

Portland Citywide Tree Code Implementation | Outreach Plan Summary

Outreach goals and objectives

Primary Goal: Portlanders are aware of updated tree regulations and where to obtain more information.

Objective: Community audiences are informed throughout 2015 to ensure the tree regulations are followed and required permits are obtained.

Objective: Staff are able to meet the City's outreach goals and the Code's reporting requirements in early 2016.

Secondary Goal: More Portlanders understand the value of the urban forest to quality of life.

Objective: Information is distributed to residents on the importance to protect and preserve the urban canopy in all tree code-related outreach throughout 2015.

Objective: Residents are provided opportunities to learn about the value of the urban forest through multiple channels and in culturally appropriate ways.

Objective: Outreach and messaging regarding trees and the tree code is coordinated through Urban Forestry's existing programs during the implementation phase.

Target audiences:

- Neighborhood-based audiences
- Historically underserved communities/advocacy groups
- Arborists and landscape companies
- Tree retailers
- Building industry professionals
- Tree/environmental advocacy groups
- News media

Key messages

Principal message:

"Call before you cut"

Primary messages:

**The updated tree regulations protect a valuable City asset.
Trees benefit all Portlanders**

Summary of tactics, audience and schedule

Tool	Audience Reached	Resources Needed	Status/Schedule
Public Service			
Website	Nearly all (Limited English proficiency readers, historically underrepresented communities less likely to use website.)	Existing	Complete. Ongoing review and update as needed.
Trees hotline, permit center staff	Neighborhood-based audiences Historically underserved communities Arborists and landscape companies Building industry professionals	Existing	Complete.
FAQs and other printed materials for use at permit center (Printed and online posting)	Neighborhood-based audiences Historically underserved communities Arborists and landscape companies Building industry professionals Tree/environmental advocacy groups News media	Existing with consultant support.	Complete. Review and recommend edits as needed.
Fact sheet	Neighborhood-based audiences Historically underserved communities Arborists and landscape companies Tree retailers Building industry professionals News media	Direct cost: Reprinting Consultant support to update to text and design.	Complete.
Magnet	Neighborhood-based audiences Historically underserved communities Arborists and landscape companies Tree retailers	Direct cost: Additional production.	Complete.
Translated materials (Fact sheet, magnet, webtext)	Historically underserved communities.	Direct cost: Translation	Translation complete. Confirm distribution plan with PPR Equity Managers.
Build Awareness			
Written appeal to partners to spread message with “suite of tools” (ad “bug,” fact sheet, newsletter article, social media text)	Neighborhood associations Tree/environmental advocacy groups Arborist and building industry organizations Historically underserved communities (translations may be needed – see memo)	City and consultant staff. Consultant assistance to develop content, design and distribution plan; consultant support for distribution.	Suite of tools is complete. Distribution: Spring 2016.
Articles or “ads” in city printed and electronic publications, including utility inserts	Neighborhood-based audiences Historically underserved communities Tree retailers Tree/environmental advocacy groups	City and consultant staff. Consultant assistance for writing and design.	Create “article”/ad for seasonal printed publications
City social media	Neighborhood-based audiences Building industry professionals Tree/environmental advocacy groups News media	City staff with consultant assistance. No direct costs. Uses existing accounts and partnerships.	Ongoing.
Information tables (Existing events, efforts and plans.)	Neighborhood-based audiences Historically underserved communities	City staffed.	June - October

Tool	Audience Reached	Resources Needed	Status/Schedule
Media relations Seasonal pitches to reporters during tree planting/maintenance times; submit news articles	News media (community papers, home and garden reporters) Spanish-language media Neighborhood-based audiences	City staff. No direct costs. Consultant assistance for writing articles.	September-October; early spring
Display ads (community newspapers)	Neighborhood-based audiences News media	Direct cost: Ad space Consultant assistance for design.	Complete.
Targeted community presentations	Neighborhood-based audiences Historically underserved communities	City staff.	June – December: Respond to requests to key groups, e.g. neighborhood coalitions.
Narrated PowerPoint of existing training presentation	Arborists, building industry	City and consultant staff.	TBD
Optional: Video targeted to homeowners (2-3 minutes)	Homeowners	Parks staff to be on camera and assist with script development. Consultant support for production.	TBD
Enhance Awareness			
Presentations and direct outreach to historically underrepresented groups	Neighborhood-based audiences Historically underserved communities	City staff. Hourly cost for translators.	As requested.

