- Soaker hose. Slow, deep watering using a garden type soaker hose.
- Wetting agent. A root ball that has been allowed to dry out beyond the wilting point shall require the addition of a wetting agent to the water (such as Aqua-grow or equivalent).

## **Amount**

Unless otherwise specified, the volume of water applied at each irrigation should be in the range of 10-gallons per inch of trunk diameter when measured at 54-inches above natural grade. The final decision of whether to water or not should be based on accurate soil probe samples that are taken from the root ball.

## **SOIL IMPROVEMENT**

During development, compaction of the soil is the largest single factor responsible for the decline of older trees. Ninety percent of the damage to the upper eighteen inches of soil occurs during the first pass of heavy equipment - and cannot be reversed. Every effort to avoid compaction of soil porosity within the tree protection zone shall be taken at all times. When required as mitigation for injury or a prohibited action, the following performance standards for improvement of compacted or damaged soil shall be implemented:

## **Aeration**

Soil that is damaged or compacted within the dripline of trees shall be loosened or aerated to promote root growth and enhance tree vitality. One of the following aeration methods shall be specified in an effort to correct compacted soil conditions:

- Vertical Mulching: Auger holes 2 to 4-inch diameter, 2 to 3-feet deep, on 4-foot centers and backfilled with porous material such as perlite, vermiculite or volcanic rock.
- Radial Trenching: With an air excavator, excavate a soil trench 3 to 6-inches wide and a minimum of 12-inches deep from (approximately) 3-feet from the trunk out to the dripline area. The trenches shall radiate out from one foot apart at the closest point.
- Soil-fracturing with a pneumatic air-driven device.
- Subsurface injections under moderate hydraulic pressure using a three foot probe and applied on 3-foot centers under the dripline.

## Drainage

Adequate drainage must be provided to the surrounding soil for the planting of new trees. If the trees are to be planted in impermeable or infertile soil, and water infiltration rates are less than 2-inches an hour, then one of the following drainage systems or other approved measures must be implemented:

- French drain, a minimum of three feet in depth
- Drain tiles or lines beneath the trees
- Auger six drain holes at the bottom perimeter of the planting pit, a minimum of 4-inches in diameter, 24-inches deep and filled with medium sand or fine gravel

## INSECT AND DISEASE CONTROL

~~Generally, insect populations do not threaten tree health to the point of mortality. More often, when their populations become too great they create a nuisance.~~ If action is warranted to prevent or treat pests or diseases, Integrated Pest Management (I.P.M.) suggests that the pest source be identified and targeted with a specific and timely treatment. If insects or disease can lead to the death of a *protected* tree, then it is the responsibility of the property owner to evaluate the condition according to the guidelines set forth in this manual, and treat the problem in a timely fashion to prevent further deterioration of the tree.

### Insects

Accurate timing is critical for success. Nontoxic materials should be used whenever possible to control leaf-chewing insects.

### Disease and Decay - above ground

Disease such as heart-rot decay that erodes the health or weakens the structure of a tree may compromise the safety of people or property. It is the property owner's responsibility to correct a known hazardous condition in a timely fashion.

Consult with a certified arborist for remedy possibilities, for example, pruning out



infected branches, ~~thinning~~, or the spray application of a chemical treatment.

### **Disease - below ground**

Soil-borne diseases, such as Armillaria or Phytophthora, are present in West Linn soils. Often, a poor landscape design surrounding old trees encourages harmful, and often lethal diseases. Combined with poorly drained soil, these factors often activate normally dormant fungi to become opportunistic and infect the tree to cause the decline and eventual death of the tree. This decline can be slow and may not be evident for many years. To identify cultural conditions that may lead to diseases such as Verticillium, Phytophthora or other soilborne fungi, review reputable scientific sources such as university extension publications ~~the Sunset Western Garden Book~~ or consult with a Certified Arborist. The following conditions that favor a disease environment must be avoided:

- Compacting of the soil within the tree's dripline, adding fill dirt, roto-tilling, trenching, removing soil from the tree root area.
- Excessive or regular watering on or near the tree trunk area and planting incompatible water-loving plants within the tree's dripline.
- Landscape Design: When planning landscaping around a tree, an evaluation of the tree and soil must be performed to determine if there is a disease present. If the tree is diseased and landscaping will contribute to decline, permanent damage or render it hazardous, it is the obligation of the property owner to take reasonable measures to reduce or eliminate the conditions that may cause the decline of the protected or designated tree.

### **Foliar disease**

Leaf spot or galls may be chronic or reoccur with specific seasons. Though many of these diseases destroy leaf tissue and become unsightly, they may not significantly reduce the ~~tree~~tree's health and therefore normally need not be treated unless otherwise specified.

Commentary: Modified language in pest and disease section to account for serious impending pest issues include Emerald Ash Borer and Mediterranean oak borer. Made resource references more general rather than referring to a specific publication.

## **TREE PLANTING SPECIFICATIONS**

Planting specifications apply for trees that are planted as a replacement for a tree approved for removal. Using the following specifications will result in consistent city-wide plantings, and superior tree growth and vitality. To achieve this, landscape architects shall incorporate these items into their specifications.

### **PLANTING STOCK**

It is the contractor's responsibility to supply stock that meets the most recent version of the ANSI 760Z60.1-1996 and City of West Linn *Tree Technical Manual Standards*. All

plants and trees installed within the City of West Linn shall conform with the most recent version of the American Standard for Nursery Stock~~American Association of Standards~~, ANSI Z60.1 standards, Specifications for Acceptance of Nursery Trees at the Time of Delivery, in all ways.

- Plants shall be sound, healthy, vigorous, and free of plant disease and insect pests and their eggs.
- Container stock shall be grown for at least 8-months in containers in which delivered and shall not be root bound or have girdling roots.
- Trees shall not have been topped or headed.
- Plants and trees with broken tops, branches or injured trunks shall be rejected.

Commentary: Corrected references to the American Standard for Nursery Stock.

## RECOMMENDED STREET TREES

There are many trees available that are appropriate for use as street trees, and new varieties are being developed every year. The City shall maintain a list of appropriate trees for planting in the City, either as street trees, or for use in yards, parks, etc. ~~and is appendix A to this manual.~~ The list will be updated periodically as new varieties are available, or as information is received about diseases, insects and other nuisances. Please consider the location, size of planting area, and other site specific variables when choosing a tree.

Commentary: The tree list is not in appendix A but staff recently created a tree list.

## MISCELLANEOUS MATERIALS

The following materials shall be used unless otherwise specified:

- **Tree stakes:** ~~Support~~ When needed, support stakes shall be treated 2-inch diameter pine or equal, ~~two stakes per tree~~. No cross brace shall be used. After installation, stakes shall be trimmed so that the branches clear the top of the stake.
- **Tree Ties:** Twist brace, fabric-reinforced rubber (3/8-inch minimum), or equivalent approved by the City of West Linn shall be used and installed in a figure eight fashion to support the tree to the stakes.
- **Mulch:** Screened untreated wood chips, bark dust or approved equal, spread to a 2-inch depth out to the edge of the root ball. The mulch should be kept at least two inches away from the trunk and shall be applied to each tree.
- **Mower guards:** For trees in turf areas requiring regular mowing, the tree stem shall be protected with TreeGuard or equivalent.
- **Tree Grates:** Tree grates may be required in specific circumstances by the City such as in high pedestrian traffic and narrow sidewalk situations. When required, tree grates must be approved by the City prior to the installation

~~and installed according to the manufacturer's specifications. Where sidewalk width is less than 8 feet and new trees will be installed in a tree well, metal tree grates shall be used and approved by Public Works. Minimum size grates shall be 4' x 4' unless specified otherwise. All tree grates shall be mounted in frames inset into a concrete foundation within the sidewalk or surface material and shall be flush with the surrounding surface.~~

Commentary: Provided more flexibility on tree staking and removed requirement for tree grates unless otherwise specified by the City. Tree grates can damage trees over time unless regularly maintained. Grates are generally not recommended except in specific circumstances.

## SOIL PREPARATION AND CONDITIONING

- All debris, wood chips, pavement, concrete and rocks over 2-inches in diameter shall be removed from the planting pit to a minimum of 24-inch depth, unless specified.
- Trees in a confined planter pit or sidewalk area: The planting hole shall be excavated to a minimum of 30-inches deep x the width of the exposed area.
- Scarify the sides of the pit. Soil beneath the rootball shall be compacted to prevent settling.
- Trees in all other areas: Excavate the hole's width a minimum of three times the diameter of the container, and deep enough to allow the root ball of the container to rest on firm soil. Scarify the sides and the bottom of the pit.
- The height of the container root ball should be 1-2-inches higher than grade level, except when structural urban tree soil mix is used, in which case the tree may be planted at level grade.
- If the soil is dry, add a few inches of water in the hole. Let it drain before planting the tree.

## PLACING THE TREE

- **Roots:** Remove tree from the container and trim the root ball in the following way: Straighten and/or cut cleanly any thick circling roots. For thin roots make three to four vertical cuts 1/2-inch deep around root ball and spread the bottom out if necessary
- **Orientation:** Locate the tree in the hole, and rotate the tree to direct the main branches away from the street side, if possible.
- **Filling the Hole:** Place the aeration tubes, fill the hole halfway up with original soil (amended soil only when approved), and gently tamp out air pockets with a pole or shovel handle. Add about 1-inch of water, and let drain. Fill the rest of the hole to grade, water the fill soil, and let drain.
- **Staking:** Place the stakes at the edge of the root ball (drive them 2-feet into undisturbed ground), and avoid contact with the branches. ~~If in a windy area, set the stakes in a plane at right angles to the wind.~~ Remove the nursery stake. Loosely place two ties in a figure eight around the trunk, as low as needed to hold the tree upright and nail to the stake. Stakes shall be trimmed so that the branches clear the top of the stake. Do not install a cross-brace.
- **Berm, Mulch and Water:** In non-turf areas, form a soil berm 3 to 4-inches high at the outermost edge of the root ball. Place 1 to 2-inches of mulch or

bark over root ball and berm, keeping the mulch away from the trunk a minimum of 2-inches. Fill the berm with water to capacity.

- **Turf Areas:** In turf areas that receive regular watering, the watering berm may be eliminated. The turf shall be maintained a minimum of one foot from the new tree stem, and mulch placed on top of the root ball. The mulch shall not be touching the tree stem. In turf areas, install ~~tree~~ mower guards.
- **Aeration Tubes for Trees:** If required, install 4-inch diameter perforated aeration tubes with grated plastic caps placed at the edge of the root ball to the bottom of the pit. Irrigation heads shall not be installed inside the aeration pipes. Any of the above holes, pipes, grates or fixtures shall include the installation of Filter Fabric wrap over the side openings and secured as recommended by manufacturer when connected to an approved aeration system.
- **Alternate Specifications:** Occasionally, tree planting must occur in poor or difficult soil where standard planting techniques will result in poor-to-average performance or mortality (such as unique or unusual regional geology, slope, soil volume, restrictive physical or chemical properties, poor drainage, etc.). In this case, the responsible party must investigate alternative solutions to enable long term tree growth. Alternative planting specifications or plans that vary from the native or typical soil conditions shall be submitted to the *City Arborist* for approval prior to installation. Alternative or specified soils, such as engineered, amended or structural urban tree soil mix, including written specifications and physical samples, shall be submitted for approval from the City Arborist and/or Landscape Architect.

Commentary: Provided more flexibility on tree staking, added previous reference to mower guard for consistency, and corrected typo.

## **HAZARDOUS TREES**

Property owners are responsible for the trees on their own property. The City requires advance permission for removal of trees in emergencies, unless the tree poses an imminent danger of falling and posing a threat to life and property prior to the ability of the Manager to consider issuing an emergency tree removal permit. However, in such cases the property owner must submit documentation of the problem after the fact. This is to avoid the unlawful removal of sound trees on the grounds that they are hazardous. If there was no immediate danger, and the City determines that there was no reasonable basis for the tree to be removed prior to the ability of the City to issue an emergency tree removal permit, the property owner may face penalties for violating City law.

The health and safety of a tree are two distinct and separate functional characteristics. A vigorous and healthy tree may not necessarily be of sound wood or structure. To remove a dangerous tree, it must first be evaluated and the tree determined to be hazardous as defined in this section.

On private property, it is the responsibility of the property owner to mitigate or abate a known hazardous condition of a tree that may be of questionable structure or deemed as hazardous. Most tree hazards can be prevented with regular checkups by a tree care professional and timely maintenance action by the property owner.

