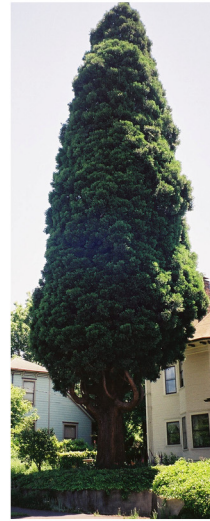
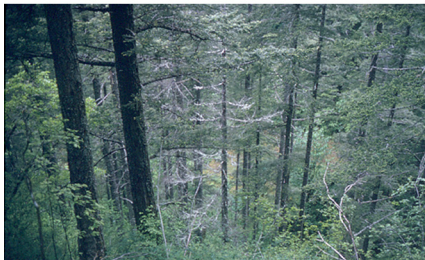


# Volume 1

## Recommended Draft Report to City Council



### Citywide Tree Policy Review and Regulatory Improvement Project



City of Portland  
Bureau of  
**Planning and  
Sustainability**  
Sam Adams, Mayor  
Susan Anderson, Director

Recommended Draft to Portland City Council  
December 2010



The Bureau of Planning and Sustainability is committed to providing equal access to information and hearings.

If you need special accommodation, please call 503-823-7700, the City's TTY at 503-823-6868, or the Oregon Relay Service at 1-800-735-2900.

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A digital copy of this report can be found at:  
[www.portlandonline.com/bps](http://www.portlandonline.com/bps)



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Amanda Fritz, *Commissioner*  
Randy Leonard, *Commissioner*  
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Michelle Rudd, *Vice President*  
Howard Shapiro, *Vice President*  
André Baugh  
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Chris Smith  
Irma Valdez

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Dick Pugh  
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Dianna Shervey  
Kendra Smith  
John Warner

\* On August 11, 2010 the City established the Planning and Sustainability Commission (Ord. No. 184046)

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*"To exist as a nation, to prosper as a state, and to live as a people,  
we must have trees."*

*– Theodore Roosevelt*



*Spring: downtown cherry trees in bloom*

*Summer: mature trees buffer  
residential from baseball field*



*Fall: seasonal color of Lovejoy Plaza trees*



*Winter: bare trees along the east bank of the  
Willamette River*





City of Portland  
Bureau of  
**Planning and  
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Sam Adams, Mayor  
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**PORTLAND  
PARKS & RECREATION**  
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John Warner

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December 10, 2010

Portland City Council  
Portland City Hall  
1221 SW Fourth Ave  
Portland, OR 97204

Dear Mayor Adams and City Council Members:

On July 27 and July 29, 2010, the Portland Planning Commission\* and the Urban Forestry Commission voted unanimously to forward the *Citywide Tree Policy Review and Regulatory Improvement Project* to City Council for approval. Specifically, the commissions recommend that the Council:

1. Accept the Tree Project report to the City Council
2. Adopt the new, Title 11, Trees, and companion amendments to other City titles
3. Adopt amendments to Title 33, Planning and Zoning
4. Accept the phased project implementation and funding strategy
5. Fully fund the proposal, including regulatory and customer improvements

The Planning Commission and Urban Forestry Commission held their first ever joint public hearing spanning four meetings between March and June 2010. The commissions received extensive public testimony during this period. Testimony included:

1. General support for consolidating Portland's tree regulations in a new Title 11, Trees, and treating trees as a key component of the City's "green infrastructure";
2. Recognition that trees provide benefits to the ecosystem and increase property resale values;
3. Concern over the loss of trees (particularly large trees) citywide, and as a social equity issue in dense infill areas;
4. Support from residents, neighborhood organizations, environmental and watershed organizations for stronger requirements to preserve trees and groves during development, and for improved mitigation, inspections and enforcement;
5. Concern from the housing and development community that proposed requirements would increase development and housing costs, and impede infill development;
6. General support for a more standardized tree removal permit system and some concern about the impact of new tree permit requirements on private homeowners;
7. Concern that prohibiting the planting of nuisance tree species, e.g., Norway maple, in City rights-of-way will impair city streetscapes and the historic character of Ladd's Addition;
8. Support for customer service improvements including a single point of contact for tree-related issues, 24-hour tree hotline, improved tree permit tracking, community tree manual, and neighborhood tree plans; and
9. General agreement that staff's original proposal was overly complex and costly to implement but deserving refinement to make it effective.

The Planning and Urban Forestry commissions held three joint work sessions and two separate sessions each. They focused attention on how to:

1. Streamline and reduce the cost of proposed requirements for tree preservation and mitigation in development situations. The commission approved revisions intended to address these issues, while also aiming to accomplish most of the estimated additional tree canopy benefits.
2. Simplify the tree permit system proposal. The commissions supported a permit system to encourage retention of large healthy trees, ensure tree replacement, prevent site clearing on lots with development potential, and engage the public. The commission members had mixed views about how the regulations should apply to the typical homeowner. Some supported retaining the existing exemption for built single family lots due to potential reaction about property rights. Others felt stronger regulations with permits for smaller trees coupled with a widespread education campaign would be more effective in creating a citywide culture of tree protection. Ultimately, both commissions approved a standardized citywide permit system, including a "call before you cut" educational campaign and a streamlined permit option for homeowners.

In addition, the Urban Forestry Commission helped shape provisions to broaden and strengthen the policy-making and advocacy role of that commission, and to broaden the duties of the City Forester to include coordination and tracking of City programs affecting the urban forest. The Planning Commission also directed staff to ensure that policy recommendations of the Tree Project proposal will be coordinated with the policy decisions of the Portland Plan and implementation of the Climate Action Plan.

Both commissions recognize the current budget constraints and have worked with staff to significantly reduce project costs. In addition, to provide time for public outreach and for adequate budget stabilization, the commissions endorse the phased implementation and funding strategy recommended by Parks, BDS, BES and BPS directors.

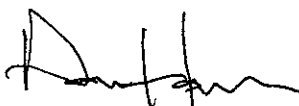
As a result we believe that the Tree Project proposal before you is cost effective and practical, responds to community grassroots concerns, and will yield a high rate of return to the city as a whole. It will establish cohesive, equitable and cost-effective regulatory framework for Portland's trees. The project is a step toward establishing trees as vital city infrastructure. This proposal supports the environmental, social, and economic sustainability principles, and will advance the City's compliance with federal, state and regional mandates.

In summary, regulations are only one tool in the City's urban forest "asset management toolbox." Investment in public education, continued City tree planting, incentives for private tree planting, and systematic, ongoing tree maintenance are key to achieving the long-term goals for a thriving urban forest and a livable, sustainable city.

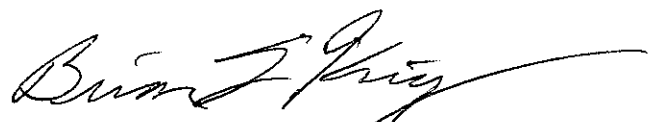
The unprecedented process of having the two commissions work together on this complex and important issue was both successful and highly beneficial for the commissions' members and for the public. We hope to work together again if the need arises and commend city staff for their work.

Thank you for considering our recommendations.

Very truly yours,



Don Hanson, President  
Portland Planning Commission



Brian Krieg, Immediate Past Chair  
Urban Forestry Commission



# Citywide Tree Policy Review and Regulatory Improvement Project

## Recommended Draft • Volume 1

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## **Recommended Draft • Appendices (See Volume 2)**

- A. Staff Memorandum and Recommendations to Portland Planning Commission and Urban Forestry Commission (July 14, 2010)**
- B. Record of Testimony to the Portland Planning Commission and Urban Forestry Commission (March - July 2010)**
- C. Public Comments and Staff Response Report (June 21, 2010)**
- D. Citywide Tree Project Outreach Log (December 10, 2010)**
- E. Norway Maple Invasive Species Information**
- F. Southwest Tree Committee - Tree Protection and Preservation in Portland, A Call for Reforms (October 25, 2005)**
- G. Portland Urban Forest Action Plan (February 2007)**
- H. Citywide Tree Project Newsletters**
- I. Citywide Tree Project Scope**
- J. Citywide Tree Project Issue Papers**
- K. Fiscal Impact Analysis Detail**



# PROJECT SUMMARY

## Background

Portland's trees provide more than a sense of identity as a "green city" - they clean and cool our air and water, capture greenhouse gases, reduce energy demand, make streets more "walkable," enhance residential property values and business district vitality, and provide food for people and wildlife habitat. A Portland Bureau of Parks and Recreation urban tree canopy values the annual environmental and aesthetic benefits of Portland's street and park trees at about \$27 million and the replacement value of all trees in the city at roughly \$5 billion (Portland Bureau of Parks and Recreation, 2007).

Portland's 2004 Urban Forestry Management Plan set goals to protect and enhance the urban forest, distribute tree-related benefits equitably, and increase the citywide canopy from 26 to 33 percent. The City's 2007 Urban Forest Action Plan calls for public education, tree planting and maintenance, and policy and regulatory updates to help achieve these goals and targets.



Portlanders have long expressed concern that existing City tree rules are overly complex, confusing, inconsistent, and ineffective in protecting and preserving trees as the city grows. In 2007 the City Council responded to community concerns by directing the Bureau of Planning and Sustainability to lead a multi-bureau effort called the "Citywide Tree Policy Review and Regulatory Improvement Project" (Citywide Tree Project).

The Urban Forest Action Plan calls for the project to:

- Create a consistent, cohesive regulatory framework for Portland's trees; and
- Enhance the urban forest through development and redevelopment.

## Issues with Current System

A wide range of stakeholders, including community groups, developers and staff, identified concerns about the City's current tree regulations. Key concerns include:

- No clear City contact for tree inquiries
- Inconsistent regulations contain gaps, overlaps, conflicts
- Trees addressed inconsistently in development and non-development situations
- Development regulations overly rigid
- Tree preservation standards don't preserve quality trees

- Many types of development do not address tree preservation at all
- Large, native trees are replaced with small ornamentals that provide less benefits
- Inadequate inspections and enforcement

### Success Criteria for the Project

The regulatory framework must be:

- Designed to support multiple City goals
- Clear and transparent
- Consistent, cohesive and comprehensive
- Fair and equitable
- Complementary and reinforcing
- Efficient and cost-effective
- Customer friendly – easy to understand and work with
- Funded adequately for implementation and enforcement



### Relationship to other City Goals, Programs and Regulatory Mandates

The project will complement and support multiple programs such as the City's Grey to Green initiative, City Urban Forestry programs, and community investments in tree planting and tree care. The Portland Watershed Management Plan (2005) and the City's Climate Action Plan (2009) call for protecting and expanding the urban forest to improve watershed health and reduce greenhouse gas emissions. The project is also intended to support City goals for neighborhood livability, sustainable development, and a prosperous economy, as well as advance City compliance with regulations such as Title 13 of the Metro Urban Growth Management Functional Plan (Nature in Neighborhoods) and elements of the Clean Water Act.

### Collaborative Process

Led by the Bureau of Planning and Sustainability, the Citywide Tree Project has involved ongoing, extensive collaboration with the Bureaus of Parks and Recreation, Development Services, Environmental Services, Transportation and Water. City bureaus also worked with a diverse stakeholder group of neighborhood representatives,

developers, arborists and environmental organizations to scope the project, examine key issues, and evaluate and the pros and cons of potential solutions.

Input from the stakeholder discussion group helped to shape a set of initial proposals. Staff vetted the initial proposals with the Urban Forestry Commission, Portland Planning Commission, and other community organizations in early 2009. Based on their feedback and general support for the initial solution package, staff drafted a project report and proposed code and report for public review and consideration by the Portland Planning Commission and Urban Forestry Commission. The proposed draft to the Planning and Urban Forestry commissions was published in February 2010.

The Planning and Urban Forestry Commissions held a joint public hearing and a series of work sessions from March through July 2010. The Planning Commission and Urban Forestry Commission received extensive oral and written comments on the Proposed Draft. The commissions heard from neighborhood associations located throughout the city, developers and consultants, arborists, architects, environmental organizations, and Portland residents. City bureaus also provided detailed comments and suggestions on the project proposal. Most supported the proposal for stronger tree preservation and planting requirements, while some were concerned about the impact of the proposal on the cost and feasibility of development. There was also general agreement that the proposal was too complex and costly to implement.

The commissions worked closely with City staff to develop targeted revisions to the proposal – revisions that would address public concerns, including measures to streamline the proposed rules and procedures, and to reduce cost. The commissions also endorsed a phased project implementation strategy to provide time to prepare for the new rules, including development of procedures and informational materials for staff and the public, production of the community tree manual, TRACS upgrades to support the City's tree permit system.

From this collaborative process emerged the Recommended Draft Proposal that is presented in this report. The recommended proposal will create a cohesive, consistent regulatory framework for Portland's trees – a framework that will advance City goals to protect, enhance, and equitably distribute the benefits of the urban forest, while supporting Portland's broader environmental, social and economic sustainability goals.

### Benefits and Costs

Implementing the recommended proposal will preserve approximately 68 acres of tree canopy annually and will generate roughly 130 acres of future canopy through tree planting. Trees planted can be used to meet other City landscape and stormwater

requirements as well. In summary, the net increase in tree canopy attributed solely to the proposal is projected to be more than 100 acres per year.

The proposed regulatory improvements and tree manual will help maintain and enhance the quality of Portland's tree canopy, focusing attention preserving large, healthy trees, native trees and tree groves, phasing out invasive trees in parks and along city streets, and fostering appropriate tree care. The proposal will also help ensure that tree preservation and planting are equitably dispersed in the city, including areas where future development is occurring.

Implementing the proposal will require additional investment of public resources to achieve the desired benefits. It is projected that 2.0 FTE will be needed during the initial project ramp up phase, to prepare for the code update and to develop the community tree manual. Once the new codes are in effect, up to an additional 5.5 FTE will be needed at the Bureaus of Parks and Recreation and the Development Services to administer and enforce the updated tree development standards and tree permitting system, and to provide a single point of contact for public inquiries. There are also some up-front, one-time costs for equipment and TRACS permit system upgrades.

Roughly two-thirds of the ongoing costs will be covered by modest increases in development fees and capital project funding. The remainder of the project costs will need to be covered by the general fund. The required Financial Impact Statements are provided as exhibits to the adopting ordinances.

### What documents are attached?

Appendices to this report are included in a separate volume. Appendices A, B, and C document the testimony received during the Planning Commission and Urban Forestry Commission hearing, and recommendations approved by the commissions. Appendix D lists outreach activities occurring during the project. Appendix E provides information on invasive plants, particularly the popular street tree - Norway maple. Appendices F and G are two key drivers for the Citywide Tree Project, the 2005 Southwest Tree Committee report calling for reform of Portland's tree rules and the City's adopted Urban Forest Action Plan. Appendices H, I, and J include early project newsletters and Issue Papers. Appendix K includes the spreadsheets and approach used to estimate the financial impacts of the project.

A summary of the project proposal, benefits and phased implementation strategy is shown on the next two pages.

## Proposal Summary of Key Elements

### Code Consolidation and Restructuring

**New Title 11 – “Trees” focuses on the Urban Forest.** Title 11 Trees consolidates City tree rules into a cohesive framework -- addressing trees on public and private property in development and non-development settings. Title 11 elevates the Urban Forestry Program and treats trees as infrastructure. Title 11 contains technical standards and procedures, clarifies bureau roles, and simplifies enforcement.

### Tree Canopy Enhancement

**Designing with trees through land use reviews.** Code amendments will improve tree preservation in land divisions, prioritizing large healthy trees, native trees, and groves. Tree plans will be recorded and will eventually sunset. Tree preservation will now be considered in Design Reviews & Conditional Use Reviews.

**Tree Density Standards to meet canopy targets.** New Tree Density Standards will maintain a minimum level of tree canopy on development sites. Applicants can meet the standard by preserving trees, planting new trees, or paying into the Tree Fund. The standards would not trigger a review or delay permits.

**Tree Preservation Standard adds incentive to preserve.** New tree preservation standards will also apply through building permits. The standard requires preserving 35 percent of trees at least 12” in diameter, or a mitigation payment to the Tree Fund. Includes exemptions for small lots and lots with high building coverage.

**Trees on Property Lines and Adjacent Sites better protected.** Applicants will be allowed to count trees on property lines toward preservation and density standards as long as the root zone is protected. The proposal will help protect trees on adjacent sites through land divisions, design reviews, and conditional uses.

**Consistent treatment for trees in sensitive environmental resource areas.** Trees in environmental zone transition areas will be replaced, and water body setbacks in existing environmental zones are consistently applied to help protect riparian trees and vegetation.

**Streamlined, Standardized Tree Permit System.** An updated tree permit system will apply citywide, generally to trees at least 12” in diameter. A simple “homeowner” permit will require replacement of 20” diameter trees. Limited tree pruning in environmental zones will now be allowed through a simple permit instead of review. The new Programmatic Permit will support routine public agencies activities and encourage restoration.

### Customer Service Improvements

**Single point of contact, 24-hour hotline and automated permit tracking system** will improve public access to tree-related information, improve City program efficiency, and support compliance efforts.

**Community Tree Manual** will provide a user-friendly guide to tree rules, tree care and best practices.

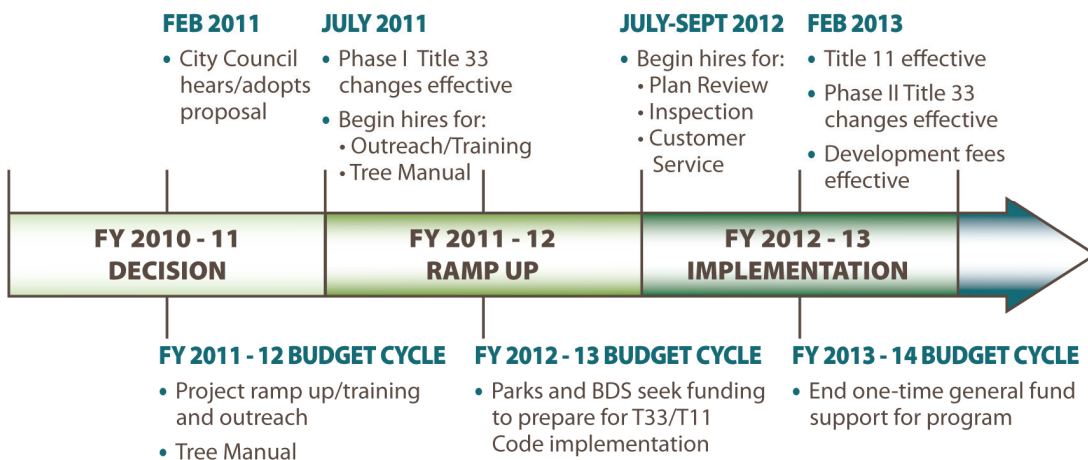
**Neighborhood Tree Plan.** Working with residents to inventory trees and set priorities at a neighborhood scale



## CITYWIDE TREE PROJECT PRODUCTS AND BENEFITS



1. Responds to City Council and community demand for a cohesive, consistent, and equitable regulatory system for Portland's trees
2. New consolidated tree code "Title 11, Trees"
  - elevates role of Portland's urban forest and Urban Forestry Program
  - shifts paradigm to trees as "green infrastructure"
  - addresses tree preservation and planting in development
  - updates and streamlines tree removal and replacement requirements when no development is proposed
3. More than 100 additional acres of future tree canopy established per year
4. Customer service improvements
  - single point of contact for public inquiries
  - community tree manual for improved education and outreach
  - permit tracking system upgrades and ability to track permits on line
  - 24-hour tree hotline
5. Most implementation costs can be supported through modest development fee increases



## Chapter 1 • Background

This chapter summarizes the project origin, benefits of the urban forest and emerging city policy, some examples of tree regulations in other localities, and the project approach.

### Project Origin

The Citywide Tree Policy Review and Regulatory Improvement Project (Citywide Tree Project) was initiated by the Portland City Council in fiscal year 2007 – 2008 to respond to community concerns about the City’s tree regulations. A group of citizens called the Southwest Tree Committee presented Council with a 2005 report entitled *Tree Protection and Preservation in Portland – A Call for Reforms*. The report highlighted the following key concerns:

- regulatory complexity
- loss of trees to development and tree damage during construction
- tree removal prior to submittal of a building permit or land use review application
- trees located on property lines were not adequately addressed by the codes
- effectiveness and monitoring of tree replacement
- confusion about tree removal permit requirements
- how tree code violations are addressed and how to report tree removal concerns on weekends or after regular office hours
- how tree and planting requirements address wildfire risk
- tree related code enforcement
- the need for improved public outreach and education

*Someone’s sitting in the shade today because someone planted a tree a long time ago*

**- Warren Buffet**



*Heritage tree, Western red cedar (thuja plicata)*

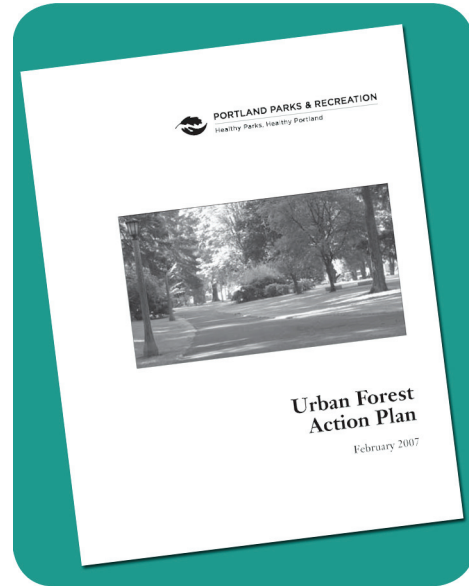
The Southwest Tree Committee report also provided recommendations to address these concerns (Appendix F).

In 2006, the Bureau of Parks and Recreation led a multi-bureau effort to produce the *Portland Urban Forestry Management Plan (UFMP) Draft Action Plan (Urban Forest Action Plan)*. The Urban Forest Action Plan (Appendix G) establishes a prioritized multi-faceted work plan comprised of 64 actions to achieve the goals of the 2004 *Urban Forestry Management Plan*.

City staff was aware of community concerns and agreed that the existing regulations are overly complex, inconsistent, and challenging to implement. The bureaus included a project to review and update the City's tree policies, regulations, and associated procedures in the *Urban Forest Action Plan*. The bureaus designated this project a "high priority action item" in the plan, noting that there was no funding for the work. The City Council approved the Urban Forest Action Plan on March 14, 2007.

During the fiscal year 2007-2008 budget process, community members asked the City Council to fund a review and update of the tree policies and regulations. The Bureau of Planning and Sustainability (then the Bureau of Planning) FY 2007-08 Budget Advisory Committee also expressed strong support for the project.

The Bureau of Planning worked with the Bureaus of Parks and Recreation, Development Services, and Environmental Services, to provide the City Council with an initial project proposal, scope of work, and funding request, noting that the project would take two years to complete. The City Council funded the project beginning in FY 2007-2008, directing the Bureau of Planning to lead the multi-bureau effort to improve the City's tree regulations.



## Portland's Urban Forest and Emerging Policy

At the time the early European settlers came to Portland the city's native trees included stands of Douglas fir, western hemlock and western red cedar. Deciduous trees included bigleaf maple and red alder. Vegetated corridors along streams and wetlands were also comprised of Oregon ash, willows and black cottonwood trees. Oregon oak and pacific madrone grew in the drier uplands such as the bluffs along the eastern banks of the Willamette River.



*Native forest*

The settlers cleared trees and native vegetation to build the city, leading to the Portland's nickname of "Stumptown." Many types of ornamental trees were imported from the homelands of the settlers and planted in parks, along city streets, and gardens. Portland's first street inventory in 1938 recorded 78,886 street trees.

Cultivars were developed to enhance the health and aesthetic properties of the trees, such as pest resistance and fall color.

Although trees were planted as the city began developing, the City's Urban Forestry program is only about 36 years old. In 1972 the Bureau of Parks and Recreation (PP&R) was assigned responsibility for trees on city owned and managed property, including public rights of way. The first City Forester was hired in 1974. The Urban Forestry Division, funded by the Portland Housing and Community Development Commission, planted 20,000 street trees from 1975 to 1980 as part of large-scale tree planting projects, in several Portland neighborhoods such as Brooklyn, Buckman, Elliot, and parts of Irvington (UFMP, 1995).



*Stumptown, early settlement along the Willamette River*



The City also established the Urban Forestry Commission in 1974. The Urban Forestry Commission is appointed by the Mayor in consultation with the Parks Commissioner. The Urban Forestry Commission is comprised of volunteers who have demonstrated an interest in the preservation of trees and the beautification of Portland. The Commission serves as an advisory group to the PP&R Director and to the City Forester. The Commission reviews large capital improvement plans and assesses the impact on the urban forest. It also acts as an appeal board for tree permits, sponsors the Heritage Tree Program, and educates the community about urban forestry issues.

### ***The Urban Forestry Management Plan***

The City's first Urban Forestry Management Plan (UFMP) was developed in 1995 to provide direction and coordination for the management and administration of Portland's urban forest. The plan was updated in 2004 to respond to new regulatory mandates associated with the Endangered Species Act and the Clean Water Act, and to improve inter-agency coordination for management of tree resources. Today, multiple bureaus participate in activities relating to the management of Portland's urban forest, as described further in this report.

The UFMP describes the urban forest as "...more than trees on streets or in city parks. It is the complex system of trees and smaller plants, wildlife, associated organisms, soil, water, and air in and around our city. It is the trees along our streets, the plants and trees around our homes, businesses, and institutions, the multi-layered forests in our natural areas, and the plants in our parks. A healthy and diverse urban forest is essential to our quality of life and important in the City's coordinated efforts to restore the quality of its rivers and streams and improve the environment of the city."



*Integrated urban forest, Portland's tree canopy and neighborhoods*





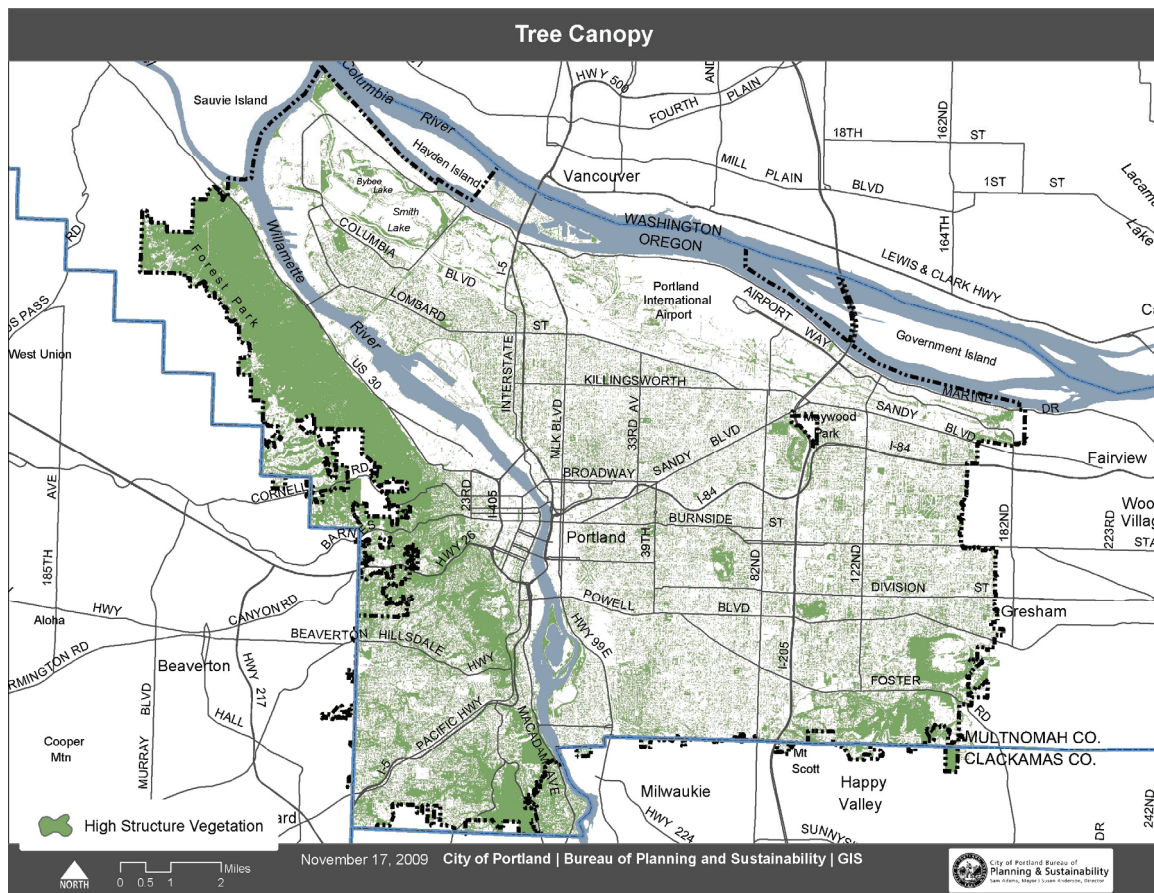
*Cherry trees in full bloom in Waterfront Park along the Willamette River*

The UFMP includes the following three main goals:

- **Goal 1:** Protect, preserve, restore, and expand Portland's urban forest
- **Goal 2:** Develop and maintain support for the urban forest
- **Goal 3:** Manage the urban forest to maximize community benefits for all residents.

The UFMP also establishes tree canopy targets that vary for different land use types. The following table compares the canopy targets with existing canopy levels.

Land Uses	Current Canopy*	Target Canopy
Residential	30%	35-40%
Commercial/Industrial	7%	15%
Parks and Open Spaces**	28%	30%
Rights-of-way	17%	35%
Citywide	26%	33%
* from 2002 as cited in Portland's Urban Forest Canopy, Parks and Recreation 2007.		
**not including City-managed natural areas		



*Map depicting the distribution of Portland's urban tree canopy*

The City's tree regulations have been adopted in a piecemeal fashion over several decades. The rules relating to management and permitting of City Trees and Street Trees (currently referred to in Title 20 as "Public" Trees) were first adopted in 1972. Tree removal permits were first required for trees on private property in 1995. Tree protections in environmental overlay zones began in the 1980s with adoption of stream setbacks to protect streams and riparian vegetation. Additional protections were established during the 1990s and early 2000s with the adoption of environmental overlay zones and a number of Natural Resource Management Plans and Plan Districts. In 1999, tree standards (T1) were adopted to require new single family development to provide a certain quantity of tree inches per lot area by preserving existing trees, planting or paying into the Tree Fund. The first and only real tree preservation requirements were established through the Land Division Re-write project which was adopted in 2002.





*Western scrub jay, Columbia Slough*

The goals and commitments outlined in the City's Urban Forest Management Plan and associated Action Plan reflect a growing awareness of trees as a community asset that provide important services and benefits. Portland's trees contribute to public safety and watershed health by intercepting precipitation and reducing and cleaning stormwater runoff, capturing air particulates and greenhouse gases, stabilizing slopes and preventing erosion and landslides. Trees also provide important habitat

benefits including food, cover, and nesting sites, for wildlife including resident birds and birds that migrate through Portland each year along the Pacific Flyway. Trees also provide shade, organic inputs, and a source of large wood that are vital to maintaining habitat for native fish and aquatic species, including threatened salmonids.

### ***Portland Watershed Management Plan***

These functions are recognized in the *Urban Forestry Management Plan*, and further elaborated in the first *Portland Watershed Management Plan*, which was approved by City Council in early 2006. This plan establishes citywide watershed health goals and objectives including protection of aquatic and terrestrial habitat, protecting and restoring native plant communities, reducing populations of non-native plants and organisms. The *Portland Watershed Management Plan* recognizes how trees and vegetation contribute positively toward the City's watershed objectives for hydrology, water quality, habitat and biological communities.



*Forested Riparian, Johnson Creek*

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**The Portland Watershed Management Plan calls for actions to protect existing vegetation and increase the quantity, quality, and composition of tree canopy and other vegetative cover in Portland's watersheds.**

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### ***Climate Action Plan***

Trees also sequester carbon dioxide which will help meet City goals to reduce greenhouse gas emissions as outlined in Portland's recently adopted ***Climate Action Plan (2009)***. The *Climate Action Plan* recognizes that today the urban forest removes 88,000 metric tons of carbon

dioxide from the atmosphere per year. Tree shade can help reduce demand for air conditioning which in turn helps reduce carbon emissions. The *Climate Action Plan* calls for an increase in tree canopy to cover one-third of Portland, and along streams and rivers, so that the city may be more resilient to the impacts of climate change.



*Trees shade N. Dekum*

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***The Climate Action Plan***  
calls for clarifying codes and policies  
to maximize preservation of long  
living trees and expanding the urban  
forest over time. The plan encourages  
diverse tree types and ages and more  
tree canopy in tree deficient areas.

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Today Portland's trees contribute to the City's reputation as a beautiful, green city, and to the character and identity of most Portland neighborhoods. Portland's trees are diverse, ranging from the native conifer forests of the west hills and east buttes, to the remnant native oak stands on the Willamette east bluffs; from the attractive ornamental street and yard trees characteristic of Portland's inner eastside neighborhoods, to the remnant conifer stands of the outer eastside neighborhoods.

It is difficult to put a price tag on the emotional value that Portlanders place on their trees, but that value is real nevertheless, and helped spur the Citywide Tree Policy Review and Regulatory Improvement Project. Moreover, there is an increasing understanding of the inter-related environmental, social and economic value of tree-related benefits and ecosystem services.



*Tree preservation and the challenges of development*



- **Environmental benefits:** *Urban trees help manage stormwater, improve air quality, reduce pollution and greenhouse gases, recharge groundwater, decrease flooding and erosion, stabilize slopes, provide wildlife habitat, and shade streams. A recent report produced by the Bureau of Environmental Services notes that each tree intercepts 572 gallons of rainfall, will remove 0.2 pounds of air particulates, and can sequester 0.076 metric tons of carbon dioxide per year. (Entrix, 2010)*
- 
- **Social benefits:** *Urban trees improve physical and mental health, reduce heat island effects, create visual and noise buffers, enhance neighborhood appearance. Large trees have also been linked to reduced rates of neighborhood crime in Portland (Donovan and Prestemonn, 2010). There are also studies indicating that contact or exposure to trees and greenspaces are associated with improved test scores, fewer illnesses, positive psychological effects, and shortened hospital stays (University of Minnesota, 2007)*
  - **Economic benefits:** *Urban trees reduce heating and cooling costs for buildings by providing shade and wind breaks. They also increase property values and reduce landslide and flood damage. A local study found that the presence of street trees increased east-side home values by almost \$9,000 on average (Donovan and Butry, 2010). Another study showed a positive effect on median home sales process from tree canopy within one-quarter mile of the home (Netusil, Chattopadhyay, and Kovacs, 2010).*
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### **Urban Forest Canopy Assessment**

Portland's Bureau of Parks and Recreation studied the trees in parks and public streets to estimate the benefits they provide (*Portland's Urban Forest*, Karps et al. 2007). The study evaluated the number, type, and relative age and health of the tree population based on existing sample data and estimated the value of the environmental and aesthetic benefits, or "ecosystem services", provided by trees in the city. Although the study focused on public trees it recognized the value of trees on private property as well.

Parks estimated that the replacement value of street trees is just under \$500 million, and the replacement value of trees in Portland's parks and natural areas exceeds \$1.8 billion.

## Citywide Tree Policy Review and Regulatory Improvement Project

Since about 53 percent of the tree canopy in Portland shades privately owned property Parks extrapolated that the replacement value of the entire urban canopy is roughly \$5 billion. Parks estimated that Portland's street trees return approximately \$3.80 in environmental and aesthetic benefits (such as clean air and stormwater retention) for each dollar invested in their care and maintenance, and values the annual environmental and aesthetic benefits provided by City street and park trees at approximately \$27 million (Portland Parks and Recreation, 2007).





## Tree Regulations in Other Localities

To help gauge the regulatory landscape that exists in other cities, the Citywide Tree Project team interviewed staff from several neighboring jurisdictions to evaluate the opportunities and shortcomings of various tree regulations. In addition, staff reviewed information on tree regulatory approaches used by municipalities across the country. Sources included “Guidelines for Developing and Evaluating Tree Ordinances” (Swiecki and Bernhardt, 2001), “Urban Tree Conservation: a White Paper on Local Ordinance Approaches” (Nichols, 2007), “Management of City Trees” (City of Seattle, 2009), and the “Survey of Community Tree Regulations in Georgia” (Head, 2006).

There seems to be as many approaches to address trees as there are jurisdictions that actively manage their urban forest asset. A number of jurisdictions, large and small, are updating or have recently updated their tree regulations -- from Seattle, Washington to Little Elm, Texas. Several jurisdictions within the Portland metro area have recently been evaluating or updating their tree codes including Tigard, Sherwood and Washington and Clackamas Counties.

A 2009 report by the Audubon Society of Portland, Metro, and Portland State University inventoried the current approaches of the 25 cities and 3 counties in the metro region (plus Vancouver and Clark County). The following table illustrates to diverse approaches to tree permitting in these jurisdictions.