Evaluation and reporting

- Customer service survey to assess progress toward reaching key Tree Project goal
- Monitoring and evaluation report
- Website and social media analytics
- Number of emails/calls to hotline
- Earned media
- Informal community feedback via multiple channels

Title 11, Tree Code Outreach Log**Bureau of Development Services and Parks Urban Forestry**

Date	Event
5/28/14	Brooklyn Neighborhood Meeting
10/16/14	Urban Forestry Commission Training
10/22/14	Urban Forestry Commission Training
11/7/14	Development Customer Training
11/13/14	Tree Care Provider Training
11/18/14	Southwest Neighborhoods, Inc Tree Fair
11/20/14	Tree Care Provider Training
12/10/14	Development Customer Training
12/11/14	Tree Care Provider Training
12/17/14	BDS customer Training
12/17/14	Central Northeast Neighbors Coalition Training
1/14/15	Development Customer Training
1/22/15	North Portland Neighborhood Services Training
1/26/15	Southeast Uplift Neighborhood Coalition Training
1/28/15	Northeast Coalition of Neighbors Training
1/31/15	Sullivan's Gulch Neighborhood Training
2/18/15	Building Owners and Managers Association (BOMA) Training
2/18/15	American Society of Landscape Architects Training
3/11/15	Other Agency (Port of Portland, MCDD) Training
3/11/15	East Portland Neighborhood Coalition Training
5/6/15	Tree Care Provider Training
11/14/15	Neighborhood Tree Steward Training



Tree Code Oversight Advisory Committee Recommendations Report



February 2016

Committee Members

Linda Bauer, Pleasant Valley Neighborhood Association
Mark Bello, Urban Forestry Commission
Kris Day, Urban Forestry Commission
Bob Kellett, SE Uplift
Arlene Kimura, Hazelwood Neighborhood Association (co-chair)
Jim Labbe, Audubon Society of Portland
Nancy Seton, SW Hills Residential League
Helen Ying, Old Town China Town Neighborhood Association

Past Members (Jan – October 2015)

Phil Damiano, Development Review Advisory Committee
Jeff Fish, Fish Construction NW
Susan Steward, Building Owners and Managers Association (co-chair)
Justin Wood, Home Builders Association of Metropolitan Portland

Committee Staff

Mike Hayakawa, Tree Project Program Manager, Bureau of Development Services
Jenn Cairo, City Forester and City Nature Zone Manager, Bureau of Parks and Recreation
Stephanie Beckman, Senior Planner, Bureau of Development Services
Mieke Keenan, Program Coordinator, Bureau of Development Services
Lauren Wirtis, Community Service Aide II, Bureau of Development Services
Anne Pressentin, Senior Associate, EnviroIssues



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I. Executive Summary

This report summarizes the activities and findings of the Tree Code Oversight Advisory Committee (Committee), formed in December 2014 by Commissioner Amanda Fritz to oversee the first year of implementation of Title 11, Trees, which went into effect on January 1, 2015. The committee met in public session 14 times between December 2014 and December 2015.

The membership of the committee originally included 12 people with a range of backgrounds and interests, including members of the Urban Forestry Commission, the Development Review Advisory Committee, neighborhood representatives, and members-at-large. In November 2015, four members representing development interests resigned, leaving eight members for the final three meetings. The recommendations in this report primarily reflect the views of the eight final members, but attempts to incorporate the concerns and issues identified by the entire committee over the 12 months it met.

This report includes general findings on the tree code and its implementation, a summary of specific actions taken by the Committee, as well as additional recommendations for future projects and general principles that should be considered as implementation continues. These recommendations are in Section IV starting on page 3.

In summary, the Committee found that implementation of the code as adopted has mostly been a success: positions were funded, questions are being answered and permits are being reviewed and inspected. There are notable improvements in customer service and clarity about tree regulations that apply in a given situation.

However, it is perceived that urban canopy goals are not being met and community sentiment indicates that there is a significant gap between community expectations for the new code and the actual requirements of the code. This is particularly true with regards to the preservation of existing mature trees. The original intention for Title 11 was to balance the need for growth and tree preservation. However, the code was developed during a recession when very little development was occurring. Members said the code favors development interests over trees, has failed in too many instances to preserve trees that could be preserved with new development, and needs to be recalibrated to provide a better balance.

The Committee recognizes that tree preservation in a growing city is a challenge. Trees will be an essential component to maintaining livable neighborhoods as they become denser through infill development. In this way, trees are critical to making the development outcomes outlined in the Comprehensive Plan successful.

To this end, it is recommended that components of the code be revisited. The Committee's recommendations prioritize the actual preservation of trees, rather than mitigation for tree removal. Where removal is necessary and allowed, mitigation that more closely mirrors the social, environmental and economic loss of the trees is recommended. Exemptions should also be revisited, with the intention of having more properties contribute to the City's canopy goals. In addition, process improvements should be sought to find better ways to incorporate existing and new trees into the public right-of-way.

The Committee recognizes that the adoption of Title 11 was a big step forward in acknowledging the value of urban trees in Portland. It is very important that the City Council continue its commitment to the urban forest by providing leadership and the necessary funding for code amendments, continued monitoring, and implementation improvements to realize the outcomes envisioned by the Citywide Tree Project.