Determining whether or not a tree's defects constitute a condition that presents an

imminent hazard to an area requires a high degree of knowledge and experience. Hazard tree assessment of a tree should only be evaluated by an ISA certified arborist that is Tree Risk Assessment Qualified who is familiar with tree physiology and can interpret the external signs of weaknesses, and who can perform internal checks if necessary and make recommendations.

Commentary: Included updated qualifications of arborists that are qualified to perform tree risk assessments.

## CRITERIA USED BY THE CITY TO DETERMINE IF A TREE IS HAZARDOUS

- **Definition of Hazardous Growth Habit:** The West Linn Municipal Code defines “Hazardous Growth Habit” as: The development of a tree that, due to a combination of structural defect, disease, or existing disturbance, is subject to an imminent or probable likelihood of failure; and such failure would result in a threat to persons or improved property based on an extreme or high overall risk rating over the next five-year timeframe according to an ISA Qualified Tree Risk Assessor using the ISA Tree Risk Assessment process.~~the development of a tree that, due to a combination of structural defect, disease, or existing disturbance, is subject to a high probability of failure, and such failure would result in a threat to persons or improved property.~~
- **Evaluation Form:** In some cases, the City may require submittal of an ISA Basic Tree Risk Assessment Form ~~Hazard Evaluation Form~~, before approval is granted. The City uses the ~~national standard, an ISA Hazard Evaluation~~ Basic Tree Risk Assessment Form as a basis to determine the ~~hazard-overall risk~~ rating of a tree. This form, or an approved equivalent, must be completed by a certified arborist. The City Arborist retains discretionary right to approve, request in writing a second opinion of a rating, or recommend action that may reduce the condition to a less-than ~~significant level of hazard~~ extreme or high overall risk rating.
- **Authorization:** If the hazardous growth habit cannot be mitigated or reduced by pruning or other treatment to ~~a~~ less than ~~significant level~~ a high or extreme overall risk rating then the Manager shall issue a permit authorizing removal of the tree in accordance with the City Municipal Tree Ordinance.

Commentary: Modified the language regarding hazardous trees, evaluation forms, and risk ratings for consistency with current ANSI A300 standards and ISA BMPs.

## DETERMINING A TREE’S HAZARD-OVERALL RISK RATING

A tree may be a potential hazard if it is based on: (a) ~~a tree with the potential to fail~~ its likelihood of failure (b) ~~in an environment that increases the likelihood of failure~~ likelihood of impacting a target and (c) ~~a tree that would strike a target~~ consequences of failure. The ~~hazard-rating formula~~ overall risk rating is based upon the following factors:



- Failure Potential RatingLikelihood of Failure:** *Likelihood of failure* is the chance of a tree or tree part failing within the stated time frame of five years. Factors affecting likelihood of failure include site conditions (prior ground disturbance, loss of adjacent trees), response growth (a tree's natural strengthening to normal loads), tree health, tree species, load (wind exposure and lever forces), and any defects or decay in the tree. The likelihood of failure is predicated on historically normal weather conditions, including historically normal storms, but excluding severe or abnormal storms. Severe ice and wind storms are generally not considered historically normal weather conditions. Likelihood of failure ratings range from improbable, possible, probable, to imminent.
- ~~Failures do not occur at random, but are the result of a combination of defects and aggravating conditions. The scope of the professional evaluation will include structural defects in the tree (including branches, trunk and roots; and if necessary, shall employ the use of the most current methods of internal decay inspection available); soil/slope and/or creek bank stability; individual species susceptibility to failure, pruning, history, decay weaknesses and any other compromising or pertinent factors considered by the consultant.~~
- Target RatingLikelihood of Impacting Target:** *Likelihood of impacting target* assesses the likelihood of the tree or tree part impacting a target when the tree or tree part with the defect has failed. Factors for assessing likelihood of impact include occupancy rates including how long targets are exposed to potential tree failures, location within a target zone, protection factors such as structures or other trees that may reduce potential for certain targets to be impacted, and direction of fall. Likelihood of impact target ratings range from very low, low, medium, to high. Evaluation of potential targets shall include people, structures or property use and occupancy that are imminently threatened. Property use shall consider what structures or activities are under or around the tree (e.g. building, parking, pedestrian, recreational, utility lines, hardscape, etc.). Occupancy shall consider frequency of the use (occasional, intermittent, frequent or constant), and whether the *target* will be present when failure occurs. Consideration shall be given as to whether the *target* can be reasonably removed or isolated to reduce the hazard rating to a less than significant level. A target means people or property (public or private).
- Additional FactorsConsequences of Failure:** *Consequences of failure* is the level of damage associated with a tree or tree part failure that has struck a target of concern. Factors considered include the size of the tree or tree part, fall distance, protection factors, and target value/damage. Consequences of failure range from negligible, minor, significant, to severe. Evaluation of other factors that contribute to aggravating conditions shall be considered, such as: size of the affected defect (i.e. a small branch vs. the entire tree uprooting), significant potential of fire, utility line contact or catastrophic effects, etc.
- Overall Risk Rating:** The overall risk rating for a tree is determined through the risk rating matrix below from the ISA Best Management Practices: Tree Risk Assessment that combines the likelihood of a tree failing and striking a target with the consequences of failure. The outputs for overall risk rating are low, moderate, high, and extreme.

- **Low** – “Some trees with this level of risk may benefit from mitigation or maintenance measures, but immediate action is not usually required.”
- **Moderate** – “The tree risk assessor should recommend mitigation. The decision for mitigation and timing of treatment depends upon the tolerance of the tree owner or manager.”
- **High** – “This combination of likelihood and consequences indicates that the tree risk assessor should recommend mitigation measures be taken. The decision for mitigation and timing of treatment depends on the risk tolerance of the tree owner or risk manager.” The priority for action is lower than extreme risk trees.
- **Extreme** – “The tree risk assessor should recommend that mitigation measures be taken as soon as possible. In some cases, this may mean restricting access to the target zone area to avoid injury to people.”

Matrix 1. Likelihood matrix.

Likelihood of Failure	Likelihood of Impact			
	Very low	Low	Medium	High
Imminent	Unlikely	Somewhat likely	Likely	Very likely
Probable	Unlikely	Unlikely	Somewhat likely	Likely
Possible	Unlikely	Unlikely	Unlikely	Somewhat likely
Improbable	Unlikely	Unlikely	Unlikely	Unlikely

Matrix 2. Risk rating matrix.

Likelihood of Failure & Impact	Consequences of Failure			
	Negligible	Minor	Significant	Severe
Very likely	Low	Moderate	High	Extreme
Likely	Low	Moderate	High	High
Somewhat likely	Low	Low	Moderate	Moderate
Unlikely	Low	Low	Low	Low

Commentary: Modified the risk rating language for consistency with current ANSI A300 standards and ISA BMPs.

## **DEVELOPMENT REVIEW, BUILDING PERMITS, AND PROTECTION OF TREES DURING CONSTRUCTION**

The objective of this section is to provide guidelines to reduce the negative impacts of construction on trees to a less than significant level. Trees vary in their ability to adapt to altered growing conditions. Mature trees have established stable biological systems in the pre-existing physical environment. Disruption of this environment by construction activity interrupts the tree’s physiological processes causing depletion of energy reserves and a decline in vigor, often resulting in the tree’s death. Typically, this reaction may develop from one to twelve years or more after disruption. The tree protection regulations are intended to guide a construction project to ~~insure~~ensure that appropriate practices will be implemented in the field to eliminate undesirable consequences that may result from uninformed or careless acts, and preserve both trees and property values.

Typical negative impacts that may occur during construction include:

- Mechanical injury to roots, trunk or branches
- Compaction of soil, which degrades the functioning roots, inhibits the development of new ones and restricts drainage, which desiccates roots and enables water mold fungi to develop
- Changes in existing grade which can cut or suffocate roots
- Alteration of the water table - either raising or lowering
- Microclimate change, exposing sheltered trees to sun or wind
- Sterile soil conditions, associated with stripping off topsoil.

## **STEPS IN THE PROCESS**

Construction project managers are required to implement the tree protection practices described in this section. The following steps shall be taken in regard to tree protection on any construction project in the City. For more detailed information regarding these steps, please reference the desired topic later in this section.

- **Site Plans, Tree Surveys and Arborist Reports:** Prior to land use approval or building permit issuance, a property owner shall have prepared an appropriate *Site Plan, Tree Survey, and/or Arborist Report*. Any tree protection plans or reports must be approved and accepted by the City Arborist before proceeding to the next step. Notes and/or changes to the protection plans may be made or requested by the City Arborist at this time.
- **Verification of Tree Protection:** The project arborist or contractor shall verify, in writing, that all pre-construction conditions have been met and that all tree protection measures are in place. Written verification must be submitted to and approved by the City prior to demolition, grading or building permit issuance.
- **Pre-Construction Meeting:** The City Arborist, Project Arborist, Project Manager, Site Superintendent and other pertinent personnel may be required to meet at the site prior to beginning work to review procedures, tree protection measures and to establish haul routes, staging areas, contacts, watering, etc.
- **Project Construction:** Project Managers, Site Superintendents and Project Arborists in conjunction with City inspectors and staff are to ensure that trees on site are protected in accordance with the approved Arborist Report for the project for the duration of construction activity.
- **Post Construction:** Project Managers, Site Superintendents and Project Arborists in conjunction with City Inspectors and staff are to ensure that post construction activity is in accordance with the approved Arborist Report for the project.

## **SITE PLANS, TREE SURVEYS, TREE APPRAISAL REPORTS, AND ARBORIST REPORTS**

A *Site Plan* and/or *Tree Survey* and *Arborist Report* will be required for development projects containing trees. Site Plans for individual building permits may be prepared by the applicant. Tree Surveys and Arborist Reports will be required for projects that require Design Review as referenced in the City Community Development Code (CDC), and must be prepared by a licensed surveyor and certified arborist respectively for the applicant and submitted to the City for the purpose of providing accurate information and opinion regarding the condition, welfare, maintenance, preservation or value of trees on the project site. Occasionally, information about trees offsite will be required if the project will affect them, for example, trees near the property line of a development. Site Plans and Arborist Reports will be reviewed and approved by the City Arborist. Trees are defined by the City as having a minimum 6 inch DBH for Oregon White Oak, Pacific Madrone, and Pacific Dogwood, and 12 inch DBH for all other species. Any trees not meeting these minimum thresholds need not be shown on any site plans or surveys.

Following are the types of documentation that may be required by the City:

- **Site Plan:** A site plan will be required for all non-interior construction activity that requires a building permit. The site plan shall show the accurate location

of property lines, existing structures, proposed new construction, staging and spoils areas, and all trees at or above the City's minimum threshold, with DBH and species indicated. Other non-tree related, City requirements may be shown on the site plan as well. A copy of the site plan will be reviewed and returned to the applicant with notes, tree protection fence locations, and other requirements. Another copy will be retained in the project file. Applicable building permits will not be issued without approved site plans.

- **Tree Survey:** For projects requiring Design Review (CDC governed), a tree survey shall be submitted to the City at the beginning of the process for the purpose of identifying significant trees. The survey shall indicate property lines, existing structures and other site conditions, as well as all trees at or above the City's minimum threshold, clearly identified by DBH and species on the plan, or in a numbered table. ~~After receiving the survey, the City Arborist applicant shall determine which trees are significant using the definition in the CDC, and clearly indicate these findings on the survey. One copy of this document shall be returned to the applicant, and one copy will go into the project file as an exhibit.~~

Commentary: Places the burden of proof on the applicant for identifying significant trees consistent with current staff practices.

- **Tree Appraisal Report:** ~~Occasionally~~ For non-residential projects, the City may require a *Tree Appraisal Report*. Landscape value may contribute from seven to 20-percent of the real estate property value. An individual tree has an inherent value to the real estate that can be determined by an appraisal prepared by a certified arborist. An appraisal is a process for determining a monetary opinion of the value of a tree as it relates to either the property, a group of trees and/or the immediate community. A certified arborist is required to determine this value, and must exercise good and fair judgment by adjusting the basic value by the tree's condition and location. ~~There are two~~ common methods to determine tree value in suburban areas are; (1) the ~~Replacement Direct Cost Technique Method~~, based upon the size and availability of the replacement tree or, (2) the Trunk Formula ~~Method Technique~~, if the tree cannot be replaced (e.g. not sufficient room on site or it is too large to replace). In all cases, the type ~~of formulate technique~~ used must be identified. A certified arborist must prepare the appraisal by using the most current edition of the *'Guide for Plant Appraisal'*, published by the Council of Tree and Landscape Appraisers.