### Other localities addressing tree codes:

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Nanaimo, BC  
 Vancouver, BC  
 Chico, CA  
 Danville, CA  
 Pacific Grove, CA  
 Palo Alto, CA  
 Santa Clarita, CA  
 San Jose, CA  
 Truckee, CA  
 Pensacola, FL  
 Des Moines, IA  
 Princeton, NJ  
 Charlotte, NC  
 Clackamas County, OR  
 Sherwood, OR  
 Tigard, OR  
 Washington County, OR  
 Mauldin, SC  
 Myrtle Beach, SC  
 Austin, TX  
 San Antonio, TX  
 Glen Allen, VA  
 Issaquah, WA  
 Kirkland, WA  
 Lake Forest Park, WA  
 Lynnwood, WA  
 Seattle, WA

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## Citywide Tree Policy Review and Regulatory Improvement Project

### Summary of Local Tree Permitting Regulations in the Portland Metro Area

Jurisdiction	Street Trees Regulated?	What Size?	Private Trees Regulated?	What Size?
<b>Beaverton</b>	yes	all	yes	10"
Developed properties less than 1/2 acre entirely exempt. Four trees with 10" dbh or greater or 10% of trees greater than 10" dbh (which ever is greater) can be removed annually without a permit on developed properties larger than 1/2 acre. Provisions allow for the removal of hazardous, diseased, damaged or dead trees.				
<b>Cornelius</b>	no	n/a	no	n/a
<b>Damascus</b>	no	n/a	yes	6"
Hazardous trees; fewer than 10 trees from a parcel or from adjoining parcels in common ownership, within any twelve (12)-month period; or the removal of less than five trees from a parcel that leaves more than an average of one tree per 1,000 square feet of lot area				
<b>Durham</b>	yes	5"	yes	5" at 4 feet
Provisions allow for removal of trees that are hazardous, diseased, dead, or damaged.				
<b>Fairview</b>	yes	all	no	6" at 4 feet
Hazardous or invasive trees.				
<b>Forest Grove</b>	yes	all	maybe	6" and 3" for Oregon White Oaks
Permits exempt regular maintenance involving removal of no more than 20% of the tree canopy or disturbance of no more than 10% of the root zone. Provisions allow removal of hazardous, diseased or dead trees.				
<b>Gladstone</b>	no	n/a	no	n/a
<b>Gresham</b>	yes	8"	maybe	8" at 4.5 feet
Three to six trees can be removed within a 12 month period depending on lot size.				
<b>Happy Valley</b>	yes	all	no	6" at 4 feet
Trees on developed properties. Provisions allow for removal of trees that are hazardous, diseased, dead, or damaged.				
<b>Hillsboro</b>	no	n/a	no	n/a
<b>Johnson City</b>	no	n/a	no	n/a
<b>King City</b>	no	n/a	no	6" at 4 feet
Landowners are allowed to remove two trees a year without a permit. Provisions allow removal of trees that are hazardous, diseased, dead, or damaged.				
<b>Lake Oswego</b>	yes	5"	yes	5" at 2 feet
Permits are granted for two trees less than 10" in diameter within a 12-month period within residential zones. Provisions allow removal of hazardous or dead trees				
<b>Maywood Park</b>	yes	unknown	yes	7" conifers, 12" deciduous

## Citywide Tree Policy Review and Regulatory Improvement Project

Jurisdiction	Street Trees Regulated?	What Size?	Private Trees Regulated?	What Size?
<b>Milwaukie</b>	yes	all	no	6"
Outside Water Quality Resource Areas, only trees on flag lots are regulated				
<b>Oregon City</b>	yes	all	no	6" at 4.5 feet
Trees can be removed if they are located inside the building area or public utility easements.				
<b>Portland</b>	yes	all	maybe	12" but lower in natural resource zones and for some species
Trees on developed single-family lots are not regulated. Trees that are a confirmed hazard, located on a property line, are on the nuisance or prohibited plant list, located within 10-feet of an existing structure are exempt under the land division regulations.				
<b>Rivergrove</b>	yes	11.5"	yes	11.5" at 4.5 feet
Permits are granted promptly for up to three trees within a 12-month period on lots located outside a Water Quality Resource Area.				
<b>Sherwood</b>	yes	2"	no	5"-10" depending on species
Douglas fir, ponderosa pine, red cedar, white oak, big leaf maple and American chestnuts less than 10". Provisions allow for removal of trees that are hazardous, diseased, dead, or damaged.				
<b>Tigard</b>	yes	2"	yes	6"
Regulations do not apply to developed properties. Provisions allow removal of hazardous or dead trees.				
<b>Troutdale</b>	yes	all	no	6"
Regulations do not apply to developed properties. Provisions allow removal of hazardous, diseased or dead trees.				
<b>Tualatin</b>	yes	all	yes	8"
Up to four trees can be removed per calendar year. Additional exemptions apply for tree removal for commercial forestry or agriculture and in parks and golf courses. Also staff permits outright removal of trees within 10 feet of building footprints. Provisions allow for removal of trees that are hazardous, diseased, dead, invasive or damaged.				
<b>West Linn</b>	yes	all	yes	6"
Trees greater than 6" that are determined to be "significant" by the City Arborist are subject to preservation criteria. Trees less than 12" or white oaks, madrone, and dogwood less than 6" are not regulated if development is not proposed. Provisions allow for removal of trees that are hazardous, diseased, dead, or dying.				
<b>Wilsonville</b>	yes	all	yes	6" at 4.5 feet
Approval to remove up to three trees within a 12-month period is granted if trees proposed for removal are not in a zoned natural resource area, are not a street or Heritage tree, and were not required to be retained as a condition of past development. Provisions allow for removal of trees that are hazardous, diseased, dead, or damaged.				

## Citywide Tree Policy Review and Regulatory Improvement Project

Jurisdiction	Street Trees Regulated?	What Size?	Private Trees Regulated?	What Size?
Wood Village	no	n/a	no	n/a
Vancouver	yes	all	yes	6"
Trees cut for emergency purpose (that must be verified retroactively); as part of commercial nurseries, Christmas tree farms, and some commercial forestry operations; on developed single-family lots less than 1-acre. Also six trees or less within a 3-year period can be removed from lots that will remain undeveloped for six years. Provisions allow for removal of trees that are hazardous, diseased, dead, or invasive.				
Urban Multnomah County*	no	n/a	no	n/a
Urban Clackamas County*	no	n/a	no	Staff discretion.
Regulations only apply to new single-family subdivisions and development and no permit is required for tree removal outside the development review process.				
Urban Washington County*	no	n/a	no	Staff discretion.
Hazardous trees can be removed. Tree removal or preservation is at discretion of staff.				

Source: Audubon Society of Portland, Portland State University, and Metro, 2009

The report also contained extensive information on how these Portland metro area jurisdictions address trees in the context of development.

More recently the City of Seattle completed a study of tree regulations in the Pacific Northwest. The study compares twelve Pacific Northwest cities, including 3 large (Seattle, Portland, OR, Vancouver, BC), 2 medium (Bellevue, Olympia) and 4 small cities (Kirkland, Shoreline, Redmond and Issaquah). Again, there is considerable variability in the approaches currently employed. A summary of this report and comparison to the Citywide Tree Project proposal is provided below.

## Summary of Pacific Northwest Municipal Tree Regulations

### Addressing Trees in Development Situations

#### TREE DENSITY STANDARDS

- a. Most cities have minimum tree density standards for single family, multifamily and commercial development (certain number of tree credits per lot area).
- b. Can meet by retaining or planting trees and give credit for larger trees.
- c. Standards vary by development type.
- d. Landscape standards are predominant tree planting requirement for non-single family development.

**CTP proposal** includes tree density standards consistent with this approach.

#### TREE PRESERVATION AND REPLACEMENT

- a. Some cities (e.g., Seattle, Portland, Bellevue) apply discretion to determine requirements for retention and planting.
- b. Some cities, including Vancouver BC, require replacement of all trees with flexibility to vary the requirement.
- c. Some cities use landscape requirement to set replacement requirements.

**CTP proposal** retains and strengthens Portland's discretionary tree preservation requirements. Non-discretionary standards provide a "backstop," but require a percentage of trees on a development site to be retained or replaced (not all trees).

### Addressing Trees when no Development is Occurring

#### SINGLE FAMILY PROPERTY

- a. Wide variety of approaches
- b. Most larger cities require permits for substantial removal or removal on undeveloped or sub-dividable lots
- c. Most smaller jurisdictions require permits for all tree removal, and for trees  $\geq 6$ " diameter
- d. Most allow a removal of a certain number of trees w/out explanation
- e. Some allow removal only of dead, dying, hazardous. Many require arborist report to certify that removal is necessary
- f. Most do not vary requirements by tree species
- g. Most cities have fees between \$50 and \$250

**CTP proposal** retains current permit requirement for vacant and sub-dividable single family lots. Adds streamlined permit requirement to remove trees  $\geq 20$ " in diameter on developed, non-sub-dividable lots. New "homeowner" permit would require "tree for tree" replacement, with no review and no public appeal.

#### NON-SINGLE FAMILY PROPERTY

- a. Most cities apply permit requirements similar to single family permit requirements.

**CTP proposal** retains current permit requirement for non-single family property, and for vacant and sub-dividable lots. Fees under discussion with option to charge "by the tree" (like City of Toronto).

Source: Seattle Department of Planning and Development and Sound Tree Solutions, February 8, 2010.



Learning about other local tree regulatory approaches helped inform the development of the Citywide Tree Project proposal. However, no one approach could be simply translated into City of Portland parlance. While Portland shares its borders with other jurisdictions and is a part of the regional urban forest, there are many factors to consider when developing municipal tree regulations. It would be unwise to unquestioningly adopt another jurisdiction's regulatory approach, just as it would be unwise to substitute another jurisdiction's community vision for our own.

The approach for Portland must consider the City's unique characteristics (size, density, growth rate and form, topography, and diversity in landscapes), objectives of the Urban Forest Management Plan and other existing policy directives, as well as continue to be a leader in innovation.

# Project Approach

The Citywide Tree Policy Review and Regulatory Improvement Project (Citywide Tree Project) was completed in stages to establish a strong foundation of information, engage in collaborative problem solving, and seek input on potential solutions before developing detailed proposals. Project stages include the following and are detailed below.

- Project set up and scoping
- Collaborative Problem Solving and Evaluation of Solution Options
- Vetting Initial Proposals and producing the Proposed Draft
- Public Review and Legislative Process

## Stage 1 • Project Set-Up and Scoping

The project set up and scoping phase took place during fall 2007 and into early 2008. During this period the Bureau of Planning hired staff to work on the project and established an inter-bureau team consisting of the Bureaus of Parks and Recreation, Development Services, Environmental Services, and Transportation. Inter-bureau agreements were established to assign roles and responsibilities and funding terms.

The project staff team, as noted previously, interviewed several local jurisdictions in the region to learn about their tree policies and regulations, how they were working in those localities. Project staff also conducted individual or small group interviews with neighborhood representatives, developers and arborists to help refine the project scope.

Project staff presented a draft project scope to a number of committees and organizations, including the Urban Forestry Commission, Development Review Advisory Committee, Citywide Land Use Group, and the Planning and Development Bureau Directors. These groups provided feedback on the draft scope priority issues for the project to address. The goal was to establish mutual, realistic City and community expectations for the project.

A summary of the project scope and list of briefings delivered during this project stage is provided in Appendix I. Based on this scoping process project staff drafted “issue papers” (Appendix J) intended to provide a launching point for discussion with stakeholders during the next phase of the project.

## Stage 2 • Collaborative Problem Solving and Evaluation of Solution Options

In spring 2008, the project staff convened a 20-member Stakeholder Discussion Group (SDG) to foster an open dialogue on the issues and potential solutions. SDG members represented the following organizations and interests:

- Urban Forestry Commission
- Johnson Creek Watershed Council
- Multnomah County Drainage District
- Friends of Trees
- NW District Coalition
- Columbia Corridor Association
- Homebuilders Association
- East Side and West Side Neighborhoods
- Audubon Society of Portland,
- Residential and non-residential development community

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**The Stakeholder Discussion  
Group volunteered nearly 1,000  
hours to inform  
and shape the solutions  
currently under consideration.**

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The Bureau of Planning facilitated the meetings, providing presentations on the various topics to fuel the discussions. Staff from the other City bureaus provided technical support and participated in the SDG discussions. The SDG members were invited to share their views and expertise to inform the project, so all participants could learn how others felt about trees and related policy and regulatory issues. The SDG was asked to provide advice but not expected to generate consensus recommendations or reports.

The SDG met from April through October 2008. Discussions focused on the issue paper topics, including current tree regulation inconsistencies and complexities, trees and public infrastructure conflicts, tree preservation, planting protection in development situations, inspections and enforcement, and uses of Tree Fund revenues. The SDG members provided input on staff's initial analyses of these issues and potential solutions. The SDG also came up with many additional suggestions, including both specific solutions and tree-related policy issues that should be addressed through the urban form and growth management discussions of the Portland Plan.

The stakeholders brought many viewpoints to the discussions. Neighborhood groups expressed concern over the loss of trees, especially large trees and tree groves that contribute to neighborhood character and identity. There was also concern about impacts of tree removal on slope stability and landslides, and tree failure during windy periods.

Neighborhood representatives expressed frustration about the complexity and inconsistency of the City's tree cutting permit system. They also noted that large, native trees are often replaced with smaller ornamental trees that provide fewer ecological



*Tree cutting*

social and economic benefits. Audubon representatives shared concerns about the impacts of development on trees, and associated reductions in the amount and quality of wildlife habitat. Neighborhood and Audubon representatives generally supported strengthening rules to protect large trees and tree groves, as well as a 24-hour hotline to allow citizens to report tree cutting activities on weekends or after work hours

Development community representatives explained how challenging it can be to meet the array of City requirements, including tree protection, especially when developing smaller sites. Industrial representatives noted that it is difficult to preserve trees even on large development sites given space requirements for industrial building, storage, maneuvering, and access.

Developers are concerned about how tree requirements affect project costs and affordability, and review and construction timelines. Developers also expressed concern about how tree regulations could affect City growth and density goals, and increase pressure to expand the Urban Growth Boundary. Developers supported flexible standards to encourage tree preservation where feasible. They generally agreed that requiring reasonable tree replacement or mitigation would be acceptable, but cautioned against unduly adding to project costs or review times.

Local arborists and Friends of Trees staff expressed concern about impacts on trees during development and the need for more public information about tree care after planting. Arborists also noted that the City's development process did not generally require careful monitoring of tree protections during construction.

Members of the SDG generally agreed that trees are important amenities in the City, and that existing regulations and the regulatory structure could be much clearer, simpler, and more effective in enhancing the urban forest. There was also interest in exploring opportunities to manage trees as a component of the City's "green infrastructure." SDG members supported establishing a single point of contact for tree-related inquiries and permit application submittal. They also supported consolidation and increased consistency of City regulations for trees on public and private property, and in development and non-development situations. They strongly supported the creation of

a “Tree Manual” to provide user-friendly information on tree care, and to house technical specifications in a document that can be readily updated.

SDG members and some City bureau staff expressed concerns or cautions about some of the potential solutions discussed during the meetings. The strongest opinions related to the City’s tree removal permit system, specifically, whether or not the City should retain or eliminate the existing exemption for tree removal on non-dividable single family property. Some expressed support for a more uniform permitting system, as long as the permit requirements would not be onerous. Some stakeholders suggested designing the permit process to educate and connect with citizens, and to offer incentives to plant trees. Others were concerned that regulating trees on single family property might generate public resistance, impeding City efforts to develop partnerships with citizens and discouraging tree planting.

All told, the SDG volunteered nearly 1,000 hours to inform and shape the solutions under consideration. The stakeholders were respectful and candid, and provided invaluable input. A table summarizing the key issues and initial proposals follows in the next section of this report. The public outreach log for the project is provided in Appendix D.





## Stage 3 • Vetting Initial Project Proposals and Producing the Proposed Draft

Building on SDG discussions and suggestions, project staff produced an initial set of conceptual proposals. In winter and early spring 2009, staff shared the preliminary proposals with a number of neighborhood groups, Citywide Land Use Group, Citywide Parks Group, Watershed Advisory Council, Development Review Advisory Committee, Urban Forestry Commission, Sustainable Development Commission, Planning Commission, and with City Council members or their staff. The intent of this vetting process phase was to share the project, key issues, and potential solutions with a broader audience, determine whether people felt that initial proposals were “headed in the right direction,” and identify areas of strong support or concern.

The table on the following pages was produced in January 2009 to summarize key issues and stakeholder input, and to outline the initial proposed proposals. The table was provided as a handout to inform discussions during the vetting process.

Citywide Tree Policy Review and Regulatory Improvement Project Key Issues and Initial Proposals – DRAFT January 28, 2009	
Key Issues	
<b>Regulatory complexity and inconsistency</b>	<p><b>Current system - overview</b></p> <ul style="list-style-type: none"> <li>Regulations apply to trees on public and private property, in development and non development situations</li> <li>Established in piecemeal fashion over 36 years</li> <li>Regulations spread across multiple titles</li> <li>Regulations have evolved over time; trend is toward tree preservation but rules are inconsistent</li> <li>Tree cutting permit system is inconsistent and inequitable, particularly relating to single family property</li> <li>Permitting has been responsibility of several bureaus –bureaus have different responsibilities – some overlap</li> <li>Many inquiries require citizens to contact multiple bureaus</li> </ul> <p><b>What have we heard from stakeholders (neighborhood, developers, arborists, environmental):</b></p> <ul style="list-style-type: none"> <li>Rules hard to understand</li> <li>Can't always get a clear answer to questions</li> <li>Have to chase down staff at multiple bureaus</li> <li>Unfair – permitting requirements treat similar situations differently, especially on single family property</li> <li>Want a single point of contact</li> </ul>

## Citywide Tree Policy Review and Regulatory Improvement Project Key Issues and Initial Proposals – DRAFT January 28, 2009

### Ineffective preservation and enhancement of the urban forest – summary of issues

- **Trees not well integrated into site and project design**, including public works projects – addressed after sites and projects are designed
- **Tree preservation applied too narrowly and not achieving goals**
  - Apply only in context of land divisions – no other land use reviews
  - Not applied to most building permits
  - Rules may encourage site clearing before applying for land divisions
  - Numeric standards can result in preserving lower-functioning trees and loss of trees, including large trees and tree groves
  - Rules that provide additional credit for preservation of “significant trees” (i.e., large and important tree species), do not appear effective
- **“Significant Trees” not addressed through most development** – Rules address significant trees only in the context of land divisions
- **Tree mitigation/replacement rules inadequate** to compensate for lost function; many trees are “exempt” and not counted in calculations for preservation or replacement; rules do not address tree size, species diversity, function – result in replacement with smaller lower-functioning trees – cheaper to replant (or pay) than to preserve
- **In-lieu of planting fees are out of date**
- **Tree fund warrants clearer direction** – clarify criteria for use of funds
- **Trees protection during construction can be improved** – fencing required only for preserved trees; no protections for trees on property lines / neighboring properties – results in damage and future hazards
- **Frequency and timing of site inspections** could better address trees
- **Enforcement system** is unclear; need standard protocols.
- **What have we heard from stakeholders:**
  - From neighborhood and community activists we have heard:**
    - Concern about loss of big trees in neighborhoods and streets
    - Don’t know when tree cutting is legal or a violation
    - Concern re: tree cutting after hours – need 24-hour response line
    - Concern about slope stability, neighborhood identity; loss of green
    - Large trees are replaced with small ornamental “lollipop trees” – conversion of Douglas fir to dogwood forest
    - Tree fund should be used to plant trees in tree deficient areas
    - Tree protection during construction not working well
    - Concern about level of inspection and enforcement of tree rules
  - From development community we have heard:**
    - Tree rules too rigid – result in preservation of unsuitable trees
    - Trees are an amenity but increase cost of development
    - Difficult to meet all city requirements for improvements, utilities, streets and sidewalks, and trees, especially on small, infill sites
    - Industrial/institutional development needs are different than residential, more difficult to preserve trees
    - Reasonable mitigation is appropriate but don’t make it so costly that it makes development infeasible or unaffordable
    - Provide incentives and flexible standards to promote tree preservation
    - Disparity between private and public tree protection requirements

### Citywide Tree Policy Review and Regulatory Improvement Project Key Issues and Initial Proposals – DRAFT January 28, 2009

Criteria for Solutions	
<b>Regulatory framework</b>	<p><b>City's tree regulatory framework should be:</b></p> <ul style="list-style-type: none"> <li>▪ Clear and transparent</li> <li>▪ Customer friendly – easy to understand and work with</li> <li>▪ Consistent, cohesive and comprehensive</li> <li>▪ Equitable and effective</li> <li>▪ Complementary and reinforcing</li> <li>▪ Efficient – putting process where it's due</li> </ul>
<b>Regulatory effectiveness</b>	<p><b>City's tree regulations should:</b></p> <ul style="list-style-type: none"> <li>▪ Promote integration of trees into the development process by designing with trees</li> <li>▪ Improve tree preservation, e.g., large healthy trees, groves and important native species</li> <li>▪ Ensure tree replacement fully addresses lost functions and improves the urban forest</li> <li>▪ Ensure that all Portlanders have a hand in replenishing the urban forest over time</li> <li>▪ Provide adequate information to neighbors re: pending tree removal</li> <li>▪ Apply consistently to non-development situations, land use reviews, building permits (prevents “cut the trees then apply for the permit</li> <li>▪ Not make development infeasible or unaffordable</li> <li>▪ Recognize and address the needs and constraints of different land use development types</li> <li>▪ Provide incentives and flexibility to encourage and reward tree preservation and planting</li> <li>▪ Enable the City to track tree removal and planting over time</li> <li>▪ Allow citizens to determine whether tree preservation requirements apply to a property</li> </ul>
<b>Conditions and caveats</b>	<ul style="list-style-type: none"> <li>▪ Regulations must be accompanied by sufficient funding and staffing for implementation and enforcement (no unfunded mandates)</li> <li>▪ The City must provide education to citizens and developers re: the value, care and protection of trees; and opportunities to design with trees</li> <li>▪ The City should monitor the effectiveness of the regulations and adapt over time</li> </ul>

### Citywide Tree Policy Review and Regulatory Improvement Project Key Issues and Initial Proposals – DRAFT January 28, 2009

#### Overview of Initial Proposals

<b>Project charge: Establish a clear, cohesive regulatory framework</b>	<ul style="list-style-type: none"> <li>▪ Establish a single point of contact for the public</li> <li>▪ Pilot a 24-hour response line</li> <li>▪ Create Comprehensive, Consolidated Tree/Urban Forestry Title</li> <li>▪ Develop a Tree Technical Manual</li> <li>▪ Create a consistent, equitable tree cutting permit system – private trees</li> <li>▪ Clarify and build understanding of the public and street tree permit</li> <li>▪ Consolidate permitting functions</li> </ul>
<b>Project Charge: Enhance the Urban Forest through development and redevelopment</b>	<ul style="list-style-type: none"> <li>▪ Establish flexible development standards</li> <li>▪ Provide advanced mitigation credit for proactive tree planting</li> <li>▪ Land Divisions and other discretionary reviews</li> <li>▪ Tree Planting Standards for Building Permits</li> <li>▪ Public works and capital projects</li> <li>▪ Trees and solar energy systems, sign visibility, and views</li> <li>▪ Update and clarify in-lieu of planting fees and tree fund</li> <li>▪ Improve implementation, inspections, resolution of violations</li> </ul>

#### Specific Initial Proposals

To meet the project charge for a clear, consistent, cohesive regulatory framework:

	<b>Establish a single point of contact for the public</b> <ul style="list-style-type: none"> <li>▪ One person and phone line to field public inquiries</li> <li>▪ Determines if permits are needed</li> <li>▪ Refers to appropriate bureau staff, documents, etc.</li> <li>▪ Could also help process permits and keep databases current</li> <li>▪ Could be housed at Development Services Center or elsewhere</li> <li>▪ Single permit application form</li> </ul>
	<b>Pilot a 24-hour response line</b> <ul style="list-style-type: none"> <li>▪ Explore use of existing BES Spill Response Line or Parks Dispatch line</li> <li>▪ Collect key information from callers</li> <li>▪ Determine if situation is urgent, requiring a immediate site visit (confer with Urban Forestry crews as needed)</li> <li>▪ Contact police if needed</li> <li>▪ Set up system for prompt call back on next business day</li> </ul>
	<b>Create Comprehensive, Consolidated Tree/Urban Forestry Title</b> <ul style="list-style-type: none"> <li>▪ Would establish new comprehensive, cohesive Tree/Urban Forestry Title to elevate role of trees and the urban forest as a citywide asset , promote transparency, improve public awareness of City regulations; prevent code conflicts</li> <li>▪ Would incorporate provisions authorizing the Urban Forestry Commission and Urban Forester, and specify authorities and responsibilities of different bureaus</li> <li>▪ Would address trees on private and city-managed property, include tree permitting and planting standards for non-development and development situations, including development in City-managed rights of way</li> </ul>

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	<ul style="list-style-type: none"> <li>▪ Would incorporate tree permit requirements from Parks Title - 20.42 for trees on private property; 20.40 for public trees and street trees ; T1 and tree landscaping standards from Zoning Code (environmental zone and land division rules remain in Zoning Code), and specific provisions of Title 17 Public Improvements, Title 24 Building</li> <li>▪ Create tiered system of standards and criteria that are generally consistent across non-development and development situations (e.g., allowances; standards, discretionary reviews -- higher bar for large trees, important species)</li> </ul>
	<p><b>Develop a Technical Tree Manual</b></p> <ul style="list-style-type: none"> <li>▪ Similar to City Erosion Control and Stormwater Management Manual</li> <li>▪ Could be updated more frequently to reflect new information and technological advances</li> <li>▪ Would contain information about trees, tree planting tree care, protection during construction, and various technical standards</li> <li>▪ Would reduce review timelines and provide flexibility to address site specific conditions and opportunities</li> <li>▪ One-time funding proposed as budget add-package</li> </ul>
	<p><b>Create a consistent, equitable tree cutting permit system –</b></p> <ul style="list-style-type: none"> <li>▪ <b>Option 1:</b> Clarify private property tree cutting requirements while continuing not to regulate tree removal on single family lots where no additional building sites can be created. Requires discretionary review for trees <math>\geq 12"</math>, SF exception allows tree removal on 25 – 30% of land in the City with no registration, permit, or replacement.</li> <li>▪ <b>Option 2:</b> Clarify private property tree cutting requirements and apply to all properties. Apply to trees <math>&gt;6"</math> instead of <math>\geq 12"</math> to comport with other city codes. Establish low-cost registration process to track removal of trees 6 – 12". Apply current discretionary process for trees <math>&gt;12"</math> and significant trees. <ul style="list-style-type: none"> <li>▪ -Clarify relationship between tree cutting permit and other codes</li> <li>▪ -Update fee and tree mitigation requirements</li> </ul> </li> <li>▪ <b>For either Option 1 or Option 2:</b> <ul style="list-style-type: none"> <li>▪ Update replacement requirements to better achieve tree canopy targets, size and species diversity goals;</li> <li>▪ Update criteria to apply to sites with multiple historic lots</li> <li>▪ Update criteria to address significant trees and groves</li> <li>▪ Update permit fees and provide in-lieu of mitigation payment option</li> <li>▪ Continue to post all sites where trees will be removed</li> <li>▪ Clarify enforcement procedures</li> </ul> </li> <li>▪ Option 1 and Option 2 both improve the existing system</li> <li>▪ Option 1 continues City policy to exempt most single family properties</li> <li>▪ Option 2 would allow for better tracking of tree removal and replacement, and distribute the responsibility to sustain the urban forest to all property owners.</li> <li>▪ Option 2 would have a larger impact on staff work load and funding.</li> </ul>



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	<p><b>Clarify and build community understanding of the public and street tree permit system</b></p> <ul style="list-style-type: none"> <li>Establish criteria to guide city decisions relating to tree removal and replacement - consider tree health, hazards, stormwater, aesthetics, habitat, carbon; nesting migratory birds, slope stability, neighborhood character, etc.)</li> <li>Retain discretion to address site-specific issues – consider developing administrative rules</li> </ul>
	<p><b>Consolidate permitting functions</b></p> <ul style="list-style-type: none"> <li>Consider shifting the responsibility for permitting tree removal on private property (in non-development situations) from Parks to Bureau of Development Services</li> <li>Retain and enhance the role of Urban Forestry arborists as neutral technical experts to inform and guide the permit process.</li> <li>Would improve efficiency, rely on existing BDS permitting and enforcement systems; Urban Forestry arborists to serve as “neutral” expert</li> <li>Would be consistent with Mayor/City Council initiatives</li> </ul>
<p><b>Specific Proposals</b> Enhancing the urban forest through development and redevelopment</p>	
<b>Creating incentives</b>	<p><b>Establish flexible development standards:</b></p> <ul style="list-style-type: none"> <li>Allow front setback to zero feet (similar to e-zone)</li> <li>Allow reduction in side/rear setbacks of 20% but no closer than 3 feet</li> <li>Waive transit street setback</li> <li>Waive minimum building coverage requirement in CS and CM</li> <li>Allow reduction in required outdoor area</li> <li>Allow alternative pedestrian access configurations (e.g. not straight line)</li> <li>Waive minimum density (similar to e-zone)</li> <li>Provide amenity bonus provisions (extra points applied to density calculation in multi-family zone)</li> </ul>
<b>Designing with trees</b>	<p><b>Provide advanced mitigation credit for proactive tree planting</b></p> <ul style="list-style-type: none"> <li>Appropriate for larger sites, master plans, phased projects</li> <li>Would allow property owner to get future mitigation credit for planting trees today</li> <li>Tracking, monitoring, enforcement would be challenging</li> <li>Could be part of a site-specific urban forest plan</li> </ul> <p><b>Land Division and other discretionary reviews</b></p> <ul style="list-style-type: none"> <li>Apply tree preservation and mitigation requirements to conditional uses and design reviews, as well as to land division reviews</li> <li>Replace 35% tree preservation standard with variable standards by land use/zone - more consistent w/ landscaping requirements and Urban Forestry Management Plan canopy targets (e.g., 35-40% for residential; 15 – 20% commercial industrial)</li> <li>Narrow tree exemptions - Account for watershed functions provided by nuisance trees: Include nuisance (and potentially hazard trees) in</li> </ul>

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	<p>existing tree calculations. Applicants may (but would not be required to) preserve nuisance trees. Change will greatly increase total number of trees to be preserved or planted</p> <ul style="list-style-type: none"> <li>▪ Strengthen credits and mitigation requirements to promote significant tree preservation</li> <li>▪ Require initial “pre-design” tree assessment for larger projects to assess tree conditions, establish preservation/planting objectives and inform site design; could be used to modify tree preservation standard, or to require additional preservation</li> <li>▪ Establish multi-objective criteria to guide preparation of a “tree plan” (to be submitted with application); address tree preservation and planting, address trees on-site, property lines and adjacent property within a set distance of proposed development</li> <li>▪ Require application submittal to include the tree plan and explanation of how the site design meets the code criteria (and initial tree assessment objectives if applicable) to maximum extent practicable.</li> <li>▪ Strengthen approval criteria – require findings that project design meets tree preservation and initial tree assessment objectives to the maximum extent practicable. Applicants would need to utilize flexible standards where practicable before staff could make this finding.</li> <li>▪ Require replacement trees based on area at breast height; address tree size/species</li> <li>▪ Update mitigation fees; require additional mitigation for significant trees</li> </ul>
	<p><b>Tree Planting Standards (aka T1/Landscape Standards)</b> <b>General Recommendations:</b></p> <ul style="list-style-type: none"> <li>▪ Apply tree standards through the building permit process for all uses, instead of only to new SF permits). Existing trees used to meet T1 may be used to meet landscaping requirements.</li> <li>▪ Retain option to preserve, plant or pay</li> <li>▪ Establish allowances for hazard trees</li> <li>▪ Establish higher bar for significant trees (e.g., require adjustment to remove healthy large trees)</li> <li>▪ Identify and protect trees on property lines or on adjacent properties within X feet of development</li> <li>▪ Revise tree/lot size ratio to increase trees – link to tree size and canopy using 10-year growth assumptions</li> <li>▪ Establish tree size and species diversity requirements</li> <li>▪ Update in-lieu of planting fees to reflect current cost</li> </ul> <p><b>Option 1:</b></p> <ul style="list-style-type: none"> <li>▪ Maintain non-discretionary process w/ no adjustments</li> <li>▪ Require additional planting or payment for removal of significant trees</li> <li>▪ This approach will not significantly enhance tree preservation.</li> </ul> <p><b>Option 2:</b></p> <ul style="list-style-type: none"> <li>▪ Proposals involving removal of significant trees would be required to go through an adjustment process to encourage revisions to site design. Would require updated adjustment criteria</li> <li>▪ This option could help preserve big trees and important tree species.</li> </ul>

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	<b>Public works facilities and capital projects</b> <ul style="list-style-type: none"> <li>▪ Clarify intent and procedures to address trees in public works/capital projects</li> <li>▪ Conduct initial tree assessment - include maps and tree inventory (including trees on property lines and adjacent sites with initial site design)</li> <li>▪ Address trees and consult with Urban Forestry staff early in project design/review</li> <li>▪ Improve site posting</li> <li>▪ Conduct training and provide information for contractor/crews</li> <li>▪ Clarify tree-related objectives, rules, and allowances for maintenance and repair, for city-managed projects and other public projects such as flood control levees</li> </ul>
	<b>Trees and Solar Energy Systems, Sign Visibility and Views</b> <ul style="list-style-type: none"> <li>▪ Seek opportunities to meet multiple objectives where possible</li> </ul>
<b>Leveraging resources</b>	<b>Updating tree fund</b> <ul style="list-style-type: none"> <li>▪ Clarify criteria and procedures for collecting and expending funds</li> </ul>
<b>Implementation</b>	<b>Improve implementation, inspections, resolution of violations:</b> <ul style="list-style-type: none"> <li>▪ site posting</li> <li>▪ streamlined remedies for violations</li> <li>▪ updated penalties</li> <li>▪ BDS Tree Regulatory Implementation Study; Zoning Inspections Program, etc.</li> </ul>
<b>Key Questions</b>	
	<ol style="list-style-type: none"> <li>1. Is the Citywide Tree Project generally on the right track? Are any potential solutions missing? Which of the initial proposals seem most promising or troubling?</li> <li>2. Should the City create a new comprehensive Tree/Urban Forestry Code Title to improve regulatory cohesiveness and highlight the urban forest as a citywide asset? That addresses trees on public and private property? That authorizes the Urban Forestry Commission and/or Urban Forester?</li> <li>3. Should the City update its tree cutting permit system to apply to all trees of a certain size or greater, or keep the current exemption for trees on most single family property?</li> <li>4. Should the City apply tree standards to all development types through the building permit process? Should tree preservation and planting standards vary by land use?</li> <li>5. How can the regulations be more effective in promoting preservation of significant trees? In non-development and development situations? By establishing strong credit incentives and mitigation disincentives?</li> <li>6. How can the City ensure replenishment of the urban forest without unduly burdening sites with a lot of trees or sites with few or no trees? (e.g., requiring full mitigation places burden on sites with more trees)</li> <li>7. What additional information is needed to support the decision-making process?</li> </ol>

Feedback on the initial project proposals during the vetting process was generally positive. Members of the Stakeholder Discussion Group expressed appreciation for collaborative discussions with staff and other community members. Various neighborhood organizations and commissions supported the single point of contact, 24-hour hotline, consolidated tree code title, and tree technical manual. There was also support for simplifying and improving consistency in the tree cutting permit system for trees on public and private property, applying tree preservation and mitigation policies more consistently and effectively during development.

Stakeholders expressed concern about some of the initial proposals as well. Like the SDG, there was particular interest in how the tree removal permit system should apply to single family homeowners. Support for establishing a clearer, more consistent permit system was mixed with concern about the potential for establishing an onerous permit system with unintended consequences such as discouraging tree planting or generating ill will toward the forestry program. Neighborhood representatives supported regulatory incentives to preserve trees but expressed concern about waiving building setbacks or height limitations without a public review process. Developers continued to warn against establishing regulations that would increase project costs or result in delay. City bureaus expressed support for the project as a whole, but questioned consolidating all tree regulations into a single title, and echoed concerns about the potential risks and costs of regulating tree removal on single family property.

Informed by this feedback, BPS project staff worked closely with other City bureaus from summer 2009 until early 2010 to transform the initial proposals into draft code language and program recommendations, and to analyze potential fiscal impacts and funding options. Ultimately the Recommended Proposal to the City Council embodies most of the initial solution concepts that were aired during the public vetting period in early 2009. However, the concepts have evolved considerably since that time, as outlined in the next section.

### Stage 4 • Public Review and Legislative Process

The Bureau of Planning and Sustainability released the Proposed Draft of the *Citywide Tree Policy Review and Regulatory Improvement Project* to the Portland Planning Commission and Urban Forestry Commission on February 17, 2010. The Proposed Draft was comprised of three volumes: Volume 1 Project Report, Volume 2 Proposed Code Amendments, and Appendices. Staff provided briefings to the Citywide Land Use Group, Development Review Advisory Committee, the Homebuilders Association, and a number of neighborhood organizations. Staff also held two public open houses on March 9<sup>th</sup> and March 16<sup>th</sup>, 2010.