II. Process Overview

Committee Purpose

Commissioner Amanda Fritz formed the Tree Code Oversight Advisory Committee in December 2014 in anticipation of questions and policy issues related to the implementation of the substantially updated City code. The goal was to ensure ongoing public involvement during the initial implementation phase.

The Committee was asked to:

- Provide community oversight, monitoring and review of tree code project implementation
- Assess and provide feedback on what is and is not working related to project implementation, potentially leading to recommendations for code and/or administrative rules refinement
- Provide Commissioner Fritz, Development Services (BDS) and Parks (PP&R) staff with input and recommendations during the outreach, education and implementation, and monitoring phases of the tree project
- Work with the Urban Forestry Commission to guide outreach

Membership

Stakeholders from the building industry, Design Review Advisory Committee, Urban Forestry Commission, neighborhood associations and coalitions, conservation groups, traditionally underrepresented communities and the city at large were recruited as members via Commissioner Fritz's website and direct outreach to various stakeholder groups.

Commissioner Fritz appointed a group of 12 individuals with diverse backgrounds and experiences, but most importantly, the majority of Committee members were familiar with local government regulations and the systems necessary to implement them. Committee members expressed personal and professional commitment to the task of regulating trees and to provide useful input to meet the identified objectives.

The full Committee met from December 2014 to October 2015. In November 2015, a disagreement with a draft proposal led four members of the building and construction industry to resign their positions before the November meeting and before the Committee discussed the specific proposal. The remaining eight members met three additional times to complete the work of the Committee. Many of the recommendations included in this report were finalized after the resignations from this stakeholder group.

Charter

Committee meetings were governed by operating protocols approved by the Committee. The protocols included the Committee's purpose and established a decision-making process for final recommendations. The agreed-upon decision process required a simple majority when a quorum of two-thirds of the members were present. The charter also established that two co-chairs would be elected to moderate the meetings. Arlene Kimura, representing Hazelwood Neighborhood Association, and Susan Steward, representing Building Owners and Managers Association, were selected by the members. The co-chairs traded responsibilities for leading the meetings, until the last four meetings, which were led by Arlene Kimura.

Definition of Success

Understanding that implementation of the Tree Code would continue on past the Committee's tenure, the Committee adopted a forward-looking definition of success to guide its work.

Success of the code:

- The code is implemented as envisioned and intended.
- People understand the purpose and value of having a tree code.
- On-the-ground implementation occurs transparently, consistently and fairly.
- Residents, businesses and developers are able and willing to comply with the code in the short and long term.
- Early implementation of the tree code contributes to meeting canopy targets as described in the 2007 Urban Forest Action Plan.

Success of the Committee's work and process:

- Discussions during Committee meetings are professional and balanced.
- The Committee provides City staff with useful advice that contributes to success of the code.
- The Committee is able to complete its deliverables as stated in the protocols.

Success of the education and outreach effort:

- Portlanders are aware of the updated tree regulations and where to obtain more information.
- Portlanders understand the value of the urban forest to quality of life.

Committee Meetings

The Committee met 14 times from December 2014 through December 2015. Meetings were generally held for 2 hours each month at city offices on weekday mornings. Each meeting was noticed to the public on the Portland Trees webpage (<https://www.portlandoregon.gov/trees/66873>). At each meeting, 10 minutes of public comment was reserved at the beginning for the Committee to hear directly from people who had concerns with code implementation and suggestions for improvement.

All Committee materials and meeting summaries are posted to the webpage.

III. Work Plan

Over the course of the 13-month process, Commissioner Fritz, City staff and Committee members identified 25 Tree Code policy questions and implementation issues requiring discussion. Each item was placed in a work plan and prioritized for consideration by the Committee. In some cases, specific tree removal proposals in 2015 led to the addition of new items to the workplan. Each of the issues identified was placed in one of four categories:

1. Code intent and purpose (Why do we have a tree code? What are its goals?)



2. Implementation protocols and deliverables (What processes or staff have been put in place to accomplish the Tree Project objectives? What are the adopted or needed policies that standardize decision-making?)
3. Code fixes and clarifications (Where is the Tree Code silent, unclear or inconsistent?)
4. Resources, staffing and budget (Are these sufficient to achieve project goals?)

The Committee also spent time becoming familiar with the tree code regulations and programmatic systems of various bureaus. They were also informed about current legislative projects that may impact tree issues.

The Committee considered and closed 12 workplan items. Many items remain open. The Committee either lacked sufficient information or time to fully consider those items. In five cases, the Committee recommends that a new or ongoing public process should consider and resolve the issue. Eight items are recommended to be analyzed by staff to determine the next step in terms of process or code improvements to address the issue.

The full work plan can be found in the appendix. Each outstanding item contains an early recommendation for next steps to resolve the issue.