Commentary: If appraisals are only occasionally required, then it should apply to non-residential projects since residential project require clear and object standards by state statute. Appraisal terminology is updated consistent with the most recent Guide for Plant Appraisal.

- **Arborist Report:** An *Arborist Report* is required for all development projects governed by the Community Development Code and shall be submitted for review by the City as part of the design review documents. The *Arborist Report* shall assume compliance with standards this Manual.



All *Arborist Reports* shall contain the following information:

- Arborist name and certification number
- Cover letter
- Title page
- Table of contents
- Site address and date of the inspection(s)
- Tree survey as outlined above. Failure to show a tree on the plans and later determined to be affected by construction may require the work to stop until mitigation can be agreed upon by the property owner and the City.
- Tree inventory data for all trees on the project site including tree species, DBH, health, structure, ~~etc.~~. Tables may be used.
- Written recommendations for the health and long-term welfare of trees, that will be followed during pre-construction, demolition, construction and post construction phases of the project. Recommendations include methods of avoiding injury, damage treatment and inspection schedule. Overall project schedule shall be referenced with these recommendations.
- A tree protection and preservation plan showing tree protection zones (TPZ) for each tree or group of trees to be protected. The TPZ's shall be shown on all sheets within the document set as a bold dashed line with shading inside, and clearly indicated with proper notation. Additionally, all trunk locations, trunk diameters, and dripline areas shall be accurately plotted on the plans. For large groups of trees to be preserved, accurate trunk locations and dripline areas are not required for interior trees which are not affected by proposed construction activities because of the existence of perimeter trees subject to impact. Notes and details clearly outlining specific measures for protection of the trees during construction shall be included in the plan set. Any approved construction activity within the TPZ will also be clearly indicated.
- Written recommendations for the maintenance of the trees for a minimum of two years after project completion.

If necessary, other supporting information, ISA ~~hazard ratings~~ tree risk assessments, photographs, diagrams, etc. may be ~~required or~~ provided.

After project approval, any changes to the protection measures or preservation plans must be approved in writing by the City Arborist.

Commentary: Minor text edits to ensure standards are clear and objective, and use current terminology.

## **SPECIFICATIONS FOR TREE PROTECTION DURING CONSTRUCTION**

## TREE PROTECTION ZONE (TPZ)

Each tree to be retained shall have a designated tree protection zone (TPZ) identifying the area sufficiently large enough to protect the tree and roots from disturbance. The standard for computing the size of the TPZ shall be a  ~~$\frac{1}{2}$~~  1 foot radius per caliper inch measured from the trunk of the tree. For example, a 30 inch DBH tree would have a TPZ with a radius of ~~15-30~~ feet from the trunk, or a ~~30-60~~ foot diameter full circle around it. ~~A diagram of TPZ sizing is included as Appendix C to this manual.~~ The tree protection zone shall be shown on all site plans for the project. Improvements or activities such as paving, utility and irrigation trenching and other ancillary activities shall occur outside the tree protection zone, unless authorized by the City Arborist based on a report submitted by the Project Arborist, or by project approval. Unless otherwise specified by the Project Arborist and approved by the City Arborist, the protective fencing shall serve as the tree protection zone. Activities prohibited within the tree protection zone include:

- Storage or parking vehicles, building materials, refuse, excavated spoils or dumping of poisonous materials on or around trees and roots. Poisonous materials include, but are not limited to, paint, petroleum products, concrete or stucco mix, dirty water or any other material which may be deleterious to tree health.
- The use of tree trunks as a winch support, anchorage, as a temporary power pole, sign posts or other similar function.
- Cutting of tree roots by utility *trenching*, foundation digging, placement of curbs and trenches and other miscellaneous excavation without prior approval of the Project Arborist and City Arborist.
- Soil disturbance or grade change.
- Drainage changes.

Activities permitted ~~or required~~ within the tree protection zone subject to approval by the Project Arborist and City Arborist include:

- Mulching. During construction, wood chips may be spread within the TPZ to a 4-to 6-inch depth, leaving the trunk clear of mulch to help inadvertent *compaction* and moisture loss from occurring. The mulch may be removed if improvements or other landscaping is required. Mulch material shall be 2-inch unpainted, untreated wood chip mulch or approved equal.
- Root Buffer. When areas under the tree canopy cannot be fenced, a temporary buffer is required and shall cover the root zone and remain in place at the specified thickness until final grading stage.
- Irrigation, aeration, fertilizing or other beneficial practices that have been specifically approved for use within the tree protection zone.
- Erosion Control. If a tree is adjacent to or in the immediate proximity to a grade slope of 8% or more, then approved erosion control or silt barriers shall be installed outside the TPZ to prevent siltation and/or erosion within the tree protection zone.

Commentary: Increased standard tree protection zone radius to 1 foot per inch of DBH which is widely accepted at the default standard in western Oregon. Minor text changes are proposed to require Project Arborist and City Arborist approval for revisions to tree protection plans.

## TREE PROTECTION FENCING

Fenced enclosures shall be erected around trees to be protected to achieve three primary goals, (1) to keep the foliage crowns and branching structure clear from contact by equipment, materials and activities; (2) to preserve roots and soil conditions in an intact and non-compacted state and; (3) to identify the tree protection zone in which no soil disturbance is permitted and activities are restricted, unless otherwise approved.

- **Size and type of fence:** All trees to be preserved shall be protected with six foot high chain link fences. Fences are to be mounted on two inch diameter galvanized iron posts, driven into the ground to a depth of at least 2-feet at no more than 10-foot spacing. This detail shall appear in the construction plan set, and can be referenced in the City's Construction Standards.
- **Area to be fenced:** The fences shall enclose the entire area within the tree protection zone of the tree(s) to be saved throughout the life of the project as mapped by the building permit approval, or as mapped within the tree protection and preservation plan contained in the Arborist Report for the project. The fencing shall remain until final improvement work ~~within the area is required, typically near the end of the project~~. If the fencing must be located on paving or sidewalk that will not be demolished, the posts may be supported by an appropriate grade level concrete base. For trees situated within a narrow planting strip, only the planting strip shall be enclosed with the required chain link protective fencing in order to keep the sidewalk and street open for public use. Trees situated in a small tree well or sidewalk planter pit, shall be wrapped with 2-inches of orange plastic fencing as padding from the ground to the first branch with 2-inch thick wooden slats bound securely on the outside. During installation of the wood slats, caution shall be used to avoid damaging any bark or branches. Major scaffold limbs may also require plastic fencing as directed by the Project Arborist and approved by the City Arborist.
- **Duration:** Tree fencing shall be erected before demolition, grubbing, grading or construction begins and remain in place until final inspection of the project permit, except for work specifically required in the approved plans in which case the ~~project Project arborist Arborist or and~~ City Arborist ~~(in the case of street trees)~~ must be consulted.
- **Warning Sign:** A warning sign shall be prominently displayed on each fence. The sign shall be a minimum of 8.5 x 11-inches and clearly state: WARNING: Tree Protection Zone.
- **Violations:** The penalty for the unauthorized removal or relocation of a tree protection fence, and/or unauthorized activity within a TPZ, is ~~\$500, plus \$500 per day until the fence is repaired or replaced and any damage to the tree properly mitigated~~ subject to penalties and stop work orders as described in Chapters 1 and 106 of the West Linn Code.

Commentary: Specifies that the Project Arborist and City Arborist may prescribe modifications to tree protection plans subject to ultimate City Arborist approval. Violations cross reference enforcement provisions in Chapters 1 and 106 of the Code since the \$500 fine for tree protection violations is not specified in the Code.

## CONSTRUCTION MEETING AND INSPECTION SCHEDULE

A certified arborist may be required to be retained by the applicant during the construction of large development projects. This project arborist retained shall conduct the following required inspections for the duration of construction activity.

Correspondence may be as simple as e-mail in some cases or may require larger documents with tables, photographs, etc. for others. Requirements for specific projects will be detailed in conditions of permit approvals.

- **Inspection of Protective Tree Fencing:** The City Arborist shall be in receipt of a written statement from the applicant or project arborist verifying that the protective tree fencing has been installed and may be inspected by the City Arborist prior to issuance of a demolition, grading, or building permit, unless otherwise approved.
- **Pre-Construction Meeting:** Prior to commencement of construction, the applicant or contractor may be required to conduct a pre-construction meeting to discuss tree protection with the job site superintendent, grading equipment operators, certified arborist, and City Arborist.
- **Monthly Inspections:** If a project arborist is required for the development project, ~~he/she/they~~ shall perform monthly inspections to monitor changing conditions and tree health. The City Arborist shall be in receipt of an inspection summary during the first week of each calendar month or, immediately if there are any changes to the approved plans or protection measures.
- **Special Activity Within the Tree Protection Zone:** Work in this area (TPZ) requires the direct onsite supervision of the ~~City Arborist~~ Project Arborist.
- **Project Summary and Conclusion:** A brief summary discussing the project's trees shall be submitted to the City Arborist at the conclusion of all construction activity. It shall include concerns about trees that may have been negatively impacted as well as recommendations for care of the trees in the future.

Commentary: Clarifies that the City may require construction monitoring as a condition of permit approval. Uses gender neutral language when referring to arborists. Clarifies that the Project Arborist (not City Arborist) oversees work in the tree protection zones.

## TREE PRUNING, SURGERY AND REMOVAL

Prior to construction, various trees may require that branches be pruned clear from structures, activities, building encroachment or may need to be strengthened by means of mechanical support or surgery. The most compelling reason to prune is to develop a strong, safe framework and tree structure. Such pruning, surgery or the *removal* of trees shall adhere to the following standards:

- **Minimum Pruning:** If the project arborist recommends that trees be pruned, and the type of pruning is left unspecified, the standard pruning shall be consistent with the most recent version of the ANSI A300 pruning standards, ANSI Z133 safety standards, and accompanying ISA Best Management Practices of 'crown cleaning' as defined by ISA pruning guidelines. Trees shall be pruned to reduce hazards and develop a strong, safe framework.

- **Maximum Pruning:** Maximum pruning should only occur in special situations proposed by the Project Arborist and approved by the City Arborist. No more than one-third (33 percent) of the functioning leaf and stem area may be removed within one calendar year of any tree, or removal of foliage so as to cause the unbalancing of the tree. It must be recognized that trees are individual in form and structure, and that pruning needs may not always fit strict rules. The project arborist shall assume all responsibility for special pruning practices that vary from the standards outlined in this ~~manual~~Manual.
- **Tree Workers:** Pruning shall not be attempted by construction or contractor personnel, but shall be performed by a qualified tree care specialist or certified tree worker, according to specifications contained within this Manual.
- **Surgery:** Prior to construction, if it is necessary to promote health and prolong useful life or the structural characteristics, then trees shall be provided the appropriate treatments as specified by the ~~project~~Project ~~arborist~~Arborist ~~or~~and approved by the City Arborist.
- **Tree Removal:** Removal of trees that extend into the branches or roots of protected trees shall not be attempted by demolition or construction personnel, grading or other heavy equipment. A certified arborist or tree worker shall remove the tree carefully in a manner that causes no damage above or below ground to trees that remain.
- **Stump Removal:** Before performing stump extraction, the developer shall first consider whether or not roots may be entangled with trees that are to remain. If so, these stumps shall have their roots severed before extracting the stump. *Removal* shall include the grinding of stumps and roots to a minimum depth of 24-inches but expose soil beneath the stump to provide drainage. In sidewalk or small planter areas to be replanted with a new tree, the entire stump shall be removed and the planting pit dug to a depth of 30-inches. If dug below 30-inches, compact the backfill to prevent settling. Large surface roots three feet from the outside circumference shall be removed, including the spoils and backfilled with City approved topsoil to grade, and the area tamped to settle the soil.

Commentary: Updates language consistent with current tree care industry standard terminology. Clarifies that the Project Arborist will propose pruning specifications subject to City Arborist approval.

## CONSTRUCTION ACTIVITY

Construction is normally prohibited in the TPZ. Under certain circumstances it may be necessary to work in the TPZ, however only with approval from the Project Arborist and approved by the City Arborist. If any construction activity is to occur in the TPZ the following guidelines apply:

- **Excavation and Grading**

The following guidelines shall be followed in regard to excavation and grading activities:

- Contractor shall notify the Project Arborist and City Arborist a minimum of 24 hours in advance of the activity in the tree protection



zone.