The commissions kept the public hearing record open during the April, May and June work sessions. They invited comments at the work sessions, and accepted written comments as well. In addition to the required mailing notice, staff sent electronic mail messages to notify those on the project mailing list that the public hearing remained open and the commissions were continuing to accept testimony. The Planning Commission closed its hearing on June 8<sup>th</sup>. The Urban Forestry Commission received testimony through June 17<sup>th</sup>.

The Planning Commission and Urban Forestry Commission received extensive comments on the Proposed Draft (February 2010) from neighborhood associations, developers and consultants, arborists, architects, environmental organizations, and Portland residents. City bureaus also provided detailed comments and suggestions on the project proposal. The following comment “themes” emerged during the public hearing and work sessions:

1. Support for consolidating the tree regulations into a new Title 11 Trees and treating trees as part of Portland’s ‘green infrastructure’
2. Support for stronger tree preservation, planting and protection requirements, flexible development standards to encourage tree preservation, consistent requirements for trees in environmental zones, and improved enforcement
3. Concern about loss of large trees and groves of trees; interest in native trees
4. Concern about impacts of the proposed tree preservation and protection standards on development costs and feasibility, particularly on smaller lots, and impacts on housing density and affordability
5. Support for a more standard tree permit system; desire for the system to be simple and non-onerous, concern about how the proposal would apply to homeowners



6. Varying views on tree size thresholds for permitting and development standards
7. Support for more standard replacement of trees removed, including dead, diseased, dangerous trees; mixed viewpoints requiring replacement of nuisance tree species
8. Support for proposed customer service improvements including: single point of contact for tree information, 24-hour tree hotline, community tree manual, and neighborhood tree plans
9. Concern about the complexity and cost of the proposal, especially given the current economic downturn and City budget cuts; requests to simplify and reduce cost

A variety of other comments and concerns were received, ranging from how the City Tree Fund is administered to how proposed restrictions on planting identified nuisance tree species, particularly Norway Maple, would affect the character of Portland's streets and the historic character of Ladd's Addition. Specific code suggestions were provided as well.

Oral public testimony was summarized in meeting minutes and posted on the project website, [www.portlandonline.com/bps/treeproject](http://www.portlandonline.com/bps/treeproject). The written public comment record is provided in Appendix B. Staff also prepared a report titled Public Comment and Staff Response Report (Appendix C) to document how the February draft proposal would likely be revised in the next draft to address public concerns and to reflect direction provided by the Planning Commission and Urban Forestry Commission during their work sessions.

To help focus the discussion, staff arrayed the key elements of the project proposal into the Planning Commission/Urban Forestry Commission Discussion Guide. Elements addressed in the Work Session Discussion Guide included:

### **I. Trees in Development Situations**

- Ia. Trees in Land Use Reviews
- Ib. Trees in Building Permits - Tree Preservation Standards
- Ic. Trees in Building Permits - Tree Density Standards
- Id. Trees in Building Permits - Protecting Trees on Property Lines & Adjacent Sites during Construction
- Ie. Trees in Environmental Zones
- If. Trees in Public Works and Capital Improvement Projects

### **II. Trees in Non-Development Situations**

- IIa. Permits for City Trees, Street Trees and Trees on Private Property
- IIb. Pruning Permit in Environmental Zones
- IIc. Programmatic Permit
- IId. Requirements for Dead, Diseased, Dangerous and Nuisance Trees

### **III. Code Consolidation and Restructuring – Title 11, Trees**

### **IV. Customer Service Improvements**

- IVa. Single Point of Contact
- IVb. 24-hour Tree Hotline
- IVc. Community Tree Manual
- IVd. Improved Permit Tracking System
- IVe. Neighborhood Tree Plan

The Discussion Guide was updated after each work session to reflect direction from the commissions, and to present discussion items for the next work session. The Discussion Guides and PowerPoint presentations were posted on the project website after each work session.

The Planning Commission and Urban Forestry Commission discussed the issues outlined in the Discussion Guide and worked with City staff to address concerns, and simplify and reduce the cost to implement the proposal. During this period staff also met with the directors of Parks and Recreation, Development Services, Environmental Services and Planning and Sustainability to discuss key policy, implementation and budget issues, and proposed revisions to the proposal.

Staff produced a comprehensive Citywide Tree Project Tracking Table that outlined all of the proposed code amendments contained in the Proposed Draft. It included the substantive elements contained in the Work Session Discussion Guide, as well as proposed code amendments that the Planning Commission and Urban Forestry Commission reviewed but did not discuss during the work sessions. The Project Tracking Table was updated after each work session to reflect the direction provided by the commissions, and was posted on the project website. The July 14, 2010 staff memo and Project Tracking and Staff Recommendations Table presented the full set of recommendations for Planning Commission and Urban Forestry Commission approval. (See Appendix A)

On July 27 and July 29, respectively, the Planning Commission and Urban Forestry Commission voted unanimously to approve the proposal with revisions to address key concerns, and to produce a revised draft proposal for City Council consideration. The commissions provided specific direction on the following components of the proposal:

### **I. Trees in Development Situations**

**Trees in Land Use Reviews** –The proposal includes improved tree preservation criteria and standards for land divisions, requirements to record tree preservation plans with final plats, and a new duration period for approved tree preservation plans, after which they will expire. The commissions also endorsed the addition of tree preservation as a factor to consider in Design Reviews and certain Conditional Use Reviews and associated Conditional Use Master Plans.

**Trees in Building Permits: Tree Preservation Standards** – The proposal will establish a new tree preservation standard as an incentive to preserve trees. Mitigation payment will be required when the standard is not met. The standard will call for preserving 35 percent of the trees 12 or more inches in diameter. To address concerns raised by the development community, the commissions directed staff to add exemptions for lots 3,000 square feet and smaller, and for developments on sites where existing or proposed building coverage is 90 percent or more. Single family home additions are also exempt from the new tree preservation development standards. Tree Density Standards will still apply in these situations. Some commissioners questioned these exemptions, however most agreed that the exemptions would create an appropriate balance between Portland’s goals to preserve trees and goals for development and infill.

The commissions also approved a simplified “preserve or pay” mitigation option for applicants that cannot or choose not to meet the tree preservation standard. The in lieu fee will go to the Tree Preservation and Planting Fund. The fee will cover City costs to plant and establish two trees for each tree removed in excess of that allowed under the standard. The preserve or pay approach was intended to be simple, and to prevent over-planting of development sites.

In response to public testimony urging more emphasis on native trees, the commissions approved a provision allowing native trees 6 or more inches in diameter to count toward preservation requirements.

The commissions also endorsed a spot-check inspection approach for the Tree Preservation and Tree Density Standards to reduce implementation costs.

**Trees in Building Permits: Tree Density Standards** – The commissions recommended approval of new Tree Density Standards to maintain a minimum amount of trees on development sites, and to help meet City tree canopy targets. The standard will apply to all development types for new construction, additions greater than 200 square feet and alterations that trigger non-conforming upgrades. The number of trees required for a given site area would vary by development type. The standards could be met by combinations of large, medium and small tree types. The approach is akin to the existing “T1” zoning code standards that currently apply to new single family development.

**Trees in Building Permits – Protecting Trees on Property Lines & Adjacent Sites** – The commissions endorsed a scaled-back set of code improvements to better protect trees on property lines and adjacent sites. The proposal will encourage preservation of trees on property lines by allowing them to count toward tree preservation and density standards as long as they are protected during construction. The proposal would also require trees on adjacent sites to be identified and considered during review of land divisions and public projects. Staff has developed provisions to allow limited encroachment into root protection zones which will provide applicants with greater flexibility. Staff will also provide educational materials to encourage protection of off-site trees and trees retained on a voluntary basis.

**Trees in Environmental Zones** – The commissions endorsed code amendments to require replacement of trees 6 inches and larger in diameter, specifically non-native non-nuisance trees, and trees in environmental zone transition areas. In addition, the code definitions section will be amended so that stream and wetland setbacks are applied more consistently in existing environmental zones.

**Trees in Public Works and Capital Improvement Projects** – The commissions endorsed new requirements to consult with Urban Forestry staff early in the design of public works and capital improvement projects. The commissions also approved provisions requiring tree-for-tree replacement when trees are removed from partially and unimproved public rights of way. The commissions recommended that the City Forester have the discretion to modify the mitigation requirement if the requirement is disproportional to the impact of the project.



### II. Trees in Non-Development Situations

**Tree Permits** – After extensive discussion, the Planning Commission and Urban Forestry Commission approved an updated citywide tree permit system for City Trees, Street Trees, and Private Trees. To create a consistent permit system that supports the City’s urban forest goals, the commissions agreed that the current exemption for trees on developed single family home sites should be replaced with a simple, non-onerous permit requirement for homeowners.

The permit system will generally apply to trees at least 12 inches in diameter, consistent with the current city permit system for trees on private property. In specified environmental resource zones and plan districts the tree size threshold will be 6 inches in diameter, consistent with Zoning Code regulations. On developed home sites, a permit will not be required for trees smaller than 20 inches in diameter. For City and Street Trees a minimum tree size threshold of 3 inches in diameter is proposed to further streamline the permitting system which presently applies to trees of any size.

The permit system is tiered for efficiency, and to focus City staff resources on reviewing permits for removal of large healthy trees or multiple trees.

- **Type A permits** will be processed through a simple administrative process, requiring no staff review and no opportunity for public appeal. Tree-for-tree replacement will be required.
- **Type B permits** will apply to healthy non-nuisance Private Trees and to any healthy City or Street Tree that meets the size threshold. The City Forester will consider a set of factors to prevent public safety risks or adverse impacts on neighborhood character. Escalating mitigation requirements for up to inch-for-inch replacement apply. The public may appeal City decisions on Type B permits to remove trees at least 20 inches in diameter or 5 or more trees at least 12 inches in diameter.
- **Pruning permit for trees in sensitive resource areas** - A new permit will allow limited native tree pruning in environmental zones subject to private arborist oversight. This will foster tree health, improved access to views, light and solar radiation, and vegetation management to reduce wildfire risks.
- **Programmatic Permit** – A new Programmatic Permit proposal will allow routine public agency and utility tree maintenance activities for up to five years. The commissions approved restrictions on removal of healthy non-nuisance trees 6 inches in diameter and larger, and called for annual

reporting on permit activity and compliance. The City Forester may revoke a permit for non-compliance and pursue enforcement for permit violations.

The commissions directed staff to continue exploring options to create a multi-year tree permit for private tree management activities for uses such as golf courses.

- **Dead, Dying, Dangerous and Nuisance Trees** – The commissions approved streamlined permit procedures and new replacement requirements for dead, dying, dangerous and nuisance species trees when they are removed. The replacement requirements will help ensure that Portland’s urban forest is replenished without creating a complicated permit process.

The commissions also approved a new citywide prohibition on planting trees that are on the City’s Nuisance Plants List on any City owned or managed property, including City rights of way. This is consistent with current prohibitions on planting Nuisance species plants or trees in City-required landscaping. Several individuals and the Hosford-Abernathy Neighborhood Association (HAND) testified that this prohibition would disallow the future planting of Norway Maples, a popular street tree, and would adversely affect the character of the Ladd’s Addition Historic District. Testifiers requested a delay in the prohibition and an exception to allow continued planting of Norway maples in Ladd’s Addition.

The commissions rejected the proposed delay and exception and directed staff to work with the neighborhoods to develop a list of suitable tree species to replace Norway Maples along City streets in the future. Staff has continued to coordinate with concerned individuals and HAND, and met with the Historic Landmarks Commission. Staff provided information on problems associated with invasive plants and Norway Maples, and has proposed potential tree replacement options. (See Appendix E) On November 22, the Historic Landmarks Commission agreed to support the request for an exception to allow planting of Norway Maples as Street Trees in Ladd’s Addition.

### III. Code Consolidation and Restructuring

The commissions enthusiastically endorsed consolidation of City tree regulations into a new Title 11, Trees. Title 11 elevates the role of trees as a critical element of Portland’s “green infrastructure.” Title 11 moves the City’s Urban Forestry Program, the Urban Forestry Commission and the Urban Forest Plan from Title 20, Parks and

Recreation, and features them in the broader citywide context of the urban forest. Title 11 also establishes a cohesive regulatory framework for City Trees, Street Trees, and Private Trees in development and non-development situations.

#### IV. Customer Service Improvements

The commissions endorsed the proposed customer service improvements, specifically the single point of contact, for public inquiries, 24-hour tree hotline, community tree manual, tree permit tracking system upgrades, and neighborhood tree plans. The commissions felt these components are critical to the success of the project proposal.

**Phased Implementation and Funding Strategy** – The commissions directed revisions to simplify the initial project proposal, and to reduce cost. However the revised proposal continues to require an increase in City investment to achieve the desired benefits. The Planning Commission and Urban Forestry Commission endorsed the revised fiscal impact assessment and a phased project implementation and funding strategy, as proposed by the directors of the bureaus of Parks and Recreation, Development Services, Environmental Services, and Planning and Sustainability. The project phasing is intended to provide time to prepare for the new codes, and for economic and budget conditions to improve. The phasing strategy is outlined in the Tree Canopy Benefits, Financial Impacts and Budget Proposal section of Chapter 2, later in this report.



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*"Other holidays repose on the past.  
Arbor Day proposes the future."*

*- J. Sterling Morton*

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*Trees in Portland's parks:  
top - South Park Blocks, PSU  
middle - Laurelhurst Park  
bottom - Washington Park*





## Chapter 2 • Project Proposal

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This chapter presents the Citywide Tree Project proposal by summarizing the charge of the project, describing the proposed regulatory framework, reviewing the non-regulatory customer service improvements, and presenting an overview of the project benefits, fiscal impacts, and funding options.

### Project Charge

Recall that the proposal is designed to accomplish certain outcomes identified in the adopted *Urban Forestry Action Plan*, specifically:

- Create a clear, consistent, cohesive regulatory system; AND
- Protect and enhance the urban forest through development and redevelopment.

### Success Criteria

The proposal is also designed to meet success criteria developed in consultation with the Stakeholder Discussion Group, and aired during the vetting of the initial proposals. To accomplish the outcomes above, the updated tree regulations must be:

- Clear and transparent
- Consistent, cohesive and comprehensive
- Equitable and effective
- Complementary and reinforcing
- Efficient – putting process where it's due
- Designed to support multiple city goals
- Customer friendly – easy to understand and work with
- Funded adequately for implementation and enforcement

As noted in the previous chapter, the Citywide Tree Project derives its policy direction primarily from the *Urban Forestry Management Plan* goals and canopy targets, and is also guided by the goals of the *Portland Watershed Management Plan*, and the *Climate Action Strategy*. The project is also intended to advance Portland's *Comprehensive Plan* goals to provide jobs, housing, a healthful environment, and overall neighborhood livability.

A number of additional objectives have emerged during the course of the Citywide Tree Project, and are interwoven throughout the draft project proposal.

### Additional Project Objectives

- Build awareness of the benefits provided by trees and the role of trees as a community amenity and infrastructure asset.
- Reaffirm and increase the visibility of Portland's Urban Forestry Program, Urban Forest Plan and Urban Forestry Commission.
- Recognize that tree regulations are relational and inter-dependent across development and non-development situations.
- Acknowledge that the urban forest is a dynamic, living system, and that urban forestry goals can only be met through an effective mix of tree preservation, and ongoing planting and maintenance over the long-term.
- Add flexibility and strengthen tools to encourage and reward developers for "designing with trees."
- Increase consistency and equity in how trees are addressed on public and private property, and in public and private development situations.
- Increase focus on quality of tree preservation, tree replacement, and planting.
- Ensure that all affected trees are adequately protected during construction, including trees on property lines.
- Ensure that the tree removal permit system is, and is perceived as reasonable, fair, simple, and useful in helping meet urban forest management goals and canopy targets.
- Build on existing City programs and strengths to improve overall regulatory efficiency and effectiveness, and limit impacts on development and permitting costs.

## Code Restructuring and Regulatory Framework

Clarifying and improving the consistency of Portland’s tree regulations is a primary charge of the Citywide Tree Project. As noted previously, the City established its tree-related regulations over several decades. The regulations are spread among multiple City code titles and administered by several bureaus, primarily the Bureaus of Parks and Recreation, Development Services, and Transportation.

### Summary of Current Tree Regulations and Bureau Responsibilities

City Code Title and Administering Bureau	Tree Related Regulations
<b>Title 16 Vehicles and Traffic -</b> Bureau of Transportation; Bureau of Maintenance	Pruning and tree removal for traffic safety and visibility in rights of way
<b>Title 17 Public Improvements –</b> Bureau of Transportation; Bureau of Maintenance	Pruning for street tree clearances; removal when in conflict with infrastructure (sewer, sidewalks, curbs); leaf pick-up responsibility
<b>Title 20 Parks and Recreation –</b> Bureau of Parks and Recreation	Authorizes the Urban Forestry Management Plan, Urban Forestry Commission and City Forester. Street and public tree pruning (any size tree), planting and removal; public safety nuisance abatement; tree removal (12” or more in diameter) on non-single family or dividable property except when subject to T24 or T33 requirements (e.g., building permit or environmental zone)
<b>Title 24 Building Regulations –</b> Bureau of Development Services	Clearing, grading and soil stability; tree removal on steep slopes
<b>Title 29 Property Maintenance –</b> Bureau of Development Services	Requires removal of dead and hazardous trees from private property
<b>Title 31 Fire Regulations –</b> Bureau of Fire and Rescue	Authorizes fire hazard abatement, including tree removal and fire truck access, including access through tree preservation areas or overlay zones.
<b>Title 33 Planning and Zoning –</b> Bureau of Development Services	Applies landscaping and tree standards to development sites; applies tree preservation through land divisions; regulates tree removal and replacement in overlay zones and some plan districts (generally trees 6” or more in diameter)

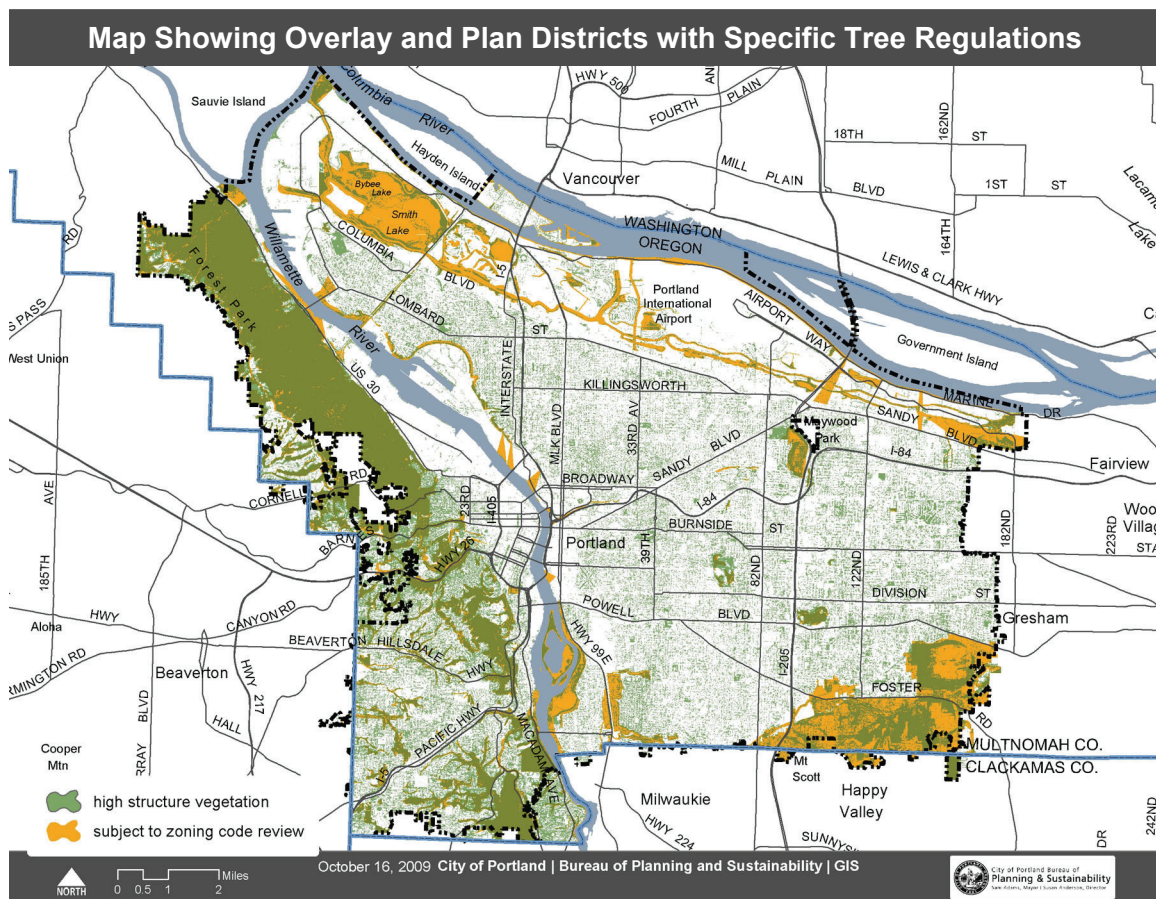
As a result, it is hard to find specific tree regulations and determine how they apply and relate to each other. Citizens also have a hard time determining which City bureau implements specific provisions, and who to call for information. In some instances regulatory requirements are overlooked, at least initially, resulting in subsequent project delays or inadvertent violations.

## Citywide Tree Policy Review and Regulatory Improvement Project

Moreover, because the Bureaus do not share a cohesive mission with regard to the urban forest, their objectives and approaches may sometimes conflict, increasing confusion and frustration among citizens and City staff.

Because the tree regulations were established at different times, by different bureaus and to address specific issues, numerous inconsistencies, gaps, and conflicts have been created along the way. A few examples:

- The zoning code regulates tree removal in some overlay zone and plan district areas of the city. These requirements were developed independently from the tree cutting requirements that apply in other parts of the city. While there is reason to differentiate protections between these areas, some distinctions were merely the result of being in separate titles of city code.

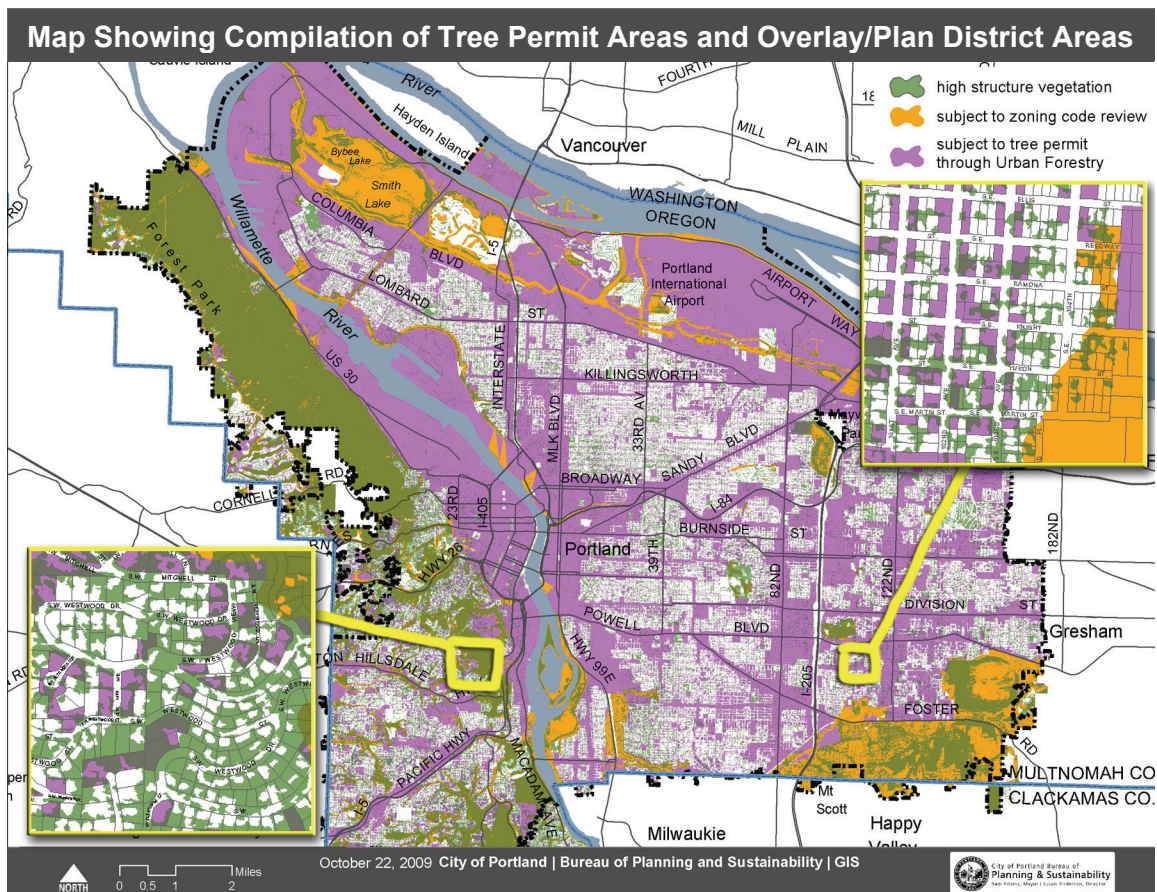


- Tree preservation requirements were established during the most recent re-write of the City's land division regulations. However, with the exception of development proposals in certain overlay zones and plan districts, tree preservation requirements are not applied during any other type of land use review nor to most developments requiring a building permit.



## Citywide Tree Policy Review and Regulatory Improvement Project

- For new developments requiring a building permit: Only new single family homes must meet tree standards (preserve, plant or pay to the Tree Fund). Multi-family, commercial, industrial and institutional developments are not required to meet tree preservation or replacement standards as part of their building permit. Minimum landscaping standards apply but they do not address tree preservation, maintaining tree density or replacing lost functions when trees are removed.
- Permits are required to remove trees on private property throughout the city when no development is proposed, with the exception of developed single family lots that can not be further divided, which are exempt. Trees on exempt lots may be removed without a permit, but tree preservation requirements on similar lots created through the current land division regulations apply in perpetuity.
- In addition to exempt lots, tree permits do not apply to sites where tree cutting is addressed by another City code. For overlay zones, this is especially confusing since trees outside the resource overlay require a tree permit, while a similar tree on the same lot in the overlay zone may be entirely exempt from any permit.



*This map shows the “patchwork” of where tree removal permits are required for trees on private property. Note that this map does not show lots that are subject to a specific tree preservation requirement as part of a land use review.*



- Existing private tree permits require up to “inch for inch” tree replacement. However, if a building permit is submitted, lots may be cleared of trees without any review or replacement requirements (unless in a resource overlay zone or designated for preservation through a prior land use review).
- The City administers duplicative permitting procedures to address tree removal on City-owned property when development is proposed. For instance a park site that has undergone an extensive environmental review through the Bureau of Development Services must obtain tree permits from Urban Forestry to remove trees already approved for removal under the environmental review.

The Citywide Tree Project strives to address these issues by consolidating, restructuring and updating the City’s regulations. The next section presents the proposed new comprehensive Tree Code - Title 11, Trees.



### **New Comprehensive Tree Code • Title 11, Trees**

The Citywide Tree Project proposes to address many of the above issues by consolidating most existing regulations into a single code title, Title 11, Trees. Title 11 is intended to provide the central regulatory framework for trees in the city. Title 11 reconfigures existing City regulations to create a more consistent and cohesive framework in which the individual components support and complement each other without duplication or gaps. Title 11 is also designed to simplify and streamline a number of existing regulatory procedures, and more clearly specify the approach, criteria, and considerations the City will use in making decisions.

Title 11 reauthorizes the City's Urban Forestry Program and addresses trees in non-development situations, and most development situations. The provisions of Title 11 are not land use regulations and do not apply in the context of an active land use review. They are intended to complement, and not conflict with the land use regulations of the Zoning Code (Title 33, Planning and Zoning). Tree-related provisions in the Zoning Code will apply during land use reviews and to achieve land use related policies and specific requirements for landscaping, site design, including those that apply in base zones or specific overlay zones and plan districts.

The adoption of Title 11, Trees, represents a paradigm shift for tree management in Portland. Creating this comprehensive code title increases the visibility and stature of the City's Urban Forestry Program, the Urban Forest Plan, and the Urban Forestry Commission, and elevates the role of trees generally. Title 11 also establishes clear roles and responsibilities for City bureaus, and establishes authority for working partnerships and delegation of duties. Title 11 also authorizes and directs the uses of City tree funds.

Consolidating the City's tree regulations into Title 11 will make the regulations easier to locate, understand and administer. The regulations have also been updated to create a more cohesive regulatory framework, where the individual components are designed to complement and reinforce each other across the range of development and non-development situations. Title 11 will establish basic tree "capacity" requirements for development sites, similar to stormwater management and erosion control – treating trees as an essential component of the City's 'green infrastructure.' Title 11 also establishes an updated, standardized tree permit system that applies to tree-related actions in non-development situations. The permit system is generally designed to complement and reinforce the new tree development standards.

Overall, Title 11 will make the City's tree regulations clearer and more accessible to the public which should, in turn, cultivate awareness of trees as a public asset and foster greater compliance.

### Title 11, Trees contains the following chapters:

- Chapter 11.05 Legal Frameworks and Relationships**
- Chapter 11.10 Administration of this Title**
- Chapter 11.15 Funds and Contributions**
- Chapter 11.20 Urban Forestry Program**
- Chapter 11.30 Tree Permit Procedures**
- Chapter 11.40 Tree Permit Requirements (No Associated Development)**
- Chapter 11.45 Programmatic Tree Permits**
- Chapter 11.50 Trees in Development Situations**
- Chapter 11.60 Technical Specifications**
- Chapter 11.70 Enforcement**
- Chapter 11.80 Definitions and Measurements**

Key elements of each chapter of Title 11 are described below. Substantive modifications to the current tree regulations are highlighted. Additional explanation of the proposed code is provided in the code commentary (See Volume 3 of this report “Title 11 and Related Amendments”)

### Legal Framework and Relationships (Chapter 11.05)

The contents of this chapter are:

- 11.05.010 Purpose**
- 11.05.020 Official Name**
- 11.05.030 Authority**
- 11.05.040 Where This Title Applies**
- 11.05.050 Other City, Regional, State, and Federal Regulations**
- 11.05.100 Severability**
- 11.05.110 Liability**

### Purpose

The Legal Frameworks chapter establishes a comprehensive purpose for the Title 11. Title 11 will serve as an implementation facet of the Urban Forest Plan, and will help protect the health, safety, and welfare of Portland Citizens. The purpose section includes a list of the tree-related benefits to be gained by addressing trees in development and non-development situations, maintaining watershed health and community livability.

### Relationship to other regulations

This chapter establishes the relationships between Title 11 and other City code titles, and between Title 11 and other regional, state and federal regulations. This chapter also lays out the basic framework for where the regulations of the title do and do not apply.

### Administration of this Title (Chapter 11.10)

The contents of this chapter are:

**11.10.010 Code Administration and Duties Performed**

**11.10.020 Determining What Regulations Apply**

**11.10.030 General Rules for Reading and Applying the Code Language**

**11.10.040 Amendments to this Title**

**11.10.050 Interagency and Intergovernmental Agreements**

**11.10.060 Performance Guarantees**

**11.10.070 Fees**

The Administration chapter outlines how Title 11, Trees will be implemented. Key portions of this chapter are summarized below.

### Roles and Duties

Title 11 will be implemented primarily by two City officials; the City Forester and the Bureau of Development Services (BDS) Director. The City Forester is responsible for administering the rules affecting City and Street Trees. The City Forester also retains responsibility for administering the Private Tree Removal Permit rules and oversight of Street Trees during development. The Bureau of Development Services Director will be responsible for implementing the proposed tree preservation and tree density standards that will apply in the context of development permits.

Both the City Forester and BDS Director have duties relating to the enforcement of this title and are authorized to adopt administrative rules to implement their respective administrative and enforcement duties.

The City Engineer continues to review planting proposals in streets for the purpose of protecting existing utilities and sewer and water lines and applies standards for street trees through public works and capital improvement development projects.. The City Engineer is also responsible for consulting with the City Forester early in the project design phase to identify tree impacts and opportunities to maximize tree planting and preservation.

The Urban Forestry Commission's role has been refined to clarify that their focus is on major urban forest planning, policy, and programmatic direction. A new Urban Forestry Appeals board will be established to review and act on tree permit appeals and other appeals, as further described in Chapter 11.20.

The Hearings Officer has a role in adjudication of enforcement cases.

The chapter also describes distinctions in how trees are regulated in development situations, and how trees are regulated when no development is proposed or occurring. This chapter directs users to the appropriate chapters for the specific requirements.

The chapter outlines procedures for amending this title, and assigns the responsibility to coordinate substantive amendments to the bureau charged with administering those regulations. Amending Title 11 requires consultation with the Bureaus of Planning and Sustainability, Parks and Recreation, Development Services, Environmental Services, Transportation, and Water to ensure any amendments do not conflict with bureaus missions or adversely affect operations. A hearing before the Urban Forestry Commission is required, and the Planning and Sustainability Commission may also opt to hold a hearing depending on the scope of the amendment. The City Council will take final action on the recommended amendment after it holds a public hearing on the matter.

### Performance Guarantees and Fees

The use of performance guarantees are authorized to ensure satisfactory completion of required work that will occur after a permit has expired or been closed, or for violation cases where the requirement cannot be attached to a permit condition. This section establishes a clear basis for determining the required dollar amount of the guarantee.

Instead of specifying exact fees in the Title, references to an adopted fee schedule are used throughout. This section authorizes the City Council to establish and update this fee schedule. Also described is the basis for establishing the amount of the fee in lieu of planting a tree.

### Funds and Contributions (Chapter 11.15)

The contents of this chapter are:

#### **11.15.010 Tree Planting and Preservation Fund**

#### **11.15.020 Urban Forestry Fund**

#### **11.15.030 Charitable Contributions**

#### **11.15.040 Annual Report**

### Tree Funds

This chapter authorizes and clarifies the purposes and procedures associated with the Tree Planting and Preservation Fund and the Urban Forestry Fund.

The purpose of the Tree Planting and Preservation Fund (currently referred to as the “Tree Fund”) is to facilitate planting or preservation of trees to compensate for situations in which tree preservation, planting or replacement requirements are not met, and to



offset tree loss resulting from Private Tree violations. The provisions in this section specify that in lieu fees should be calculated to cover the cost of planting and establishing a tree for a two-year period and that the cost be reviewed annually to ensure the in lieu fees are regularly updated. The provisions of this section also specify the allowed uses of the fund. The recommended project proposal will expend the allowed uses of the fund. The fund will continue to be used for tree planting within the same watershed as the trees that were removed, and may now be used to purchase of conservation easements or land to protect priority trees or groves on a permanent basis. Any outstanding balances in the Tree Planting and Preservation Fund may be carried forward into subsequent fiscal years. This will allow aggregation of funds to pay for larger scale planting projects, and avoid end of fiscal year planting in the Summer, outside the optimal planting season.

The Urban Forestry Fund, currently referred to as the Tree Damages Fund, is collected from City or Street Tree enforcement actions resulting in payment of restoration fees, civil penalties, or civil remedies, and other general sources. The purpose of the Urban Forestry Fund is to collect funds to replace Street or City Trees illegally removed or damaged and to raise greater public awareness of trees, tree care, and values of the urban forest. These funds, in contrast to the Tree Planting and Preservation Fund, may be used for broad range of Urban Forestry activities, including production of educational materials, providing additional outreach and technical assistance to the community, or other forestry related duties.

This chapter establishes reporting requirements to facilitate monitoring, documentation, and citizen access to information on the collection and uses of tree fund revenues.

### Urban Forestry Program (Chapter 11.20)

The contents of this chapter are:

- 11.20.010 Purpose**
- 11.20.020 The Urban Forestry Commission**
- 11.20.030 The Urban Forestry Appeals Board**
- 11.20.040 Technical Assistance**
- 11.20.050 The Urban Forest Plan**
- 11.20.060 Heritage and Historic Trees**

The Urban Forestry Program chapter is derived primarily from existing provisions within Chapter 20.40 of Title 20, Parks and Recreation. The purpose of Chapter 20.40 has been to direct the regulation of City Trees and Street Trees. Moving the provisions authorizing the Urban Forestry Program to Title 11 makes it clear that the program

addresses more than City or Street trees; rather it addresses the urban forest citywide, on all public and private lands, and in the context of public and private development projects.

### **An updated purpose statement for the Urban Forestry Program:**

*The field of urban forestry has as its objective the cultivation and management of trees and related plants for their present and potential contribution to the physiological, sociological and economic well being of urban society. Inherent in this function is a comprehensive program designed to establish policies, goals and objectives, and implementing actions, and to educate the urban populace on the role of trees and related plants in the urban environment. In its broadest sense, urban forestry is one essential component of a multi-managerial urban system that includes neighborhoods and watersheds within the City, wildlife habitats, outdoor recreation opportunities, landscape design, green infrastructure, air filtering and greenhouse gas capture, recycling of municipal vegetative wastes and tree care in general.*

This Chapter reauthorizes the Urban Forestry Commission and establishes a new Urban Forestry Commission Appeals Board. The duties of the Urban Forestry Commission have been reworked to place greater emphasis on policy development, providing input on City bureau plans, projects, programs and budget proposals affecting the urban forest. The intent is to position the Commission in a greater advocacy role for urban forest interests.