IV. Findings and Recommendations

A. General Committee Finding

The Committee found that implementation of the Tree Code, as written, has mostly been a success when viewed against the definition adopted by the Committee:

Success of the code:

- *The code is implemented as envisioned and intended.*
- *People understand the purpose and value of having a tree code.*
- *On-the-ground implementation occurs transparently, consistently and fairly.*
- *Residents, businesses and developers are able and willing to comply with the code in the short and long term.*
- *Early implementation of the tree code contributes to meeting canopy targets as described in the 2007 Urban Forest Action Plan.*

Positions were funded, questions are being answered and permits are being reviewed and inspected. There are notable improvements in customer service and clarity about tree regulations that apply in a given situation.

However, it is perceived that urban canopy goals are not being met and community sentiment indicates that there is a significant gap between community expectations for the new code and the actual requirements of the code. This is particularly true with regards to the preservation of existing mature trees. The original intention for Title 11 was to balance the need for growth and tree preservation. However, the code was developed during a recession when very little development was occurring. With a rebound in the economy, members indicated that the balance has shifted too far to favor development at the cost of the urban canopy.

The Committee recognizes that tree preservation in a growing city is a challenge. Trees will be an essential component to maintaining livable neighborhoods as they become denser through infill development. In this way, trees are critical to making the development outcomes outlined in the new

Comprehensive Plan successful. To this end, the Committee recommends the importance of trees be elevated in all relevant City projects, as well as specific code amendments to provide a better balance between the City's tree canopy and development goals.

The original charge of the Committee was to provide oversight and advice to Commissioner Fritz's office and bureau staff on issues encountered during the first year of implementation. Much of the work of the Committee was focused on two main topic areas: 1) the administrative rule developed to govern City Forester discretion over mitigation requirements; and 2) appropriate policy and regulations regarding the preservation of large trees and the fee in lieu of preservation. Recommendations on these and other topics are provided below.

B. Specific Committee Actions

Specific actions taken by the Committee are described below. Final recommendations on key actions are also attached in Appendix B.

1. Waiver Policy

Title 11 establishes procedures for waiving enforcement or tree replacement requirements due to "undue hardship" (11.70.150). The code provides for a written policy to be put in place. Based on information provided by staff, the Committee concurred with applying waiver criteria modeled after the Portland Water Bureau's approach to hardship waivers. Details of the recommended waiver policy included: 1) It applies to tree removal on private property or in the adjacent right-of-way in non-development situations; 2) It applies to owner-occupied properties; and 3) Income eligibility is below 60 percent of Oregon median income for the household size.

2. Code Definitions

Title 11 lacks definitions for "building" and "attached structure." This is important because removal of trees on private property is automatically allowed through a Type A permit if the tree is located within 10 feet of a building or attached structure. Tree inspectors found that some applicants were relocating structures (such as a shed) and then requesting a tree removal permit. In this discussion the Committee indicated that the allowance should apply to permanent structures that could be damaged by a tree (such as a house or garage), as opposed to temporary structures that can be moved (such as a shed or chicken coop). The Committee recommended definitions that were forwarded to the Planning and Sustainability (BPS) to be included in the RICAP 8 code amendment package, which is scheduled to go to City Council in June 2016.

3. Outreach and Education

The Committee members provided input on the outreach plan during its development. A consultant, EnviroIssues, was engaged to guide the initial Tree Code outreach efforts. Most Committee members provided ideas on outreach tactics through interviews with the consultant members before the first meeting. An initial plan was drafted in early 2015 and presented to the Committee members for input. The plan includes goals, audiences, a tag line ("Call before you cut"), specific tools for outreach and a general schedule. The members prioritized potential tools, which informed a revision of the plan for implementation in mid- and late 2015. In addition, the Committee voted on a design for a refrigerator magnet "give-away" that publicizes the tag line.

4. Administrative Rule: Replanting Requirements for Tree Removal on Private Property, City-Owned and Managed Sites and Public Rights-of-Way

On April 20, 2015, an Interim Administrative Rule went into effect that addressed provisions in Chapter 11.40 and 11.50, primarily related to the amount of mitigation required when the code leaves that determination up to City Forester discretion. The interim rule applied to all tree removal in non-development situations and to development situations on city owned or managed sites and in rights-of-way. The Committee reviewed the Interim Rule and provided comments and recommendations to staff and Commissioners Fritz and Saltzman for consideration in a memo dated August 12, 2015. Committee comments on the Interim Rule are summarized below:

- **Public process was lacking for adoption and implementation of the Interim Rule.** Neither this Committee nor the Urban Forestry Commission was consulted about the content of the Interim Rule before it went into effect. Future processes for interim rules should use a more robust public notification and outreach process prior to implementation.
- **Tree Project goals are missing from Interim Rule.** Add the broader goal: “To enhance the quality of the urban forest and optimize the benefits that trees provide.”
- **City Forester discretion has been unnecessarily reduced.** Title 11 gives significant discretion to the City Forester to use professional expertise to determine appropriate replacement quantities when trees are removed in order to make progress toward meeting Title 11 and urban canopy goals. The Interim Rule goes too far in its attempt to define how this discretion is applied. A graduated replacement schedule should be considered to establish replanting requirements. In addition, a combination of factors should be identified and used when determining replanting levels to build in accountability, transparency and consistency and ensure equal treatment of all applicants.
- **City bureaus must be held to a high standard.** The City should set a high bar for its projects, serve as an example to its residents and businesses, and contribute to improving the urban canopy. City bureaus should be required to plant and retain more trees than the 2-for-1 replacement proposed on the sites they manage.
- **Opportunities to use tree credits should be retained.** The Committee recommends that the tree credit policy that was in effect prior to the adoption of the Interim Administrative Rule be reinstated and applied as part of discretion practiced by the City Forester.
- **Equity needed between Type A and Type B permits.** Use the same standard between the two permit types and rely on City Forester discretion when evaluating unique situations.

The Permanent Rule was filed on October 19, 2015.

5. “Stop-gap” Code Amendments

In November 2015 Commissioner Amanda Fritz asked the Committee to review and provide comment on a proposal for an immediate code amendment to address the loss of especially large trees in development situations. In summary, the proposal called for inch-for-inch mitigation for trees 48 inches in diameter at breast height and larger and a 7-day public courtesy notice. The proposal was opposed by members of the Committee who represented development interests and led to resignations of four members before it could be discussed. The remaining Committee members were supportive of a “stop-gap” measure to address the issue, but had several recommendations for changes that were outlined in a memo dated November 30, 2015, which are summarized below:

- **Decrease the threshold for inch-for-inch mitigation to 35 inches DBH.** Data from August 2015 shows that by decreasing the threshold, about 7 percent of trees removed in development situations would be subject to inch for inch mitigation requirement. With a 48-inch threshold, less than 3 percent would be affected.
- **Increase the notification timeframe to 30 days and include email to neighborhood association.** The Committee supports the addition of a neighborhood notification requirement prior to large tree removal. However, additional time is needed to allow time for questions and potentially work with the permit applicant to identify alternatives to tree removal. An email notice to the neighborhood association would also help facilitate discussion.
- **Relook at the idea of prohibiting the removal of large trees.** As an alternative to a moratorium which had been discussed to address this issue, the Committee requests that the City Attorney evaluate whether prohibitions of large tree removal can be considered when such action would not result in all economic viability of a property being removed.
- **Add a sunset clause.** The Committee recommends a sunset clause be added to the proposal so it is clear it would only apply until larger Title 11 reforms are adopted.

6. Preserving Large Trees in Development Situations

In June 2015 Commissioner Amanda Fritz asked the Tree Code Oversight Advisory Committee to consider means by which the rate of removal of very large, healthy trees in development situations could be reduced. The current tree preservation requirement is to preserve at least one-third of the trees 12 inches and larger in diameter on private property. For trees removed beyond the two-thirds allowance for tree removal, a fee in lieu of preservation is required (see discussion under Item #6 below). Concerns were raised that all trees are treated the same, whether it is a 12 inch tree or an 80 inch tree, providing no incentive for large trees to be retained.



Over five months, the Committee developed specific recommendations, which are outlined in a memo dated December 14, 2015 and are summarized below:

- **Consider adding a new tree size threshold for very large trees, with additional standards and discretionary land use review requirements.** The current prescriptive tree preservation standard should be retained for smaller trees. However, additional requirements should apply for the removal of very large trees. A discretionary review is recommended that would allow for the consideration of overall site design and possible changes to the proposal to incorporate existing trees. A threshold of 35 inches diameter at breast height (DBH) was suggested to trigger this review.

- **Explore options to change the standard to encourage preservation of large trees.** The current standard provides no incentive to preserve larger trees over smaller trees. Changing the standard so it is based on the total diameter of tree inches retained in addition to one-third of trees would encourage the preservation of larger trees.
- **Explore options to add flexibility in the zoning code to make it easier to preserve trees.** The Citywide Tree Project included several “flexible development standards” that are available to projects that preserve trees. The Committee is supportive of providing additional flexibility, particularly for preservation of trees over a certain threshold (20 inches was suggested). Support was expressed for reduced setbacks, waiving parking requirements in single-dwelling zones, and allowing parking and required outdoor area in the front setback. It was recommended that this issue be considered as part of the Bureau of Planning and Sustainability’s Residential Infill Project that is currently underway.