- Roots that are encountered shall be cut to sound wood and repaired. Roots 2-inches and greater must remain injury free and uncut unless otherwise approved by the Project Arborist in a report submitted to the City Arborist.
- Any approved excavation, demolition or extraction of material shall be performed with equipment sitting outside the tree protection zone. Methods permitted are by hand digging, hydraulic or pneumatic air excavation technology. Avoid excavation within the TPZ during hot, dry weather. ~~If excavation or trenching for drainage, utilities, irrigation lines, etc.,~~
- Grade changes within the tree protection zone are not permitted unless approved by the Project Arborist in a report submitted to the City Arborist.
- Grade changes outside of the tree protection zone shall not significantly alter drainage within the TPZ.
- Grade changes under specifically approved circumstances shall not allow more than 6-inches of fill soil added or allow more than 4-inches of existing soil to be removed from natural grade.
- Grade fills over 6-inches or impervious overlay shall incorporate an approved permanent aeration system, permeable material or other approved mitigation.
- Grade cuts exceeding 4-inches shall incorporate retaining walls or an appropriate transition equivalent.
- If excavation or trenching for drainage, utilities, irrigation lines, etc., it is the duty of the contractor to tunnel under any roots 2-inches in diameter and greater. Prior to excavation for foundation/footings/walls, grading or trenching within the TPZ, roots shall first be severed cleanly 1-foot outside the tree protection zone and to the depth of the future excavation. The trench must then be hand dug and roots pruned with approved root pruning equipment.
- If injurious activity or interference with roots greater than 2-inches will occur within the tree protection zone, plans approved by the Project Arborist shall specify a design of special foundation, footing, walls, concrete slab or pavement designs subject to City Arborist approval. Discontinuous foundations such as concrete pier and structural grade beam must maintain natural grade (not to exceed a 4-inch cut), to minimize root loss and allow the tree to use the existing soil.
- Basement excavations shall be designed outside the tree protection zone of all protected trees unless approved by the Project Arborist in a report submitted to ~~by~~ the City Arborist for review and approval, and shall not be harmful to other neighboring property trees.
- Use of backhoes, steel tread tractors or any heavy vehicles within the TPZ is prohibited unless approved by the Project Arborist in a report submitted to the City Arborist for review and approval. If allowed, a protective root buffer is required. The protective buffer shall consist of a base course of tree chips spread over the root area to a minimum of 6-inch depth, layered by 3/4-inch quarry gravel to stabilize 3/4-inch plywood on top. This buffer within the tree protection zone shall be

Commentary: Clarifies that the Project Arborist will propose tree protection specifications subject to City Arborist approval.

maintained throughout the entire construction process.

- **Trenching, Tunneling and Directional Drilling for Utilities**

- If trenching or pipe installation has been approved within the tree protection zone, then the trench shall be either cut by hand, air-spade, hydraulic vac-~~on~~ excavation or, by mechanically boring the tunnel under the roots with a horizontal directional drill and hydraulic or pneumatic air excavation technology.
- Utility pipe must be installed immediately, backfilled with soil and soaked within the same day.
- Street Trees that are in conflict with utility infrastructure where the conflict cannot be resolved may be removed if approved by the City Arborist. All Street Tree removals are subject to replacement.
- Emergency utility repairs shall be exempt from the above restrictions ~~zones~~ within the Tree Protection Zone. The Project Arborist and City Arborist shall be contacted after any such repairs that may result in significant tree damage or removal.

Commentary: Clarifies that the Project Arborist will propose tree protection specifications subject to City Arborist approval.

- **Pavement and Hardscape**

Conflicts may occur when tree roots grow adjacent to paving, foundations, sidewalks or curbs (hardscape). Improper or careless extraction of these elements can cause severe injury to the roots and instability or even death of the trees. The following alternatives must first be considered before root pruning within the tree protection zone of a tree:

- Grinding a raised sidewalk edge.
- Ramping the walking surface over the roots.
- Routing the sidewalk around the tree roots.
- Install flexible paving or rubberized sections.
- On private property, new sidewalk or driveway design should consider alternatives to conventional pavement and sidewalk materials. Substitute permeable materials for typical asphalt or concrete overlay, sub-base or footings to consider are: permeable paving materials (such as ECO-Stone or RIMA pavers), interlocking pavers, flexible paving, wooden walkways, porches elevated on posts and brick or flagstone walkways on sand foundations.

Removal of existing pavement over tree roots shall include the following precautions:

1. Break hardscape into manageable pieces with a jackhammer or pick and hand load the pieces onto a loader. The loader must remain on

- undisturbed pavement or off exposed roots.
2. Do not remove base rock that has been exploited by established absorbing roots.

Replacement of pavement or sidewalk:

1. An alternative to the severance of roots greater than 2- inches in diameter should be considered before cutting roots.
2. If an alternative is not feasible, remove the sidewalk, remove roots only as approved by the Project Arborist in a report submitted to the City Arborist for review and approval, and replace sidewalk using #3 dowels at the expansion joint if within 10-feet of a street tree. Use a wire mesh reinforcement within if within 10-feet of the trunk of a protected or street tree. Any work in the right-of-way requires a street work permit from Public Works Department.

Commentary: Clarifies that the Project Arborist will propose tree protection specifications subject to City Arborist approval.

Conflicts and associated costs can be avoided or reduced by the following planting practices:

1. Plant deep rooted trees that are proven to be non-invasive.
2. Over soil that shrinks and swells, install a sidewalk with higher strength that has wire mesh and/or expansion slip joint dowel reinforcement.
3. Follow soil loosening planting techniques to promote deep rooting.
4. Install root barrier only along the hardscape area of the tree and allow roots to use open lawn or planter strip areas.
5. Dedicate at least 10-linear feet of planting space for the growth of each tree.
6. When designing hardscape areas near trees, the project architect or engineer should consider the use of recommended base course material such as an engineered structural soil mix.

• **Invasive species removal**

Often, contractors will be required to remove invasive plant species from the understory in TPZ's. In most cases, native understory plants shall be saved and the area will be fully cleared of invasive species. The following practices must be followed when removing invasives:

- The preferred method for invasive plant removal, is by hand, extracting the entire plant, including the roots. Other manual methods include cutting the plants to ground level, either mechanically, or with hand tools, and spraying the new growth with an approved herbicide. In either case, native understory plants may not be harmed or removed.
- If heavy machinery is used, for example, a brush rake attached to

- an excavator, the machine must stay outside of the TPZ and “reach” into the area, carefully extracting the invasives without damaging the protected trees or native understory whatsoever.
- In some cases, a restoration of native understory may be required. An approved list of native plants ~~is included as appendix B~~ may be provided by applicant’s qualified consultant subject to approval by the City.

Commentary: There is no appendix B so the applicant’s qualified consultant will propose native plants subject to City approval.

## CONSTRUCTION DAMAGE TO PROTECTED TREES

Any damage or injury to trees shall be reported within 6-hours to the Project Arborist ~~and~~ Site Superintendent ~~or~~ and City Arborist so that mitigation can take place. All mechanical or chemical injury to branches, trunk or to roots over 2-inches in diameter shall be reported in the monthly inspection report. In the event of injury, the following mitigation and damage control measures shall apply:

- **Root injury:** If trenches are cut and tree roots 2-inches or larger are encountered they must be cleanly cut back to a sound wood ~~lateral root~~. All exposed root areas within the TPZ shall be backfilled or covered within one hour. Exposed roots may be kept from drying out by temporarily covering the roots and draping layered burlap or carpeting over the upper 3-feet of trench walls. The materials must be kept wet until backfilled to reduce evaporation from the trench walls.
- **Bark or trunk wounding:** Current bark treatment methods shall be performed by a qualified tree care specialist within two days.
- **Scaffold branch or leaf canopy injury:** Remove broken or torn branches back to an appropriate branch capable of resuming terminal growth within five days. If leaves are heat scorched from equipment exhaust pipes, consult the Project Arborist within 6 hours.

### Construction Injury Mitigation

A mitigation program may be required if it is found the approved development will cause drought stress, dust accumulation or soil compaction to trees that are to be saved. To help reduce impact injury, one or more of the following mitigation measures shall be implemented and supervised by the Project Arborist as follows:

- **Irrigation Program:** Irrigate to wet the soil within the tree protection zone to a depth of 24-inches to 30-inches. Or, apply sub-surface irrigation at regular specified intervals by injecting on approximate 3-foot centers, 10-gallons of water per inch trunk diameter within the tree protection zone. Duration shall be until project completion or monthly until seasonal rainfall totals at least 8-inches of rain, unless specified otherwise by the certified arborist.
- **Dust Control Program:** During periods of extended drought, wind or

grading, spray wash trunk, limbs and foliage to remove accumulated construction dust.

- **Compaction Mitigation:** If inadvertent compaction of the soil has occurred within the tree protection zone, the soil shall be loosened by one or more of the following methods to promote favorable root conditions: vertical mulching, soil fracturing, core-venting, radial trenching or other method proposed in a report by the Project Arborist and approved by the City Arborist.
- **Aeration System:** If an approved paving, hardscape or other compromising material encroaches within the tree protection zone, an aeration system may be required and shall be designed by the Project Arborist and used within this area.

Commentary: Clarifies that the Project Arborist will propose tree protection measures subject to City Arborist approval.

### **Non-compliance, Penalty and Enforcement**

Non-compliance with any City mandated mitigation shall result in enforcement of penalties set forth as applicable in section 8.740 of the West Linn Community Tree Ordinance, Chapter 1 of the West Linn Municipal Code, and Chapter 106 of the West Linn Community Development Code.

Commentary: Cross reference enforcement provisions in Section 8.740 of the West Linn Community Tree Ordinance, Chapter 1 of the West Linn Municipal Code, and Chapter 106 of the West Linn Community Development Code .





CITY OF  
**West  
Linn**

## Community Tree Ordinance & Tree Manual: Technical Updates

# Purpose of Review



- Present proposed technical updates to Tree Ordinance and Tree Manual
- Ensure compliance with state law
- Improve administrative consistency and reduce costs
- Enhance public safety and minimize City risk



# Community Outreach



- ♦ May 8th Parks and Recreation Advisory Board Presentation
- ♦ May 15th Sustainability Advisory Board Presentation
- ♦ July 24th Neighborhood Presidents Presentation
  - Email sent to the full group on 6/23/25 for NA distribution
- ♦ August 4th Savanna Oaks Neighborhood Association
  - Confirmed information was sent out to NA
- ♦ August 18th Bolton Neighborhood Association Presentation



# Feedback



- PRAB and SAB gave support of the updates
- Neighborhood Presidents gave general approval
  - Marylhurst NA
    - *An individual asked if mitigation trees under DBH requirements could be protected.*
  - Savanna Oaks NA
    - *An individual asked why a permit would be needed for a dead stump.*
  - Bolton NA:
    - *Asked for examples of state laws that were considered with the updates*
    - *Will the city use criteria to evaluate when to assist with maintenance of Heritage trees?*
    - *Will pruning standards for the ROW be provided?*
    - *Will ownership of trees on property line be clarified?*



# Additional Information



Heritage tree Legal review and update



Future planning for Emerald Ash Borer and Mediterranean Oak Borer permit removal and disposal guidance.



Updating website and application process



# Any questions?



# Tree Ordinance – Technical Amendments



- **Definitions (8.510):** Clarified to industry standards
- **Application (8.610):** Administrative adjustments
- **Appeals (8.640):** Defined notice process, role of City Arborist
- **Time Limits (8.650):** Decision timelines clarified
- **Street Trees (8.720):** Aligned with CDC
- **Abatement (8.750):** Additional clarity
- **Canopy Replacement (8.760):** Mitigation fees added
- **Fees (8.795):** Aligned with Master Fee Schedule

# Tree Ordinance – Policy Considerations



- **Fees (8.540):** Option to link to Master Fee Schedule
- **Development Review (8.570):** Streamline with CDC
- **Application Requirements (8.610):** Arborist reports & site visits
- **Permit Process (8.620):** Clarify notifications
- **Permit Criteria (8.630):** Clarify removal/replacement standards
- **Heritage Trees (8.710):** Reduced City obligations
- **Street Trees (8.720):** Suggest list instead of mandate
- **Non-Compliance (8.740):** Permit revocation authority

# Tree Manual



## **Overview**

- Technical guidance for tree professionals
- Reflects modern industry practices
- Supports ordinance implementation

## **Suggested Updates**

- Updated terminology and best practices
- Clarified planting, pruning, and maintenance standards
- Aligned with ordinance revisions

**Work Session Agenda Bill**

Date: September 2, 2025

To: Rory Bialostosky, Mayor  
Members, West Linn City Council

Through: John Williams, City Manager *JRW*

From: Erich Lais, PE – City Engineering/Public Works Director

Subject: Sewer System Development Charge Update

---

**Purpose:**

To provide Council with an update and presentation regarding updated methodology to the City's Sanitary Sewer System Development Charges (SDC).