The Commission is also charged as the primary reviewing body for amendments to this Title, in consultation with the Planning Commission as stipulated in Chapter 11.10. The Urban Forestry Commission's role regarding heritage tree nominations is carried over from existing language in Section 20.40.150.

A new Urban Forestry Commission Appeals Board function will be established through this project. The Appeals Board will be comprised of a subset of the Urban Forestry Commission, and will hear tree permit appeals instead of the full Commission. Establishing the Appeals Board is intended to facilitate and expedite tree permit appeals and provide the Urban Forestry Commission more time in their regular meetings to work on larger urban forest policy, planning and programmatic issues.

This Chapter reaffirms and refines the role of Urban Forestry Management Plan as the City's main policy framework and action strategy for the urban forest. Provisions are proposed to ensure the plan is updated periodically, in consultation with City bureaus. This chapter also reflects several minor amendments to existing code language to bring the provisions up to date and eliminate archaic references. The Urban Forestry Management Plan has also been renamed the Urban Forest Plan to reflect the broader

policy role this plan may take, and to incorporate associated documents and reports such as the Urban Forest Action Plan and the Urban Forest Canopy report.

### Tree Permit Procedures (Chapter 11.30)

The contents of this chapter are:

#### **11.30.010 Purpose**

#### **11.30.020 When Tree Permits Are Required**

#### **11.30.030 Applications**

#### **11.30.040 Procedure for Type A Permits**

#### **11.30.050 Procedure for Type B Permits**

#### **11.30.100 Regulations That Apply After Permit Approval**

This chapter presents the general requirements and procedures that will apply to each of the tree permit types authorized by this title. Review triggers, approval criteria, mitigation, and review authority are detailed in Chapter 11.40.

### Tiered Tree Permit System

Currently the City requires a review for all types of tree permits. Only applicants may appeal City permit decisions on City Trees and Street Trees (currently called “Public” Trees). Any person may appeal City permit decisions for private trees.

This chapter will establish a tiered tree permit system. The updated system will streamline certain permits, improve consistency between permitting for City, Street and Private Trees, encourage retention of large healthy trees, and ensure appropriate tree replacement.

The new permit system would include two types of permits - Type A and B. Type A and B permits would apply to specified activities involving City, Street, or Private Trees when the proposed activity is not subject to or associated with a development permit or land use review. The distinction between permit types would be a function of tree size, condition, and species (for trees on the City’s Nuisance Plants List). The new permit system will also apply citywide, replacing the current blanket exemptions for trees on non-dividable single family lots with a simplified permit requirement for large trees.

Essentially, Type A permits will provide a streamlined process to allow the removal of trees in specific situations without a review or public appeal option. Each tree removed will be replaced with another tree.



*Dead tree*

Type B permits will involve consideration of specific factors to prevent adverse impacts to public safety and neighborhood character, and to discourage removal of trees prior to development. Type B permits include escalating tree replacement requirements and a public appeal option. Review factors (specified in Chapter 11.40) are considered by the Forester to evaluate potential impacts and practical alternatives to the removal request.

Currently permits are required to remove or prune City and Street Trees of any size. A minimum diameter threshold will be established at 3" as a trigger for permits to prune or remove City or Street Trees. The updated permit system will include three diameter thresholds for permits to remove trees on private property. Where tree removal

permits are currently required (trees on non single family lots and dividable single family lots, the tree size threshold will continue to be 12 inches in diameter or larger. In sensitive natural resource areas and specified plan districts the tree size threshold is reduced to 6 inches in diameter. And for non-dividable single family home sites, the tree size threshold will be 20 inches in diameter.

Type A Permits will apply to:

- For City and Street Trees;
  - Removal of any dead, dying, or dangerous tree
  - Planting, Pruning, or other tree-related activities
- For Private Trees;
  - Removal of any dead, dying, or dangerous tree.
  - Removal of trees on the City's Nuisance Plants List



*Dangerous tree*

## Citywide Tree Policy Review and Regulatory Improvement Project

- Removal of trees within 10 feet of a building
- Removal of up to four trees, each less than 20 inches in diameter, per site, per year.
- Removal of any tree that is 20 inches or larger in diameter on single family lots that are generally non-dividable based on their lot size.
- Pruning trees in environmental zones

Type B permits will apply to:

- For City and Street Trees;
  - Removal of healthy trees 3 inches or more in diameter
- For Private Trees;
  - Removal of healthy, non-nuisance that are 20 inches or more in diameter, or when more than four trees 12 or more inches in diameter are proposed to be removed from a site in a single year.

Public notice and an opportunity for the public to appeal the City Forester's decision currently are afforded only to requests to remove Private Trees greater than 12 inches in diameter. Title 11 will extend the public notice and appeal opportunity to Type B permits involving proposed removal of City, Street, and Private Trees at least 20 inches in diameter or removal of more than four trees 12 or more inches in diameter.

The following tables show the tiered permit system structure. Additional discussion, options considered, and associated costs, are presented later in this report.

### City and Street Tree Removal Permits

Location	Tree size threshold	Requirement
General requirement For all city owned or managed properties and streets	3" and larger	<b>Type A Permit</b> (tree for tree replacement): dead, dying, dangerous,  No "review", no public appeals
		<b>Type B Permit</b> (up to inch for inch mitigation) Healthy trees including Nuisance species Discretionary review, public may appeal decisions to remove big trees (20" and larger) or more than 4 healthy trees per site per year



## Citywide Tree Policy Review and Regulatory Improvement Project

### Private Tree Removal Permits

Location	Tree size threshold	Requirement
Specific overlays/plan districts (e.g. environmental zones, scenic zones, Johnson Creek, Rocky Butte, etc.)	6" and larger	<b>Type A Permit</b> (tree for tree replacement): dead, dying, dangerous, nuisance species, within 10' of building, and up to 4 trees smaller than 20" per year No "review", no public appeals
General requirement (not homeowner lots, not in special areas)	12" and larger	<b>Type B Permit</b> (up to inch for inch mitigation) big trees (20" and larger) or more than 4 trees per year Discretionary review, public may appeal
Homeowner sites ("non-dividable" SF lots)	20" and larger	<b>Type A Permit</b> (tree for tree replacement): All trees 20" and larger No "review", no public appeals

### Other Tree Activities

Tree Activity	City and Street Trees	Private Trees
Nominating a Heritage Tree	Urban Forestry Commission	Urban Forestry Commission
Planting	Type A	No permit required Native species only in specific overlay zones Nuisance species prohibited for landscape, mitigation and replacement
Pruning*	Type A	Type A Permit only in environmental overlay zones
Root Cutting*	Type A	No permit required - Follow proper arboricultural practices
Attachments	Type A	No permit required - Follow proper arboricultural practices
Miscellaneous	Type A	No permit required - Follow proper arboricultural practices

\* For emergency situations, permits must be applied for within 7 days following the tree activity.

\*\* Miscellaneous activities include attaching lights, signs, or other activity that may harm a tree.

### Other provisions and recommendations

This chapter also establishes requirements for permit posting and expiration. While not proposed as part of the code, it is recommended that the City consider issuing advisories with tree permits to educate property owners about prohibitions on harming active nests under the Migratory Bird Treaty Act.

### Trees Permit Requirements (No Associated Development) (Chapter 11.40)

The contents of this chapter are:

**11.40.010 Purpose**

**11.40.020 Where These Regulations Apply**

**11.40.030 Exemptions**

**11.40.040 City and Street Tree Permit Standards and Review Factors**

**11.40.050 Private Tree Permit Standards and Review Factors**

**11.40.060 Tree Replacement Requirements**

The purpose of this Chapter is to manage, conserve and enhance the urban forest when development is not proposed or occurring, by encouraging the retention of large healthy trees and groves, and ensuring that trees are replaced when they are removed.

Chapter 11.40 establishes the standards and review factors that are applied to requests for Type A and B permits for City, Street, and Private Trees. It establishes specific permit requirements for planting, pruning, and removing City Trees (trees located on lands owned by the City and public lands when managed by the City), Street Trees (public rights of way managed by the City) and Private Trees when no development is proposed.

Currently, the City requires separate tree permits to remove trees on City owned or managed property even when the tree removal is being considered in conjunction with a proposed development. This chapter eliminates the current duplicative permitting requirements. As is currently the case with Private Trees, if one or more Street Trees or City Trees are proposed to be removed as part of a development permit or land use review, including an environmental review, the regulations of this chapter will not apply. All trees that are associated with development are addressed in Chapter 11.50, Trees in Development Situations, and specific chapters of Title 33, Planning and Zoning.

Heritage Trees are addressed by the provisions in Chapter 11.20 as a separate program and are not subject to the standards or review factors of this chapter. Likewise, activities performed pursuant to a programmatic permit (Chapter 11.45) are not required to obtain permits in accordance with this chapter. Other exemptions include trees outside city limits, trees on farm or forest lands, and work conducted under the direction of the City Forester.

Special provisions are included to address emergency pruning or removal situations and situations where a federal, state, or judicial order requires a particular tree activity to

occur. For these latter cases, a permit will be required but the standard tree replacement and public appeal opportunities have been streamlined. .

Permitting authority for City, Street, and Private Trees is proposed to remain with the City Forester. The chapter outlines minimum and maximum tree replacement required and specifies payment in lieu of planting options. The City Forester is authorized to waive or partially waive mitigation requirements if there is insufficient room to plant or when the remaining trees meet tree density standards proposed in Chapter 11.50.

### City and Street Trees

Permits will still be required to prune roots or branches, or to remove a City or Street Tree, however, a new minimum diameter threshold of 3 inches is established. Additionally, pruning has been defined so that minor trimming activities will not require a pruning permit.

This chapter also establishes a new prohibition on the planting of tree species on the City's Nuisance Plant list on any City property, including City rights-of-way. This is consistent with the existing prohibition on the planting of trees on the Nuisance Plant List in any City-required landscaping and environmentally sensitive areas. Extending this prohibition is consistent with the City's Invasive Species Management Strategy and will help support and protect significant City and community investments in preventing the spread of invasive plants. Invasive plants are currently a growing problem throughout Portland's watersheds. They threaten City natural areas and other important natural resources on privately owned land as well. These trees, shrubs and herbaceous plants proliferate and crowd out native species.



*Street tree*

The new prohibition proposal has generated concern among some residents of the Ladd's Addition neighborhood, and Hosford-Abernethy Neighborhood Development (HAND) because it would prohibit future planting of Norway maples as street trees in Ladd's Addition. Norway maples are a prominent street tree in Ladd's Addition and are referred to in the street tree plan for the Ladd's Addition Historic District Guidelines. The Planning Commission and Urban Forestry Commission rejected requests for an exception to allow future planting of Norway maples in Ladd's Addition and directed the City Forester to identify suitable non-nuisance trees to replace the Norway maples when they die or become diseased and need to be removed. The Historic Landmarks





diameter, or any healthy 20 inch Street Tree (or City or Private Tree) when subject to a Type B permit. Given that the City would not typically approve removal of a large healthy Street Tree, this proposed change is not expected to generate many public appeals, but does serve to form a consistent regulatory approach between public and private trees, offering the public a chance to appeal decisions affecting removal of large or multiple healthy public trees.

Importantly, this chapter states more explicitly the standards or considerations the City Forester will use to make permitting decisions for trees in public rights of way and other City owned or managed property. The standards and consideration factors reflect the City's policy to retain established and well-functioning City and Street Trees except when extraordinary circumstances may warrant their removal.

### Private Trees

The City's requires a permit to remove any tree that is 12 or more inches in diameter on private property in non-development situations, except:

- where the tree is located in an area with special requirements (e.g., environmental overlay zones, certain plan districts), or
- where the tree is located on a single family lot, in a single family zone, that, is not "dividable", and that contains a single family home.



*Private tree*

These exemptions are confusing, inequitable and can result in inadvertent violations of existing regulations or conditions of a land use approval. For example, a single-family lot that was recently subdivided may no longer be large enough to divide but a condition of the subdivision approval requires review of any tree removal. Meanwhile, the same size lot next door has no such condition. In another instance a vacant site may be partly within an

environmental overlay zone. The area outside the overlay requires a tree permit to remove any tree 12 or more inches in diameter, while the area inside the overlay zone generally requires review before removing native trees but not non-native trees. Trees within the first 25 feet of the overlay zone are not regulated at all.



The proposal includes expanding the applicability of the permit system to reduce confusion, improve consistency, build in operational efficiencies, and ensure replacement for trees when they are removed.

### **Type A Permits for Private Trees**

For situations requiring a Type A permit, key changes to the current system include:

- Adding a new permit option to allow limited pruning of native trees in environmental zones. The City does not generally require a permit to prune trees on private property and Title 11 will not create additional pruning requirements. However, in existing environmental zones, pruning native trees usually requires environmental review, which is a costly and time-consuming process. The Title 11 pruning permit would allow an owner, with the oversight of a certified arborist, to conduct limited pruning in the environmental zones without a review. This will provide additional flexibility to allow additional sunlight penetration, reduce wind sail or fire risk, or enhance tree health. The permit will be filed with the City Forester prior to the work. If the pruning exceeds the limits or is not in accordance with the pruning plan or accepted arboricultural practices, it will be treated as a violation.
- Streamlining permitting and requiring tree for tree replacement for trees that are dead, dying, or dangerous.

It is envisioned that upon submitting a report and documentation from a certified arborist, these tree permits could be issued without an inspection in most cases. Absent a report, the City would need to confirm the condition of the tree. There will be no public notice and no public appeals of these requests. Currently the City does not require replacement of dead, dying or dangerous trees. This chapter will establish simple tree-for-tree replacement requirements which will help replenish and sustain the urban forest over time.

- Streamlining permitting and mitigation requirements for nuisance species trees, trees located within 10 feet of buildings, and removal of up to four trees less than 20 inches in diameter per site per year.

These trees would each be replaced at a tree for tree ratio, instead of the inch for inch requirement that applies today. In these circumstances, an arborist report may not be necessary. A landscape professional could identify nuisance tree species, and property owners can measure tree size and distances from buildings. With sufficient documentation in the application submittal, these tree permits could be issued without inspections or using a “spot check” approach. There is no public notice and no public appeals of these requests.

- Including overlay zones and plan district areas in the permit system.

The proposal will make it clear that in non-development situations, trees in specified overlay zones and plan districts must obtain a Title 11 tree removal permit. City staff will need to determine that the requested removal is exempt or allowed by the applicable zoning code provisions before processing the tree permit request. The benefit is certainty for the applicant that zoning rules are not being inadvertently violated, certainty for the public that the city has reviewed and authorized the removal in the form of issuing a tree permit, and equitable replacement requirements inside and outside these areas.

- Extending tree removal permit requirements to single family non-dividable lots.

This chapter establishes a streamlined removal permit requirement for trees that are 20 or more inches in diameter on non-dividable single family lots. The replacement of the existing single family lot exemption will standardize the City's existing tree permit system. This decision to apply the permit system to all lots in the City will:

- Help ensure that overlay zone, plan district, land use conditions, and other development requirements are not inadvertently violated
- Create a mechanism to ensure replacement of large trees
- Provide an opportunity to inform property owners of the benefits of their urban forest and available tree programs and incentives

For single family home sites, tree for tree replacement would be required in all cases and there would be no public notice and no opportunity for public appeal.

The provisions of this chapter will include specific lot size thresholds by zone to use in determining if a tree removal proposal is eligible for the streamlined "single dwelling" Type A permit option. The lot size thresholds will replace the problematic "non-dividable lot" term, making the rules easier to understand and administer. Also, a number of corner and transition lots that are technically dividable at smaller sizes would no longer be considered "developable" by the tree title and would instead be treated the same as other similarly sized lots in the zone.

### **Type B Permits for Private Trees**

For situations requiring a Type B permit, key changes to the current system include:

- Clarification and refinement of factors applied during permit review. The review factors for Type B Private Tree permits have been refined to reinforce the City's

policy to encourage retention of healthy trees, while respecting property owners' objectives for the use and enjoyment of their property. The factors call for consideration of the permit applicant's objectives, while also considering whether there might be practical alternatives to removing the tree (e.g., pruning). The City Forester will also continue to consider the appropriateness of the tree for its location, potential for future growth and viability, and whether the removal will impact neighborhood character or public safety. Additional clarifying language has been added to better describe what constitutes a significant affect to neighborhood character.

### **Programmatic Tree Permits (Chapter 11.45)**

#### **11.45.010 Purpose**

#### **11.45.020 Application Requirements**

#### **11.45.030 Procedures**

#### **11.45.040 Approval Criteria**

#### **11.45.050 Permit Specifications**

The Citywide Tree Project will create a new Programmatic Tree Permit (Programmatic Permit) option. The Programmatic Permit would authorize tree removal and planting activities conducted by public agencies or utilities over a large geographic area for up to 5 years. The permitted activities would be associated with specific operation, maintenance, or resource enhancement activities. A Programmatic Tree Permit could cover City, Street and/or Private Trees, inside and outside natural resource areas. Agencies operating under a programmatic permit would not be required to obtain separate Type A or B permits but would be required to report annually on their activities to the City Forester.

The application for a Programmatic Permit will need to address specific review factors so that the City Forester can assess the overall impacts on the health and function of the urban forest, rather than a tree by tree evaluation. In specific overlay zone and plan districts a Programmatic Tree Permit will be issued only for activities that are exempt from the relevant Zoning Code regulations, such as removal of nuisance and non- nuisance trees and plants. Removal of native vegetation will still be subject to the regulations of Title 33. Moreover, the permit will not allow removal of healthy non- nuisance species that are more than 6 inches in diameter. This limitation reflects specific direction from the Urban Forestry Commission during the public hearing process.

The City Forester will send notice of pending applications to recognized organizations in the areas covered by the permit. These organizations may submit comments, and request notification of the final decision. Applicants may appeal the Forester's decision

on Programmatic Tree Permits to the Urban Forestry Appeals Board. The Appeals Board may elect to refer the matter to the full Urban Forestry Commission. Programmatic permits will be processed within 90 days of a complete application submittal, and will establish pre-programmed mitigation, tracking, reporting requirements. The permit will also require a program for public notification and outreach where appropriate.

### **Trees in Development Situations (Chapter 11.50)**

The contents of this chapter are:

**11.50.010 Purpose**

**11.50.020 Where These Regulations Apply**

**11.50.030 When a Tree Plan is Required**

**11.50.040 Development Impact Area Option for Large Sites and Streets**

**11.50.050 Tree Preservation Standards**

**11.50.060 Tree Density Standards**

**11.50.070 Tree Plan Submittal Requirements**

**11.50.080 Changes to Approved Tree Plans**

The Trees in Development Situations chapter addresses the tree removal, protection, and planting requirements in the context of the development permit application. The primary intent of this chapter is to encourage development, where practicable, to incorporate existing trees, particularly large healthy trees and tree groves, and to help meet City urban forestry goals through a mix of tree preservation and planting during development. This chapter is also intended to improve the quality of tree protection during development, including protecting trees on property lines and nearby on adjacent properties. Currently, the City requires no protection for these trees which can result in tree damage and future hazards, the costs of which are subsequently passed on to buyers who are often unaware that the tree's health was compromised.

The existing regulatory system is inconsistent and inequitable in terms of addressing trees in development situations. For example, the City has no specific policies or protocols for addressing trees in conjunction with City capital projects and public works projects. For development projects requiring a development permit (after land use review approval or when no land use review is required), only new single family residences are required to meet tree-specific standards. Commercial, industrial, and multi-family development projects are not subject to tree-specific requirements unless the property is subject to a preservation requirement resulting from a land division, or is located within a resource overlay zone or within certain plan districts.

This chapter will establish tree preservation and tree density requirements for all new development, including private development, capital improvement, and public works

projects. The requirements will also apply to alterations to existing developments that trigger non-conforming upgrade requirements, and to proposed demolitions.

The purpose statement of this chapter reiterates the objectives for trees in development situations, namely: to retain where practicable existing high quality and larger trees and



*Tree on property line during construction*

tree groves, lessen the impact of tree removal through appropriate mitigation, and ensure sufficient capacity for tree canopy is provided either on the development site or elsewhere within the same watershed.

The provisions in this Chapter are intended to address trees more uniformly during development, and have been carefully designed to avoid unreasonably increasing development costs or permitting costs and timelines.

Proposed standards are designed to recognize constraints associated with developing smaller sites, and the needs and characteristics of different land use and development types. The standards in this chapter are intended to encourage tree preservation while providing project applicants with flexibility to address project- and site-specific circumstances. The standards are also intended to complement the new flexible development standards in Title 33 Planning and Zoning (discussed later in this report). In addition, the provisions of this chapter are intended to provide more specificity and certainty for applicants who want to use non-standard approaches to protect trees during construction.

Some incremental cost to both public projects and private developers is anticipated from associated requirements to identify, design around, and protect trees on development sites. However the cost impacts are expected to be relatively minor, and are ameliorated in part by the variety of options available to meet requirements. For example the tree density standards may be met through a combination of preserving trees, planting new trees, or paying a fee in lieu of planting. Arborist consultation is not required for most development permits unless the developer chooses to employ root protection methods that vary from the standard approach specified in the code. Tree identification (when not part of a land use review) has been simplified so that hiring of professionals, such as surveyors or arborists, while still recommended, is not required as part of the permit submittal.



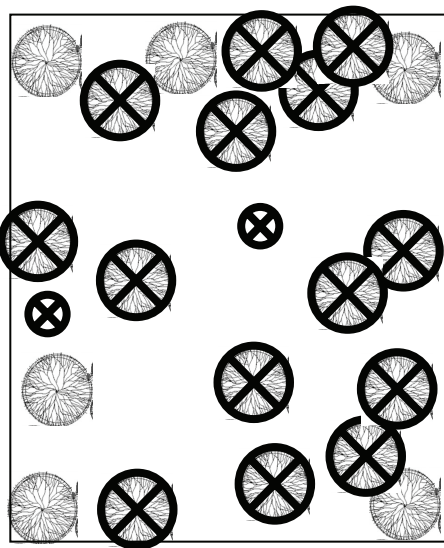
### Tree Preservation Standards

This chapter contains new tree preservation standards that will apply to most development projects. Sites that are 3,000 square feet or smaller, or sites where the existing or proposed building coverage is 90 percent or greater, will be exempt from the tree preservation standards. These exemptions were added during the Planning Commission/Urban Forestry Commission hearing process. They are intended recognize the difficulty in retaining trees in these development situations and establish a balance in meeting City goals for the urban forest and future development.

The tree preservation standards call for preservation of 35 percent of the on-site trees that are 12 or more inches in diameter. If the standards are not met, applicants will need to mitigate for trees removed in excess of the allowance. The proposal calls for mitigation through payment of a fee to the City Tree Preservation and Planting Fund. The mitigation payment for each tree removed in excess of the standard allowance will be equivalent to the cost of planting and establishing two trees off-site. Planting additional trees on-site will not be allowed to serve as mitigation for not meeting the tree preservation standards. This is because the tree density requirements are intended to fulfill the tree planting objectives for the site, and additional tree planting would result in overplanting and subsequent overcrowding of trees on the site.

An additional incentive is offered to encourage preservation of certain slow growing native tree species. Native trees between 6 and 12 inches, if preserved, may substitute for one of the larger trees in meeting the tree preservation standards.

#### SITE PLAN EXAMPLE – TREE PRESERVATION STANDARDS



Number of  $\geq 12''$  trees on site: 20

Retain 35% of 20 trees = 7 trees

Proposing to retain 6 trees.

Mitigation payment required - \$ to plant 2 trees for each tree removed in excess of the standard.

By using Native Tree Incentive:

Retain 6 to 12" native trees in lieu of  $\geq 12''$  trees

Number of 6-12" native trees retained: 1

No mitigation payment required.

### Tree Density Standards

This chapter also contains proposed new “tree density standards” to help sustain the capacity of the urban forest. The tree density standards apply to site trees and street trees, and would require that a combination of small, medium, or large growing trees be planted at the time of development.

The proposed tree density standards are designed to correlate with the tree canopy targets in the Urban Forestry Management Plan. The standards establish the required number of trees per “tree area”. This is similar to the existing T1 standards that apply to new single family development. The T1 standards are being moved from Title 33 and incorporated into the Tree Density Standards in Title 11.

The tree density standards will vary by land use to recognize and accommodate different development types and lot coverage allowances. The tree area is determined as a function of site size minus building coverage or a set percentage of the site which varies by development type.

Trees that are retained, including those retained to meet the new tree preservation standards, are credited toward tree density on an escalating scale based on the diameter size of the existing tree.

Trees planted to meet site landscaping or on-site stormwater requirements can also be counted toward meeting the tree density standards. This chapter authorizes fees in-lieu of planting and street tree planting waivers for situations where it is infeasible to meet the density standards on the site or adjacent street frontage.



### Tree Plans

The provisions of this chapter would require project applicants to submit a “Tree Plan” with their development proposals to demonstrate that the proposed new tree preservation and density standards are met. The Tree Plan will identify trees to be retained, removed and planted. Any trees retained must be sufficiently protected during construction. Tree plans must be consistent with any conditions of previous land use approvals including preservation and planting requirements, however any trees preserved or planted per such conditions may be used to satisfy the tree preservation and tree density requirements of Title 11. For large sites, or for projects that are limited to a street right of way, applicants may opt to define a development impact area. No work activities or site disturbance may occur outside the development impact area. The development impact area limits the scope of the tree preservation and tree density review.

### Capital Improvement and Public Works Projects

This proposal includes recommendations to address trees more systematically in conjunction with City capital improvement and public works projects. The goal is to establish standardized processes while providing sufficient flexibility to address changes during construction. Recommendations include early and periodic consultation with Urban Forestry during project design to identify trees in the project impact area and other potentially affected trees, and opportunities for preservation. Changes to tree plans during the project which result in the removal of additional trees would require the approval of the City Forester. For most projects, when the City Forester allows removal of trees 6 or more inches in diameter each tree must be replaced by a tree in addition to any trees required to be planted to meet the tree density requirements.

For street improvement projects where the existing street is partially or completely unimproved, the replacement requirements are lessened to acknowledge constraints of designing within restricted width rights of way, that these areas may include large numbers of trees, the relative lack of available planting spaces after a street improvement is completed, and the potential cost of mitigation on top of the public improvement cost. In these cases, replacement is only required for trees 12 inches and larger, and trees planted to meet Street Tree density can be used toward the replacement requirement.

Street Tree density is expressed in terms of a required number of trees per linear street frontage distance. Providing these standards up front will



*Unimproved street, SE Ramona*

help ensure that design engineers consider trees along with all the other infrastructure improvements that must fit in a planter strip. The City Forester may accept a payment in lieu or grant a waiver or partial waiver when impractical to meet the Street Tree density standard, similar to waivers that other public works bureaus must grant when their standards are not being met. For larger capital projects, the City Forester will be consulted early in the design phase to identify potential conflicts with desired tree preservation, and develop specifications for overall street tree planting. The Forester may bring significant public projects to the Urban Forestry Commission for additional input.

It is acknowledged that additional attention to tree preservation and protection may increase initial public project costs in some cases. But as noted previously, the benefits afforded by large established healthy trees can provide far greater returns than a short term cost savings. Like for private development, the costs of complying with these requirements are not intended to be overly burdensome. Options for meeting the requirements are offered, and the standards include considerations of “practicality.” Mitigation planting for removal of established street trees would be allowed at the project site or off-site if meeting requirements on-site is infeasible.

### Performance Guarantees

This chapter authorizes the City to collect performance guarantees where appropriate. For example the City might require a performance guarantee when a project applicant is unable to install required tree plantings prior to final project inspection, or in conjunction with approving alternative root protection methods. While the City is already authorized to collect performance guarantees updated provisions are included to establish the basis of the amount of guarantee and to guide the collection and reimbursement procedures.

### Technical Specifications (Chapter 11.60)

The contents of this chapter are:

- 11.60.010 Where These Regulations Apply**
- 11.60.020 Tree Planting Specifications**
- 11.60.030 Tree Protection Specifications**
- 11.60.040 Tree Pruning Specifications**
- 11.60.050 Tree Removal Specifications**
- 11.60.060 Tree Maintenance Specifications**

This chapter includes the requirements for planting, protection, pruning, removal and on going maintenance of trees. These specifications are consolidated into a single



chapter, as they relate to tree activities in development situations and absent development. The ongoing maintenance specifications apply to all trees in the city regardless of whether the tree is otherwise regulated by permits.

### Tree Planting

This section includes general tree planting requirements such as minimum planting size and species diversity, how to determine small, medium or large canopy size categories for trees, and basic installation requirements. In addition, this section includes the prohibition of planting nuisance species trees when tree planting is required by the title, the requirement to plant native tree species in specific environmentally sensitive or scenic resource areas, and specific locations where tree planting is prohibited to prevent conflicts with structures or designated view points. This section also notes that any trees planted to meet the requirements of the title must be maintained and replaced if they die.



*Tree protection fencing*

### Tree Protection

Existing tree protection provisions have been moved from Title 33 Planning and Zoning, to this chapter of Title 11, Trees. The regulations associated with the “prescriptive path” for protecting the critical root zone during site preparation and project construction is largely unchanged from the current regulations, with one notable exception.

Provisions have been added to allow minor encroachments into the root protection zone area. These numerical requirements do not necessitate that an arborist justify the encroachment. This change addresses concerns raised by the development community regarding the inflexibility of the current requirements. The provisions reflect consideration of other jurisdictions with tree protection requirements and input from the City’s Urban Forestry Staff.

Additional provisions are proposed are added to the “performance path” (formerly “alternative tree preservation plan”) option for meeting tree protection requirements. They are intended to improve the quality of alternate root protection approaches when the prescriptive path is not feasible. The provisions will also provide applicants with additional guidance and clarity in meeting City requirements.



### Tree Pruning and Removal

These sections restate that proper arboricultural practices must be followed when pruning or removing trees, as detailed in the best management practices published by the International Society of Arboriculture. Tree removal specifications are intended to protect the public safety by requiring that once tree removal begins, the tree must be completely removed unless the tree will be maintained as a wildlife snag. This section also clarifies the City Forester's authority to require stump grinding for City or Street trees. In some cases, disposal of the wood is required to prevent spreading of infectious disease (e.g. Dutch Elm disease) or may be left to remain as a food and nutrient source in certain environmentally sensitive areas.

### Tree Maintenance and Responsibilities

This section lays out the requirements that apply to all trees in the City, including dead, dying and dangerous trees, trees with Dutch Elm Disease, branch clearances above streets and sidewalks, maintaining clear visibility of street signs and traffic lights, keeping sidewalks and curbs in good repair, and removing root obstructions from public sewer, water, or stormdrain systems. This chapter incorporates and adapts direction from City Council Ordinance No. 159750 that was adopted under the emergency powers of Council in response to the emergence of Dutch Elm Disease in the City. The Ordinance includes property owner responsibilities, authority and powers for the Parks Superintendent and City Forester to declare and abate nuisances, as well as notification procedures when abatement is necessary. The ordinance remains in effect today, but had never previously been incorporated into the City's code.

### Enforcement (Chapter 11.700)

The contents of this chapter are:

- 11.70.010 Purpose**
- 11.70.020 Where These Regulations Apply**
- 11.70.030 Violations**
- 11.70.040 Enforcement Authority**
- 11.70.050 Prohibited Actions**
- 11.70.060 Inspections and Evidence**
- 11.70.070 Notice and Order**
- 11.70.080 Correcting Violations of this Title**
- 11.70.090 Enforcement Actions**
- 11.70.100 Nuisance Abatement**
- 11.70.110 Summary Abatement**

### **11.70.120 Administrative Review**

### **11.70.130 Appeals to the Code Hearings Officer**

### **11.70.140 Further Appeals**

### **11.70.150 Waivers**

This chapter is intended to establish a clear enforcement system which both deters and ensures a prompt and efficient response to situations that are prohibited or that must be abated. If a violation occurs, the provisions are designed to attain prompt resolution and



*Tree topping*

remediation. Penalties are intended to serve as a deterrent, and to impose appropriate consequences for violations. The penalties are designed to escalate based on the severity or repeated nature of the violation.

This chapter distinguishes between violations of Title 11 and Title 33. Modeled after Section 10.50.010 in the Erosion Control Title, this Chapter establishes the basic form and authority for inspecting complaints and verifying compliance with terms of tree permits and development approvals. Under this proposal, all illegal tree removals would be processed as a violation of Title 11 unless the tree removal takes place in an environmental or other specified overlay zone, or if the tree is to be preserved and protected pursuant to a prior land use

approval. In those specific instances violations would be processed per the provisions of Title 33 so that relevant land use related factors are considered and due process is provided.

This chapter also assigns enforcement responsibility and establishes procedures for addressing violations of the Title. The City Forester or Director of Development Services is assigned responsibility to address specific violations. In cases where there are multiple violations, a coordinated approach is encouraged to avoid duplication of effort and possible conflicting orders. Since procedures and remedies are designed to be similar across the situations, the City Forester or Director may cede to the other for resolving the violation.

## **General Terms (Chapter 11.800)**

The contents of this chapter are:

### **11.80.010 Defining Words**

### **11.80.020 Definitions and Measurements**

In general this chapter compiles a number of existing definitions from Title 20, adding some new terms, clarifying others and updates other references. In addition, more illustrations have been provided to clarify measurement methods. Some key examples of the refined definitions include:

**Development Impact Area** – the development impact area is a term useful for large sites where the extent of the development is not expected to affect the entire site. By defining a development impact area, applicants are able to reduce time and cost expenditures in preparation of plans and determining specific protections for trees well outside the area of impact. The Development Impact Area is also helpful in applying the tree density standards on large sites (over an acre) when development is only occurring on one section of the property. For example a large institutional campus that is adding a small wing would not be expected to meet tree density for their entire campus if they defined and limited the development impact to one area.

**Injury** – This term was not previously defined, but is important for establishing when a violation has occurred. Often, activities that are harmful to trees will occur on a development site, but there is disagreement as to whether a violation has been committed since the tree was not physically removed. Injuries may also occur absent development. Without a clearer definition of tree injury, a potential loophole is created whereby one could injure a tree and kill it, and then simply apply to remove the dead tree later. Note that excessive pruning and topping are both considered injurious actions, and topping is included as “removing” the tree, for the purposes of establishing remedies or penalties.

**Proper Arboricultural Practices** – in contrast to the “injury” definition, this provides greater certainty as to what constitutes acceptable pruning, root cutting or removal practices, by referencing tree care industry accepted practices. The reference to ANSI standards allows the definition to adapt to changing best management arboricultural practice.

**Tree Related Terms** – there are a number of distinctions between how trees are addressed in title 11 based on their classification. Each tree type is specifically defined including City Tree (formerly “public trees”), Dangerous Tree (which now includes a description of what constitutes a dangerous tree), Dead Tree (which includes a more specific description of when “dying” trees may be considered “dead”), Diseased Tree, Grove, Heritage Tree (which is now defined to include Historic Landmark Trees and Historic Trees), Non-native Non-nuisance Tree (is a new term to capture trees that are neither native nor nuisance species trees), Private Tree, and finally Street Tree (which includes a method for distinguishing a

street tree on partially improved roads, where a formal planting strip does not exist). Clarity was also added to address trees that straddle property lines and/or public rights of way, ending a long debate about what set of rules applied to these boundary trees.

**Watershed** – Portland’s watersheds are already geographically defined, however, since the Tree Preservation and Planting Fund requires trees to be replaced within the same watershed, additional clarification and reference was deemed appropriate. Notably, the Fanno Creek and Tryon Creek watersheds represent a small area of the city, and in practice, they are managed as a single unit. Therefore the definition groups these two areas together. Also, there are two portions of the City that are not within one of the five established watersheds: Northwest Portland, on the west side of the west hills, and East Hayden Island. To eliminate confusion when funds are collected from these areas they have been assigned to the Willamette River and Columbia Slough watersheds, respectively.



### Updating Title 33, Planning and Zoning

As stated in the previous section, Title 11, Trees is intended to provide a comprehensive regulatory framework that addresses a broad array of public and private development and non-development situations. The Citywide Tree Project also proposes substantial updates to Title 33, Planning and Zoning, referred to here as the Zoning Code.

Proposed updates to the Zoning Code are intended to better recognize the benefits provided by trees across the city, and to achieve more effective, consistent tree preservation and replacement in the context of land divisions and other specified land use reviews, and in environmentally sensitive resource areas and specific areas or “plan districts”.

Proposed modifications to the Zoning Code are designed to be consistent with, complement, and reinforce the requirements of Title 11, Trees (and vice versa). The proposal is intended to recognize the different needs and constraints associated with developing smaller lots and with certain types of land uses. The proposal would also simplify and streamline certain procedures.

**Proposed updates to the Zoning Code are presented below under the following headings:**

- Recognizing the role and benefits of trees
- Creating flexible development standards to encourage tree preservation
- Trees and landscaping
- Plan districts and overlay zones
- Land divisions and other land use reviews
- Tree reviews
- Definitions

#### **Recognizing the role and benefits of trees**

The Citywide Tree Project will add language to several sections of the Zoning Code to more explicitly recognize the role of trees in achieving the purpose of a base zone or landscaping requirements.