7. Fee in Lieu of Preservation

The current fee in lieu of preservation is \$1,200 per tree removed beyond the two-thirds of trees allowed to be removed from a site. This is based on the City’s labor and supplies costs in 2009 to plant and maintain two 2-inch trees for two years (11.50.040.C). The question as to whether the fee in lieu of preservation is set at an appropriate level was raised by Committee members, as well as the public. Specific recommendations are outlined in a memo dated December 14, 2015 and are summarized below:

- **Update fee schedule to reflect the current cost of tree planting and maintenance.** Recent estimates prepared by PP&R suggest that the current fee is significantly lower than the actual cost to the City. The majority of the Committee agreed that the fee should be updated to reflect the true cost to the City to plant and maintain trees.
- **Implement a graduated fee schedule based on the size of trees removed now, with a shift to true mitigation cost long-term.** The current fee in lieu of preservation requires the same fee be paid regardless of the size of the tree removed. In the short-term, the majority of Committee members support a graduated fee schedule that would require a higher fee when larger trees are removed. This would allow for planting and establishment care of more replacement trees, providing a better correlation to the loss of canopy from removal of larger trees, as well as a disincentive for tree removal. Long-term, the Committee recommends that the City develop a method to calculate the true value of trees based on their environmental, social and economic benefits and apply this method when calculating fees in lieu of preservation.

C. Additional Recommendations

The following additional recommendations include general principles that should be considered as implementation continues and code changes are considered, as well as requests for specific projects to improve tree outcomes.

1. **Council Leadership and Funding.** In order for the recommendations in this report to be carried out, it is necessary for the City Council to continue its commitment to a healthy and expanding urban forest. This commitment must be expressed by making trees a priority in City Council decision-making processes and by providing the necessary funding to make needed code refinements and implementation improvements.

2. Title 11 Code Review and Amendments. The Committee recommends that a comprehensive review of Title 11 be completed and an amendment package be brought forward to bring the code in line with community expectations and to institute changes that will facilitate meeting tree canopy targets in under-performing areas. Priorities include:

- Tree preservation requirements for large trees and the fee in lieu of preservation (see discussion under B.5 and 6 for detailed recommendations).
- Evaluation of tree preservation triggers and exemptions, particularly exemptions for lots less than 5,000 square feet and commercial, industrial and employment zones. In the latter case, the Committee understands that the City's new Economic Opportunities Analysis found that City of Portland has a surplus of commercial land. Therefore, there is no longer a justification for exempting some commercial zones from Title 11.

3. Public Process on Trees in the Right-of-Way.

The 2007 Report *Portland's Urban Forest Canopy* indicates that the canopy cover in public rights-of-way is less than one-half the target. As the City becomes denser, the rights-of-way will become increasingly important as a place for trees. A unified inter-bureau planning effort is needed to develop strategies to meet the canopy targets by retaining and planting trees in and near the right-of-way. This should include space needs for planting large canopy trees, processes for developing and approving alternative sidewalk and street designs that retain trees, and the impact of green street facilities on trees.



4. Coordination with Other City Policies, Projects and Codes. The City's success in meeting its tree canopy goals are highly dependent on coordination with other policies, projects and codes. The importance of trees must be elevated at all levels of City government. City bureaus and staff should be charged with working together to find creative solutions to meet tree goals. The Comprehensive Plan Update includes urban forest policies; however it is critical that these policies be carried forward in implementation projects. It is especially important that Title 11 be reviewed with the current mixed use zones and residential infill projects, which could expand development allowances within the City. Any new development allowances must go hand-in-hand with reform of Title 11's development code to ensure trees are adequately considered. Projects aimed at achieving an equitable distribution of urban tree canopy within the City should also be advanced.

5. Consistency in Regulations. In making recommendations about implementation, the Committee found that the different tree situations discussed are inter-related. To the extent possible, consistency should be maintained with how these different situations are treated. This includes how tree requirements apply in development and non-development situations, as well as how City, Street and Private trees are regulated. This is important for fairness, as well as to avoid creating loopholes in the

regulations. In addition, City projects should be held to the same or higher standard as private projects, and should seek to lead by example.

6. Monitoring and Additional Data. The Committee found that while data has been collected about tree code implementation, there was a lack of specific data available to adequately inform important policy choices. It is recommended that monitoring of tree code implementation continue to be an ongoing priority and that staff evaluate options to provide more specific data needed, particularly around tree preservation/removal outcomes.

7. Role of Urban Forestry Commission. As the steward for the City's urban forest policy and implementation, it is fitting that the Urban Forestry Commission (UFC) be highly involved with tree code implementation. It is recommended that the UFC continue the work of the Committee, taking up specific issues that were identified but not resolved, as well as providing input and direction as code amendments and implementation projects moving forward.