**Question(s) for Council:**

Update and presentation only. Adoption hearing scheduled for September 8, 2025.

**Background & Discussion:**

The City's System Development Charges (SDC) are one-time charges paid at the time of new development, or at times, re-development, and account for expanded demand on the City's infrastructure. Application and development of SDC's are governed by Oregon Law and West Linn Municipal Code Chapter 4.400.

Periodically, the City contracts with a financial consultant which specializes in SDC calculation and methodology research to update its fees. The City has contracted with FCS, a Bowman Company, through a professional services contract to review and updates its fee schedule to account for current sewer infrastructure demand and to capture updated capital needs for future expansion.

The basis of the SDC fee is comprised of both a reimbursement fee and an improvement fee. A reimbursement fee accounts for the eligible value of unused capacity in existing facilities while the improvement fee accounts for eligible costs associated with planned capacity of increasing facilities (future development).

Due to West Linn's status of being largely built out with mostly smaller infill development opportunities, the City's Sewer SDC calculation is determined to significantly decrease as future demand on the sewer infrastructure capacity is anticipated to be minimal. With adoption, a single-family dwelling unit Sanitary Sewer SDC fee will go from the current fee of \$4,996 to \$1,094.

**Council Options:**

1. Proceed to adoption hearing scheduled for September 8, 2025 in order to amend and adopt the updated SDC fee schedule.
2. Postpone adoption hearing and provide staff with additional direction on how to proceed.

**Staff Recommendation:**

1. Recommend proceeding to adoption process through public hearing scheduled on September 8, 2025.

**Attachments:**

1. Draft Resolution 2025-11
2. Draft Final Report
3. SDC Report Presentation



## **RESOLUTION 2025-11**

### **A RESOLUTION OF THE WEST LINN CITY COUNCIL REVISING THE SANITARY SEWER SYSTEM DEVELOPMENT CHARGES**

**WHEREAS**, West Linn Municipal Code (“WLMC”) Sections 4.400 through 4.485 authorize the City to charge and revise system development charges (“SDC”) pursuant to ORS 223.297 through 223.314 for the purpose of creating a source of funds to pay for the installation, construction and extension of capital improvements; and

**WHEREAS**, The City hired Financial Consulting Solutions (“FCS Group”) to review and update the Sanitary Sewer SDC fees to account for updates to capital improvements incorporated into the adopted 2019 Sanitary Sewer Master Plan.

**WHEREAS**, FCS has submitted a report dated January 2025 containing their analysis and Sanitary Sewer SDC fee recommendations; and

**WHEREAS**, WLMC Section 4.415, 4.420, and 4.435 specify that SDC charges, methodology, and project plans be revised by resolution of the City Council; and

**WHEREAS**, The City desires to implement the SDC fee changes as provided in the FCS Group report to better account for capital expansion of the City’s Sanitary Sewer infrastructure as outlined in the adopted 2019 Sanitary Sewer Master Plan.

#### **NOW, THEREFORE, THE CITY OF WEST LINN RESOLVES AS FOLLOWS:**

**SECTION 1.** The Sanitary Sewer SDC methodology and fees contained in the January 2025 FCS Group Report (“Report”) is adopted as the City’s Sanitary Sewer SDC. The Report is attached as Exhibit A.

**SECTION 2.** Sanitary Sewer System Development Charges are modified in the amounts recommended in the Report, and the Sanitary Sewer SDC shall be due and payable consistent with West Linn Municipal Code Section 4.440. The updated Sanitary Sewer SDC will be effective on October 1, 2025.

**SECTION 3.** The City Council determines that the fees imposed by this Resolution are not a tax subject to the property tax limitation of Article XI, Section 11(b) of the Oregon Constitution.

This resolution was PASSED and ADOPTED this \_\_\_\_\_ day of \_\_\_\_\_, 2025, and takes effect upon passage.

\_\_\_\_\_  
RORY BIALOSTOSKY, MAYOR

ATTEST:

\_\_\_\_\_  
KATHY MOLLUSKY, CITY RECORDER

APPROVED AS TO FORM:

\_\_\_\_\_  
CITY ATTORNEY



## CITY OF WEST LINN

# Sewer SDC Study

*Submitted by:*

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*Submitted to:*

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*January, 2025*

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## Introduction

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This section describes the project scope and policy context upon which the body of this report is based.

### Project

The City of West Linn (City) is planning to update its system development charge (SDC) to recover eligible infrastructure costs and provide partial funding for the capital needs of its sewer system. In 2023, the City contracted with FCS to calculate the City's sewer SDC based on the planning documents provided by the City.

### Policy

SDCs are enabled by state statute, authorized by local ordinance, and constrained by the United States Constitution.

#### State Statute

Oregon Revised Statutes (ORS) 223.297 to 223.316 enable local governments to establish SDCs, which are one-time fees on development that are paid at the time of development or redevelopment that creates additional demand on the system for which it is charged. SDCs are intended to recover a fair share of the cost of existing and planned facilities that provide capacity to serve future users (i.e., growth).

ORS 223.299 defines two types of SDC:

- » A reimbursement fee that is designed to recover "costs associated with capital improvements already constructed, or under construction when the fee is established, for which the local government determines that capacity exists"
- » An improvement fee that is designed to recover "costs associated with capital improvements to be constructed"

ORS 223.304(1) states, in part, that a reimbursement fee must be based on "the value of unused capacity available to future system users or the cost of existing facilities" and must account for prior contributions by existing users and any gifted or grant-funded facilities. The calculation must "promote the objective of future system users contributing no more than an equitable share to the cost of existing facilities." A reimbursement fee may be spent on any capital improvement related to the system for which it is being charged (whether cash-financed or debt-financed).

ORS 223.304(2) states, in part, that an improvement fee must be calculated to include only the cost of projected capital improvements needed to increase system capacity for future users. In other words, the cost of planned projects that correct existing deficiencies or that do not otherwise increase capacity for future users may not be included in the improvement fee calculation. An improvement fee may be spent only on capital improvements (or portions thereof) that increase the capacity of the system for which it is being charged (whether cash-financed or debt-financed).

In addition to the reimbursement and improvement fees, ORS 223.307(5) states, in part, that "system development charge revenues may be expended on the costs of complying" with state statutes concerning SDCs,



including “the costs of developing system development charge methodologies and providing an annual accounting of system development charge expenditures.”

### Local Ordinance

Sections 4.400 to 4.485 of the West Linn Municipal Code authorizes and governs the collection and expenditure of SDCs, including sewer, in West Linn.

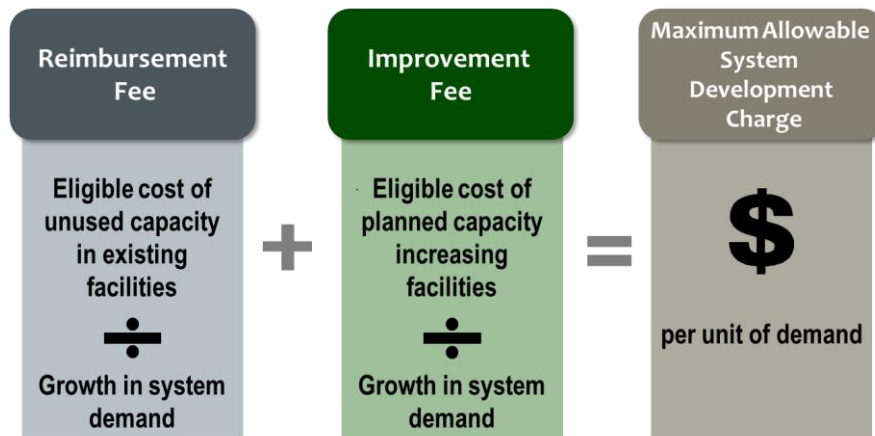
### United States Constitution

The United States Supreme Court has determined that SDCs, impact fees, or other exactions that comply with state and/or local law may still violate the Takings Clause of the Fifth Amendment if they are not both related and roughly proportionate to the impact of the development. The SDCs calculated in this report are designed to meet both constitutional and statutory requirements.

## SDC Background

In general, SDCs are calculated by adding a reimbursement fee component and an improvement fee component—both with potential adjustments. Each component is calculated by dividing the eligible cost by growth in units of demand. The unit of demand becomes the basis of the charge. **Exhibit 1** below provides an illustration of this calculation, and the following sections discuss each element of the calculation in detail.

**Exhibit 1. SDC Diagram**



### Growth in System Demand

The calculation of projected growth in system demand begins with defining the units by which current and future demand will be measured. A good unit of measurement allows the City to quantify the incremental demand of development or redevelopment that creates additional demand for system facilities. A more precise unit of measurement allows the City to distinguish different levels of demand added by different kinds of development or redevelopment.

Once a unit of measurement has been selected, using the best available data, the current level of demand is quantified, and a future level of demand is estimated. The difference between the current level and the future level is the growth in demand that will serve as the denominator in the SDC calculation. Generally, the future level

of demand is measured at the end of the planning period of the relevant project list, to ensure a strong nexus between the projects to be built and the growth expected.

### Reimbursement Fee

The reimbursement fee is calculated as the eligible cost of unused capacity in existing facilities that will serve growth (called the reimbursement fee cost basis) divided by the growth in system demand. The eligible cost is determined by multiplying the percentage of the total capacity available for growth by the original cost of such facilities. Some care must be taken that the percentage of capacity available for growth used in a reimbursement fee calculation only represents that capacity that will be used by growth during the planning period and does not represent capacity that will be used after the planning period.

Additionally, some adjustments to the original cost must be made. If system facilities were paid for with grants or developer contributions, then the City did not incur the costs of those facilities and cannot fairly ask developers to reimburse the City for such costs. If system facilities were paid for with debt and the debt is still outstanding, then the remaining principal is subtracted from the original cost to ensure that growth is not double paying for the same capacity; once in the SDCs, and again in the utility rates or property taxes that pay the debt service.

### Improvement Fee

The improvement fee is calculated as the eligible cost of planned capacity increasing facilities (called the improvement fee cost basis) divided by the growth in system demand. The eligible cost of such projects is the percentage that provides capacity for growth during the planning period multiplied by the cost of applicable projects. Again, care must be taken so that the percentage used to calculate the eligible cost refers only to capacity expected to be used by growth during the planning period.

Additionally, some adjustments to the project cost should be made. If a project is expected to have more outside funding (such as through grants) than the ineligible cost of the project, then the eligible cost should be reduced by the difference.

### Maximum Allowable SDC

The maximum allowable SDC is the improvement fee plus the reimbursement fee, plus an adjustment for administering the SDC program and complying with state law, as discussed in a previous section.

## Technical Analysis

### Growth

This section describes the growth in volume that will serve as the denominator in the SDC calculation, starting by defining the unit of measurement and then measuring the difference between current and future volume.

#### Unit of Measurement

For sewer SDCs, the water meter size necessary for a development is broadly used as a measure of its potential water demand, and thus the potential sewage flow. In order to compare meters and quantify sewer system capacity, meters are often compared by their flow rates and converted to meter capacity equivalents (MCEs). In this system, the smallest meter employed by the City is one MCE, and every larger meter is a larger number of MCEs based on their relative flow rates. Flow rates are most often based on the American Water Works Association's (AWWA) flow rates assuming either a 5/8" or 3/4" base meter. The smallest meter size available within the City is a 5/8" meter, so a 5/8" base for the MCE calculations was selected for the sewer SDC calculation.

#### Growth in Demand

The City had 13,974 MCEs as of 2023 based on its meter report. According to the 2019 Sanitation Sewer Master Plan Update, the peak wet weather flow is expected to be 20.17 MGD in 2023 and increase to 23.68 MGD at expected buildout conditions. If MCEs grow at the same rate as flow, there will be 16,406 MCEs at buildout, which means there will be growth of 2,432 MCEs. The growth share, or the percentage of MCEs that will arrive between 2023 and buildout is calculated to be 14.82 percent. These calculations are summarized in **Exhibit 2** below. The growth of 2,432 MCEs will be the denominator for the sewer SDC calculation, and the growth share percentage of 14.82 percent (the portion of the future customer base that has not arrived yet) will be used for certain improvement fee cost basis calculations.

**Exhibit 2. Growth in MCEs for the Sewer SDC**

	Existing Conditions	Buildout Conditions	Growth	Growth %
Peak Wet Weather Flow (mgd)	20.17	23.68	3.51	14.82%
Meter Capacity Equivalents	13,974	16,406	2,432	14.82%

### Improvement Fee

An improvement fee is the eligible cost of planned projects per unit of growth that such projects will serve. Since we have already calculated growth (denominator) above, we will focus here on the improvement fee cost basis (numerator).

