



**City of  
Portland, Oregon**  
**Bureau of Development Services**  
FROM CONCEPT TO CONSTRUCTION

Ted Wheeler, Mayor  
Rebecca Esau, Director  
Phone: (503) 823-7300  
Fax: (503) 823-6983  
TTY: (503) 823-6868  
[www.portlandoregon.gov/bds](http://www.portlandoregon.gov/bds)

---

**Memorandum**

**Date:** August 14, 2020

**To:** Portland Planning and Sustainability Commission  
Portland Urban Forestry Commission

**From:** Emily Sandy, Analyst II, Bureau of Development Services

**Cc:** Rebecca Esau, Director, Bureau of Development Services  
Andrea Durbin, Director, Bureau of Planning and Sustainability  
Adena Long, Director, Portland Parks & Recreation  
Jenn Cairo, City Forester, Portland Parks & Recreation

**Re: Proposed Amendments to Title 11, Trees, Trees in Development Situations**

---

Greetings,

It is my pleasure to submit to you a staff proposal on amendments to Title 11, Trees, Chapter 11.50, Trees in Development Situations.

**Project Background**

On January 8, 2020, through Resolution 37473, the Portland City Council directed the Bureau of Development Services (BDS), the Bureau of Planning and Sustainability (BPS), and Portland Parks and Recreation (PP&R) to conduct an analysis, legal review and stakeholder engagement process of the Title 11 (Tree Code) amendments recommended by the PSC and UFC. Staff from the three bureaus evaluated the following:

- Removing existing exemptions from the tree preservation and tree density standards in Heavy Industrial (IH), General Industrial 1 (IG1), EX (Central Employment), and CX (Central Commercial) zones on private and City-owned/managed property, in development situations.
- Reducing the threshold for required preservation of trees on private property from 36 inches to 20 inches in diameter at breast height (dbh), wherever tree preservation is required, in development situations.
- Reducing the threshold for inch-per-inch fee in lieu of preservation for trees on private property, during development situations, from 36 inches dbh to 20 inches dbh.

**Tree Canopy Analysis Summary**

*Industrial Zones (IH, IG1, IG2 and EG2)*

SWCA, an environmental consulting firm, was hired to estimate tree canopy on properties in industrial zones using GIS analysis. GIS models were calibrated based on on-site verification and existing PP&R tree inventories. It was originally expected that GIS analysis could be used for other zones as well but the challenge of identifying tree diameters without knowing species,

and the requisite number of site visits need throughout the city to adequately characterize tree sizes based on canopy, required that the scope of the work be narrowed to only industrial properties.

#### *All Other Zones*

BDS, PP&R and BPS staff completed reviews of development permits for private tax lots of 5,000 square feet or more (tax lots less than 5,000 square feet are exempt from Title 11 tree preservation during development) from the last two years (2018-2019). On-site trees identified in tree and/or landscaping plans were inventoried and recorded for development permits in three zoning categories: single-dwelling residential, multi-dwelling residential and commercial and employment. Trees inventoried in residential permits were separated out by “market area” to coincide with the boundaries used by BPS to assess housing affordability throughout the city.

SWCA estimated the average number of trees per canopy acre in four dbh categories: <20 inches; 20 to 27.9 inches; 28 to 35.9 inches; and 36 inches or greater. The permit review estimated the average number of trees per tax-lot acre on a typical site for each zoning designation and market area.

#### **Economic Analysis Summary**

Johnson Economics used a pro forma model to estimate development impacts from proposed tree code changes, based on tree canopy estimates and current fee-in-lieu costs for tree preservation (\$450 per inch dbh) and tree planting (\$675 per medium canopy tree).

#### *Goal 9*

Statewide Planning Goal 9 requires cities to designate a 20-year inventory of developable employment land by type in comprehensive plans. Per the Economic Opportunities Analysis (EOA), Portland’s Harbor Access Lands and Harbor & Airport Districts (2 employment geographies in the EOA) have a tight Goal 9 capacity, together meeting just 101% of forecast demand to 2035 with a surplus of only 10 acres. Removing the exemption from tree preservation and the exemption from tree density would reduce development capacity in the IH zone and these freight hub districts by approximately 12 acres each; exceeding the 10 acre current surplus. Staff can support removing the exemptions from tree preservation and tree density in the IG1 zone.