For example the purpose section of Chapter 33.100 incorporates new language recognizing the importance of protecting and enhancing the values and functions of the urban forest in Open Space zones. In Chapters 33.120, 33.130 and 33.140, language is added to recognize the value of landscaping in Multi-dwelling, Commercial, Employment and Industrial Zones, to cool air temperatures, intercept rainfall, and provide food and habitat.



### Creating flexible development standards to encourage tree preservation

The Zoning Code establishes numerous standards to help ensure that development supports the overall land use goals of the city (e.g., density) and is safe, accessible, efficiently designed, aesthetically pleasing, environmentally sound, and compatible with adjacent uses. Examples include setbacks from property lines, height limits, outdoor area requirements, pedestrian access requirements, parking requirements, landscaping requirements, etc.

Developers have noted that it is difficult to meet the development standards and retain trees, especially on smaller lots, or due to the location of the tree or the root protection zone. Currently, an Adjustment review is required to modify development standards. This process generally takes at least 8 weeks, so it is often quicker and cheaper to remove mature trees and plant new trees to meet tree and landscaping standards.

The project team developed an initial list of potential flexible development standards to discuss with the Stakeholder Discussion Group and City staff. There was general support for incentives to encourage tree preservation, but neighborhood representatives were concerned about loosening property line setbacks and height restrictions without an opportunity for public review and comment through the land use review process. There was also concern about potential impacts on urban form and design.

Recognizing these concerns, the project proposal includes a more limited selection of flexible standards to encourage preservation of trees that are at least 12 inches in diameter. These standards would provide additional flexibility without requiring an Adjustment review, and are intended to avoid adversely affecting adjacent uses, neighborhood livability, or city land use goals. In general, the flexible standards address elements not directly tied to urban form, instead leaving these decisions to a broader discretionary land use review process. Recommended flexible standards include:

- Outdoor Area Requirements in Single-dwelling Zones
- Pedestrian Standards in Multi-Dwelling, Commercial, Employment and Industrial Zones
- Minimum Parking Requirements
- Minimum density in Multi-Dwelling Zones
- Amenity Bonuses in Multi-Dwelling Zones

The proposed flexible development standards are described below.

### Outdoor Area Requirements in Single-Dwelling Zones – see Chapter 33.110

This exception will allow more flexibility in deciding where to locate a new house on a lot when needed to preserve trees. Under current standards, required outdoor area in residential zones cannot be located in the required front setback. If an existing tree is located in the front yard, preservation of the tree would likely require that the house be located further back from the front property line to accommodate the root protection zone.



*Tree in front yard*

By setting the house further back from the street, the area behind the house may not be large enough to meet the outdoor area standard. An exception to this standard will allow part of the required outdoor area to be located in the minimum front setback, if doing so would allow preservation of one or more trees that are at least 12 inches in diameter. The exception will allow the outdoor area to encroach into one-half of the front setback. Since the largest front setback is 20 feet and the smallest is 10 feet, the range of allowed encroachment would be 5- 10 feet.

### Pedestrian Standards in Multi-Dwelling, Commercial, Employment and Industrial Zones - see Chapters 33.120, 33.130 and 33.140

The Pedestrian Standards in the Zoning Code require pedestrian access to be provided from the public sidewalk to the front entry of buildings on the site. The pedestrian connection must be a straight line connection and may not be more than 20 feet longer or 120 percent of the straight line distance. Trees along this trajectory may need to be removed to meet this standard. The exception will allow additional flexibility to meander the required path around trees and their root protection zones. The pathway will be allowed to meander up to 200 percent of the straight line distance to avoid trees that are at least 12 inches in diameter and their root protection zones.



*Path curving around tree*

## Parking Requirements – see Chapter 33.266

Preservation of trees, particularly larger trees, requires space on a development site to provide an adequate root protection zone. This flexible standard allows a modest reduction in parking spaces on sites where preservation of trees at least 12 inches in diameter is proposed. This is intended to provide relief from competing standards and encourage tree preservation. Under the proposal, applicants would have the option to reduce the minimum number of parking spaces for each tree preserved. The reduction is “capped” at 2 spaces or 10% of the required spaces, whichever is more. In addition, at least 4 spaces must still be provided in order to use the exception. This is intended to ensure that a minimum amount of parking will continue to be provided on small sites.

Number of Parking Spaces Required	Maximum Parking Space Reduction
0-4	0
5	1
6-20	2
20+	10% of Total

## Minimum Density in Multi-Dwelling Zones – see Chapter 33.120

Current land division regulations in Chapter 33.630 allow minimum density to be reduced when the reduction will result in the preservation of trees within a tract. The maximum allowed reduction is 3 lots for proposals that create more than 20 lots. This allowance is infrequently used. There is currently no provision to reduce minimum density to facilitate tree preservation outside of the land division process.

This flexible standard is intended to provide additional flexibility for applicants that want to preserve trees within multi-dwelling zones when no land division is proposed (i.e., a multi-dwelling development is proposed on a single lot). This provision will allow a maximum reduction of 20 percent of the required minimum density (or 1 dwelling unit for smaller projects), up to 4 dwelling units. A tree that is 12 inches or more in diameter must be preserved for each dwelling unit reduction. A requirement for a covenant with the City is included to ensure trees preserved under this provision are retained for at least 10 years, consistent with the proposed duration of tree preservation plans that are approved as part of a land division or specified land use review.

Proposed density reduction allowances are shown in the table below.

Minimum Density Required	Maximum Dwelling Unit Reduction
7 or less	1
8-12	2
13-17	3
18+	4

Minimum density reductions in single-dwelling zones would continue to be allowed through the land division process, where a similar density reduction provision is proposed. See the discussion of proposed changes to land division reviews (Chapter 33.630) below for more details.

### Amenity Bonuses in Multi-Dwelling Zones – see Chapter 33.120

Currently the City awards special amenity bonuses for increased density to improve the livability of multi-dwelling developments for their residents and to promote family oriented multi-dwelling developments. The amenity bonuses are designed to allow up to 50% additional dwelling units in a manner that is consistent with the purposes of the multi-dwelling zones. Projects requiring any adjustments to the development standards are not eligible to use the amenity bonus provisions.



*Multifamily development and trees*

The bonuses are applicable to a range of development sizes. However, they tend to be more workable for larger projects. The amenity bonus options are designed to provide incentives, while leaving the specific choices to the developer. Some options involve providing additional features, such as children's play areas. Others require improved materials, such as additional sound insulation. A new amenity bonus option will provide an incentive for preserving more trees than are required to be preserved. An applicant will qualify for an amenity bonus of 5 percent of the allowable density for each on-site tree at least 12 inches in diameter that is preserved above the requirement. The current requirement to provide a covenant to retain amenities would apply to trees preserved under this provision.

### Trees and Landscaping

Chapter 33.248 of the Zoning Code provides guidelines for City-required landscaping and screening. Under this proposal, the landscaping and screening requirements would

be generally unchanged. Additional language is proposed to let applicants know that trees preserved or planted to meet these standards may also be used to meet the tree preservation and/or tree density requirements of Title 11.

The T1, tree standard, which currently applies only to new single family residential development, is being replaced by similar but more comprehensive Tree Density standards in Title 11. The Tree Density standard varies by development type and is applied to a broader range of development types.

The minimum tree size requirements at the time of planting are modified to be consistent for all development types and zones. The result is a reduction in the size of tree at planting in non-residential zones, from 2 inches to 1.5 inches in diameter. This will help simplify preparation and review of landscaping plans. In addition, trees that are smaller at the time of planting have a better survival rate than larger trees.

The provisions of this chapter are updated to clarify that tree topping is considered “tree removal” and is subject to enforcement provisions for violation of Title 33 and Title 11. Several other provisions relating to the Tree Fund, and tree preservation and protection requirements have been refined and incorporated into Title 11 and are proposed to be deleted from this chapter. Cross-references are added for clarity.

Chapter 33.258, Non-Conforming Situations, is amended to add Title 11 Tree Density standards to the list of landscaping related requirements to be met as part of non-conforming upgrades.

### Plan Districts and Overlay Zones

A number of Title 33 updates are proposed in order to address code gaps and ambiguities (situations where trees are not addressed), and improve consistency in how trees are addressed in the different overlay zones (i.e., environmental, greenway, Pleasant Valley Natural Resources, scenic), and plan districts (Cascade Station, Johnson Creek, Rocky Butte, Columbia South Shore, South Auditorium). Amendments are included throughout these chapters to clarify how the Zoning Code requirements relate to Title 11 tree permit requirements when no development is proposed. Generally the proposed tree removal must be exempt or otherwise allowed under the Zoning Code requirements in order to be eligible for a Title 11 permit.

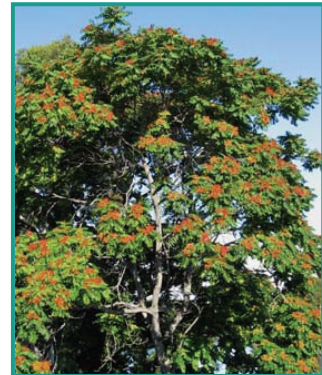
**33.430 Environmental Overlay Zone** – Amendments to the existing environmental overlay zone (designated on the zoning map by “c” for environmental conservation overlay zone, or “p” for environmental protection overlay zone) regulations include:



**References to Title 11, Trees** – The proposal would add new references to Title 11, Trees, where environmental zone provisions relate to tree removal or pruning and no development is proposed. These references would let applicants know that certain tree related activities are subject to Title 11 rather than the provisions of the environmental zone chapter. The proposal retains existing exemptions for removal of dead, dying and dangerous trees, and non-native trees, and provides new exemptions for removing trees located within 10 feet of an existing building, trees within designated scenic view corridors that exceed height limits, and pruning native trees subject to a Title 11 pruning permit. These tree activities will now be subject to the tree permit requirements of Title 11. This will create more consistent, equitable procedures for tree removal and replacement inside and outside the environmental zone.

**Development Standards** – The proposal closes a current gap in City code. Currently tree removal is not addressed in the transition zone, which is the first 25 feet inward from the boundary of the environmental zone. This gap is inconsistent with the purpose of the transition zone, which is to buffer development and disturbance related impacts on the resource area of the overlay zone. The proposal applies tree removal and replacement standards within the transition zone.

The proposal adds regulations for “non-native non- nuisance” trees throughout the chapter. Currently the e-zone is silent on these trees, only addressing native and nuisance trees. The environmental zones are structured around maintaining and planting native vegetation. However, non-native non- nuisance trees located in environmental zones provide many benefits associated with tree cover. The proposal continues to allow removal of these trees, but requires replacement according to the current tree replacement table in order to replace the lost tree functions. Replacement of nuisance trees removed is required at a tree-for-tree ratio. Replacement vegetation must be native.



**Planting standards** - The proposal seeks to standardize requirements for the size of trees and plants at the time of planting. Currently, the environmental zone includes different size requirements depending on the section of the chapter. The amendments make all tree size standards one-half inch and shrubs one gallon at the time of planting. This is a reduction in size for some cases. This recognizes that smaller size native trees and shrubs are more commercially available and are

more likely to establish with less watering and attentive care than larger trees and plants. It will also help reduce costs for the applicant. Several sections are also amended to refer to the tree replacement table and planting standards in the general development standards, which address the size and diversity of plants, instead of restating replacement and planting standards in multiple sections. This will help simplify plan checks because a single standard will apply.

### 33.440 Greenway Overlay Zone

Currently, tree removal in the Greenway overlay zones requires Greenway Review, except for the removal of nuisance trees, and tree removal associated with allowed development. The proposal would amend this chapter to improve the consistency and equitability of the City's tree regulations. In general, when no development is proposed, tree removal landward of the greenway setback or outside the greenway natural or greenway water quality zones would be subject to the same requirements as those applied to tree removal outside the greenway overlay zones through Title 11, Trees.



*Kayaks on Holgate Channel.  
Source: M. Houck*

Within and riverward of the greenway setback and within the entire greenway natural or water quality overlay zone, removal of trees, with the exception of nuisance trees, would continue to require greenway review. When no development is proposed, allowed tree removal would be subject to the requirements of Title 11.

### 33.465 Pleasant Valley Natural Resources Overlay Zone

The Pleasant Valley Natural Resources Overlay (designated as "v") functions in a similar fashion as the environmental overlay zones, but includes some appreciable differences. For one, there is no transition area in the "v" overlay, so the tree removal related gaps that exist in the environmental zone transition areas do not exist. Generally there are also more restrictions on activities in the "v" overlay and a more limited list of projects that can utilize development standards instead of requiring a resource review.

The amendments to this chapter are intended to be parallel with changes in the environmental overlay zone chapter, including referencing Title 11 requirements for tree removal when no development is proposed, making the requirements that apply to

native, non-native non-nuisance, and nuisance trees more explicit, and establishing a consistent standard for the size of vegetation at the time of planting.

### **33. 508 Cascade Station/ Portland International Center Plan District and 33.518 Columbia South Shore Plan District**

These plan districts contain specific provisions relating to environmental zones located within the district. They are different from the general environmental overlay zones in that they currently regulate the removal of all vegetation, only exempting the removal of nuisance trees and plants and trees that pose an immediate danger. Given that both native and non-native non-nuisance trees are already regulated by these chapters, no amendments are needed to specifically address removal and replacement of non-native non-nuisance trees.

The amendments to these chapters are relatively limited. An exemption is added for tree removal within 10 feet of an existing building and references are added to the Title 11 tree removal requirements that apply to removal of trees that are exempt from the requirements of these chapters. Minor amendments will also make tree size descriptions consistent throughout the Zoning Code and Title 11.



*Trees and Portland skyline*

### **33.480 Scenic Overlay Zone, 33.537 Johnson Creek Basin Plan District, and 33.570 Rocky Butte Plan District**

The scenic overlay zone and the Johnson Creek Basin and Rocky Butte Plan Districts contain similar requirements that restrict tree removal except for specific situations that are specified in the standards. Proposed amendments to these chapters are intended to provide greater consistency between these chapters, to provide consistent tree size

threshold descriptions, to allow removal of nuisance trees and to address common tree conflicts that arise during development.

Proposed changes provide more allowances to remove trees for reasons that commonly arise in the development context, such as installation of a driveway and utilities. There is also an allowance added to remove trees within 10 feet of an existing building and structures attached to existing buildings (such as decks and stairs), consistent with other sections of the Zoning Code and Title 11. A consistent allowance for tree removal within 10 feet of driveways or right-of-way improvements is added to provide a reasonable disturbance area for features which often trigger a land use review. The allowance for utilities is expanded to allow repair, maintenance and installation of utilities outside of easements. This is needed to provide for individual service lines to lots, which are typically not located in an easement. In order to limit the potential impact on trees, installation of new utilities under this provision is restricted to a single 10-foot wide corridor in which tree removal is allowed.

In the scenic overlay zone there is currently an allowance to remove and replace trees less than 12 inches in diameter, for any reason. To provide additional flexibility and reduce the number of land use reviews triggered, this allowance is being added to the Johnson Creek and Rocky plan districts.

### **33.580 South Auditorium Plan District**

The South Auditorium Plan District presently requires a design review to remove any tree in the district, including dying and dead trees. The proposed amendments create an exemption for removal of dead, dying and dangerous trees to allow removal and replacement without design review. Under the proposed regulations, these trees would be subject to a Title 11 removal permit.

A 6-inch diameter threshold for review is added to be consistent with tree regulations in other plan district areas. The approval criteria are expanded to allow tree removal in situations where trees are impacted by development and to require that the proposal be consistent with the purpose of the plan district, which describes the importance of landscaping, open areas and trees.

Lastly, the requirement to replace trees in accordance to with the adopted landscaping plan is expanded to allow replacement in a location determined appropriate by the design review. For exempt tree removals, the tree must be replaced in the general location it is removed or per the plan.



### Land Divisions and other Land Use Reviews

The Citywide Tree Project will update Zoning Code chapters relating to land divisions and specified other land use reviews to address trees more thoroughly and systematically. The proposed updates are intended to encourage project applicants to integrate trees into development at early stages of project conceptualization and design. In addition, these updates will ensure that Title 33 regulations are consistent with and reinforce the requirements of the new Title 11, Trees.

The proposal includes applying tree related requirements in more types of land use review situations. The proposal is not, however, intended to create additional steps in the review process. The proposal is intended to address trees earlier and more effectively through existing land use review procedures. An overview of the proposal for land divisions and other land use reviews is presented below.



*Platted lot lines*

### Land Divisions

The City's land division code underwent a major rewrite from 1994 to 2002. Trees were of major interest during the land division rewrite and the City established its first tree preservation standards through that process. In 2007, the Bureau of Development Services conducted a Land Division Monitoring Report which identified trees as one of several priority issues. Additionally, the Citywide Tree Project team and Stakeholder Discussion Group identified the following issues and concerns:

- There is a regulatory disconnect between the 6-inch regulatory threshold in the land division code and the 12-inch threshold in Title 20 code. This allows many trees to be removed legally before a land division application is filed.
- There are no tree preservation requirements for condominium or multi-dwelling projects. Many builders working in multi-dwelling zones may build before the land division, and later subdivide the project after trees have been legally removed under multi-dwelling permits.
- The tree preservation standards require applicants to preserve 35 percent of the existing tree diameter on the site when the application is submitted. Applicants choosing to preserve "Significant Trees" may preserve a lower percentage of the total tree diameter, but most applicants choose to meet the 35 percent requirement. Project stakeholders, including representatives from the development community



and City staff have noted that this quantitative approach to tree preservation is rigid and often results in the preservation of smaller, lower quality trees.

- The tree preservation standards do not encourage consideration of which trees are the best choices for preservation. Some trees may be better located or a more suitable species. The current land division tree preservation requirements are primarily a numerical exercise in which a certain percentage of the existing tree diameter will be saved. Since the applicant has to meet numerical standards and staff has no discretion in review, neither applicant nor staff can factor in site considerations.
- Trees that are dead, diseased, or on the Nuisance Plant List, and trees on property lines are not counted when calculating the existing amount of trees on the site. As a result, the tree preservation requirements undercount the existing trees and functions they provide. Similarly, these trees are not counted for purposes of determining mitigation required when the preservation standards are not met.
- Although trees to be preserved are subject to protection requirements (e.g., fencing the root protection zone), no protection is required for nearby trees on adjacent properties, which can result in tree damage or failure.
- In some situations, trees to be preserved are required to be placed in a tract, which may discourage use of those provisions because it is impractical given the location of trees or is not favored by applicants because it would result in smaller lots.
- Developers expressed concern that modifying an approved tree preservation plan, especially minor modifications can be overly burdensome and costly.
- Tree preservation plans can be overlooked during clearing and grading.
- Project stakeholders expressed concern that new property owners often do not know that their property is subject to tree preservation plan requirements, and may inadvertently violate the tree preservation plan.
- Arborists noted that often they are not consulted once the tree preservation and protection plan is approved, and that City inspections are not structured or timed to prevent harm to trees during construction.
- City staff noted that tree preservation plans currently last “in perpetuity,” making them difficult to track and enforce. In addition, establishing tree plans in perpetuity doesn’t recognize that the urban forest is dynamic, and that trees live, grow, and die.

The Citywide Tree Project proposal would update the land division tree requirements in the following ways:

### 33.630 Trees

**Purpose** - This chapter currently addresses tree preservation within land division sites.

While the provisions of the chapter still focus primarily on tree preservation on the site, the scope is being expanded somewhat to address the preservation and planting of street trees. The title is changed from “Tree Preservation” to “Trees” to reflect this change in scope. Additional benefits of trees are included in the purpose statement for the chapter and the importance of native species is highlighted.

**New Discretionary Approval Criteria** - A major change proposed for this chapter is to establish new discretionary approval criteria relating to tree preservation on land division sites. The criteria would prioritize the preservation of large healthy trees and groves and/or trees that provide the greatest environmental and aesthetic benefits for the site and surrounding area. The criteria would also encourage preserving as many trees as possible, while recognizing that there are valid site and development constraints that can conflict with tree preservation goals.

In some cases, it is not possible to meet the preservation standards due to site constraints (or the lack of good trees for preservation). In such instances, the criteria guide the application of mitigation requirements to replace the functions of trees removed from the site. Mitigation may include preservation of additional smaller or native trees where appropriate, permanent preservation of trees within a tree preservation or environmental resource tract, tree planting, payment into the Tree Fund. Other mitigation may be approved provided it is consistent with the purpose statement of the chapter. Since these criteria call for the consideration of development- and site-specific constraints, as well as mitigation requirements, the current “mitigation option” in this chapter is proposed to be deleted.

**Revised Minimum Tree Preservation Standards** - The proposal would retain minimum tree preservation standards in this chapter to provide applicants, staff, and decision makers with consistent baseline expectations for tree preservation. The existing standards have been revised to more strongly encourage preservation of large trees (20 inch diameter and larger) and tree groves. As such, the standards would complement and bolster the discretionary criteria.

These minimum standards are roughly equivalent to preservation standards that are applied to other development projects, like condominium or multi dwelling developments, removing the incentive to “build first, divide later”.

While the proposal does not attempt to resolve the distinction between 6" trees required to be identified in land use reviews and the 12" trees that are subject to tree removal permits, the "disconnect" described above is reduced since retaining the smaller trees can help applicants meet the Title 11 Tree Density standards that will apply during development of the lots. Retaining smaller trees also offers greater alternatives to meet preservation standards and mitigation requirements when larger trees are not suitable for preservation.

**"Significant Trees" table deleted; replace with simpler 20-inch Trees and Tree Groves**

The "Significant Tree" table in this chapter is proposed to be deleted. The table includes all trees over 20 inches and 18 other native tree species at different sizes, ranging from 2 to 18 inches. This change allows a simpler, more consistent application of tree preservation requirements in development situations and provides more consistency with tree permitting absent development, where native species are not addressed differently based on size.

The proposed new tree preservation criteria are intended to provide an improvement on the Significant Tree table. The criteria favor the preservation of large healthy trees and groves, which are groupings of native trees. The criteria allow site specific conditions to be considered, and would likely encourage retention of trees in the Significant Tree table where such trees exist. In addition, the proposed change will not affect how native trees are regulated in environmental zones, where native trees of all sizes are protected. It has been suggested that the size at which native species provide important benefits be added to the Portland Plant List to serve as a resource for staff and applicants in determining which trees should be prioritized for preservation. A future amendment to The Portland Plant List administrative rule is recommended to incorporate this information.

List of Significant Trees from 33.630	
Common Name	Diameter
Big-leaf Maple	18"
Bitter Cherry	10"
Black Cottonwood	18"
Black Hawthorn	8"
Cascara	6"
Douglas Fir	18"
Garry Oak	4"
Grand Fir	10"
Madrone	4"
Oregon Ash	10"
Pacific Yew	"2
Ponderosa Pine	8"
Red Alder	18"
Scouler Willow	6"
Western Flowering Dogwood	6"
Western Hemlock	10"
Western Red Cedar	10"

As noted above, protection of tree groves, or groupings of native trees, is emphasized in the proposal. Functions of groves can include structural support and wind protection for the trees within the grove, microclimate and shade, and habitat such as nesting, foraging, and cover for birds and other wildlife. Groves can also contribute substantially to the identity and aesthetic value of neighborhoods. Native trees commonly found in groves include Douglas fir, Big Leaf maple, Oregon white oak and Pacific madrone. The land division approval criteria and standards address protection of groves.

**Trees on Property Lines** - Currently trees located on property lines are exempt from land division tree preservation requirements. These “line” trees may be good candidates for preservation because of their location on the perimeter of the site, but cannot be counted toward meeting requirements. This proposal allows trees that are partially on the site to count toward preservation requirements. This will help provide more realistic preservation options and reduce impacts on adjacent properties. Trees that are partially in an existing street right-of-way continue to be exempt due to the higher potential for construction conflicts, limited space to avoid affecting trees, and since the removal of these trees is typically a result of the City’s street improvement requirement.

**Exceptions** - Three new exceptions to the land division tree requirements are proposed.

**Central City Plan District.** The first exempts land divisions in the Central City Plan District from the requirements of 33.630, Trees. The Central City Plan District encourages full build-out of lots and the focus on the form and design of the development has a heightened level of importance. This limits opportunities for tree preservation generally. And, it is more productive to consider tree preservation and planting in the context of the specific development proposal, either during design review if required, or at the time of development permit review. Title 11 tree preservation and planting standards will continue to apply in the Central City Plan District.

**Developed Sites in Non-Residential Zones.** The second exception would allow developed sites in commercial, employment and industrial zones to defer tree preservation review until the time of any future redevelopment. The new Title 11 tree preservation standards would apply at that time. Often when developed sites in these zones are divided, the owners intend to divide the ownership of the site, but no additional development is proposed. The applicant will also have the option to address tree preservation up-front during the land division. This would be beneficial in situations where additional development is proposed because the discretionary land use review process can be used to better customize the tree

preservation plan for the site. In contrast, the Title 11 standards cannot take specific site circumstances into account.

**Concurrent Land Division and Environmental Review Applications.** The third exception would relate to proposed land division sites partially within an environmental overlay zone or Pleasant Valley Natural Resources overlay zone that are undergoing a concurrent land division and environmental review (or Pleasant Valley resource review). These overlay zone regulations encourage development to be clustered outside the resource area of the overlay zone. This often makes meeting tree preservation requirements in the portion of the site that is outside of the overlay zone difficult. The exception would provide some relief by exempting these reviews from the quantitative minimum tree preservation standards of this chapter, which focus on a specific number of trees that must be preserved. These reviews would still be required to meet the discretionary approval criteria, which focus more on preserving the highest quality trees, and as many trees as possible given the site-specific situation. Exempting these reviews from the minimum tree preservation standards, but applying the discretionary criteria, will allow for a more holistic evaluation of tree preservation over the entire site.

**Minimum Density** - In order to facilitate tree preservation in the context of land divisions, some changes are proposed to the existing provision that allows reduction in minimum density to better meet tree preservation requirements. A new provision to allow a minimum density reduction is added to the multi-dwelling base zone that could be used either during building permit review or during the land division review, therefore the provision included in 33.630 applies to land divisions in single-dwelling zones. See the discussion above in the section on Flexible Development Standards for more information on the multi-dwelling zone provision.

The current provision that allows a reduction in density is rarely used; therefore some changes are proposed to encourage use of the provision when it will facilitate tree preservation. A modest increase in the maximum number of lots that can be reduced is proposed (from 3 to 4 lots for larger projects) and the method of calculation is proposed to be changed to allow a more incremental increase in the allowed reduction relative to the required number of lots. The requirement to place trees in a tree preservation tract is eliminated as it currently acts as a disincentive for using this provision. Instead, a restriction on creating lots that can be further divided is added. This restriction will help avoid future conflicts with the trees preserved due to additional development on the site. In some cases, this



restriction may result in the creation of tree preservation tracts to provide better protection for trees and reduce the size of proposed lots.

**Standard for Trees in Existing Rights-of-Way** – A new standard will require that street tree preservation and planting within existing rights-of-way be considered during the preliminary land division review. The standard requires that the City Forester review and preliminarily approve the proposal with regards to retention of existing trees in the right-of-way and providing adequate space for planting required street trees. The City Forester will work with the City Engineer to determine options for tree preservation and planting, considering street improvement requirements.

**Recording Approved Tree Plans with Final Plats** – A requirement to record approved tree preservation plans with the final plat is added to make future property owners aware of the tree-related requirements that apply to the property.

### **33.635 Clearing and Grading and 33.654 Rights of Way**

New approval criteria are added to help identify and address conflicts between trees and proposed clearing and grading activity and the location of new streets. The proposed criterion in the Clearing and Grading chapter would draw attention to need for consistency between the clearing and grading plan and the tree preservation plan. The criterion would specify that the limits of disturbance and tree fencing are sufficient to protect trees to be retained on the tree preservation plan. This criterion will help in identifying any conflicts early in the development process.

In the Rights-of-Way chapter, existing approval criteria have been modified to add the location of tree groves, streams, wetlands, and special flood hazard areas as factors to consider in determining the appropriateness and practicability of requiring through streets or extending dead end streets, and pedestrian connections on land division sites. Since not all of these features are within environmental zones, this modification will ensure that these features are still required to be taken into consideration. A new standard is added that requires street tree planting within new rights-of-way (public and private) to be considered and preliminarily approved during the land division review. The criterion pertaining to utilities would be updated to encourage identification of requirements for private utilities, such as gas, electric, phone and cable, during the preliminary plan review. This will help reduce potential for conflicts with the approved tree preservation plan due to installation of these utilities.

### **33.660 Land Divisions in Open Space and Residential Zones;**

### **33.662 Land Divisions in Commercial, Employment and Industrial Zones**

**Changing Tree Preservation Requirement After Land Use Approval** - Currently procedures required to change an approved tree preservation plan vary based on where the project is in the review process. If the final plat has not been recorded, revisions are processed as a change to the preliminary plan (called a subdivision or partition amendment). If the final plat has been recorded, the change is processed as a tree review. This can lead to significant differences in fees and procedures and processing time for otherwise similar requests. Under this proposal, all requested changes to tree preservation requirements after the original land use approval will be subject to the same tree review process in Chapter 33.853. Situations where changes to the tree preservation requirements affect other components of the preliminary land division approval, such as lot and street configurations, would still need to be processed as an amendment to the preliminary plan.

### **33.730 Submittal Requirements**

The submittal requirements for land divisions are updated to include tree information necessary to meet new requirements and to provide more specific direction on what needs to be addressed in the arborist report. Key additional requirements include:

- Information about street trees, including identification of existing trees in the adjacent right-of-way and a conceptual street tree planting plan.
- Information about trees on adjacent sites, so that possible impacts can be evaluated and avoided where possible.
- More direction about what must be included in the arborist report. An arborist report is currently required; however an itemized list has been added to make the expectations for the report more clear. In addition to evaluating the trees on the development site, the arborist report must address trees within adjacent rights-of-way and on adjacent sites that may be impacted by development on the site. The intent is that potential impacts be identified up front during the land use review, so that adequate protection can be provided where possible.

### **Addressing Trees in Other Types of Land Use Reviews**

The previous section outlines how the City currently addresses trees in the land division process, and proposed updates and improvements to current procedures. In meetings

with the project Stakeholders Discussion Group there was support for addressing tree preservation during other types of land use reviews as well.

Staff explored options for addressing trees in different kinds of land use reviews. The goal was to identify the land use review types that would be most suitable for promoting tree preservation and integrating trees into project design, without unduly effecting the time or cost of review. Staff looked for land use reviews that typically involve:

- Projects with land disturbance that could affect trees, and,
- Evaluation of on-site impacts and effects on adjacent properties and neighborhoods.

Based on this analysis, the proposal includes amendments to ensure that tree preservation is considered along with other relevant factors during certain conditional use reviews and in design reviews. The amendments are located in **Chapters 33.815 Conditional Uses, 33.820 Conditional Use Master Plans and 33.825 Design Reviews.**

Tree preservation has been added to the factors to be considered for conditional use reviews in Open Space and for institutional or other uses in residential zones, including Master Plans. These zones are where neighborhood compatibility and impacts on adjacent uses are generally key elements of the review. Tree preservation has also been added as a factor to consider in reviews for Radio Frequency Transmission Facilities, which apply in all zones. These types of conditional use reviews provide real opportunities to integrate trees into the project design without significantly affecting the time or cost of the review process.

With regard to design review, an amendment is proposed to make it explicit that tree preservation is a factor to consider during design review, where applicable and appropriate given the project and design guidelines. Currently, many design guidelines discuss the importance of maintaining existing trees but the factors that may be considered in design review do not explicitly include tree preservation.

Additional tree information is requested in the submittal requirements for land use reviews to ensure that impacts on trees and potential tree-related conflicts can be identified at the time of land use review. The submittal requirement will require that plans show existing trees and identify trees that will be preserved, including protection methods, and trees to be removed. Proposed vegetation to be planted is a current requirement. The amendment will ensure there is adequate information available to evaluate approval criteria and to do a preliminary review of Title 11 tree preservation

and tree density standards. Early review of the Title 11 standards will help avoid conflicts between the land use approval and Title 11 standards.

### 10-Year Sunset for Existing and Future Tree Preservation Requirements

The current requirement is that a tree preservation plan approved through a land division remains in effect “in perpetuity.” One of the issues raised in the Land Division Monitoring Report was that trees do not live or stay in the same condition forever. They can die naturally, become diseased, or suffer from storm damage. The current code does not offer a clear explanation of how trees required to be retained on tree preservation plans should be handled in the future, if they die or become dangerous.

The proposal addresses this perpetual preservation requirement by specifying that the tree preservation requirements of land use reviews remain in effect for a 10-year period following the land use approval or for land divisions, final plat approval. During the 10-year period, removal of healthy trees will require a Tree Review to modify the approved tree preservation plan. Once the tree preservation requirements for the site expire, any requested tree removal will be subject to Title 11 permit requirements. A provision is also included to clarify that removal of dead, dying, or dangerous trees is allowed at any time subject to Title 11 tree permitting requirements, provided the tree is replaced and there is no evidence of a violation.

The 10-year timeframe is proposed to provide initial certainty that trees will be incorporated into the development and preserved as planned. Stakeholders noted the substantial time and effort spent by applicants, staff and neighbors to develop tree preservation plans and ensure they are adhered to through the development process. This ten-year tree preservation period provides a guaranteed return on the initial effort invested, while recognizing the dynamic nature of trees and allowing a gradual transition of these sites back into a more comprehensive urban forest management approach.

It should be noted that sites within the Multnomah County urban pockets that are subject to City of Portland planning and development review would not include an expiration of these land use conditions. This is due to the fact that sites in the unincorporated county are not subject to the Title 11 tree permit program. Thus there would be no system in place after the land use conditions expire to ensure review and replacement of those trees as needed.

### Tree Review

**Chapter 33.853, Tree Review** is an existing chapter of the Zoning Code. Tree Reviews provide a process to evaluate tree-related requests when standards cannot be met,

evaluate proposed changes to approved tree preservation plans, and correct tree-related violations of land use approvals. The review allows flexibility for unusual situations and also allows for the purpose of the tree regulations to be met using creative or innovative methods. If the tree preservation is required as part of an Environmental Review, Pleasant Valley Resource Review or Greenway Review, changes are subject to the review procedures for the relevant overlay zone chapter.

Proposed amendments to this chapter will improve regulatory consistency by standardizing and clarifying procedures, especially for overlay zones and plan districts. For example, the tree review process is currently applied in the Scenic overlay and the Rocky Butte Plan District, while the Johnson Creek Basin Plan District regulations presently require an adjustment when the tree standards cannot be met. For greater consistency in procedures, and to apply criteria that are geared toward tree resources, a tree review will be required to vary from the Johnson Creek standards as well.

The proposal would also hone approval criteria for tree removal in the Rocky Butte and Johnson Creek Basin plan districts and in the Scenic overlay zone. The amendments are meant to ensure that the intent of the plan district or overlay standards are considered during the Tree Review process. These amendments recognize that tree removal is sometimes needed for reasonable development of a site, including access to the site for construction, required parking, pedestrians, and utilities while considering the allowed uses and characteristics of the area.

The proposal includes new provisions to improve remedies for violations. First, the threshold for triggering a Type III violation review is proposed to be changed to focus on violations that involve large trees or trees within a grove. A second change would require submittal of an arborist report to verify that any alternate trees proposed for preservation continue to be suitable for preservation considering construction activity that may have occurred on the site. Additional flexibility would also be provided by clarifying that a payment into the Tree Fund is allowed as mitigation when it is not feasible to meet mitigation requirements by planting trees on the site.

### Definitions

Amendments to the definitions chapter of the Zoning Code, 33.910 include revisions to existing definitions for consistency with those included in Title 11, the addition of definitions of new terms introduced in the Zoning Code with this proposal and clarification of an existing environmental definition.



### Clarification of an Existing Environmental Definition

The definition of “**Identified Wetlands, Identified Streams and Identified Waterbodies**” will be amended to eliminate ambiguity in the existing definition and ensure more consistent application of environmental zone regulations. The change will state that identified water features can be referenced either in the adopted resource inventory report text or on inventory maps. Currently the definition limits identified streams, wetlands and waterbodies to those shown on inventory maps. The intent of the environmental zone is to protect identified resources within the designated environmental zones. Given the age and evolving nature of the natural resource inventory reports, natural resources may not always be depicted on the inventory maps. This results in inconsistent application of the existing environmental zone standards such as setbacks. Regardless of how the resource is identified, the intent of the environmental zone is to protect identified resources in a consistent manner. This amendment will help ensure that riparian vegetation near identified water bodies, including trees, is protected within environmental zones.

### New Terms

Several new definitions are added for new terms introduced with this amendment package and used frequently in the Zoning Code. All of these terms are also defined in Title 11. Some key terms are noted below.

**Tree grove** is a new term that will be used to determine when a group of trees constitutes a grove. The definition applies to groupings of native trees, but recognizes that non-native trees may be interspersed with the natives. A grove is described as non-linear to ensure that situations such as hedgerows and street trees are not included in the definition of grove. It is also noted that a tree grove can be identified by a qualified professional based on the function of the grouping of trees. This is intended to allow some additional flexibility in determining whether specific groupings of trees should be considered a grove.