#### Eligibility

A project's eligible cost is the product of its total cost and its eligibility percentage. The eligibility percentage represents the portion of the project that creates capacity for future users. Where possible, specific details about a project can provide an eligibility percentage. Such specific details were available for some of the projects on the project list. However, when this is not possible, projects can still be sorted into three broad categories.

The first category is for projects that do not provide capacity for future users. Such projects may be purely replacement projects, or they may be solving a deficiency in the sewer system. Projects in this category are assigned zero percent eligibility. The second category is for projects that are purely for future users, such as when new pipe is laid to provide for a new development. These projects are 100 percent eligible. Finally, projects that provide capacity that will be proportionately shared between current and future users are eligible at the growth share percentage discussed in the previous section, or 14.82 percent.

### Improvement Fee Cost Basis

Projects in the improvement fee cost basis were taken from the Sanitary Sewer Master Plan, which contained the City's sewer capital improvement plan (CIP). This CIP was organized into three separate lists including pipeline projects, pumping projects, and planning projects. **Exhibit 3** below shows the project list for pipeline projects. The eligibility for each project is determined by the increase in pipe capacity in gallons per minute added at time of completion. However, six projects were identified by the system plan as having a current deficiency within the system. This indicates that at least a portion of the capacity increases from these projects will not be available for future growth. These projects received a reduction in eligibility to account for the portion of the project that was needed to resolve the current deficiency. The combined \$6.01 million pipeline projects had an average eligibility of 45.55% leaving \$2.74 million as eligible to be recovered with SDCs after accounting for these deficiencies.

**Exhibit 3. Pipeline Project Improvement Fee Cost Basis**

Name	Type	Existing Deficiency	Cost	Existing Diameter (in)	Needed Diameter to Cure Current Deficiency	Proposed Diameter (in)	Incremental Capacity	Override: for Existing Deficiency	Eligible Cost
P-1-1	Gravity	Yes	\$ 717,000	10"	12"	15"	54%	33%	\$ 238,151
P-1-2	Casing	Yes	1,646,000	10"	12"	15"	54%	33%	546,718
P-2	Gravity	No	147,000	10"	10"	12"	31%		44,960
P-3-1	Gravity	Yes	239,000	12"	15"	15"	33%	0%	-
P-3-2	Gravity	Yes	30,000	15"	18"	18"	31%	0%	-
P-4	Gravity	No	175,000	8"	8"	12"	54%		94,947
P-5	Gravity	Yes	401,000	8"	10"	12"	54%	31%	122,646
P-6	Gravity	Yes	132,000	10"	12"	15"	54%	33%	43,844
P-7	Gravity	No	876,000	18"	18"	24"	43%		377,775
P-8	Gravity	No	55,000	10"	10"	12"	31%		16,822
P-9	Gravity	No	67,000	12"	12"	18"	54%		36,241
P-10	Gravity	No	311,000	12"	12"	12"	0%		-
P-11	Force Main	No	1,217,000	0"	8"	8"	100%		1,217,000
<b>Total</b>			<b>6,013,000</b>						<b>2,739,103</b>

**Exhibit 4** below shows the pump station project list. The eligibility for these projects is based on expected increases in capacity listed in the CIP. Like the pipeline projects, deficiencies were noted within the current system. The necessary increases to cure these deficiencies were noted in the column labeled "Existing Necessary Firm Capacity (mgd)" and reduced the eligibility of the project cost. This leads to \$838,571 in eligible costs out of a total project cost of \$5.3 million.

#### Exhibit 4. Pump Station Project Improvement Fee Cost Basis

Name	Description	Cost	Existing Firm Capacity (mgd)	Existing Necessary Firm Capacity (mgd)	Proposed Firm Capacity (mgd)	Capacity for Growth	Eligible Cost
PS-1	Mapleton Pump Station	\$ 4,254,000	2.81	3.91	4.87	20%	\$ 838,571
PS-2	Calaroga Pump Station	1,049,000	0.06	0.19	0.19	0%	-
<b>Total</b>		<b>5,303,000</b>					<b>838,571</b>

Lastly, **Exhibit 5** shows the planning project portion of the CIP. These projects were given either 0% eligibility, indicating that the projects did not increase system capacity, or were assessed the growth share calculated in the **Exhibit 2**. The improvement fee cost basis from all project lists is summarized in **Exhibit 6**.

#### Exhibit 5. Planning Project Improvement Fee Cost Basis

Name	Description	Cost	Eligibility Percentage	Eligible Cost
PL-1	Asset Management Program	\$ 200,000	0%	\$ -
PL-2	Sanitary Sewer Master Plan Update	300,000	15%	44,468
PL-3	Pump Station Condition Evaluation	100,000	0%	-
G-1	Repair and Replacement Program	15,000,000	0%	-
G-2	CCTV Program	8,789,000	0%	-
G-3	I/I Reduction Program	-	0%	-
<b>Total</b>		<b>24,389,000</b>		<b>44,468</b>

#### Exhibit 6. Total Improvement Fee Cost Basis

Type	Total Cost	Eligible Cost
Pipeline Projects	\$ 6,013,000	\$ 2,739,103
Pump Station Projects	838,571	838,571
Planning/General Projects	24,389,000	44,468
<b>Total</b>	<b>\$ 31,240,571</b>	<b>\$ 3,622,142</b>

## Reimbursement Fee

A reimbursement fee is the eligible cost of the existing sewer facilities available for future users per unit of growth that such facilities will serve. Since growth was calculated above, we will focus on the eligible cost of the sewer facilities available for future users. That is, we will focus on the cost of reimbursable sewer facilities.

### Eligibility

FCS evaluated two methods of determining potential capacity within the existing sewer system. First, the sewer system assets were divided into separate functions of service: pumping, pipelines, engineering and operations. Each of these functions were then evaluated for capacity within the system. Because the City is building and replacing pipelines as part of its planned improvements, the pipelines were not considered to have any available capacity for growth. Additionally, engineering and operations assets did not have any measurable capacity. When evaluating the City's pump station capacity, the only two pump stations with associated asset costs, Mapleton and Calaroga, did not have excess capacity. The second method involves assigning historical expenditures of

sewer improvement fee SDCs an eligibility based on the recency of the expenditure. Since the improvement fees can only be collected to benefit future growth, it is assumed that as they are spent, that future capacity is being created and then absorbed over time.

### Reimbursement Fee Cost Basis

The City provided FCS with twenty years of SDC expenditure data. Since the expenditures provided did not specify the amount spent that was improvement fees, each year of expenditures was applied the proportion of the improvement fee to the total SDC. This was then multiplied by the capacity remaining based on the year of expenditure. This is assumed to be 100% in the most recent year with the expenditure losing 5% of the created capacity each previous year . Using this method as shown in Exhibit 7 leads to a reimbursable cost basis of \$400,913.

**Exhibit 7. Sewer Reimbursement Fee Cost Basis**

Year	SDC Expenditures	Adjustment for Reimbursement Fees Spent	Capacity Remaining	Reimbursable Amount
FY2003	\$ -	79.6%	0%	\$ -
FY2004	132	79.6%	5%	5
FY2005	75,035	79.6%	10%	5,972
FY2006	549,573	79.6%	15%	65,612
FY2007	-	79.6%	20%	-
FY2008	42,073	79.6%	25%	8,372
FY2009	7,436	79.6%	30%	1,776
FY2010	-	79.6%	35%	-
FY2011	-	79.6%	40%	-
FY2012	42,034	79.6%	45%	15,055
FY2013	874	79.6%	50%	348
FY2014	237	79.6%	55%	104
FY2015	1,098	79.6%	60%	524
FY2016	27,646	79.6%	65%	14,302
FY2017	8,656	79.6%	70%	4,823
FY2018	39,953	79.6%	75%	23,849
FY2019	45,576	79.6%	80%	29,020
FY2020	9,042	79.6%	85%	6,117
FY2021	19,029	79.6%	90%	13,631
FY2022	95,733	79.6%	95%	72,385
FY2023	174,665	79.6%	100%	139,018
<b>Total</b>	<b>\$ 1,138,792</b>			<b>\$ 400,913</b>



## Calculated SDC

This section combines the eligible costs from the improvement fee cost basis and the reimbursement fee cost basis and applies some adjustments. The result is a total SDC per MCE, which can then be applied to each meter size using flow factors.

### Adjustments

Current SDC fund balances represent prior projects that remain unbuilt. These projects remain on the project list and are included in the improvement fee cost basis calculated above. It is reasonable to reduce this cost basis by the amount of revenue already received for those projects that remain on the list. As of June 30, 2023, the City had \$1.88 million in fund balance. Of this balance, \$1.51 is attributable to projects on the project list through previously collected improvement fees.

Based on the cost of developing SDC methodologies every five years, we estimate that \$145,580 should be added to the cost basis to account for the costs of complying with state law over the planning period.

### Calculated SDC

**Exhibit 3.4** below summarizes the calculation of the sewer SDC. As shown, the full SDC is \$1,094 per MCE.

**Exhibit 8. Calculated Sewer SDC**

Calculated SDC	
<b>Project Costs:</b>	
Total Project Cost	\$ 31,240,571
Average Eligibility	12%
Eligible Project Cost	\$ 3,622,142
<b>SDC Cost Bases:</b>	
Improvement Fee	\$ 3,622,142
Improvement Fee Fund Balance	(1,508,063)
Reimbursement Fee	400,913
Compliance Costs	145,580
<b>Total</b>	<b>\$ 2,660,572</b>
<b>Growth in MCEs</b>	<b>2,432</b>
Improvement Fee per MCE	\$ 869
Reimbursement Fee per MCE	165
Compliance Fee per MCE	60
<b>Total SDC per MCE</b>	<b>\$ 1,094</b>

The SDC per MCE calculated in **Exhibit 8** can be applied to each meter size using the schedule shown in **Exhibit 9** below.

**Exhibit 9. Sewer SDC Schedule**

Meter Size	MCEs	Total SDC	Current SDC
Single-family dwelling unit	1.00	\$ 1,094	\$ 4,996
Townhouse	1.00	1,094	4,996
Cottage Cluster, Separate	0.84	917	4,351
Cottage Cluster, Shared	0.84	917	4,351
2-4 Units, Shared	0.68	739	3,709
2-4 Units, Separate	0.68	739	3,709
Multi-family dwelling unit	0.42	464	2,783
5/8"	1.00	1,094	4,996
3/4"	1.50	1,641	7,494
1"	2.50	2,735	12,490
1 1/2"	5.00	5,470	24,980
2"	8.00	8,753	39,968
3"	16.00	17,505	79,936
4"	25.00	27,352	124,900
6"	50.00	54,704	249,800
8"	80.00	87,527	399,680
10"	125.00	136,761	624,500

## Implementation

This section addresses practical aspects of implementing SDCs and provides a comparison with relevant jurisdictions.

### Calculated SDC is Ceiling

This report documents the maximum legally defensible SDC for the sewer system of West Linn. The City has the liberty to set the SDC at any level up to the maximum defensible charge by resolution.

### Indexing

ORS 223.304 allows for the periodic indexing of SDCs for inflation, as long as the index used is:

- (A) A relevant measurement of the average change in prices or costs over an identified time period for materials, labor, real property or a combination of the three;
- (B) Published by a recognized organization or agency that produces the index or data source for reasons that are independent of the system development charge methodology; and
- (C) Incorporated as part of the established methodology or identified and adopted in a separate ordinance, resolution or order.

In accordance with Oregon statutes, the City has provided for this practice in its municipal code. Per chapter 4.415 section three, "On July 1st of each year the SDC reflected in this methodology shall be adjusted based upon the change in the *Engineering News-Record (ENR)* Construction Cost Index (CCI) for the most recent 12-month period. No action is required of the City Council to effectuate such adjustment."

### Comparisons

**Exhibit 10** below compares the City's existing and maximum defensible SDCs for a single-family residence with the existing SDCs of comparable jurisdictions.