#### *Industrial Job Impacts*

Johnson Economics estimated that the combined tree code changes would **reduce job growth by 1,130 jobs over 20 years in the freight-hub districts, including 840 fewer jobs from removing the IH exemptions.**

#### *Uneven Development Impacts*

Johnson Economics estimated that the combined tree code changes would have **minimal impacts on commercial and residential development markets** overall, reducing expected development (sq ft) on affected development sites (buildable land inventory) by less than 1% in each market subarea over 20 years. But the **estimated development reduction over 20 years would be 34 percent in Harbor Access Lands** and a **17 percent reduction in the Harbor & Airport Districts**, because of their relatively low development value (as freight-oriented density) and tight land supply.

#### **Community Engagement**

In addition to written comments submitted throughout the project, staff worked with Barney & Worth, Inc., to engage community members in a three-pronged approach. The approach

included: interviews with stakeholders; an online survey which was publicly available for broad community input during the development of this draft proposal; and an Online Community Forum, open continuously for almost three weeks, for community members to provide input and ask questions related to a draft staff proposal. The bureaus of Environmental Services, Housing, Management and Finance, Transportation, and Water were also engaged and provided early review and comment on the potential amendments.

#### *What We Heard*

- Overall, most community members expressed support for removing the exemptions in IG, CX and EX zones and raised continued concern with retaining IH exemptions, citing the disproportionate health impacts of climate change and low tree canopy on communities of color and low-income communities.
- Overall, tree advocates supported reducing the size threshold for required tree preservation or fee in lieu mitigation based on inch-per-inch calculations.
- Overall, development and business organizations are concerned about adding costs to housing development in a time of recession caused by COVID-19.
- Concerns were raised about calculations in the economic analysis which assumed that no trees could be preserved in industrial properties during development, and that acreage no trees would be planted to meet tree density requirements.
- Concerns were expressed that tree preservation and job growth are being considered as mutually exclusive.

#### **Equity Considerations**

The proposed amendments address public and environmental health disparities due to the unequal distribution of tree canopy in Portland. Trees are important components of urban infrastructure and provide numerous public health and environmental services. Unfortunately, low income communities and communities of color often reside in or adjacent to low canopy areas of the city- particularly industrial areas, where tree preservation and tree planting are not required during development.

Concurrently, state mandated land use planning goals require a certain amount of developable land to support economic growth. Industrial areas- particularly, the Harbor Access and Airport & Harbor geographies, are a source for middle wage job opportunities for workers without bachelor's degrees. Data from BPS shows that jobs related to the Harbor Access sector provide greater opportunity for people of color and address polarized job growth resulting from regional wage income gaps (lack of middle wage jobs).

Removing exemptions to tree preservation and tree planting requirements in IG1, EX and CX zones provides an opportunity to the above, supporting climate, canopy and economic goals for Portland. Economic analysis also demonstrates that reducing the size threshold for tree preservation during development on private property also provides an opportunity for supporting more canopy throughout the city, without significantly increasing the cost of housing. Furthermore, when tree preservation cannot be accommodated, fees in lieu of mitigation paid into the Tree Preservation and Planting Fund allow for tree planting and preservation to occur where needed most, as identified in Urban Forestry's Growing a More Equitable Urban Forest Citywide Tree Planting Strategy.

Further analysis of strengthening tree preservation and tree planting requirements while supporting economic development in the IH zones is recommended as a next step.

### **Staff Recommendation**

Based on staff analysis, legal review and input from stakeholders, the following Tree Code amendments are recommended:

1. **Remove the exemption** from tree preservation and tree density in IG1 (General Industrial 1), EX (Central Employment), and CX (Central Commercial) zones on private or City-owned/managed property, during development situations.
2. **Retain the exemption from tree preservation and tree density in IH** (Heavy Industrial) zone on private and City-owned or managed property, during development situations.
3. **Reduce the threshold for required preservation of trees** on private property, in development situations, from 36 inches to 20 inches in dbh, wherever tree preservation is required.
4. **Reduce the threshold for inch-per-inch fee in lieu of preservation** for trees on private property, in development situations, from 36 inches dbh to 20 inches dbh.

This project has been a highly collaborative team effort between the Bureau of Development Services, Portland Parks & Recreation-Urban Forestry division, and the Bureau of Planning and Sustainability, including Nik Desai and Brian Landoe from Portland Parks & Recreation-Urban Forestry division; Jeff Caudill, Sallie Edmunds, and Steve Kountz from the Bureau of Planning and Sustainability; and Kimberly Tallant, Ken Ray, and myself from the Bureau of Development Services.

We look forward to meeting with you in the coming weeks and to your recommendations to the City Council.