**Dangerous, Dead and Dying Trees** – These are existing terms used in Title 20, the current tree regulations, that have been incorporated into Title 11 and the Title 33 for consistency.

### Amendments to the River Plan / North Reach Code Package

**The River Plan / North Reach** was adopted in April, 2010 and related code amendments will become effective on July 1, 2011. The River Plan / North Reach has been appealed to the Land Use Board of Appeals (LUBA) and cannot be amended until the appeal is resolved.

Some possible amendments to the River Plan code package have been identified to provide more consistency with how trees are addressed in resource areas citywide. Potential amendments would address:

- Exemptions for tree removal in resource areas;
- The amount of tree replacement required when nuisance tree species are removed; and
- An allowance for pruning of native trees that is reviewed and permitted through the Title 11 tree permit process.

To provide for a consistent approach to trees in the entire Willamette River corridor, it is recommended that these amendments be considered as part of the upcoming Central or South Reach portions of the River Plan.

Additional amendments are recommended to **Chapter 33.860, Comprehensive Natural Resource Plans**, which is a new chapter adopted as part of the River Plan / North Reach code package. Amendments to this chapter are recommended to address concerns expressed during the Citywide Tree Project process about the lack of a process to obtain approval for longer-range master plans for certain institutional or managed natural areas and open space uses such as college campuses, golf courses, and natural areas (such as Smith and Bybee Wetlands). Many of these uses are on sites containing environmental, greenway or other resource overlay zones.

Once it goes into effect, this chapter will provide such a process, however it is currently geared more toward traditional development proposals, rather than natural areas or open space sites. Amendments are proposed to clarify that this tool can be used for long-term resource management or enhancement projects as well. Given the need for this tool, it is recommended that these amendments go forward as soon as the River Plan / North Reach LUBA appeal is resolved. The proposed code amendments are included here and it is recommended that they be adopted by City Council with the Citywide Tree Project code package, if the LUBA appeal is resolved at that time.

### Recommended Follow up Code Amendments to River Plan

#### **Code Amendments to River Plan / North Reach Recommended for adoption when LUBA appeal is resolved**

#### **COMMENTARY**

##### **Chapter 33.860 Comprehensive Natural Resource Plans**

This chapter was adopted as part of the River Plan/North Reach code package that will go into effect July 1, 2011. It was designed to allow a comprehensive review of multiple development actions occurring over time on sites containing natural resource areas. It will allow applicants to get approval for development and mitigation actions within the City's natural resource overlay zones for up to 10 years under one comprehensive land use review. This review will allow proposals to be evaluated in the context of the overall cumulative impacts on natural resource values and require mitigation accordingly. In addition, through a Comprehensive Natural Resource Plan, a property owner can gain flexibility to conduct mitigation in a phased approach that is more in line with how the planned activities are anticipated to unfold over the years.

Stakeholders expressed interest during the Citywide Tree Project in establishing a mechanism to obtain approval for multi-year master plans for managed natural areas and open space uses such as golf courses or cemeteries that contain or are located within environmental zones. Once this chapter goes into effect, it will provide such a process; however as written it is geared more toward traditional development sites. Amendments are proposed to clarify that this tool is also intended to be used for long-term resource management or enhancement projects.

##### **33.860.010 Purpose**

The purpose statement describes what the Comprehensive Natural Resource Plan is intended to accomplish. The amendments will broaden the scope of this review to include projects that may involve little or no "development". Therefore, subsection "A" is amended to include the comprehensive consideration of "disturbance and resource enhancement" actions, along with development actions. Subsection "D" is added to explicitly state that this tool can be used for resource management and enhancement activities.

#### **AMEND CHAPTER 33.860, COMPREHENSIVE NATURAL RESOURCE PLANS**

##### **33.860.010 Purpose**

For sites within one or more of the City's natural resource overlay zones, a Comprehensive Natural Resource Plan is intended to allow for the following:

- A.** Comprehensive consideration of future plans for sites where multiple development, disturbance, or resource enhancement actions are anticipated over time within one or more natural resource overlay zones. An adopted resource plan may substitute for case by case Environmental Review, Pleasant Valley Resource Review, or River Review. Comprehensive Natural Resource Plans may be completed at various levels of detail. Generally, the more specific the plan, the less review will be required as the future development is built;
- B.** Comprehensive consideration of the long-term cumulative impacts of development within a natural resource overlay zone, with attention paid to site-specific goals and objectives. With a Comprehensive Natural Resource Plan impacts to natural resources may be avoided by coordinating the timing of different development actions;
- C.** Mitigation and resource enhancement strategies that occur throughout the life of the plan, with greater flexibility for when and how specific mitigation actions occur in relation to specific development impacts;
- D.** Comprehensive consideration of resource management and enhancement projects for large natural areas or open space uses;
- ~~**D-E.**~~ A more integrated structure for considering overlay zone mapping refinements; and
- ~~**E-F.**~~ Greater coordination with local, state and federal agencies.

### Recommended Follow up Code Amendments to River Plan

#### COMMENTARY

##### **33.860.030 Duration of a Comprehensive Natural Resources Plan**

This section is amended to indicate that the plan must address "disturbance or resource enhancement activities", along with proposed development. This change reflects the broader scope of the review, which may include projects that may primarily involve activities other than development.

Deleted text is removed to clarify that all activities, including mitigation, must be completed within the 10 year horizon of the plan approval.

##### **33.860.050 Amendments to a Comprehensive Natural Resource Plan**

This section specifies the review procedure that will be required if an applicant proposes an activity that is not included in the approved Comprehensive Natural Resource Plan. Changes proposed include:

- The current code requires a Type III review for any proposed development within an environmental protection zone. The amendments add a reference to "disturbance" as well.
- The current code requires a Type III review for any proposed development to be added to the site. A threshold is added to allow some additions in the area proposed for development or disturbance through a Type II review. Proposals to add disturbance area outside of the environmental protection zone that is less than 10 percent of what was originally approved will be subject to a Type II review. As noted above, any new disturbance within the protection zone will continue to be subject to a Type III review.



### **33.860.020 When a Comprehensive Natural Resource Plan Is Allowed**

[No change]

### **33.860.030 Duration of a Comprehensive Natural Resources Plan**

The Comprehensive Natural Resource Plan may be approved for up to 10 years. The plan must include proposed development, disturbance, or resource enhancement activities, and possible future development, disturbance, or resource enhancement activities that might occur within the next 10 years. ~~An approved resource plan remains in effect until development allowed by the plan has been completed or the plan is amended or superseded.~~

### **33.860.040 Procedure**

[No change]

### **33.860.050 Amendments to a Comprehensive Natural Resource Plan**

Amendments to a Comprehensive Natural Resource Plan are required for any development within the boundaries of the River Environmental, Pleasant Valley Natural Resources, environmental conservation, or environmental protection overlay zones that is not in conformance with the approved Comprehensive Natural Resource Plan. Amendments are not required for development listed as exempt from the relevant overlay zone regulations. Amendments are subject to the same approval criteria as the initial resource plan, ~~plus the additional criteria in 33.860.200.~~ The thresholds and procedures for amendments are stated below.

**A. Type III procedure.** Unless the resource plan specifically provides differently, the following amendments to a resource plan are processed through a Type III procedure:

1. Any proposed development or disturbance within the environmental protection overlay;
2. A proposed reduction in the area of the environmental protection overlay;
3. An increase in the area Pproposed for development or disturbance more than 10 percent from what was ~~to be added to the site that was not~~ included in the original resource plan;
4. Substantial changes to conditions of approval; and
5. Proposed development that was previously reviewed, but was denied because it was found not to be in conformance with the approval criteria.

### Recommended Follow up Code Amendments to River Plan

#### **33.860.100 Application Requirements**

The application requirements are amended to add required information about disturbance and resource enhancement actions.

### Recommended Follow up Code Amendments to River Plan

- B. Type II procedure.** Unless the resource plan specifically provides differently, amendments to a resource plan not specifically stated in Subsection A. above are processed through a Type II procedure.

#### **33.860.100 Application Requirements**

An application for a Comprehensive Natural Resource Plan must include the following components:

**A.-G.** [No change]

**H.** Timetables for the development, disturbance, and mitigation, and resource enhancement actions;

**I.** A summary of anticipated state and federal permits required for the proposed development, disturbance, and mitigation, and resource enhancement actions; and

**J.** [No change]

### Recommended Follow up Code Amendments to River Plan

#### **33.860.200 Approval Criteria**

The approval criteria are amended to add a reference to disturbance and resource enhancement activities, in addition to proposed development. Subsection "D" is also amended to indicate that the plan may specify standards that will apply to projects at the time of development permitting. This allows additional flexibility for projects for which detailed designs have not been developed at the time the Comprehensive Natural Resource Plan is under review. If the scope of impacts can be limited through standards, projects could occur without a future land use review.

It should be noted that Criterion "D", requires that the Comprehensive Natural Resource Plan meet all relevant approval criteria for other reviews that would be required if the proposal was going through a resource review, such as Environmental Review or River Review. Therefore, resource enhancement projects will be subject to the relevant criteria for those reviews.

Criterion "D" also requires that the criteria of adopted Natural Resource Management Plans (NRMP) be met. NRMPs govern projects and mitigation for certain geographic areas. During the Citywide Tree Project process, property owners located within these areas raised concerns about adopted NRMPs being out of date and no longer allowing for projects that they would like to undertake. Property owners have expressed interest in using the Comprehensive Natural Resource Plan process to obtain long-term approval of planned activities, however in some cases that may not be possible because the projects do not conform to the current NRMP criteria. NRMPs are difficult to update because a legislative process is required. Because approval and amendment of a Comprehensive Natural Resource Plan is a quasi-judicial process, they can be developed and updated at the request of the applicant.

Applicants in NRMP areas will have the option to use the Comprehensive Natural Resource Management Plan tool, provided they meet the criteria of the adopted NRMP. If they are not able to meet the criteria of the NRMP, they would need to undergo a legislative process to change the NRMP criteria or to remove their property from the boundary of the NRMP.

#### **33.860.200 Approval Criteria**

A Comprehensive Natural Resource Plan, or an amendment to a Comprehensive Natural Resource Plan, will be approved if it meets the following approval criteria:

- A.** The plan establishes coordinated phasing of the development, disturbance, or resource enhancement actions within the natural resource overlay zones, with the goal of avoiding impacts that might arise if each action were planned separately. The plan includes the timing of anticipated construction access routes, building construction sequencing, and disturbance area boundaries for the site as a whole;
- B.** The plan will integrate natural resource conservation, protection and enhancement with other site planning plan goals and objectives;
- C.** On balance, the proposed mitigation plan demonstrates that all anticipated significant detrimental impacts on identified resources and functional values will be compensated for within the life of the plan. Each mitigation action is not required to directly correlate with a specific development proposal, but the overall mitigation plan will be evaluated against the overall list of anticipated uses and development actions, including cumulative impacts. The mitigation plan must include performance standards for judging mitigation success, a specific timetable for mitigation actions during the life of the plan, and a specific monitoring schedule;
- D.** The plan must demonstrate that all relevant approval criteria that would apply if the proposal was proceeding through an Environmental Review, Pleasant Valley Natural Resource Review, or River Review, including approval criteria from an adopted Natural Resource Management Plan, are met. Consideration will be given to the level of detail provided with the plan application. Proposals that address most of the relevant approval criteria, but are not detailed enough to address all of the relevant approval criteria may be identified for tentative approval. Conditions of approval may be imposed to list those aspects of the plan subject to tentative approval, and to specify which approval criteria need further evaluation through a later review. The decision may also specify standards for future development or resource enhancement activities.

#### **33.860.250 Overlay Zone Map Refinement**

[No change]



*"What's the use of a house if you haven't got a tolerable planet to put it on?"*

*- Henry David Thoreau*



*Tree canopy looking southwest from Council Crest*

### Aligning Other City Titles and Guidelines

In addition to the proposed Title 33, Planning and Zoning, the Recommended Draft proposal includes a number of companion amendments to other City Titles. These amendments update code citation references and relocate tree-related requirements from these titles, primarily to the new Title 11, Trees. The amendments also include several new provisions complement and reinforce tree protection requirements in Title 11. None of these amendments make major changes to current City practice, but are necessary to maintain consistency and reinforce the requirements of Title 11, Trees.

#### Updates are proposed to the following additional City Titles:

- Title 3, Administration
- Title 8, Health and Sanitation
- Title 14C, Public Order and Police
- Title 16, Vehicles and Traffic
- Title 17, Public Improvements
- Title 20, Parks and Recreation
- Title 24, Building Regulations
- Title 29, Property Maintenance Regulations
- Title 31, Fire Regulations

In addition to the code amendments, amendments to the Ladd's Addition Conservation District Guidelines are proposed to reflect the Title 11 prohibition on planting nuisance tree species on City property and streets.

#### Title 3, Administration

This title includes broad authorization and assignment of duties for the Bureau of Parks and Recreation (Parks) and the Bureau of Development Services (BDS). These amendments assign authority to administer Title 11 to the City Forester and BDS Director. Additionally, a remnant provision calling for a list of solar-friendly trees is being deleted. Title 11 authorizes the City Forester is authorized to develop tree lists for multiple purposes.

#### Title 8, Health and Sanitation

Chapter 8.44 relates to insect control and states that trees may be removed when they hamper the free spread of insecticide on standing water. New references clarify that a Title 11 tree removal permit is required. An obsolete reference to the Police Code was also replaced by an updated reference to Title 29.

### **Title 14C, Public Order and Police**

Existing City code authorizes the Portland Police to enforce the provisions of Title 20, Parks and Recreation. Given that urban forestry regulations are being moved to Title 11, Trees, this authority is being extended to Title 11. It is understood that the primary enforcers of City tree regulations are Parks and BDS; however there may be instances where police intervention is necessary and this amendment continues to provide that authority.

### **TITLE 16, VEHICLES AND TRAFFIC**

This Title includes provisions relating to traffic visibility and safety. These provisions have been updated to recognize the need to trim Private Trees (as well as Street Trees) to maintain adequate visibility. New references clarify that Title 11 tree permits may need to be obtained when pruning or removing trees. Code references were also updated to replace Title 20 with Title 11.

### **Title 17, Public Improvements**

The Citywide Tree Project affects four chapters in the Public Improvements Title. The first (17.42) addresses maintenance responsibilities for property owners who abut streets that are not publicly maintained. The amendment simply clarifies that should tree pruning or removal of a tree in the street be necessary, a Title 11 tree permit may be required.

The second affected chapter (17.44) relates to placing structures in the right of way. Provisions relating to placing “tree tubs” (containers with trees in them) in the right of way were moved from the tree chapter of this title because that chapter is being deleted. However, because the regulation pertains primarily to the effect of placing the container in the street, the provision was left in Title 17.

Chapter 17.48 includes requirements for moving buildings over city streets. Often these moves require temporary removal and replacement of street lights, power lines, and trees. Trees are not currently listed in the items that an applicant was responsible for. New language will now make that explicit, and clarifies that tree pruning or removal may require a Title 11 permit.

Finally, Chapter 17.52 currently houses the maintenance requirements for trees that affect public infrastructure. This includes branch clearance requirements above streets and sidewalks, sidewalk sweeping, repairing curb or sidewalk damage from trees, clearing roots out of sewer lines, and trimming trees away from overhead utilities. All these requirements have been updated and are proposed to be incorporated into the maintenance specifications chapter of Title 11.

### **Title 20, Parks and Recreation**

Title 20 has the City's public and private tree permit programs and provisions establishing the Urban Forestry Program, and other provisions that are now proposed to be consolidated in Title 11, Trees. These requirements have been updated and clarified. Cross references are included in the code commentary, Volume 3, to indicate where the updated provisions of Chapters 20.40 and 20.42 have been located.

### **Title 24, Building Regulations**

Title 24 includes updated references and terms. More significantly, a separate tree permit that has been required by this title is being integrated into Title 11, Trees. Title 24 currently requires a permit to cut five or more trees on slopes steeper than 25 percent. The requirement will now be part of the Tree Plan review that is required in conjunction with clearing and grading permits. A separate permit is no longer required.

This title also includes special requirements for constructing five story apartment buildings including fire access roads. Clarification was added to consider avoiding root protection zones when siting and constructing access roads. Also when trees cannot be planted as a result of siting the road, this section now states that a payment in lieu of planting will be required.

### **Title 29, Property Maintenance Regulations**

Several updates were included to the Property Maintenance Regulations to increase consistency with Title 11 terminology.

### **Title 31, Fire Regulations**

Like the updates to Title 24 access road requirements, these updates note that as part of the design and construction, fire access roads should consider alternatives to encourage tree preservation and minimize tree impact where practical.

### **Ladd's Addition Conservation District Guidelines**

The Citywide Tree Project proposes to add language to the Ladd's Addition Conservation District Guidelines to signal that tree species listed as nuisance species in the Portland Plant List may no longer be approved for planting on City property or rights-of-way (see Volume 4). A general statement will be added, as well as a footnote to the existing street tree plan in the guidelines. The footnote will restate the prohibition on planting nuisance trees on City streets, and will note that the street tree plan should guide the selection of alternate street trees species that maintain the historic character of the district. The City Forester will develop an acceptable replacement tree species with similar characteristics as those nuisance tree species identified in the plan.

At issue is the identification of several nuisance species trees in the Street Tree plan; the Norway maple, Single seed hawthorn, and Globe locust trees. The Guidelines emphasize the importance of the Norway maple and American elm trees, and state that removal of these trees is warranted only when “an imminent danger to the public exists”. However, The Ladd’s Addition Guidelines also state that “the preface to each set of guidelines identifies the historic qualities that specific guidelines seek to preserve. The guidelines are not intended to be strict, inflexible standards.” In addition the guidelines note that replanting should be done in accordance with the Street Tree plan and that “species designated in the plan should be consistent with the character, height, canopy and spacing of a street’s original plantings, the width of the parking strip, and the scale and function of the street within the district”. Exceptions have already been made to replace elms that test positive for Dutch elm disease.

The proposed amendments to the Design Guidelines are intended to clarify the relationship between the Design Guidelines and the new citywide prohibition on planting nuisance trees species along City streets. The proposed Ladd’s Addition amendments are presented in Volume 4.



### Creating an Interlocking Regulatory Framework

The previous two report sections presented the project proposals for a new comprehensive tree code, Title 11, Trees, and for substantial updates to the Zoning Code to improve the consistency and effectiveness of tree regulations in the context of land use reviews. Title 11 and the portions of the Zoning Code that are addressed in this report represent a new regulatory framework for Portland's Trees. Together, these proposals are designed to meet the Citywide Tree Project charge to develop a consistent and cohesive regulatory framework and to protect and enhance the urban forest through development and redevelopment. The proposals are also designed to meet project success criteria, including improving the equity, transparency, and efficiency of the regulations, and to support multiple city goals including urban forestry, watershed health, and development.

This chapter concludes with a brief summary of how the key components of Title 11, and the tree related portions of the Zoning Code, fit together in a complementary and reinforcing manner. As described earlier, the new and updated provisions of Title 11 and the tree-related portions of the Zoning Code are designed to recognize the interdependent, relational nature of the regulations. The provisions have been "synchronized" by eliminating gaps, duplications, and inconsistencies in the code. However, to create a cohesive system also requires consistency and continuity in how trees are addressed in non-development situations, during development, and after development.

This continuity relies primarily on the following proposal components.

- Updating development-related tree preservation requirements to focus on large, healthy trees and groves
- Addressing tree preservation in more types of land use reviews
- Applying tree preservation and tree density standards to most development
- Recording tree preservation requirements with final plats; establish 10-year "sunset" for tree preservation requirements of land use reviews
- Addressing trees more systematically in capital improvement and public works projects
- Establishing a consistent, efficient tree permit system for activities not associated with development proposals

### **Updating development-related tree preservation requirements to focus on large, healthy trees and groves**

Increasing the emphasis on preserving large healthy trees and tree groves will improve the quality of tree preservation, and make better use of public and private investment in tree protection. Crediting the retention of smaller trees toward meeting landscape and tree density requirements provides an incentive to keep these trees, while not unduly limiting flexibility. The focus on retaining large healthy trees and effective replacement of smaller trees is mirrored in the tiered, uniform tree removal permit system (see tree permit system discussion below).

### **Addressing tree preservation in more types of land use reviews**

Addressing tree preservation during certain conditional use and design reviews, in addition to land divisions, will expand opportunities for “designing with trees” during the early phases of development.

### **Applying tree preservation and tree density standards to most development**

Applying new Title 11 tree preservation and tree density standards to all new development and most additions and site alterations, instead of only to new single family homes, will greatly improve consistency and fairness in the city’s tree regulations. The proposed tree preservation standards would focus on retaining healthy trees, consistent with the proposed land division preservation standards and approval criteria. The proposed tree density standards would create consistent baseline tree planting standards for all development. Both the tree preservation standards and the density standards are intended to recognize constraints associated with small lots and the development requirements and characteristics of different land uses. In addition, the trees planted or preserved to meet any landscaping requirements of the Zoning Code or stormwater management requirements may be counted in a complementary manner for meeting tree density and preservation standards of Title 11.

This portion of the proposal would address a major gap and discontinuity in the existing regulatory system. Currently, in non-development situations, the City requires a permit to remove trees 12 inches or larger on developable or dividable private lots. However, once a building permit is submitted a developer can remove all the trees on the lot unless the lot is in a resource area or is subject to specific conditions of a land use review. Proposed new tree preservation and tree density standards in Title 11 will fill that gap without adding additional steps in the development process.

### Recording tree preservation requirements with final plats; Establish 10-year “sunset” for current and future tree preservation requirements

Currently tree preservation plans are approved in conjunction with land divisions, however property owners often are unaware that they are required to preserve certain trees when they purchase the property. It is proposed that tree preservation requirements approved through land divisions be recorded with the final plat. These requirements would then be reflected on a property deed to be more readily identified by potential purchasers.

In addition, the city-approved tree preservation plans currently apply in perpetuity. This creates inconsistency, confusion, and inequity in how trees are addressed on properties with and without tree preservation plans. The static tree preservation plans do not accommodate the dynamic nature of trees and are difficult to administer. The proposal for tree preservation plans to expire 10 years after land use or final plat approval will address these issues, provide reasonable certainty that the trees will be preserved as approved, and create a consistent, equitable “level playing field” for trees over the long-term. During the 10-year period, at least a portion of the smaller or medium sized trees that were preserved or planted might reach the City’s 12” or 20” tree removal permit size thresholds. *NOTE: The effectiveness of the plan expiration will depend on adoption of a uniform tree removal permit system. Because Multnomah County has no tree permit system, the County has requested that the proposal apply only within City limits, and not within the Multnomah County urban pockets.*

### Systematically addressing trees in capital improvement and public works projects

City code does not currently spell out procedures for addressing trees in public projects. Project stakeholders urged the City to apply tree requirements to public and private projects consistently and equitably. The proposal will add provisions requiring consultation with the City Forester early in the project design for capital and public works projects. Early identification of potentially affected trees, tree preservation opportunities, and tree protection issues will be integrated into the preliminary project design and carried forward throughout subsequent stages of the engineering design process. Mitigation will continue to be required when trees are removed. The modifications will provide additional consistency between trees in public and private



*Trees in capital improvement and public works projects*

development situations, and will better complement the City's stringent Street Tree permit program.

### **Establishing a consistent, efficient tree permit system for activities not associated with proposed development**

Approximately half of Portland's urban forest canopy shades public property, and half shades private property. Yet, the City's approaches for permitting trees on public and private property differ considerably. A major element of this project was to examine the current permitting requirements and recommend improvements.

### **The Current Tree Permit System**

**City Trees and Street Trees** - Currently the City requires a permit to plant, prune or remove a tree of any size for any reason on a city street or on City-managed property (e.g., park, fire station). The City processes approximately 4,400 permits relating to City Trees or Street Trees per year. Urban Forestry staff conduct site visits to evaluate requested street tree permits. The site visits provide an opportunity to engage with and provide technical assistance to property owners. Staff can also collect relevant street tree data to incrementally build a more comprehensive street tree inventory.

The City does not generally approve the removal of large healthy street trees or trees on City-managed property. The City currently requires trees that are allowed to be removed to be replaced, "one tree for one tree." Only permit applicants may appeal a City denial of a permit for a City or Street Tree.

**Private Trees** - At present, the City requires permits to remove trees 12 inches or larger on all private property, except for non-dividable single family lots with homes on them. The private tree permitting system was established in 1995 to discourage removal of trees prior to development. The City processes roughly 100 private tree removal permits per year. Most are for dead, diseased, or dangerous trees.

The Urban Forestry Staff conducts site visits and generally approves the permit if the proposed mitigation plan is deemed sufficient. The replacement requirement for removing healthy trees on private property is up to "inch for inch." For example a 30 inch diameter tree would need to be replaced with 30 inches of new trees. The actual number of required trees can vary based on the size at which they are planted. This replacement requirement can serve to deter property owners from removing trees that don't qualify as dead, diseased or dangerous. Unlike public trees, any interested person may appeal a City permitting decision relating to trees on private property.

**Issues with the Current System** - Community stakeholders and City staff agree that the current tree permit system is inconsistent and hard to understand, explain, implement, and enforce. Project stakeholders expressed frustration, noting that the City's tree permit regulations pertaining to private property -- single family property in particular -- are confusing and unfair. Citizens have also suggested that requiring a permit for any type of street tree pruning is overly burdensome.

The single family exemption makes it difficult for City staff to answer permitting questions quickly. It is not always intuitive whether single family properties are "dividable" and therefore subject to permitting requirements. The exemption also creates a discontinuity between how trees are regulated in development and non-development situations. As noted above, it is challenging to make property owners aware of tree preservation requirements on their property that result from a land use condition of approval or other development requirement. The single-family exemption exacerbates this problem, since similarly situated properties, even next door neighbors, may have drastically different rules that apply to their trees, thus increasing the risk of inadvertent violations and complicating enforcement of land use conditions.

From an urban forest management perspective, the single family exemption excludes roughly half of the properties and approximately 22 percent of the urban forest canopy in the city from the permitting system. The single family exemption precludes the kind of opportunities to assist and engage with citizens provided by the City's existing street tree permitting system which applies to all street trees.

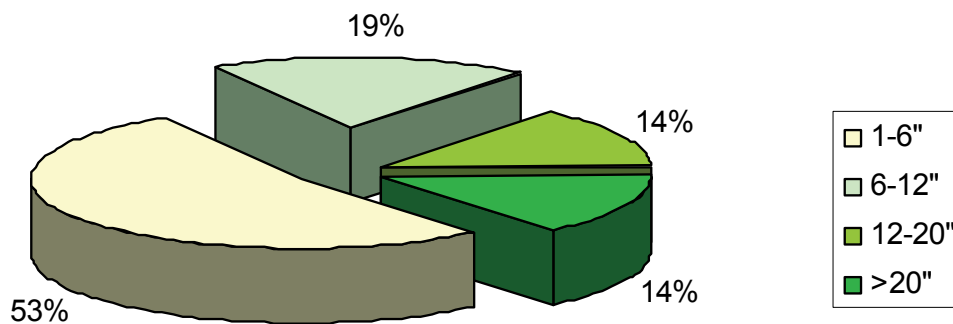
The disparity between tree size thresholds adds to the confusion and the discontinuity in how trees are addressed in development and non-development situations, and in different parts of the city. For land division and tree removal in resource overlay zones and certain plan district areas of the City, the tree size threshold for regulation is typically six inches (though removal of all native vegetation is regulated in environmental zone resource areas). When no development is proposed, Street Trees and City Trees are regulated at any size, while trees on private property are regulated at 12 inches. As a result, trees between 6 and 12 inches that would be addressed in a land division may be legally removed prior to applying for the development since they are below the regulated size. Alternatively, trees that were required to be preserved as part of a land division might be illegally removed after the development by a new property owner because the tree is otherwise exempt from tree removal permitting requirements, either because the tree was smaller than 12 inches or because the new lot would be considered "not-dividable."



### The Proposed Tree Permit System

A number of different permitting options were evaluated with the goal of simplifying and improving the current permit system. Project staff addressed these issues and discussed potential solution options with the project Stakeholder Discussion Group and City bureaus. Solution options included clarifying the current system while retaining a single family exemption, and creating a more uniform permitting system without a single family exemption. Shifting the tree permitting size threshold was discussed as well. Shifting the size threshold to 6 inches would also address a larger portion of Portland's urban forest as indicated below. Shifting to a larger size threshold such as 20 inches would address a smaller portion of the urban forest but would be less costly.

**Size Distribution of Trees  
(based on public tree data)**



The stakeholders supported simplifying and standardizing the system but did not reach consensus on the specific choices. They cautioned staff not to propose a system that was overly burdensome, time consuming or costly to property owners. Stakeholders suggested that the City consider establishing a tree permitting system that focuses on engaging and educating citizens about the benefits of trees and tree care.

Based on these discussions and additional analysis the current proposal is to establish a more streamlined "tiered permit system," and to apply the permit system consistently based on tree size and condition across all land uses, as described below:

**Tiered permit system** – The proposed system of Type A and B permits is meant to:

- Streamline and reduce the cost of permitting removal dead, diseased, dangerous trees, and trees on the City’s Nuisance Plant List
- Establish consistent permitting and appeals procedures for Street Trees and Trees on Private Property
- Complement and reinforce tree preservation, planting, and landscaping required through the development process
- Continue preventing adverse public safety and ecological impacts from tree removal
- Clarify and strengthen criteria to encourage retention of large health trees that contribute to neighborhood character
- Create an efficient, effective process for replacing trees that are removed
- Enhance opportunities to engage with and educate the public.

**Type A permit** – Type A permits will provide the most streamlined process. Type A permits would be required to remove dead, dying, or dangerous trees. In addition, on private properties, Type A permits would be granted for trees on the City’s Nuisance Plant List, trees within 10 feet of a building, and up to 4 trees between 12 and 20 inches in diameter. Type A permits would also be required for certain non-removal activities for City or Street Trees, such as planting, pruning, or other activities that may impact the health of these trees. Required tree replacement would be tree for tree. The permit would be non-discretionary, and only the applicant would have the ability to appeal the City Forester’s decision.

**Type B permit** – Type B permit will be required to remove large healthy trees or to remove more than 4 trees from a site within a single year. The request would be evaluated for public safety and environmental criteria, and also to determine if there would be an adverse impact on neighborhood identity. The required tree replacement would be up to “inch for inch,” to be determined based on consideration of key factors. The City Forester can also adjust required mitigation based on the amount of remaining trees on the site, and allow payment into the Tree Preservation and Planting Fund to plant offsite. Guidelines for determining appropriate mitigation are proposed to be developed and adopted as an administrative rule to allow testing and amendment as appropriate. These permit requests would be subject to public notice when the City Forester has tentatively approved the permit, and any person could appeal the City’s permit decision to the Urban Forestry Appeals Board.

**Pruning permit** – Would continue to be required for City and Street Trees, and would be issued as a Type A permit. However, pruning would now be defined to exclude from permit requirements, removal of sucker shoots at the base of a tree and limited removal of branches not exceeding 1/4 inches in diameter in accordance with proper arboricultural practices. New pruning permits would also be established to allow limited pruning in environmental resource zones, currently only allowed as part of an environmental review.

The proposal is to continue charging only a nominal fee for these permits to encourage compliance and promote beneficial activities. The current fee for tree removal permits is \$35. Permits for Street Tree pruning and planting are free. It is proposed that the City retain a nominal fee for tree removal permits to promote compliance, but shift to a “fee per tree.” In this case the fee would increase with the scale of the removal, i.e. the more trees removed the higher the application cost. Alternatively, the City could graduate the fee based on the type of permit being applied for. For example, the City could retain the \$35 flat fee for Type A permits, while Type B permit fees could be set at \$50 per tree. The graduated fee and fee per tree approach corresponds to additional staff time to evaluate the request, and could potentially discourage removal of large healthy trees.

### Applicability

**City and Street Trees** - The current proposal is to continue requiring permits for activities involving City and Street Trees, but to institute a minimum tree size threshold of 3 inches (as opposed to the current “any size”). This approach would support City goals to maintain the quality and functions of trees on public rights of way and other city-managed lands, while providing a realistic threshold to help administer the permit requirement. The approach also will help advance efforts to manage trees as a capital asset as recommended in the Climate Action Strategy.

**Trees on Private Property** - As noted earlier, the City currently requires permits to remove trees 12 inches in diameter or larger on all private property except non-dividable single family properties with existing homes. Also exempt from the permit system (but partially regulated through the zoning code) are trees in environmental and other resource overlay zones and plan districts. Citizens find the current system confusing and inequitable, and it is also difficult to implement. Alternative permitting options were examined with the goal of simplifying and improving the efficiency and effectiveness of the existing system. More information on the fiscal impacts of these options is provided in the Fiscal Impacts and Funding Options section of this report.

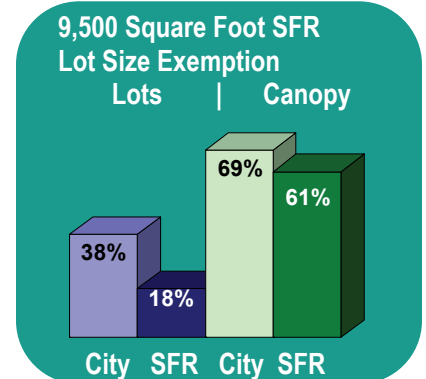
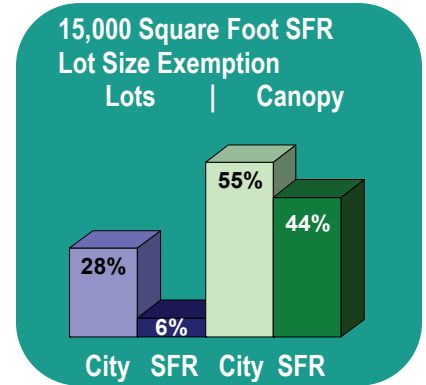
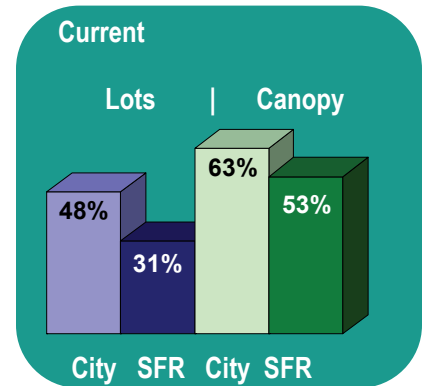
## Single Family Exemption based on lot size - Staff

examined a private tree removal permit option based on a single lot size threshold. Scenarios evaluated included exempting tree removal on lots smaller than 9,500 square feet, or on lots smaller than 15,000 square feet, from permit requirements. This “single lot size exemptions” approach would maintain a partial single family exemption, while simplifying the tree removal permit system and minimizing impacts on workload and staffing. The 9,500 square foot exemption, based on the minimum lot size of a dividable R5 zoned lot, would result in a modest decrease the number of lots, and a modest increase in the area tree canopy that would be served by the permit system. The 15,000 square foot lot exemption, based on larger lots in relatively undeveloped neighborhoods, would result in more significant decreases in the number of lots and amount of tree canopy that would be served by the permit system. The administration costs of either of these systems would be slightly less than the current permitting system.

## Uniform Permit Based on Tree Size and Condition; No

**Single Family Exemption** - The other concept that was evaluated is a uniform tree removal permit system that would apply consistently to all lots across the city. This system would be applied based on tree size and condition, recognizing that the functions provided by trees are not affected by land use or lot size. Eliminating the single family exemption would be clear and equitable. The uniform permit would also provide more opportunity to engage with citizens, encourage retention of large healthy trees and ensure

**The uniform tree permit system would be applied based on tree size and condition, creating a simple, equitable permitting process, recognizing that the functions provided by trees are important regardless of land use or lot size.**



trees are replaced, similar to the City's current approach to street trees. The uniform permit would also bolster and reinforce tree-related criteria and standards for development. The uniform approach would require additional public investment in staff to implement and enforce the program.

**Standardized Permit Based on Tree Size; No Single Family Exemption** - Both the Planning and Urban Forestry Commissions struggled with the right regulatory balance for the proposed permit system. While the commissions acknowledged the issues the existing single family lot exemption creates, they also recognized the administration costs and the difficulty in gaining public acceptance for expanding the permit review process to 96,000 additional lots. The commissions also rejected the option to exempt a single lot size threshold (e.g. 9,500 or 15,000 square feet), due in part to the lack of a sound policy rationale, the disconnect between development and non-development tree related requirements, and that these options would fall short of addressing the problems the current exemption raises.

Staff developed a proposal to address non-dividable single family lots with a different permit approach than other regulated lots. This standardized approach would apply permitting requirements to all lots; however, sites developed with a single family house, that meet specific lot size requirements that vary based on the zoning, and do not contain protected trees would be subject to a simple tree for tree replacement requirement for trees that are 20 inches in diameter or larger. This approach focuses more on outreach, education, and ensuring replacement when large trees are removed. The emphasis of this approach is to encourage all residents to "call before you cut" to make sure that the tree is not protected by virtue of a land use condition or development requirement, is a Heritage Tree, or is located in an areas (such as an overlay zone or plan district area) where additional requirements may apply. For sites meeting the single dwelling provision described above, a Type A permit will be required only for trees 20 inches and larger.