**Exhibit 10. SDC Comparisons for a Single-Family Residence**

	Sewer SDC	
Troutdale	\$ 12,957	
Independence	10,422	
Portland	8,299	
Wilsonville	7,102	
Beaverton	7,009	
St. Helens	6,158	
Bend	5,890	
Scappoose	5,739	
<b>West Linn (Current)</b>	5,154	
Depoe Bay	4,343	
Newport	2,650	
Hood River	2,270	
The Dalles	1,789	
<b>West Linn (Calculated)</b>	1,094	
Astoria	175	



# City of West Linn Sewer SDC Study



**John Ghilarducci, Principal**  
**Doug Gabbard, Project Manager**  
**Luke Nelson, Senior Analyst**  
**September 2, 2025**



# Agenda

**What is an SDC?**

**Statutory Basis and Calculation Framework**

**Sewer Results**

**Comparison**



# Key Characteristics of SDCs

- SDCs are one-time charges, not ongoing rates. Paid at the time of development (or re-development)
- SDCs are available for Water, Sewer, Stormwater, Parks, and Transportation.
- SDCs are for capital only, in both their calculation and in their use.
- SDCs include both existing and future (planned) infrastructure cost components.
- SDCs are for “system” facilities, not “local” facilities.





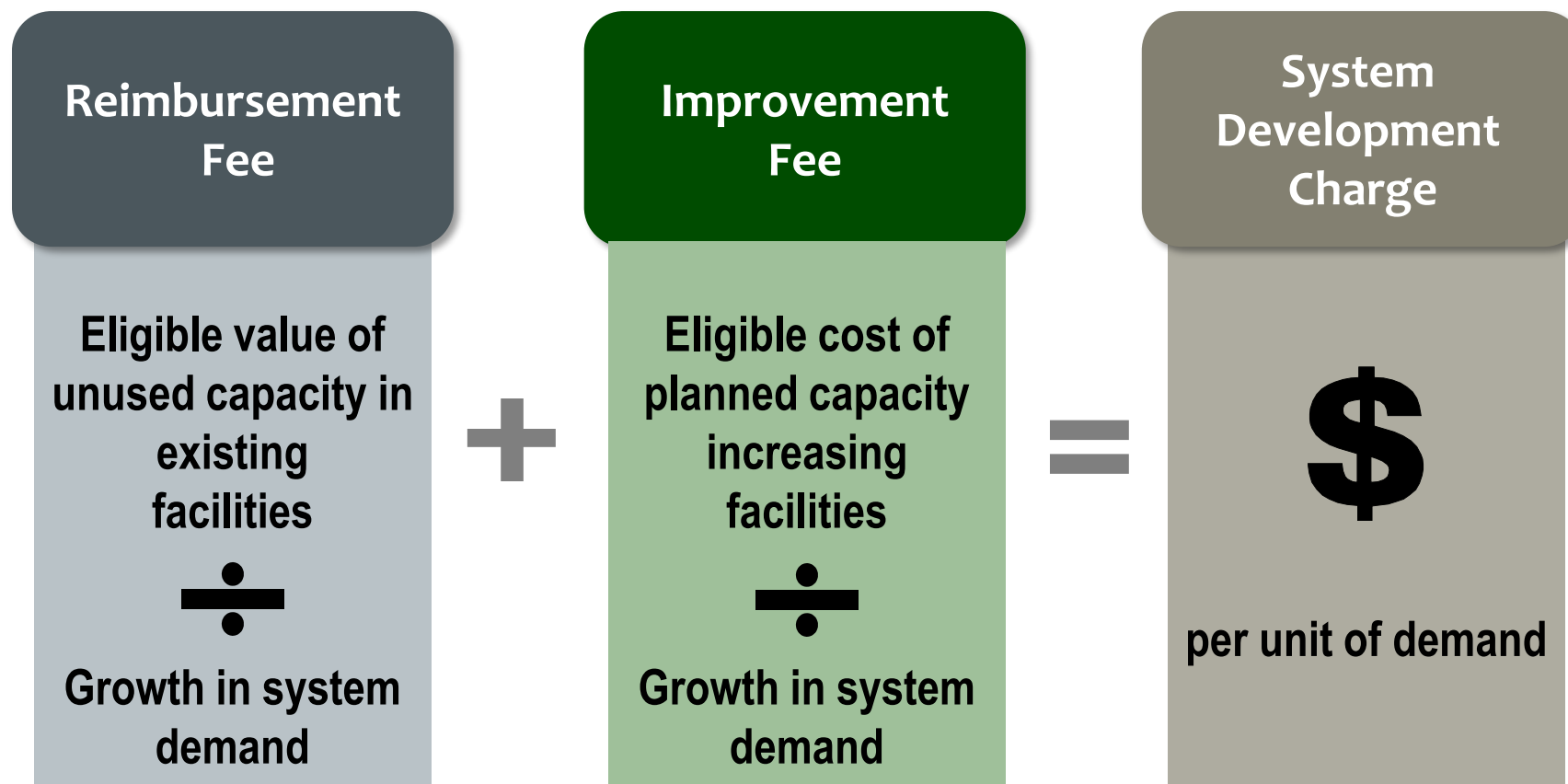
# Oregon Law

- 223.297 Policy
- 223.299 Definitions for ORS 223.297 to 223.314
- 223.301 Certain system development charges and methodologies prohibited
- 223.302 System development charges; use of revenues; review procedures
- 223.304 **Determination of amount of system development charges; methodology; credit allowed against charge; limitation of action contesting methodology for imposing charge; notification request**
- 223.307 Authorized expenditure of system development charges
- 223.309 Preparation of plan for capital improvements financed by system development charges; modification
- 223.311 Deposit of system development charge revenues; annual accounting
- 223.313 Application of ORS 223.297 to 223.314
- 223.314 Establishment or modification of system development charge not a land use decision
- 223.316 Local governments required to make system development charge information public

SDCs are governed locally by City of West Linn Municipal Code Chapter 4.400



# The SDC Calculation





# Growth in System Demand

	Existing Conditions	Buildout Conditions	Growth
Peak Wet Weather Flow (mgd)	20.17	23.68	3.51
Meter Capacity Equivalents	13,974	16,406	2,432

Current meter capacity equivalents are projected forward based on anticipated increase of PWWF at buildout conditions. PWWF is estimated from Table 1.22 on page 1-52 of the City's sewer master plan.



# Project List

Name	Type	Cost	Incremental Capacity	Eligible Cost
P-1-1	Pipe - Gravity	\$ 717,000	31%	\$ 238,151
P-1-2	Pipe - Casing	1,646,000	31%	546,718
P-2	Pipe - Gravity	147,000	31%	44,960
P-3-1	Pipe - Gravity	239,000	33%	-
P-3-2	Pipe - Gravity	30,000	31%	-
P-4	Pipe - Gravity	175,000	54%	94,947
P-5	Pipe - Gravity	401,000	34%	122,646
P-6	Pipe - Gravity	132,000	31%	43,844
P-7	Pipe - Gravity	876,000	43%	377,775
P-8	Pipe - Gravity	55,000	31%	16,822
P-9	Pipe - Gravity	67,000	54%	36,241
P-10	Pipe - Gravity	311,000	0%	-
P-11	Force Main	1,217,000	100%	1,217,000
PS-1	Mapleton Pump Station	\$4,254,000	20%	838,571
PS-2	Calaroga Pump Station	1,049,000	0%	-
PL-1	Asset Management Program	200,000	0%	-
PL-2	Sanitary Sewer Master Plan Update	300,000	15%	44,468
PL-3	Pump Station Condition Evaluation	100,000	0%	-
G-1	Repair and Replacement Program	15,000,000	0%	-
G-2	CCTV Program	8,789,000	0%	-
G-3	I/I Reduction Program	-	0%	-
		<b>35,705,000</b>		<b>3,622,142</b>

Project list is from Table 5.6 of the City's Sewer Master Plan (page 5-20).



# Reimbursement Cost Basis

Year	SDC Expenditures	Adjustment for Reimbursement Fees Spent	Capacity Remaining	Reimbursable Amount
FY2003	\$ -	79.6%	0%	\$ -
FY2004	132	79.6%	5%	5
FY2005	75,035	79.6%	10%	5,972
FY2006	549,573	79.6%	15%	65,612
FY2007	-	79.6%	20%	-
FY2008	42,073	79.6%	25%	8,372
FY2009	7,436	79.6%	30%	1,776
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FY2022	95,733	79.6%	95%	72,385
FY2023	174,665	79.6%	100%	139,018
<b>Total</b>	<b>\$ 1,138,792</b>			<b>\$ 400,913</b>



# Results

Calculated SDC	
<b>Project Costs:</b>	
Total Project Cost	\$35,705,000
Average Eligibility	10%
Eligible Project Cost	\$ 3,622,142
<b>SDC Cost Bases:</b>	
Improvement Fee	\$ 3,622,142
Improvement Fee Fund Balance	(1,508,063)
Reimbursement Fee	400,913
Compliance Costs	145,580
<b>Total</b>	<b>\$ 2,660,572</b>
<b>Growth in MCEs</b>	2,432
Improvement Fee per MCE	\$ 869
Reimbursement Fee per MCE	165
Compliance Fee per MCE	60
<b>Total SDC per MCE</b>	<b>\$ 1,094</b>

## Key Assumptions:

- Growth in MCEs calculated from current MCE count and sewer master plan data.
- Improvement fee fund balance is deducted from cost basis to prevent double collecting for projects still on the project list
- Compliance costs are estimated based on the contract cost of the engagement multiplied by the expected number of times the fee would be recalculated over the forecast period.





# Fee Schedule - Sewer

Meter Size	MCEs	Current SDC	Calculated SDC
Single-family dwelling unit	1.00	\$ 4,996	\$ 1,094
Townhouse	1.00	4,996	1,094
Cottage Cluster, Separate	0.84	4,351	917
Cottage Cluster, Shared	0.84	4,351	917
2-4 Units, Shared	0.68	3,709	739
2-4 Units, Separate	0.68	3,709	739
Multi-family dwelling unit	0.42	2,783	464
5/8"	1.00	4,996	1,094
3/4"	1.50	7,494	1,641
1"	2.50	12,490	2,735
1 1/2"	5.00	24,980	5,470
2"	8.00	39,968	8,753
3"	16.00	79,936	17,505
4"	25.00	124,900	27,352
6"	50.00	249,800	54,704
8"	80.00	399,680	87,527
10"	125.00	624,500	136,761



# Comparison – Single Family Residence SDC

	Sewer SDC	
Troutdale	\$ 12,957	
Independence	10,422	
Portland	8,299	
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Beaverton	7,009	
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Scappoose	5,739	
<b>West Linn (Current)</b>	5,154	
Depoe Bay	4,343	
Newport	2,650	
Hood River	2,270	
The Dalles	1,789	
<b>West Linn (Calculated)</b>	1,094	
Astoria	175	



# Indexing SDCs

- ORS 223.304 allows for the periodic indexing of SDCs for inflation, as long as the index used is:
  - (A) A relevant measurement of the average change in prices or costs over an identified time period for materials, labor, real property or a combination of the three;
  - (B) Published by a recognized organization or agency that produces the index or data source for reasons that are independent of the system development charge methodology; and
  - (C) Incorporated as part of the established methodology or identified and adopted in a separate ordinance, resolution or order.
- West Linn SDC fees are indexed for inflation annually using the *Engineering News – Record* Construction Cost Index (20-city average) for the most recent 12-month period per Code Section 4.15 (3).

# Thank you!

## Questions?

**John Ghilarducci, Principal**  
[John.Ghilarducci@bowman.com](mailto:John.Ghilarducci@bowman.com)

**Doug Gabbard, Project Manager**  
[Doug.Gabbard@bowman.com](mailto:Doug.Gabbard@bowman.com)

**Luke Nelson, Senior Analyst**  
[Luke.Nelson@bowman.com](mailto:Luke.Nelson@bowman.com)

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[www.fcsgroup.com](http://www.fcsgroup.com)





## Work Session Agenda Report

Date Prepared: August 27, 2025  
For Meeting Date: September 2, 2025  
To: Mayor Rory Bialostosky and West Linn City Council  
From: John Williams, City Manager *JRW*  
Subject: Next Steps on City General Fund Budget Needs and Opportunities Discussion

---

### Purpose

Discuss next steps in discussion of City General Fund Budget Needs and Opportunities.

### Question(s) for Council:

What direction does Council have for continuing this conversation?

### Background & Discussion:

During the adoption of the City's biennial budget in June 2025, Council requested further discussion of possible budget stabilization and enhancement measures to meet community expectations and needs. For the July 7 meeting staff prepared a list of priority unfunded staffing positions and projects, and stabilization measures, proposed by the community, Council, and staff. Council reviewed this list and agreed to submit project suggestions and process proposals for continued Work Session conversation. Please see the [July 7, 2025 Council Work Session](#) staff report and meeting video for complete background on this conversation.

At Council's request, staff is working to develop an updated list of General Fund stabilization needs plus staffing and project proposals, with annual cost estimates. Council has also requested additional information on funding mechanisms used in West Linn or in surrounding cities to support staff and project expenditures. Each option comes with advantages, challenges, and limitations.