V. Appendix

- A. Tree Code Oversight Advisory Committee: Identified Title 11 Implementation Issues & Work Plan (January 8, 2016)

Tree Project Oversight Advisory Committee: Identified Title 11 Implementation Issues & Work Plan

Last updated: Jan 8, 2016

OAC STATUS		ISSUE DESCRIPTION	CATEGORY	NOTES	PRIORITY
1	Open	<p>Coordination with other City policies, projects and codes: Effect of City planning and implementation on tree preservation and canopy goals generally and Title 11 specifically.</p> <ul style="list-style-type: none"> • Title 33 (land division, e-zone, landscaping stds) • Comprehensive Plan Implementation (Mixed Use, Employment and Industrial, and Institutional Zones Projects) • Buildable land inventory 	Implementation protocols and deliverables	<p><u>History</u>: Committee comments in March, June, Sept 2015.</p> <p><u>Recommendation</u>: Issue should be addressed by PSC and UFC.</p>	1
2	Open	<p>Tree preservation in development situations: Is it working as intended to achieve Tree Project goals?</p> <ul style="list-style-type: none"> • Triggers for preservation requirements • Exemptions for sites under 5000 sq. ft. or greater than 85% building coverage 	Code fixes, clarifications	<p><u>History</u>: Issue identified by staff in February 2015 (#3). Members provided recommendations related to fee in lieu of preservation and preservation of very large trees, but not triggers/exemptions.</p> <p><u>Recommendation</u>: Residential Infill Project and Mixed Use Zone Project should consider this issue.</p>	1
3	Open	<p>Public works and capital improvement projects that result in tree removal. Is the City achieving tree goals for urban canopy in the public right-of-way?</p> <ul style="list-style-type: none"> • Alternative sidewalk and street design • Green street facilities 	Implementation protocols and deliverables	<p><u>History</u>: More information requested by Committee in April 2015.</p> <p><u>Recommendation</u>: Public inter-bureau planning effort needed to address issues related to trees in right-of-way. Joint PBOT, BES, and UF project involving key stakeholders and reporting to UFC.</p>	1
4	Open	<p>Monitoring and evaluation report</p> <ul style="list-style-type: none"> • Report to City Council due early 2016 • Investigate where trees are being replaced and include data in report 	Implementation protocols and deliverables	<p><u>History</u>: Requested by Committee in February 2015. Overview presentation given in June; briefing on data collected in July.</p> <p><u>Recommendation</u>: Issue to be tracked and addressed by staff.</p>	1
5	Open	<p>Building inspectors currently inspect planting requirements: Are inspectors properly trained? Are correct species being planted?</p>	Implementation protocols and deliverables	<p><u>History</u>: Issue identified by staff in February 2015 (#2).</p> <p><u>Recommendation</u>: Staff analyze issue and report to DRAC and UFC.</p>	1

OAC STATUS		ISSUE DESCRIPTION	CATEGORY	NOTES	PRIORITY
6	Closed	<p>Policy on preserving very large, healthy trees in development situations</p> <ul style="list-style-type: none"> • Should there be different regulations for large trees • \$1,200 fee in lieu of preservation: Is the fee appropriate, given current City policies. 	Code fixes, clarifications	<u>History</u> : Issue identified by staff in February 2015 (#3). Commissioner Amanda Fritz requested advice in June 2015 to address development proposal where several sequoia trees were proposed for removal; discussed at July, August, Oct and Nov meetings. Final recommendation on “stop-gap” code amendment proposal and longer-term amendments approved November and December 2015.	1
7	Closed	<p>Interim Administrative Rule: Replanting requirements for tree removal on private property, city-owned and managed sites and public rights-of-way</p> <ul style="list-style-type: none"> • \$1200 cap for non-development • Public works projects • Forester discretion • Tree credits 	Code fixes, clarifications	<u>History</u> : Interim Rule went into effect April 20, 2015; Committee members requested issue be added to work plan in April, 2015. Committee received overview and training in April and May; initial comments discussed in June. Committee discussed recommendation in August during special meeting. Final recommendation memo approved September 2015. Interim rule became final in October 2015.	1
8	Closed	<p>Non-development mitigation policy for Type B permits, where mitigation can be up to inch-per-inch</p> <ul style="list-style-type: none"> • Should this be evaluated on a case-by-case basis or as a standardized policy? • Effect of the \$1200 cap on fee in lieu of planting 	Code fixes, clarifications; implementation protocols	<u>History</u> : Issue identified by staff in February 2015 (#1). Committee provided comments as part of interim rule recommendation in September 2015 (see Item #7). UF Administrative Rule (finalized Oct 2015) provides clarification; monitoring will provide data.	1
9	Closed	Tree Code Outreach and Education Plan	Resources, staff and budget	<u>History</u> : Original task of committee in charter. Committee provided input at April 2015 meeting. Update on final plan and implementation provided September and December 2015. Implementation is currently ongoing.	1
10	Open	<p>Arborist reporting and tree preservation and planting enforcement for land use reviews and building permits.</p> <ul style="list-style-type: none"> • What peer review occurs and is it appropriate? • Is enforcement occurring? 	Implementation protocols and deliverables	<u>History</u> : Commissioner Fritz requested Committee consider issue in June, 2015. <u>Recommendation</u> : Staff should do an assessment of this issue to inform any needed changes in implementation.	2