Both Commissions voted to support this more standardized approach instead of the initial uniform permit approach. While there remains a distinction in the level of review and tree replacement between developable lots and non-dividable single family lots, the current proposal continues to apply permit standards to all land uses based on tree size and condition. The single family exemption would be eliminated, in favor of a more equitable approach whereby all properties are included in the tree permitting system and are active participants in the management of the urban forest.



The standardized tree permit provides an essential component of the “interlocking regulatory framework” that is the cornerstone of the Citywide Tree Project. The permit would establish a reliable mechanism to ensure that development related tree requirements are carried out and not overlooked. A standardized permitting approach will increase the feasibility and effectiveness of the proposed 24-hour tree hotline by making it easier to determine if tree cutting activities are permitted or not. Establishing a standardized tree permitting system would also send a strong message that trees are valuable community assets wherever they are, and whether or not development is proposed.

**Tree Size Thresholds** - The current proposal retains the 12 inch diameter tree size threshold for lots that are currently subject to tree permits for 12 inch and larger trees. Although shifting the tree size threshold to 6 inches in diameter would address more trees and improve consistency with the Zoning Code, requiring permits for all trees 6 inches and larger throughout the City would be overly costly and difficult to enforce. In addition, citizen resistance to the permit system is expected to be far greater were the city to propose regulating smaller trees on private property. One option for achieving consistency between the proposed tree removal permit system and the Zoning Code would be to increase the tree size threshold to 12 inch in diameter in overlay zones and plan districts. However, this would represent an approximate 50% reduction in the numbers of trees protected in these areas. Therefore, the proposal is to retain the 6 inch tree size threshold for these situations. Development applicants will be able to receive credit toward meeting the tree density standards when preserving smaller trees.

Increasing the tree size threshold to 20 inches was also evaluated. This approach would reduce cost but would significantly reduce the amount of tree canopy served by the system (a reduction from 28% to approximately 14% of the tree population of the urban forest). This threshold was deemed appropriate for the single family lots that are currently exempt as a way of ameliorating the costs of adding these lots to the system and focusing on the more iconic large trees.

The regulated tree size thresholds for the proposed permit system are therefore:

- 6 inches and larger for trees in specified overlay zones and plan districts (e.g. environmental zones, Rocky Butte, etc)
- 12 inches and larger for trees on lots that are currently subject to tree permits at 12 inches.
- 20 inches and larger for trees on lots (previously exempt) meeting the single dwelling provisions.

Maintaining these thresholds is intended to limit impacts on staffing and public cost, while significantly improving the current system and addressing more trees in the urban forest.

**In conclusion,** the regulatory framework is designed to be “greater than the sum of its parts.” Key components are intended to support, complement and reinforce each other, without duplication, gaps or holes, and conflicts. The framework is intended to help meet City and community goals, including goals related to urban forestry and development. The framework is also intended to build on existing City procedures, improve efficiency, be affordable and provide a good value for the investment.

The recommendations presented in the next section include the development of a Community Tree Manual, a Single Point of Contact, 24 hour Tree Hotline Pilot Project, and improvements to the City’s tree permit tracking system and online access. These would support and bolster the regulatory framework by improving customer service and community understanding and access to City tree regulations and urban forestry programs.

### Customer Service and Community Access

The proposals presented in this section are critical components of the overall Citywide Tree Project recommendation package. Proposals for future projects to develop a Community Tree Manual and to establish a single point of contact for tree related inquiries were strongly supported by the project Stakeholder Discussion Group, along with a proposal to develop a 24-hour Tree Hotline. There was also significant interest in exploring ways to plan for and manage trees at a neighborhood scale, rather than site by site. During their work sessions, the Planning and Urban Forestry Commissions also expressed a desire to allow public access to tree permit records and activity through an on-line portal such as PortlandMaps. These proposals are presented below for consideration.

#### Community Tree Manual

The Citywide Tree Project Stakeholder Discussion Group, the Planning Commission, and the Urban Forestry Commission strongly supported the development of a “Community Tree Manual” (or “Tree Manual”) to complement the tree regulations.

Initially the Tree Manual was envisioned primarily as a document that translates the tree regulations into “plain English.” Development community representatives expressed interest in placing technical specifications in the Tree Manual as administrative rules, which can be more readily updated than the code. While there is still interest in converting some of the technical standards and specifications to administrative rule, the Tree Manual concept has evolved to focus on providing a community educational and informational resource rather than a regulatory document.

Neighborhood representatives warmed to the Tree Manual concept as a tool to provide information about the benefits of urban trees, tree care, and best management practices. There is also interest in creating a tool to educate children about the importance of trees, and foster their appreciation and understanding of trees in their neighborhoods and schools.

City staff and stakeholders also want the Tree Manual to be a “living resource” that would be housed and maintained on a new Tree Website. While there will likely be specific printed products, the primary focus will be on the development of user-friendly on-line products and tools.

As a community resource the Tree Manual will help support and complement other public initiatives and investments. For example, through the Grey to Green Initiative, the City initiated an aggressive rethink of its infrastructure policy, and has begun investing millions of dollars in green infrastructure facilities. In addition to the existing

urban forest canopy that faces the pressure of development, 50,000 street trees and 33,000 yard trees will be planted by the city over a several year period. Providing information to help Portlanders maintain existing tree assets is important to protect this investment in planting new trees.

**As envisioned, the Tree Manual will serve the following purposes and goals;**

1. Raise community awareness of trees and benefits of Portland's urban forest
2. Provide information and case examples to assist Portland residents, arborists and developers in selecting, planting, caring for, and preserving/protecting trees
3. Provide simple and illustrative information to help property owners and developers understand and work with City tree regulations (graphics, standard operating procedures, example site plans and applications, etc.)

**The Tree Manual will address the following topics:**

### Portland's Trees, Tree Programs and Benefits of Trees

The Community Tree Manual would provide information on Portland's urban forest and the ecological, social and economic benefits of trees in the city. It would describe the functions of trees and how they contribute to public, economic, and watershed health and welfare. The manual would also provide information on special trees and programs such as the City's Heritage Tree program and native trees in environmental zones. The manual would also identify City bureaus that implement urban forestry and other tree-related programs, and provide program information and appropriate links. The manual would provide information on community organizations such as Friends of Trees and local watershed councils, and ways citizens can participate in tree related community programs or events.



### Tree Care and Topics of Interest

The Tree Manual would provide basic information to help Portlanders understand how trees work and how to care for their trees. The manual would also provide information and guidance on particular topics of interest. The format would rely on photos and graphics to help illustrate key points and encourage tree planting and maintenance.

- Basic tree care – planting, mulching and watering, pruning, removal, preventing hazards
- Trees and utilities
- Fire resistant trees and/or landscapes
- Trees and solar access
- Trees and stormwater
- Food bearing trees and edible landscapes
- Trees and wildlife – native trees; habitat trees, providing food and cover, preventing hazards
- Trees and views
- Alternative sidewalk and building construction to preserve trees
- Trees and groves – preservation in the long term – easements, tracts, neighborhood agreements
- Neighborhood tree plans

### **Tree Code Primer – “Tree Rules Made Simple”**

The Tree Manual would present user-friendly information, instructions, and examples to help people understand and comply with the tree regulations. The manual would outline City and property owner roles and responsibilities. The Tree Manual could provide updated forms and worksheets, and tips or example site plans with required tree information to assist in meeting development application submittal requirements.

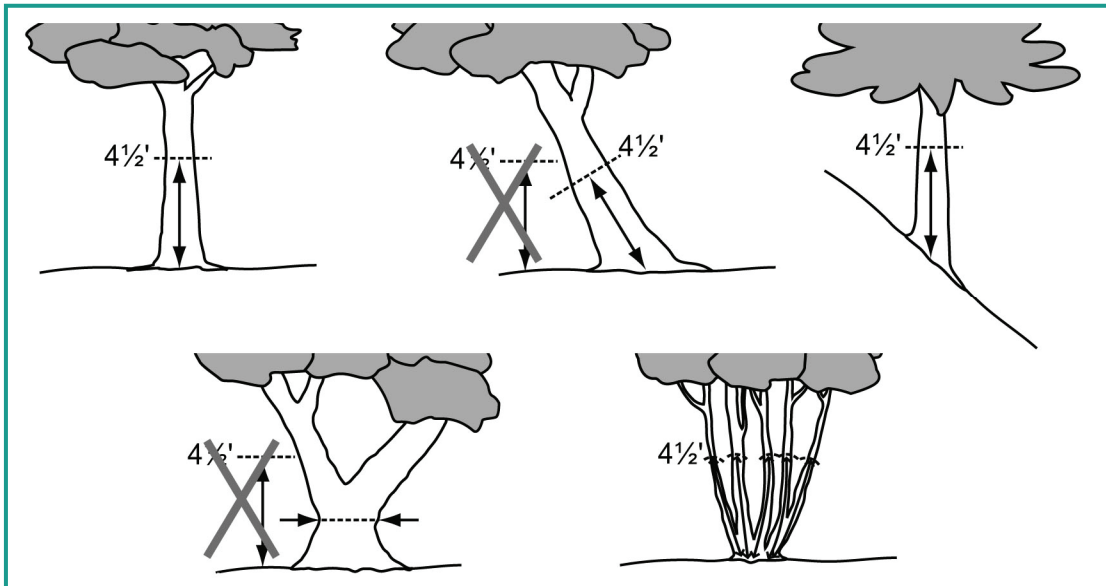
The manual could also contain information and potentially technical specifications relating to tree protection, replacement, etc. Like the City’s Stormwater Management and Erosion Control Manuals, the Tree Manual would feature ‘lay language’ information, diagrams and illustrations to foster creative site design and construction methods. The Tree Manual could potentially integrate information and guidelines contained in the City’s existing “Tree and Landscaping Manual”. The Tree Manual could be readily updated to reflect the ongoing evolution in urban forestry management guidance and technologies. The contents might look something like this:

### **City tree regulations - how to stay out of trouble!**

- Tell me what I can (and can’t) do – allowances, prohibited activities such as topping or harming active migratory bird nests
- When do I need a permit? - in development and non-development situations; trees on public, city and private property;



- What's a Tree Plan? – tips and examples for producing Tree Plans and producing complete project applications
- When should I hire an arborist? – to plant, prune and remove trees; to prepare tree reports when development is proposed
- Designing with Trees – innovative examples and approaches to integrate trees into proposed development and the payoff
- Measuring Trees – dealing with straight trunk; trunks on angle or slope, split trunk; canopy density



- Protecting Trees – fencing requirements; avoiding compaction in the root zone; alternative methods for root protection; subsurface root protection
- Tree planting requirements – tree canopy size, tree spacing, tree replacement and mitigation, recommended species
- Tree appraisal methods
- Standards and specifications – distance from utilities, clearance and visibility
- Forms

Potentially the Tree Manual could incorporate elements of the Tree and Landscaping Manual and, along with potential future administrative rules relating to trees, could complement other City manuals including:

- Water Bureau Developer's Manual - ARB UTL-4.02
- BES Stormwater Management Manual - ARB ENB-4.01
- BES Sewer and Drainage Facilities Design Manual - ARC ENB-4.14
- BDS Erosion and Sediment Control Manual - ARB ENB-4.10
- PBOT Design Guide for Public Street Improvements - ARB TRN-1.10
- Fire and Rescue - Design Manual for Fire Protection Systems and Processes - ARB FIR-2.01

A basic project work plan is presented below. Currently, it is envisioned that the project will be coordinated by the Urban Forestry program staff, in close collaboration with the Bureaus of Development Services and Environmental Services. The bureaus of Planning and Sustainability, Transportation, and Water will also be called on to assist or review draft products. The existing Urban Forest Action Plan Coordinating Committee will be consulted during the project.

## Citywide Tree Policy Review and Regulatory Improvement Project

	Tasks and Products by Fiscal Year (FY)
<b>1</b>	<b>FY 2010 - 2011</b>
1a	<b>Hone project work plan</b> Products: <ul style="list-style-type: none"> <li>- Tasks, timelines, products</li> <li>- Stakeholder input</li> <li>- ID partners and other funding sources</li> </ul>
<b>2</b>	<b>FY 2011 - 2012</b>
2a	<b>Project Management</b> Products: <ul style="list-style-type: none"> <li>- Work plan (tasks/timeline)/budget</li> <li>- Project website development and maintenance</li> <li>- Interbureau coordination</li> <li>- Stakeholder involvement strategy development/coordination</li> <li>- Grant and contract management</li> </ul>
2b	<b>Tree Benefits – Ecosystem Services/Watershed Health</b> Products: <ul style="list-style-type: none"> <li>- chapters/brochures and website:</li> <li>- video?</li> </ul>
2c	<b>Tree Care ‘module’</b> Products: <ul style="list-style-type: none"> <li>- chapters/brochures and website:               <ul style="list-style-type: none"> <li>- tree planting and establishment</li> <li>- tree maintenance (pruning, etc.)</li> <li>- root protection methods</li> </ul> </li> </ul>
2d	<b>Tree ‘Topics of interest’</b> Products: <ul style="list-style-type: none"> <li>- chapters/brochures and website               <ul style="list-style-type: none"> <li>- trees and wildlife/habitat</li> <li>- fruit and nut trees</li> <li>- trees and solar energy systems</li> </ul> </li> </ul>
2e	<b>Tree Code Primer</b> Products: <ul style="list-style-type: none"> <li>- handouts explaining tree codes for development and non-development situations (scenarios, guidance)</li> <li>- forms w/ examples of complete permit applications, supporting documentation, trees on site and tree plans, etc.</li> <li>- instructions for accessing tree permit information</li> </ul>
<b>3</b>	<b>FY 2012 - 13</b>
3a	<b>“Designing with trees”</b> Products: <ul style="list-style-type: none"> <li>- case studies</li> <li>- illustrations - land divisions, developments, small sites</li> </ul>

### Proposed Tree Manual Products and Budget

City staff have started compiling information to produce the Tree Manual. The Tree Manual will be primarily maintained on-line, with targeted printed products. Other types of products may include videos or K-12 grade curriculum. The Tree Manual would be produced in a manner that supports City sustainability and waste reduction goals, and that makes the information accessible to the public at little to no cost. The manual will be readily accessible on-line as an interactive hyperlinked document. People seeking information would be able to get answers to questions on line, or could print the pertinent sections of the manual rather than purchasing a complete document.

The estimated cost and time needed to produce the Community Tree Manual will vary depending on staffing, funding availability and the extent of community involvement. Staffing is needed to coordinate the project, including coordination with bureaus, stakeholder involvement, contract and grant management, and product development. Staffing or other professional services are needed to develop the technical products, including producing text and graphics, creating and maintaining an interactive website, video production, and translation of materials for non-English speakers.

Currently the proposed budget for the Tree Manual includes the following one-time allocations from the general fund in FY 2011-12:

- \$48,000 for 0.5 Botanical Specialist II in the Bureau of Parks and Recreation
- \$47,000 for 0.5 City Planner II in the Bureau of Development Services
- \$40,000 professional services contract(s) to assist in website development, graphics, etc.
- The Bureau of Environmental Services intends to staff the project using existing staff resources.

In order to hone the project scope and costs, and to ensure public acceptance and “ownership” of the Community Tree Manual, the next step is to engage City bureaus and community stakeholders in the project scoping process. This collaboration would help hone the scope of the Tree Manual, identify key audiences and users of the products, identify potential partnership and funding opportunities.

### Single Point of Contact and 24-Hour Tree Hotline Pilot Project

#### Overview

To complement the adoption of the new, consolidated tree code (Title 11) and updates to the Zoning Code (Title 33), the project recommendations include the establishment of a single point of contact to field public inquiries, answer basic questions, and direct people to the appropriate City program staff, for various tree related regulations and procedures. This position will also help administer tree permits, including providing information to applicants, initial permit screening and logging into the permit tracking system, and reviewing applications for completeness. This position may be authorized to issue Type A permits or pruning permits where documentation from a qualified professional is included with the application.

Given these important functions, the single point of contact position will serve as a bridge between Urban Forestry and Development Services for customers and the public, to seamlessly integrate tree requirements for both development and non-development situations and negate the need to navigate through two separate bureaus to obtain tree information. Since a majority of inquiries will be coming in via the phone and the new tree website, the physical location of the staff fulfilling the screening function is not critical. Currently an Office Support Specialist II (OSSII) at Urban Forestry field public inquiries determines if they need to talk to BDS or Urban Forestry staff. The proposal is to add a Botanic Specialist I to work closely with the OSSII at Urban Forestry staff at Delta Park to answer the more complicated and difficult questions, help develop informational materials, and assist in tree permit research and administration.

In addition, the proposal includes establishing a 24-hour hotline to field questions and reports of tree cutting after normal City business hours and on weekends. Tree cutting after normal business hours and on weekends was a key concern outlined in the Southwest Tree Committee report, and was also raised during Citywide Parks Team meetings and other forums.

The Citywide Tree Project Stakeholder Discussion Group strongly supported establishing the single point of contact to assist the public by connecting them with the right bureau and expertise for their questions. Strong support was also voiced for the 24-hour hotline to improve customer service, help prevent inadvertent or intentional tree cutting violations, and to provide information during non-business hours. The Inter-bureau Project Team worked together to develop the following proposal and cost estimates.



### Objectives

- The Single Point of Contact (SPoC) will be readily accessible to the public, providing prompt responses to questions on the full range of City tree programs. The SPoC will be well versed in City programs and regulations various tree-related permitting issues. The SPoC will have the ability to refer citizens to tree care and permit related information.
- The 24-Hour Tree Hotline pilot project will utilize the Bureau of Environmental Services' 24-hour Spill-Response line to facilitate processing of citizen complaints, confirm existence of a permit for a subject property, and collect information at the site when active tree cutting may be in violation of City regulations. Public awareness about the hotline and after-hours staff response should help deter egregious illegal tree cutting activities. It should be noted that the effectiveness of the tree hotline will likely depend on the establishment of the standardized tree removal permit system and upgrade of the tree permit information into TRACS.

These two services in combination will achieve the following benefits:

- Coordinated cross-referral with existing after hours phone lines and services
- Increased efficiency of City staff by utilizing automated telephone routing technology to help direct citizens to the appropriate City program.
- Improved customer service by providing automated responses acknowledging submittal of an inquiry. Automated responses may be programmed to be multi-lingual as well to reach a wider audience. Standard operating procedures may be later developed to establish timelines to respond to these inquiries.
- Enhanced routing of calls to the responsible bureau and program. Urban Forestry would be the entry point for questions about trees and tree permit requirements when no development is occurring, while BDS would be the entry point for tree requirements during development.
- Efficient technical and administrative support to ensure that tree permits are processed consistently and in a timely manner, and to support and facilitate the work conducted by City tree inspectors.
- Enhanced data and evidence collection on after-hours illegal cutting.
- Increased opportunities to raise public awareness of trees in neighborhoods, to deter violations, and to educate citizens about how they can access tree permitting information.

### Portals - Tree Phone Line and Website

**Tree Telephone Contact Line.** A telephone contact line will be established provide an entry point for public inquiries and tree complaints. During normal work day hours, the single point of contact will field questions relating to tree programs, or route calls and emails to appropriate bureaus. This will be a live response. The single point of contact will be available by phone, email, or in person. Permit applications can be picked up at either the DSC or Delta Park Urban Forestry office, and returned by mail or in person to Delta Park or by email. It is also envisioned that permits may one day be applied for online.

At the conclusion of each workday, the daytime telephone line would shift to “after-hours mode”. The system could route calls by using a touchtone menu operating system, for example the system could route callers as follows:

- For emergencies “hang up and dial 911.”
- For trees obstructing or threatening to fall into the street, “press 1”. The caller would be routed to the existing Bureau of Parks and Recreation Urban Forestry response crews called out by Stanton Yard.
- Callers concerned about possible illegal tree removal currently taking place, “press 2,” to be routed to an after hours voicemail message.

The caller could leave a detailed message including the site address, whether the tree is on private property or in the planting strip or other public property, the type of tree removal activity, and questions/concerns. Callers would also be asked to leave their name and contact number so that a staff person can return the call “within the next 30 to 60 minutes.”

For the duration of the pilot project, these after-hours calls will be automatically routed to the existing Bureau of Environmental Services (BES) Spill Response Hotline, 823-7180. BES staff would verify through the City’s permit tracking system whether a tree removal permit has been issued or if a Tree Plan has been approved as part of a development proposal.

If there is no permit on record and there is a reasonable chance of stopping the tree cutting, staff could conduct a site visit to inquire whether the responsible party had the proper permits or to collect documentation of the potentially illegal cutting (e.g., photos). If there is not a reasonable chance of stopping the illegal tree cutting, the caller would leave information for subsequent follow up. All confirmed un-permitted or otherwise illegal tree cutting activities would be routed to Urban Forestry or BDS staff for enforcement.

Callers inquiring about general permit requirements or other general tree questions could automatically obtain additional information regarding the permit program and office hours would be played, and the caller could leave a message, which would be returned during the next 24 to 48 hours.

### **Tree Website**

In addition to the telephone line portal, the bureaus plan to create a new City website specifically for trees. The website would provide the following types of functions:

- Access for the public to apply online for a tree permit (rather than making a trip to Delta Park or BDS)
- Prompts to help users determine which permits are needed
- Phone numbers to call with questions during and after normal business hours
- Links to BDS brochures regarding the tree regulations
- Resources and links to the community tree manual and information to learn more about trees and tree care, how to preserve trees through the development process, selecting the right tree for the right location, the value of trees, etc.

### **Program Monitoring**

The 24-Hour Tree Hotline pilot project will last one to two years. During this period staff will monitor activity, evaluate the demand for the service, and determine if the program should be continued, modified or terminated. The following information should be collected and assessed:

- Number of complaint calls, number of calls resulting in an enforcement case, and number of site visits made to address after hours illegal tree cutting.
- Effectiveness of technology used to route and process different tree-related situations.
- Satisfaction of callers using the Single Point of Contact and automated phone system.
- Additional resources needed to support continuing these customer services, especially after-hours efforts.

### Costs

- Single Point of Contact – This position would be staffed by a Botanic Specialist I, Forestry Specialty at 1 FTE. BDS and Parks will further develop the job description in preparation for the fiscal year 2012-13 budget process. The ongoing cost range for this position at the top of the pay scale and with benefits would be approximately \$90,000.
- Phone Tree System Install – BTS estimates that this request is within the existing calling system. Assume \$1,000 for any incidental line costs and up front work.
- After Hours Response – Assume 3 after hours calls a week, on-call fees already being paid by BES, and ½ hour of research per tree call. Assume every 4th call needs a site visit which takes 2 hours. Assume overtime rate 1.5 at the top of the Environmental Tech II wage rate (\$30.72x 1.5 = \$46.08) and 15% overhead.

156 calls x ½ hour x \$46.08 =	\$3,594
39 site visits x 3 hours x \$46.08 =	\$5,391
Overhead =	<u>\$1,348</u>
TOTAL	\$10,333

### Permit Tracking System & Public Access to Permit Information

#### Overview

The City currently maintains a permit tracking software system (TRACS) that was established for development and land use-related case activity. This system has since been expanded to track public works permits, property nuisance abatement, and more recently Urban Forestry's tree permits.

The current tree permit tracking system has been designed primarily to respond to City and Street tree permit activity, not to track permits for trees on private property. Due to budget limitations the current system is not set up to process fees or to involve other bureau reviewers.

The proposal is to upgrade the City's permit tracking system to support the City tree permit system as proposed by the Citywide Tree Project before the updated tree permit regulations go into effect. Updating the permit tracking system will require revising forms and letters to reflect new code citations and requirements. Type A permits, Type B permits and Programmatic Permits will need to be incorporated into the types of Urban Forestry permits that TRACS handles. Additional information fields will help streamline the permit reviews and make reporting more meaningful. The system will also need a

field so that reviewers can confirm that the proposed tree removal will not violate any zoning requirements or land use conditions.

In addition to process and reporting efficiencies gained, the Permit Tracking system allows posting of information online at PortlandMaps. Applicants, neighbors, and others can obtain information on the status of permit applications or enforcement actions in the area. This tool will help the City investigate complaints as well. Future improvements to PortlandMaps may even allow the system to notify individuals when tree permits are applied for in their neighborhood. At present the tree permit system is designed for internal city use, making it difficult for the public to access the information. The system needs to be set up to process permit fees, and to allow the public to access information on the status and scope of tree permit applications via PortlandMaps

### Objectives

- The proposed upgrades to the Permit Tracking system will coordinate and speed tree permit reviews, enable faster payment processing, allow payment by cash, check, or credit card.
- Make the permit system more transparent and accessible to permit applicants and the public. Applicants will be able to obtain real-time information on their application status. Interested parties can research tree-related activity in their neighborhoods, information on posted public notice of pending tree removals, and confirm that permits were obtained before calling in a complaint.
- Changes to the tree permit system will enable remote access to this information which is essential for the after-hours tree hotline to function.
- Provide the ability to track and analyze trends in tree removal and replacement citywide.

### PROPOSAL

The Bureau of Development Services recently received City Council approval to convert TRACS to a new permitting software system (Accela). The conversion is expected to take two years or longer to complete. While tree permit tracking system improvements could potentially be integrated into the system-wide conversion to Accela, the new system might not be ready before the Title 11 regulations become effective.

To avoid this problem, the proposal is to contract for services to complete the necessary improvements to TRACS during FY 2011-12 to ensure that the system is ready by the time the new regulations go into effect. This upfront investment should offset costs to



the Accela conversion project by readying the TRACS Tree Permits for the conversion as opposed to trying to integrate these system improvements concurrent with the conversion process.

### Program Monitoring

With the permit tracking system the City can track:

- Number of permits
- Number of enforcement cases
- Number and size of trees removed
- Type of tree removed – evergreen vs. deciduous
- Number of mitigation inches planted
- Number of mitigation inches paid in lieu of planting
- Number of appeals

### Costs

- The cost to upgrade TRACS for Tree Permits will depend on the amount of time required to program and test the changes to the system. Initial Bureau of Technology (BTS) Services staff believe that the following estimates are conservative based on their familiarity with TRACS programming for other types of permits. Since BTS will be largely occupied with the Accela conversion, this work will need to be contracted to a qualified service provider.

Assume 320 hours at \$100 per hour.

$$320 \text{ hours} \times \$100 = \$32,000$$

- The costs for adding Tree Permit information to PortlandMaps should be negligible and can be addressed as part of future work assignments with the Accela conversion project. No additional cost is assigned to this task.

### Neighborhood Tree Plan

#### Introduction

The Bureau of Parks and Recreation Urban Forestry Program is interested in advancing the concept of a Neighborhood Tree Plan. The Neighborhood Tree Plan concept was also supported by the Citywide Tree Project Stakeholder Group.

The Neighborhood Tree Plan would provide a mechanism for the City and community to work as partners in setting priorities for trees in specific neighborhoods or areas of the city. The plan could be entirely non-regulatory, providing a “vision,” goals and set of priority projects and timelines. The Neighborhood Tree Plan could also potentially be “endorsed” by the City Council, providing a tool to use in seeking public or private funding for implementation.

The Neighborhood Tree Plan could also serve as a kind of “master plan,” like the current Natural Resource Management Plans, with the purpose of to allowing tree related activities or projects with lesser or more streamlined permitting requirements.



*Tree planting*

#### Benefits

The Neighborhood Tree Plan offers unique benefits that cannot be obtained through individual tree permits and site-by-site tree preservation, maintenance and replacement. Benefits include the ability to:

- Establish tree preservation and planting goals for large sites or specific areas or neighborhoods

- Promote protection and enhancement of tree groves or corridors spanning larger areas or multiple properties
- Integrate objectives and activities for trees on public and private property, within and outside environmental resource areas (e.g., environmental and greenway overlay zones), and in development and non-development situations
- Focus tree planting on tree-deficient areas and community spaces (e.g., schools)
- Improve diversity of tree ages and species, and foster removal and replacement of nuisance trees, over time
- Generate opportunities to address other goals for stormwater management, traffic calming, solar access for energy systems and community or private gardens, integration of fruit and nut trees, etc.
- Opportunity to reduce conflicts between utility location and public works projects, and trees
- Leveraging funds and provide economies of scale (e.g., community tree planting projects)
- Fostering partnerships among neighbors

If the Neighborhood Tree Plan were adopted like a master plan, benefits might include:

- Offering ‘tree credits’ or ‘advance mitigation credits’ for proactive tree planting to increase ecosystem services
- Reducing the public and private costs associated with administering individual tree removal permits

### Questions

While staff and stakeholders support this approach, the following questions should be considered:

- How should the Neighborhood Tree Plan be administered, including tracking tree preservation, removal, planting and maintenance activities over time?
- How would the Neighborhood Tree Plan be integrated with regulations pertaining to vegetation removal and planting in resource overlay zones or plan districts where tree removal and/or planting is governed by the Zoning Code?
- How would the Neighborhood Tree Plan interface with rules pertaining to trees in development and non-development situations?

- Which persons or entities would be responsible for implementing Neighborhood Tree Plans?
- What kind of agreements might be helpful, given that the plan would address multiple properties and a mix of public and privately owned land?
- What are some approaches to develop Neighborhood Tree Plans? Should they be endorsed by City Council? Used as a framework to allow future projects without permits or with more streamlined permitting?

### Demonstration Projects

It is recommended that the City continue to pursue funding for Neighborhood Tree Plans. It would be beneficial to develop one or two demonstration projects, and in the process develop a general approach and protocol that could be used in future projects. The protocol could be included as a section in the City's Community Tree Manual.

The Urban Forestry Program would collaborate with other bureaus and Neighborhood Coalitions to identify one or more potential "demonstration neighborhoods." It might be possible to involve students, such as students in planning or landscape architecture fields, in partnership with the City and a 'demonstration neighborhood.'

### The demonstration project would involve:

- Developing tree related goals and priorities for the neighborhood, including priorities for preservation or enhancement of trees, groves, and corridors, canopy quantity, quality, and distribution, tree age and species diversity, stormwater management, food source, habitat, solar access or other objectives as appropriate
- Generating an implementation plan, and identifying one or more entities that would be individually or collectively responsible for monitoring and tracking plan implementation
- Identifying allowed and required tree removal, planting and maintenance activities, clearly describing how these allowances and requirements would supersede and/or interface with other relevant regulations for development and non-development situations, and on public and private property

### Funding

It is recommended that the City further develop the project scopes and explore potential grant or other funding options to carry them out. The City should seek potential partners including local academic institutions and public utilities to participate in the projects.

# Tree Canopy Benefits, Financial Impacts and Budget Proposal

The previous sections of this chapter present the Citywide Tree Project proposal to update, refine, and strengthen existing City tree regulations and related programs and customer service activities.

This section presents the estimated tree canopy benefits and costs to implement the project, and the current budget proposal. Additional information about the financial impacts of the project is provided in the Financial Impact Statement (exhibit to the ordinances)

## Tree Canopy Benefits

### Introduction

As described in previous chapters, implementing the Citywide Tree Project Recommended Draft proposal will enhance the quantity and the quality of Portland's trees and associated canopy, and helps ensure that current and future tree canopy is distributed and sustained throughout the city.

Specifically, new Title 11 Tree Preservation and Tree Density Standards will encourage preservation of large healthy trees through new development standards and the updated tree permit system. Preserving existing trees will contribute to the management of this important City asset and help protect and reinforce City and community investments in tree planting. Title 11 will also ensure that a baseline amount of trees is maintained through preservation or planting on development sites.

Title 33, Planning and Zoning updates will now emphasize preserving healthy, high quality trees, native trees, and tree groves, and preserving a minimum amount of trees on land division sites. Title 33 amendments will also prompt consideration of tree preservation in the context of Design Reviews and certain Conditional Uses, where appropriate. Title 33 amendments will also ensure that tree protection and tree replacement are addressed more consistently in existing environmental resource overlay zones and specified plan districts.

In non-development situations, the standardized tree permit system will continue to encourage retention of large healthy trees, while providing for more consistent tree replacement across the city. The new prohibition on planting invasive tree species on City property and rights-of-way will support City and community investments in



managing invasive plants and adds consistency with existing prohibitions on planting these trees in required landscaping or natural resource areas.

Canopy estimating approaches are described below for the following project recommendations:

- Standardized tree permit system for trees on private property
- Tree preservation and tree density standards applied to development permits
- Trees and land use reviews
- Trees replacement in environmental zone transition and resource areas

In some instances the estimates are for acres of tree canopy preserved *or* tree canopy planted to replace or mitigate for trees removed or tree standards not met. In these situations, tree preservation and tree planting are inversely correlated. One can see that the future canopy of trees planted will be greater than the area of canopy generated from trees preserved today. This reflects the proposal to give “extra credit” for preserving existing healthy trees, and to require more than a 1:1 tree replacement ratio. This account for the loss of that asset and the time needed for new trees to provide similar benefits to larger trees. Staff has taken an average of preservation and planting to come up with an overall number to use in project discussions.

Like estimates for the financial impacts of the Citywide Tree Project, the tree canopy estimates have been refined as the project proposal has evolved through the Planning Commission and Urban Forestry Commission hearings process.

### Approach

The following describes the general methodologies used to estimate incremental increases in tree canopy associated with the different components of the Citywide Tree Project. Changes in tree canopy would occur due to 1) increased preservation of existing trees, and 2) generation of future canopy through increased tree planting to replace existing trees or meet other requirements.

The scenarios developed to estimate the tree canopy generated each year are intended to be both plausible and conservative, to avoid over-estimating the projections. Therefore, the actual incremental tree canopy increases may be greater than the estimates. Relevant assumptions are also consistent with the assumptions used to evaluate potential financial impacts of the proposal (e.g., future development permit activity).

## Standardized Permit System for Trees on Private Property (Absent Development)

Permit System	Acres Preserved	Future Acres Planted
Single Family Lots		3.4
Currently Regulated Lots	0.35	3.59

### *Single Family Lots Eligible for the Homeowner Permit*

The standardized permit system will apply to trees on all lots in the city, including single family lots that are currently exempt from tree permit requirements. As a result, the permit system will address trees on 104,000 more lots in the city, or nearly double the lots addressed by current system. The additional lots contain ~ 37 percent of the total tree canopy in the city.

Currently the public is relatively unaware of the City's permit requirements for trees on private property. Only about 120 permits per year are filed with the City, while several thousand permits per year are filed for activities related to street trees. If private tree permit applications increased by 2 to 4 times given the additional lots and proposed "call before you cut" outreach campaign, the City would process about 500 permits per year, or 380 more permits than the 120 permits currently processed. (The City of Lake Oswego processes roughly 750 tree permits per year.)

The standardized permit system will establish a streamlined permit for homeowners, requiring replacement of any tree that is least 20 inches in diameter with another tree. If half of the total permit applications were for trees on these homeowner lots, the updated permit system would require replacement of 250 additional trees per year. If these replacement trees were, on average, medium canopy type trees providing about 600 s.f. of canopy at maturity, this would generate 3.4 additional acres of canopy in the future.

$$\begin{aligned} & (250 \text{ trees planted/year} \times 600 \text{ s.f./tree}) / 43,560 \text{ s.f. per acre} \\ & = 3.4 \text{ future canopy acres planted per year} \end{aligned}$$

### *Currently Regulated Lots*

The standardized permit system will streamline current requirements by requiring 1:1 tree replacement for dead, dying and dangerous trees, and nuisance species trees, and up to 4 healthy trees per year between 12 inches and 20 inches in diameter. The City will continue to require up to inch-for-inch replacement for trees larger than 20 inches in diameter and requests to remove more than 4 healthy trees at least 12 inches in diameter.

UF staff reports that currently ~80 percent of the tree removal permit applications are for trees that are dead, dying or dangerous (DDD). If half of the total permit applications were for trees on the currently regulated lots, and 80% of those applications were for removal of DDD trees, the updated permit system would require replacement of 200 unhealthy trees per year. If these replacement trees were, on average, medium canopy type trees providing about 600 s.f. of canopy at maturity, this would generate 2.75 additional acres of canopy in the future.

$$\begin{aligned} & (200 \text{ trees planted/year} \times 600 \text{ s.f. per tree}) / 43,560 \text{ s.f./acre} \\ & = 2.75 \text{ future canopy acres planted/year} \end{aligned}$$

For the remaining 50 healthy trees, we assume that most of these trees are large trees that are no longer wanted. If half (25) of the trees are less than 20 inches in diameter and qualify for the 1:1 tree replacement, this would generate an additional 0.34 acres.

$$\begin{aligned} & (25 \text{ trees planted/year} \times 600 \text{ s.f. per tree}) / 43,560 \text{ s.f./acre} \\ & = 0.34 \text{ future acres planted/year} \end{aligned}$$

If the other half (25) of the remaining healthy trees are at least 20 inches in diameter, the City would require somewhere between one replacement tree and an inch-to-inch replacement. Based on City experience the inch-for-inch replacement requirement often acts as an effective deterrent to tree removal. If City required half of the 25 trees to be replaced with 3 trees (12x3=36 replacement trees), and half to be replaced inch for inch which in effect deterred their removal, and the canopy of those existing trees was on average 1,200 s.f., the canopy effect would be:

$$\begin{aligned} & (36 \text{ trees planted/year} \times 600 \text{ s.f. per tree}) / 43,560 \text{ s.f./acre} \\ & = 0.5 \text{ future acres planted/year} \\ & (13 \text{ trees preserved/year} \times 1,200 \text{ s.f. per tree}) / 43,560 \text{ s.f./acre} \\ & = 0.35 \text{ canopy acres preserved/year} \end{aligned}$$

### Tree Preservation and Density Standards (Applied Through Building Permits)

Development	Acres Preserved	Future Acres Planted
Tree Preservation	62	
Tree Density		121

New Title 11 Tree Preservation Standards will apply to all development permits where site disturbance will occur and trees 12 or more inches in diameter are present (with some exceptions). Consistent with assumptions used to estimate fiscal impact these

standards will address approximately 2,250 permits per year. If on average 1 large healthy tree were preserved on these sites, an additional 2,250 trees would be preserved. If the average canopy of an established mature tree was 1,200 square feet, the proposed standards would preserve an additional 62 acres of canopy per year.

$$(2,250 \text{ sites/year} \times 1,200 \text{ s.f. preserved per tree}) / 43,560 \text{ s.f./acre} = 62 \text{ acres preserved}$$

It was projected for fiscal impact assessment the new Tree Density Standards will apply to 4,400 development permits per year. The standards will vary by development type. Across the development types (excluding open space zones), the tree density standards are projected to establish and maintain canopy coverage for distinct urban land elements (ULEs).