When these items are combined with the significant funding needs for non-General Fund departments (drinking water infrastructure, road improvements, bicycle/pedestrian safety, and more) the Council is faced with a complicated set of strategic and process options requiring significant community input. In fact the League of Oregon Cities has put together an 87-page [guidebook](#) of local revenue tools showing the extensive pre-work and community outreach needed for successful consideration of these issues.

### Council Options/Staff Recommendation:

Considering the variety of options being considered, staff recommends Council hold one or more dedicated public conversations in September/October to sort through priorities, timelines, and community outreach strategies. We recommend the discussions be led by a contractor experienced in process facilitation, local government priority setting, and public communication. There are excellent facilitators that could perform the work at reasonable cost.

Staff recommends Council discuss your preferred next steps on September 2 and provide direction for moving forward. This could include directing staff to retain a consultant, schedule and provide notice of a public meeting in late September, and finalize materials to help with the discussion.

## Howard, Teresa

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**From:** City of West Linn <webmaster@westlinnoregon.gov>  
**Sent:** Tuesday, September 2, 2025 6:20 AM  
**To:** Howard, Teresa  
**Subject:** City of West Linn Website submission: Meeting Request to Speak Signup

Submitted on Tuesday, September 2, 2025 - 6:20am

Submitted by anonymous user: 75.168.66.219

Submitted values are:

Full Name Monika Deinard

Email Address [REDACTED]

Cell Phone Number [REDACTED]

Home Phone Number [REDACTED]

Street Address 1510 6th Street

City West Linn

State Oregon

Item you would like to speak on Golf Cart Ordinance

Board Planning Commission

Meeting Date Tue, 09/02/2025

The results of this submission may be viewed at:

<https://westlinnoregon.gov/node/45911/submission/89842>

## Howard, Teresa

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**From:** Mollusky, Kathy  
**Sent:** Tuesday, September 2, 2025 7:52 AM  
**To:** Howard, Teresa  
**Subject:** FW: Appreciation for the assistance from Public Works  
**Attachments:** Bolton Volunteer Garden google maps .jpg

---

**From:** vince miles [REDACTED]  
**Sent:** Monday, September 1, 2025 6:47 PM  
**To:** City Council <citycouncil@westlinnoregon.gov>; Williams, John <JWilliams@westlinnoregon.gov>  
**Subject:** Appreciation for the assistance from Public Works

**CAUTION:** This email originated from an External source. Do not click links, open attachments, or follow instructions from this sender unless you recognize the sender and know the content is safe. If you are unsure, please contact the Help Desk immediately for further assistance.

It would be appreciated if this letter is incorporated into the Record and read aloud by Mayor Bialostosky during the Public Comments portion of the September 2, 2025 Work Session Meeting of the West Linn City Council.

to: Mayor Rory Blalostosky  
Council President Mary Baumgardner  
Councilor Carol Bryck  
Councilor Leo Groner  
Councilor Kevin Bonnington  
John Williams, Manager, City of West Linn

The Bolton Neighborhood Association would like to express its appreciation to Luke Borland, Public Works Coordinator, and Wade Veelle, Operations Supervisor, Public Works - Streets, and Public Works staff, for facilitating the recent removal of nearly 4.5 yards of debris generated from the restoration efforts of the Bolton Volunteer Garden, located at the intersection of Willamette Drive and West A Street. The Association is also grateful for the City's contribution of a generous quantity of bark dust being utilized at the site. We are very thankful for the assistance given to us to enhance this cherished community space.

Vince Miles  
Vice President, Bolton Neighborhood Association.

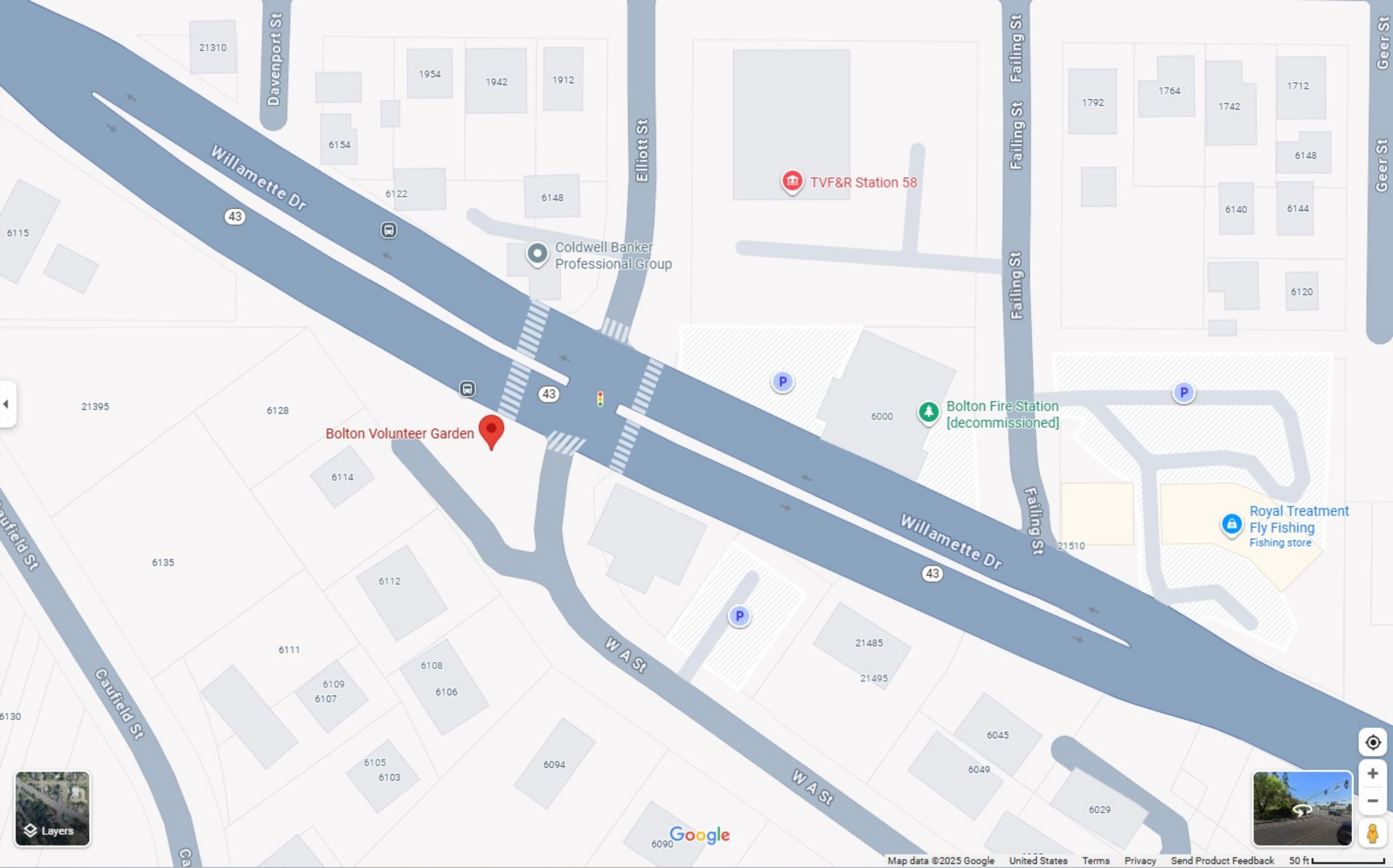


**Kathy Mollusky**  
*City Recorder*  
Administration

[#6013](#)



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Geer St  
Geer St

Caufield St  
Caufield St  
Caufield St

Bolton Volunteer Garden

Coldwell Banker  
Professional Group

TVF&R Station 58

Bolton Fire Station  
[decommissioned]

Royal Treatment  
Fly Fishing  
Fishing store

Google

**Howard, Teresa**

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**From:** Mollusky, Kathy  
**Sent:** Tuesday, September 2, 2025 7:53 AM  
**To:** Howard, Teresa  
**Subject:** FW: Written Comments for Sept. 2, 2025 Meeting

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**From:** Steve Fearing [REDACTED]  
**Sent:** Monday, September 1, 2025 11:20 PM  
**To:** City Council <citycouncil@westlinnoregon.gov>  
**Subject:** Written Comments for Sept. 2, 2025 Meeting

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Steve Fearing

1515 6<sup>th</sup> Street, West Linn, OR 07068

[REDACTED]

Sept. 2, 2025

West Linn City Council 22500 Salamo Road West Linn, OR 97068

Dear Mayor Bialostosky and Members of the West Linn City Council,

I am writing as a resident of West Linn to formally propose the adoption of a local ordinance allowing the limited and regulated use of golf carts and low-speed electric vehicles (LSVs) on designated city streets.

This request is based on successful examples from other Oregon communities—such as Manzanita, Sisters, Detroit and others—that have used their authority under ORS 810.070 and ORS 820.210(3) to create similar ordinances tailored to their local needs. The intent is to provide residents with a safe, environmentally friendly, and community-centered alternative mode of transportation for short, local trips.

I will have a draft model ordinance based on existing legal templates already in use across Oregon. It includes clear safety requirements, age and licensing restrictions, and street-use limitations to ensure that golf carts and LSVs do not interfere with general traffic or pose any undue risk to pedestrians or motorists. This proposal is not intended to allow unrestricted access to all roadways, but rather to support responsible, local use on low-speed streets where traffic and geography make this kind of transit both safe and practical.

I would greatly appreciate the City's consideration of this proposal and would welcome the opportunity to speak with city staff, legal counsel, or the council directly to answer any questions or clarify resident concerns. Thank you for your time and your continued service to the West Linn community.

Sincerely,

Steve Fearing

**Kathy Mollusky**  
*City Recorder*  
Administration

[#6013](#)



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DRAFT MODEL ORDINANCE: West Linn Golf Cart / LSV Use on City Streets

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CITY OF WEST LINN, OREGON

ORDINANCE NO. [TBD]

AN ORDINANCE ALLOWING THE USE OF GOLF CARTS AND LOW-SPEED ELECTRIC VEHICLES ON DESIGNATED CITY STREETS

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WHEREAS, Oregon Revised Statutes (ORS) 810.070 and 820.210(3) permit municipalities to adopt ordinances authorizing the operation of golf carts and low-speed vehicles (LSVs) on public roads within city limits, notwithstanding standard vehicle equipment laws; and

WHEREAS, the City of West Linn recognizes the desire of residents to use such vehicles as a safe, sustainable, and community-friendly mode of local transportation; and

WHEREAS, the City finds that the safe operation of golf carts and low-speed electric vehicles can be accommodated on certain designated city streets without interfering with regular vehicular traffic;

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NOW, THEREFORE, THE CITY OF WEST LINN ORDAINS AS FOLLOWS:

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**SECTION 1: DEFINITIONS**

A. "Golf Cart" means a motorized vehicle designed for operation on a golf course, capable of speeds not exceeding 20 mph.

B. "Low-Speed Vehicle (LSV)" means a four-wheeled electric vehicle with a top speed between 20 and 25 mph as defined under federal safety standards.

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**SECTION 2: PERMITTED AREAS OF OPERATION**

A. Golf carts and LSVs may be operated on city streets where the posted speed limit is 25 mph or lower.

B. Operation is prohibited on state highways or roads with speed limits exceeding 25 mph, except to cross at an intersection.

C. Specific streets may be designated or excluded by the City Council by resolution.

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### **SECTION 3: OPERATIONAL REQUIREMENTS**

A. Operators must:

- Be at least 16 years old
- Hold a valid driver's license
- Comply with all applicable traffic laws

B. Golf carts must be equipped with:

- Headlights and taillights (if operated between dusk and dawn)
- Reflectors , seatbelts
- A rearview mirror
- A slow-moving vehicle triangle or visible signage

C. Maximum occupancy is limited to the number of seats in the vehicle.

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### **SECTION 4: PROHIBITED USES**

A. Operation on sidewalks, parks, or trails is prohibited.

B. Operation under the influence of alcohol or drugs is strictly prohibited.

C. Racing or reckless operation is prohibited.

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### **SECTION 5: ENFORCEMENT AND PENALTIES**

Violations of this ordinance shall be considered a Class C traffic violation, subject to fines as established by city code.

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## **SECTION 6: SEVERABILITY**

If any portion of this ordinance is found to be invalid, the remainder shall remain in full force and effect.

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## **SECTION 7: EFFECTIVE DATE**

This ordinance shall take effect 30 days following its adoption.

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PASSED BY THE CITY COUNCIL THIS [DATE] DAY OF [MONTH], 2025.

SIGNED: [Mayor's Name]