One medium canopy tree will generally be required for each 500 square feet of site area not occupied by buildings. If on average, each of the 4400 permits where tree density standards are applied results in planting two medium canopy trees, the net result would be 121 acres of future canopy.

$$(4400 \text{ permits/year} \times 2 \text{ trees planted} \times 600 \text{ s.f. per tree}) / 43,560 \text{ s.f./acre} = 121 \text{ future acres planted/year}$$

### Tree Preservation and Land Use Reviews

Land Use Reviews	Acres Preserved	Future Acres Planted
Tree Preservation Criteria	5	
<ul style="list-style-type: none"> <li>Plus improved quality preservation on 200 sites per year</li> </ul>		

The proposed new land division criteria should significantly improve the quality and quantity of tree preservation on more than 165 sites per year. The focus will be on preserving large healthy trees, tree groves and native trees. Additionally, trees on property lines will now be counted toward meeting preservation requirements.

The proposal includes establishing new tree preservation considerations for certain conditional use/master plan and design reviews. It is estimated that this would provide opportunities to preserve trees during an additional 35 reviews per year.

If 2 additional trees were preserved on half of the land division sites (2 trees x 0.5 x 165 sites = 165 trees), and 1 additional tree was preserved on half of the conditional use and design review cases (1 tree x 0.5 x 35 sites = 17 trees), an additional 182 trees would be preserved each year. Preserving these trees would also help applicants meet the

preservation and density standards at time of building permit. If the average canopy of an established mature tree was 1200 square feet, this would preserve an additional 5 acres of canopy per year.

$$\begin{aligned} & (182 \text{ trees preserved/year} \times 1,200 \text{ s.f. per tree}) / 43,560 \text{ s.f./acre} \\ & = 5 \text{ acres tree canopy preserved/year} \end{aligned}$$

### Tree Replacement in Environmental Zones

Environmental Zones	Acres Preserved	Future Acres Planted
Replacement requirements		4.4
<ul style="list-style-type: none"> <li>Plus conversion of nuisance trees to native tree species</li> </ul>		

The proposal will clarify that trees in environmental overlay zone transition areas (~1,400 acres) must be replaced with native or non-nuisance species trees. This would apply to trees 6 inches or more in diameter, in both development and non-development situations. Currently these trees are not required to be replaced so the potential impact on tree canopy could be substantial over time.

Assuming only 1 tree per 10 acres of transition area received a permit each year, with requirements to replace with another tree, and the replacement trees were medium canopy type trees (on average), the additional replacement would generate almost 2 more acres of future canopy annually.

$$\begin{aligned} & (1400 \text{ acres}) \times (1 \text{ tree planted/year} / \text{per } 10 \text{ acres}) \\ & = 140 \text{ trees planted/year} \end{aligned}$$

$$\begin{aligned} & (140 \text{ trees planted/year} \times 600 \text{ s.f. per tree}) / 43,560 \text{ s.f. / acre} \\ & = 1.9 \text{ acres future canopy planted/year} \end{aligned}$$

Moreover, the proposal clarifies that in the resource areas of environmental zones, replacement trees are required for non-native trees, as well as dead, dying and dangerous trees, and trees located adjacent to structures. These trees are presently exempt from replacement requirements. Replacement trees planted in the resource areas are required to be native species.

Assuming only 1 tree per 100 acres of resource area received a permit each year, with requirements to replace with another tree, and the replacement trees were medium canopy type trees (on average), the additional replacement would generate almost 2.5 more acres of future canopy annually.

$$(18,000 \text{ acres}) \times (1 \text{ tree replaced per } 100 \text{ acres}) = 180 \text{ trees replaced/year}$$

$$\begin{aligned} & (180 \text{ trees planted/year} \times 600 \text{ s.f. per tree}) / 43,560 \text{ s.f. / acre} \\ & = 2.5 \text{ acres future canopy planted/year} \end{aligned}$$



## Summary of Estimated Canopy Benefits from Tree Project Proposal

	<b>Acres Preserved</b>	<b>Future Acres Planted</b>
Tree Permits	0.35	7
Development	62	60-121*
Land Use Reviews	5	
Environmental Zones		4.4
<b>TOTAL</b>	<b>67.35</b>	<b>72.4 - 132.4</b>

\* The City's current landscaping standards also generate additional tree canopy, however the Tree Density Standards provide assurances that baseline tree capacity is maintained even if landscape standards do not apply or are modified or waived. Trees planted to meet Tree Density Standards may also be used to meet Zoning Code landscaping standards so these rules are complementary and reinforcing. If it is assumed that only half of the additional tree canopy is attributable solely to the Tree Project proposal then the total annual net increase in tree canopy for development would be about 60 acres.

## Comparing Tree Canopy Generated By the Tree Project Proposal with Canopy Generated By Tree Planting Alone

	<b>Acres Preserved</b>	<b>Future Acres Planted</b>
Tree Project Proposal (net)	67.35	72.4
City Tree Planting Alone		12.3

During the Planning Commission and Urban Forestry Commission hearings process stakeholders asked how much tree canopy benefit would be generated if the City invested the equivalent of the project implementation costs solely on planting trees.

The ongoing implementation costs of the project proposal are estimated to be \$535,000 to support the staffing necessary put these programs into action.

According to Urban Forestry staff, the per tree cost of planting and establishing a 2 inch tree is estimated to be \$600:

Tree cost	each/incl. acquisition and delivery	\$175
Volunteer planting	1 hr coordinator	\$60
Establishment	20 visits X .25 hr for 2 seasons	\$375
Total		\$600

By applying the ongoing implementation costs to plant trees instead of administering the proposed regulations, the City could plant approximately 892 trees per year. Assuming the trees were medium canopy type trees (on average), this planting effort

would generate approximately 12.3 acres of future canopy annually. No trees would be preserved through this approach.

$$(\$535,000/\$600 \text{ per tree})=892 \text{ trees}$$

$$\begin{aligned} & (892 \text{ trees planted/year} \times 600 \text{ s.f. per tree}) / 43,560 \text{ s.f./acre} \\ & = 12.3 \text{ acres of future canopy planted/year} \end{aligned}$$

Considering that the project proposal would generate a total of almost 200 acres of current and future tree canopy, the proposed regulatory programs would achieve over 16 times the amount of tree canopy than City planting efforts alone.

$$(199.75 \text{ acres gross}/12.3 \text{ acres})=16.24 \text{ times more canopy}$$

Accounting for the fact that existing landscaping requirements of the Zoning Code also generate additional tree canopy that could be reflected in the acres planted through development, the net tree canopy that is solely attributable to this proposal remains well over 130 acres per year and more than 10 times the canopy that would be generated than had the City invested an amount equivalent to the project costs to plant trees only. Moreover, City tree plantings tend to be public property, while the proposal will foster equitable distribution of trees on public and private land throughout the city.

$$(139.75 \text{ acres net}/12.3 \text{ acres})=11.36 \text{ times more canopy}$$

## Costs and Budget Proposal

### Introduction

Although the Citywide Tree Project proposal is intended to streamline and standardize current City programs the proposal also increases the level of service provided by the City and will require a net additional investment to achieve desired benefits.

Together the City bureaus estimated the cost to implement the Tree Project, including changes in workload, staffing, equipment, and professional services. Staff also identified likely funding sources for each element of the proposal.

### Approach

Staff assessed the financial impact for:

- Tree Permits in Non-Development Situations
- Trees in Development Situations and Land Use Reviews
- Customer Service and Community Education Projects

First staff itemized the main tasks for these program areas. Additional tasks and/or time associated with the tasks were noted. The additional time was then multiplied by the estimated number of permits or cases to arrive at a total additional time and associated staffing needs per task. FTE (Full Time Equivalents) were translated into salary using appropriate job classifications. Benefits were included at a rate of 40% of salary. Staff was advised that the level of recommended staffing increases should not trigger additional overhead, however, vehicles and technical services costs were accounted for separately.

Land use review, building permit, and tree permit activity assumptions were generally based on historical data provided by BDS and Urban Forestry, and some assumptions as to how this activity could change based on proposed code updates.

The estimates represent the project incremental changes in time spent on tasks affected by the proposal - not the full time spent on that task. For example, BDS land use review staff currently spend time evaluating tree preservation standards and writing findings. An incremental increase in time is estimated only for staff to apply new and updated tree preservation criteria. . Any current deficiencies in staffing are not captured or addressed by this analysis.

### **Trees in Non-Development Situations**

The proposal includes recommendations to update the City's tree permit system for City, Street and Private trees when no development is occurring. The proposal will streamline the system overall by creating the Type A and Type B permits. The addition of a minimum 3 inch diameter threshold for permitting City and Street Trees will also streamline the system. Other recommendations are not expected to increase permit system staffing costs for City and Street Trees.

For private tree removal permits the proposal to extend City permitting authority to all properties in the city, including currently exempt single family lots, will increase staffing needs.

The staffing estimates for the proposed private tree removal permit program reflect an assumed number of permits each year. A range of potential permitting activity was considered to account for uncertainty. The staff and budget estimates summarized below reflect the high end of the range to ensure that fiscal impacts are not underestimated. An increase in permitting activity is expected as the tree removal permit program will apply to more properties. Public outreach is proposed to occur before and after updated requirements become effective, which will increase awareness of the permit program. The

staffing estimates do not reflect program efficiencies and economies of scale that are expected as the number of tree permit applications increase and procedures are become routine.

Currently, this City's tree permit system is paid for with general fund dollars. The \$35 application fee is charged does not cover the City's to administer the permit, inspect trees, deal with appeals, etc. The proposal is to continue charging a nominal fee for the permit to encourage compliance so the program would not be fee-supported.

### **Trees in Development Situations**

The proposal includes a number of recommendations to better address trees in development situations. Additional staff time will be needed to review, inspect and enforce the proposed standards and criteria related to trees. The proposal will also expand the role of Urban Forestry to provide technical assistance.

### Land Use Reviews and Private Development Permits

Staff initially used an annual average case load based on the years 2000 to 2008 for land use reviews and 2004 to 2009 for development permit activity. The data from these higher development years were used to ensure that the fiscal impact is not underestimated if and when development activity increases. Staff also used caseloads from 2009 to 2010 to estimate changes staff needs and costs during a period of lower development activity. The bureaus estimated the percentage of cases that would be affected by the proposal and additional time spent on individual tasks.

Additional costs are associated with increased Urban Forestry staff review and consultation and increased BDS staff time to apply updated standards and criteria related to trees, and to inspect for compliance with tree-related preservation, planting and protection requirements.

These activities will be funded through modest increases in land use review and development fees. Potential fee increases were estimated by applying the cost of the program across affected permit/case types. The projected fees include staff salaries, benefits and overhead. Some fees could be pro-rated based on project value or procedure type so that simpler projects pay a lower fee and more complicated projects pay a higher fee. Preliminary estimates of development fees show ranges between \$50 and \$60 for building permits. For land use reviews, fees could range from \$60 to \$70, to several hundred dollars, depending on how

they are applied across cases. BDS and Parks will propose specific fees for City Council adoption.

### Capital Improvement Projects and Public Works

The Citywide Tree Project proposal standardizes current infrastructure bureau practice for involving Urban Forestry when public projects are likely to affect trees. Staff estimated the costs for more routine and frequent coordination between Urban Forestry and the infrastructure bureaus on more projects. Costs were also estimated for additional surveying and CADD time to identify trees within and adjacent to the project area on plan sheets. When considered in relation to the overall budget for capital projects, the increase is expected to be minor.

Infrastructure bureau staff also noted that the proposal could result in increased construction costs for City projects in order to avoid impacting trees. These potential costs should be acknowledged, but because they would not be routine and would be very difficult to anticipate or quantify, they have not been estimated in this fiscal impact assessment.

Required mitigation for tree removal could also increase the cost of some CIP projects. However, mitigation requirements are generally equal to or less than current requirements. The proposal will also allow City projects to plant replacement trees on another site in the same watershed, rather than requiring payments for required mitigation. This flexibility should make it possible for most City projects to mitigate without significant cost increases.

### Customer Service and Community Education

The bureaus worked together to generate projected costs and staffing for customer service improvements as described in previous report sections.

To summarize, the primary implementers of the Tree Project proposal, the Bureau of Development Services (BDS) and the Urban Forestry Division of Portland Parks and Recreation will need additional staff resources to administer and enforce the new tree regulations and provide a single point of contact for the public. There are also additional one-time costs for staffing and services to produce the tree manual, upgrade the TRACS permitting system, pilot a 24 hour Tree Hotline, and pay for new permit review and inspection staff until sufficient development fee revenue has accrued to allow the BDS to shift to fee-based funding. Other infrastructure bureaus (Water, BES and PBOT) will also experience relatively minor cost increases to address trees more systematically in conjunction with City capital improvement and public works projects.



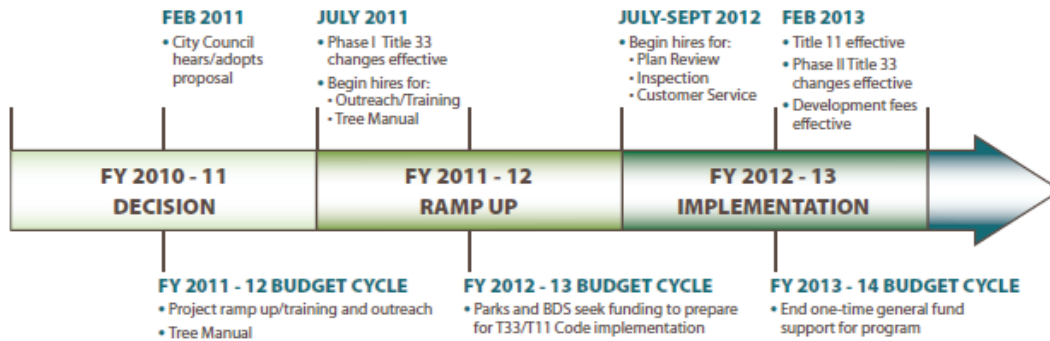
During the Planning Commission and Urban Forestry Commission hearings the Citywide Tree Project proposal was revised to reduce complexity and implementation costs. Ongoing costs were reduced by 43 percent, and total costs by 33 percent. For example the commissions approved the use of spot-check approach for tree-related inspections to reduce costs, at least for the near term.

In addition, the commissions approved a phased project implantation strategy and funding strategy. The phased approach will provide time to prepare for the new codes to go into effect, including development of informational materials for staff and the public, conducting public outreach, upgrading the TRACS tree permit tracking system, and producing the community tree manual. This approach also allows the initial start up costs to be gradually spread over a longer period, reducing the burden on annual budget.

The phased project implementation strategy is outlined below, followed by the Budget Proposal Summary Table. Note that much of the one-time funding needed for projects and ramp up activities in the first two fiscal years will end or shift to fee supported funding for ongoing program implementation.

# Citywide Tree Policy Review and Regulatory Improvement Project

## Phased Implementation Strategy



- **Decision (winter 2011) - City Council adopts the project proposal** and implementation strategy; directs the bureaus to budget for Phase I program activities.
- **Phase I (Fiscal Year 2011-12) – “Ramp Up”, Tree Manual , Phase I T33 Improvements**
  - City Council approves one-time general funds for project “ramp up” activities, i.e., permit tracking system upgrades, staffing in the Bureaus of Parks and Recreation and Development Services to develop administrative procedures and information on the new development standards and tree permit requirements, and to produce the Community Tree Manual
  - Cost-neutral Title 33, Planning and Zoning amendments effective July 2011
- **Phase II (Fiscal Year 2012-13) - Implementation “Transition”**
  - City Council approves increases in development and land use review fees and allocates general fund for staff to administer Title 11, Trees and remaining Title 33, Planning and Zoning improvements, to purchase vehicles for new tree inspectors, to hire the single point of contact, and to launch 24-hour tree hotline pilot project.
  - In this first year of implementation, fees will need to accrue before fee supported staff can be hired. For this reason, the proposal reflects one time support of these positions through the general fund, the Urban Forestry Fund, or another alternate source. After this first year, sufficient reserves should be available to support the required staffing.
  - Title 11, Trees, and remaining amendments to Title 33, Planning and Zoning and other City titles are effective February 1, 2013
  - Code and program monitoring begins.
- **Phase III (Fiscal Year 2013-14 and future) - Ongoing Program Implementation**
  - One-time general fund allocations are terminated
  - Code and program monitoring continues

# Citywide Tree Policy Review and Regulatory Improvement Project

## Budget Proposal Summary Table

### FY 2011 - 2012

Program Start Up	Use of Funds			Total	Source of Funds				
	Bureau	Use	FTE		GF - OG	time	Fees	CIP	UF Fund
<b>Program Organization and Start-up</b>									
PPR Functions	Parks	Botanic Spec II	0.5	\$48,000		\$48,000			
BDS Functions	BDS	Planner II	0.5	\$47,000		\$47,000			
<b>TRACS upgrade - Tree permits</b>									
PTE	Parks	Contract		\$32,000		\$32,000			
<b>Tree Manual</b>									
Project manager	Parks	Botanic Spec II	0.5	\$48,000		\$48,000			
"Code Made Easy" Content	BDS	Planner II	0.5	\$47,000		\$47,000			
"Watershed Services" Content	BES	Program Specialist	0.5	\$0					
PTE, M&S	Parks	Contract		\$40,000		\$40,000			
<b>TOTAL</b>			<b>2.5</b>	<b>\$262,000</b>		<b>\$262,000</b>			

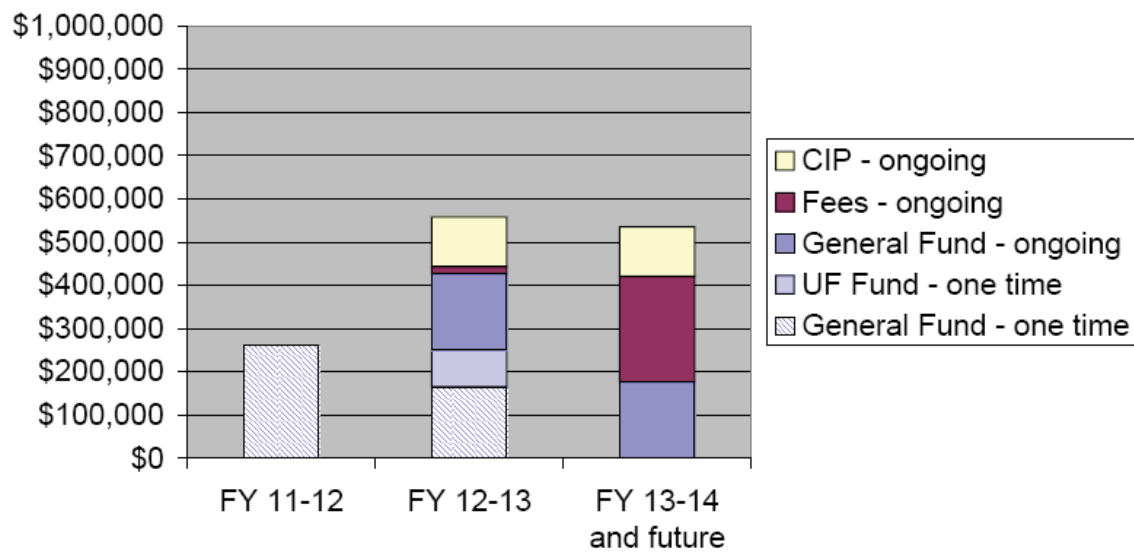
### FY 2012 - 2013

Year 1 of Full Program	Use of Funds			Total	Source of Funds				
	Bureau	Use	FTE		GF - OG	GF 1-time	Fees	CIP	UF Fund
<b>Land Use Reviews</b>									
Application Review	BDS	Planner II	0.5	\$0					
Arborist Consultation	Parks	Tree Inspector	0.2	\$17,000			\$17,000		
<b>Building Permits</b>									
Plan Review	BDS	Planner II	1.0	\$95,000		\$95,000			
Building Permit Inspection	BDS	Tree Inspector	1.0	\$85,000					\$85,000
<b>Capital and Public Works Projects</b>									
CIP/PW Plan Preparation	Water, BOT, BES	Survey/CADD	0.5	\$90,000				\$90,000	
CIP/PW Review/Inspection	Parks	Tree Inspector	0.3	\$25,000				\$25,000	
<b>Tree Permit Program</b>									
Tree Permit Inspector	Parks	Tree Inspector	1.0	\$85,000	\$85,000				
<b>Vehicles and Equipment</b>				\$60,000		\$60,000			
<b>Single Point of Contact/Permit Assistance</b>									
Delta Park Location	Parks	Botanic Spec I	1.0	\$91,000	\$91,000				
<b>24 hour Hotline (pilot)</b>									
Spill Response Line	BES	Overtime (existing staff)		\$10,000		\$10,000			
<b>TOTAL</b>			<b>5.5</b>	<b>\$558,000</b>	<b>\$176,000</b>	<b>\$165,000</b>	<b>\$17,000</b>	<b>\$115,000</b>	<b>\$85,000</b>

### FY 2013 - 2014 and future years ongoing

On-going of Full Program	Use of Funds			Total	Source of Funds				
	Bureau	Use	FTE		GF - OG	GF 1-time	Fees	CIP	UF Fund
<b>Land Use Reviews</b>									
Application Review	BDS	Planner II	0.5	\$47,000			\$47,000		
Arborist Consultation	Parks	Tree Inspector	0.2	\$17,000			\$17,000		
<b>Building Permits</b>									
Plan Review	BDS	Planner II	1.0	\$95,000			\$95,000		
Building Permit Inspection	BDS	Tree Inspector	1.0	\$85,000			\$85,000		
<b>Capital and Public Works Projects</b>									
CIP/PW Plan Preparation	Water, BOT, BES	Survey/CADD	0.5	\$90,000				\$90,000	
CIP/PW Review/Inspection	Parks	Tree Inspector	0.3	\$25,000				\$25,000	
<b>Tree Permit Program</b>									
Tree Permit Inspector	Parks	Tree Inspector	1.0	\$85,000	\$85,000				
<b>Single Point of Contact/Permit Assistance</b>									
Delta Park Location	Parks	Botanic Spec I	1.0	\$91,000	\$91,000				
<b>TOTAL</b>			<b>5.5</b>	<b>\$535,000</b>	<b>\$176,000</b>	<b>\$0</b>	<b>\$244,000</b>	<b>\$115,000</b>	<b>\$0</b>

## Budget Summary by Fiscal Year and Funding Source



## Chapter 3 • Trees and the Portland Plan

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### Background

**D**uring the Citywide Tree Project community stakeholders and City staff identified a set of broad tree-related policy issues that go beyond the scope of the project, and that are recommended for consideration as part of the Portland Plan project. This section presents these recommendations as excerpted and adapted from the *Portland Plan Urban Forestry Background Report, fall 2010*. Several recommendations have been added for consideration.

The Portland Plan will provide strategic direction for the city for the next 25 years, and will result in an update to the City's Comprehensive Plan and Central City Plan and will provide guidance and direction for citywide policies, growth management, and urban form. The Portland Plan identifies nine action areas to help Portlanders begin thinking about our challenges and developing solutions in an integrated way, finding the synergies between topics like transportation and health, sustainability and prosperity, and housing and education, for instance. Many of the action areas relate to urban forestry management, most directly the action item relating to natural resources and sustainability where tree canopy is identified as a key factor.

Addressing the urban forest in developing the City's long-range growth management and urban form policies will be somewhat of a shift in thinking. For example, urban planners have become accustomed to making the connection between air pollution, reduced parking availability, and reduced vehicle miles traveled. But changing on-street parking availability, street width, development type, and urban form to achieve tree preservation and planting targets has not yet been considered.

The Portland Plan provides an important opportunity to address the following fundamental City policies and practices relating to trees in the context of a comprehensive long-range planning project. Recommendations are presented below.

#### Reflect Urban Forestry Goals in the Comprehensive Plan

The Comprehensive Plan provides the context and guidance for future city programs, major capital projects, and a coordinated set of guidelines for decision makers to guide future development of the city. Managing the urban forest must be considered within



the context of City programs, growth, and capital projects; however, the Comprehensive Plan does not currently include explicit policies or objectives pertaining to the urban forest.

Three overarching goals for managing the city's urban forest established in the 2004 Urban Forestry Management Plan (UFMP) should be incorporated into the Comprehensive Plan:

- Protect, preserve, restore, and expand Portland's urban forest.
- Promote stewardship of the urban forest.
- Provide equitable urban forest benefits for all residents of the city.

These goals and associated objectives should be integrated with the desired built form and other elements of the spatial plan (consideration of town centers, transit corridors, green corridors, access to nature, etc).

As noted in the 1980 Comprehensive Plan, "Physical conditions, economic factors, environmental considerations, and citizen's attitudes do not remain static, but change over time. Therefore, these Goals and Policies must be reviewed periodically and be modified when necessary to respond to changing conditions." (Comprehensive Plan Goals and Policies, page 5)

The inclusion of urban forestry goals in the Comprehensive Plan will require an understanding about the goals and how they could be achieved. The urban forestry goals relate to and will need to be integrated with many of the existing Comprehensive Plan goals, include Goal 2, Urban Development; Goal 3, Neighborhoods; Goal 4, Housing; Goal 5, Economic Development; Goal 6, Transportation; Goal 7, Energy; Goal 8, Environment; Goal 11, Public Facilities; and Goal 12, Urban Design. For example, the plan should provide a clear policy link between trees and public health policy (air quality along roads), heat island/carbon footprint policy (identify heat island hotspots and relationship to tree canopy targets), and food policy (identify policy for fruit/nut tree planting).

### Shift Public Priorities -Trees as Infrastructure and a Key Community Asset

Historically, trees have been viewed primarily as an aesthetic or environmental asset, or as an element of landscaping. Trees also have been viewed, in some instances, as a constraint to development. Street trees are not systematically integrated into public and private infrastructure plans. Rather, existing trees often are removed or damaged as trenches, sidewalks, streets, and other facilities are constructed around them.

The Portland Plan project provides an opportunity to explicitly recognize of the key functions or “services” provided by trees in the urban and urbanizing environment:

- Stormwater management
- Air quality filtering and particulate capture
- Cooling and reduced heat island effects
- Aesthetics and improving neighborhood character
- Improvements to mental health and reduced crime
- Pedestrian-friendly streets
- Food source
- Wildlife habitat
- Slope stability and erosion control
- Carbon absorption
- Reduced energy demand as a result of shading
- Increased residential and commercial property value

These benefits accrue to all urban development types and uses, including across property lines. Explicit acknowledgement of the benefits of urban trees provides a tool for future growth decisions when tradeoffs are examined.

Through the Portland Plan project, the City has an opportunity to address trees as integral elements of its infrastructure and amenity systems. Existing City programs such as the Watershed Revegetation Program and the Grey to Green program are steps in this direction, but these concepts need to be carried forward into City programs. The benefits and fiscal impacts of trees should be further characterized and quantified. Trees should be managed as assets with level-of-service targets, schedules for future installation and maintenance, and schedules for replacement of aging trees. A diverse array of funding options, including selling bonds to obtain capital dollars, should be examined.

### Integrate Trees and Urban Form

The following should be addressed in evaluating Portland's future urban form goals and choices:

- Integrate trees and canopy targets and modeling as different scenarios are developed to accommodate growth. Recognize trees as critical elements of site design framework, neighborhood character, and the city's cultural landscape that need to be considered early in the planning and design process.
- Identify priorities and innovative mechanisms for preservation and planting, recognizing the respective roles of tree groves, habitat corridors and dispersed canopy in contributing to the City's goals. Identify tools and approaches to preserve and enhance tree groves and corridors on multiple properties.
- Design "tree systems" to provide key functions in different parts of the city. Examples include slope stability and healthy riparian corridors in hilly areas with streams, stormwater management and heat island mitigation in highly developed areas, pedestrian-friendly streets in neighborhoods and business districts, and air quality and carbon absorption citywide.
- Design with trees at site, neighborhood, watershed, and citywide scales, ensuring that space is reserved for trees. Consider canopy goals that reflect the zoning designation, lot size, and intensity of use in each zoning designation, and integrate canopy goals that are appropriate for the desired built form(s) for that zone. Integrate open space, impervious surface, and building coverage standards into the design standards that apply to new development.
- Address equity issues, such as tree-deficient areas, income, public health, and food security. For example, evaluate tree groves at the industrial/residential interface and along highways for noise buffer potential
- Provide for wildlife, including migratory birds.
- Evaluate the relative impacts that different housing types have on trees and space for trees. (For example, development standards in multifamily zones do not create sufficient open area to reach the tree canopy goals.) Evaluate setback and outdoor area requirements to ensure that there is enough space for trees. Consider urban form



*No space for trees*

that puts more emphasis on conserving green space in the interior of blocks in high-density areas.

- Identify tools to meet multiple objectives at an area scale. Possibilities might include transfers of development rights or flexible development standards. Identify and retain places for tree replacement and mitigation.
- Address the cumulative impacts of individual site planning decisions on the urban forest. The impacts of allowed development types should be evaluated as to how they generally do or do not maintain space for trees, along how they affect stormwater runoff, air pollution, heat island effect, and aesthetics.
- Evaluate the impact to trees from the lot confirmation process, which re-establishes historically platted lots. The confirmation process leads to infill development without the same consideration of trees that might occur during a land division process. Areas that have a high potential for lot confirmations should be identified so that potential tree impacts can be evaluated.

### Address Potential Tradeoffs

The Portland Plan should seek to optimize and integrate trees with other key City goals. Potential considerations include the following:

- Housing affordability and environmental justice. How might the City establish affordable housing, environmental justice, and environmental quality goals and policies that complement and support each other? How can the City avoid pitting tree preservation against affordability?
- Industrial land supply, employment targets, and housing. How should the City balance its goals for industrial land, employment, and housing with efforts to ensure that all property owners share the responsibility and cost of maintaining and improving the urban forest?
- Solar access and trees. Consider identifying solar receiving sites for community energy projects. Consider solar access requirements in subdivision, site, and building design, drawing on contemporary examples (such as Boulder, Colorado and Oregon City), tempered by past experience implementing similar regulations and the unintended effects on urban form. Provide policy direction regarding tree removal for the purpose of installing a solar energy system.
- Goals for use of public rights-of-way. Portland is unique and fortunate to have a pedestrian friendly small block city. Generally intersections are spaced 200-feet apart and rights-of-ways are narrow ranging from 50 to 60 feet in width promoting a very walkable community. There is growing competition for the use of this public space. A few decades ago much less demand was placed on these public spaces. Today the

City has many plans and goals to do more in the right of way. Historically, the typical sidewalk space provided space near the curb to locate utility poles, mail boxes, street lights, fire hydrants and street trees. Today there are also goals to locate stormwater planters & swales, bike parking and bike lanes, media racks, transit stops, and other amenities, while still providing sufficient vehicle space, parking and loading. In more urban areas of the City there are few to widen the rights-of-way given fixed building locations. As such it is a growing challenge to locate public demands, including street trees, in smaller and smaller areas. A comprehensive look balancing multiple goals and recognizing the limitations of the available public space is needed to optimize and balance of the competing needs.

- Regional issues. What is the impact of preserving the urban forest canopy on the urban growth boundary, taking into consideration the City's growth strategy and urban form priorities? Explore opportunities to work with other jurisdictions and Metro to integrate urban forest management into long-range regional policies.

### Other Questions and Research Recommendations

- Have other cities or jurisdictions shifted to view and manage "trees as infrastructure"? If so, what steps were taken and what kinds of data were used to inform and shape this approach?
- Property owners are currently responsible for the planting, maintenance, and replacement of street trees. In the interests of maintaining a public asset with public funds, what would be required for the City to take on this responsibility?
- Are there ways to shift the traditional locations for underground infrastructure within and adjacent to streets (sewer, water, and other utilities) to provide more space for trees?
- Evaluate the requirement that infrastructure be improved incrementally alongside infill development. Consider allowing development-related monetary contributions to be pooled for comprehensive design and one-time construction of facilities such as sidewalks and street tree improvements. This could delay the removal of trees for small stretches of roadway expansion, and allow comprehensive street tree planning.
- Continue working to integrate tree planting and maintenance with the sustainable stormwater green streets program.
- Evaluate the options to increase private tree planting, maintenance, and protection, including incentives, education and regulation.
- Identify practical, stable, dedicated funding sources to manage the urban forest.

## References

<http://eetd.lbl.gov/HeatIsland/> Lawrence Berkeley National Laboratory's Heat Island web page with information from research conducted on the effect of trees on energy use.

<http://www.naturewithin.info/> University of Washington's Human Dimensions of Urban Forestry and Urban Greening, features research on peoples' perceptions and behaviors regarding nature in cities.

Bureau of Environmental Services (2005), Portland Watershed Management Plan, City of Portland, Oregon.

Bureau of Parks and Recreation, (1995, and 2004), Urban Forestry Management Plan, City of Portland, Oregon.

Bureau of Parks and Recreation (2007), Urban Forestry Management Plan – Action Plan, City of Portland, Oregon.

Bureau of Planning and Sustainability (2009), City of Portland/Multnomah County Climate Action Plan.

Davey Resource Group, A Division of the Davey Tree Expert Company (2009) City of Portland Oregon – Initial Assessment of the Costs of Managing Street Trees as a Public Asset.

Donovan, G.H. and Butry, D.T. (2009) The value of shade: estimating the effect of urban trees on summertime electricity use. *Energy and Buildings*, (pending publication).

Donovan, GH and Butry, D.T. (2010) Trees in the City: Valuing street trees in Portland, Oregon. *Landscape and Urban Planning* 94(2010) 77-83.

Donovan, G.H., and Prestemon J. P. The Effect of Trees on Crime in Portland, Oregon. *Environment and Behavior*, 2010; DOI: [10.1177/0013916510383238](https://doi.org/10.1177/0013916510383238)

Entrix (2010) *Portland's Green Infrastructure: Quantifying the Health, Energy, and Community Livability Benefits*, City of Portland Bureau of Environmental Services

Head, Connie, (2006) "Survey of Community Tree Regulations in Georgia." Georgia's Tree Ordinances, Georgia Urban Forest Council, Inc. Decatur, GA

Karps et al. (2007) Portland's Urban Forest Canopy - Assessment and Public Tree Evaluation. Portland Parks and Recreation.



Keating, J. (2002) Trees: the oldest new thing in stormwater treatment. *Stormwater*, 3(2): p. 1-6.

McPherson et al. (2007) Benefit-based tree valuation. *Arboriculture and Urban Forestry*, 33(1): p.1-11.

McPherson et al. (2005) Municipal forest benefits and costs in five U.S. cities. *Journal of Forestry*, 103: P. 411-416.

McPherson et al. (2002) Western Washington and Oregon Community Tree Guide: Benefits, Costs and Strategic Planting. Center for Urban Forest Research, USDA Forest Service, Pacific Southwest Research Station.

Netusil, N.R., Chattopadhyay, S., and Kovacs, K.F. (2009) Estimating the Demand for Tree Canopy: A Second-Stage Hedonic Price Analysis in Portland, Oregon. *Land Economics*, (May 2010).

Mansfield et al. (2005) Shades of green: measuring the value of urban forests in the housing market. *Journal of Forest Economics*, 11: p. 177-199.

Nichols, Sandra S. (2007). Urban Tree Conservation: White Paper on Local Ordinance Approaches, Montgomery, AL

Nowak et al. (2006) Air pollution removal by urban trees and shrubs in the United States. *Urban Forestry and Urban Greening*, 4: p. 123-155.

Office of City Auditor, (2009). Management of City Trees, City of Seattle, WA.

Poracsky, J. and Lackner, M. (2004) Urban Forest Canopy Cover in Portland, Oregon, 1972-2002. Cartographic Center, Geography Department, Portland State University.

Swiecki, T. J., Bernhardt, E. A. (2001). Guidelines for Developing and Evaluating Tree Ordinances. <http://phytosphere.com/treeord/index.htm>.

University of Minnesota - Design for Health, Series Editor: Dr. Ann Forsyth (2007) Key Questions: Mental Health