OAC STATUS		ISSUE DESCRIPTION	CATEGORY	NOTES	PRIORITY
11	Open	No opportunity for public appeal for removal of one healthy tree ≥20" DBH in non-development situations	Code fixes, clarifications	<u>History</u> : Issue identified by staff in February 2015 (#6). <u>Recommendation</u> : UFC review issue and make any needed recommendations.	2
12	Open	Development Impact Areas. Should they be required on heavily forested sites?	Code fixes, clarifications	<u>History</u> : Requested by Committee members in March 2015. Example of Japanese Garden development using entire property to meet the density requirement rather than the portion of the site to be developed. <u>Recommendation</u> : Staff analyze issue and make any needed recommendations.	2
13	Open	Do the Type A standards for removal on private property in non-development situations make sense for achieving Tree Project goals? (e.g. within 10 feet of a building)	Code fixes, clarifications	<u>History</u> : Issue identified by staff in February 2015 (#4). <u>Recommendation</u> : UFC review issue and make any needed recommendations.	2
14	Open	Has customer service improved? <ul style="list-style-type: none"> How should this be measured (surveys, data, etc.)? 	Resources, staff and budget	<u>History</u> : Issue identified by staff in February 2015 (#8). <u>Recommendation</u> : Staff analyze issue and make any needed recommendations.	2
15	Open	Trees straddling lot lines <ul style="list-style-type: none"> How to resolve disputes Are code clarifications needed? 	Implementation protocols and deliverables	<u>History</u> : Public comment in Sept. 2015. <u>Recommendation</u> : Staff analyze issue and make any needed recommendations.	2
16	Closed	Does the waiver policy regarding sites that already meet tree density standards need to be clarified and/or standardized (11.40.060 C 1 pg 41)?	Code fixes, clarifications; implementation protocols	<u>History</u> : Issue identified by staff in February 2015 (#7). Committee provided comments as part of interim rule recommendation in September 2015 (see Item #7). UF Administrative Rule (finalized Oct 2015) provides clarification; monitoring will provide data.	2
17	Closed	'Building' and 'attached structure' definitions absent in Title 11 <ul style="list-style-type: none"> What should the definition be? 	Code fixes, clarifications	<u>History</u> : Issue identified by staff in February 2015 (#5). Committee recommended definition in June 2015. Code amendments addressing this issue are to be considered by City Council as part of RICAP 8.	2
18	Closed	Programmatic permits for City bureaus: <ul style="list-style-type: none"> Is it functioning to preserve trees, esp. in City Capital Improvement Projects? 	Implementation protocols and deliverables	<u>History</u> : Requested by Committee members March 2015. Memo provided to Committee June, 2015. No action taken.	2

OAC STATUS		ISSUE DESCRIPTION	CATEGORY	NOTES	PRIORITY
19	Closed	CenturyLink pruning/topping near communication lines	Implementation protocols and deliverables	<u>History</u> : Added to issue tracking May 2015 as a result of public comment. Staff provided update on status. No action taken.	2
20	Open	Arborist training: <ul style="list-style-type: none"> Are arborists sufficiently trained on the new tree code? 	Implementation protocols and deliverables	<u>History</u> : Commissioner Fritz requested Committee consider issue in June, 2015. <u>Recommendation</u> : Staff analyze issue and make any needed recommendations.	3
21	Open	Fencing requirements for tree preservation and root protection: <ul style="list-style-type: none"> Is fencing working to preserve trees due to the cost of fencing compared to the fee in lieu of preservation? When the performance path is used, do arborists reports clearly describe how a tree will be protected and the reasoning for reduced or no fencing requirements? 	Implementation protocols and deliverables	<u>History</u> : Committee member discussion in June 2015. <u>Recommendation</u> : Staff analyze issue and make any needed recommendations.	3
22	Closed	Does the waiver policy regarding “unreasonable burden” need to be clarified and/or standardized (11.40.060 C 2 pg 41)?	Code fixes, clarifications	<u>History</u> : Issue identified by staff in February 2015 (#7). Committee made recommendation April 2015.	3
23	Closed	Programmatic permits for City bureaus: <ul style="list-style-type: none"> Is it functioning to preserve trees, esp. in City Capital Improvement Projects? 	Implementation protocols and deliverables	<u>History</u> : Requested by Committee members March 2015. Memo provided to Committee June, 2015. No action taken.	
24	Closed	CenturyLink pruning/topping near communication lines	Implementation protocols and deliverables	<u>History</u> : Added to issue tracking May 2015 as a result of public comment. Staff provided update on status. No action taken.	
25	Closed	RICAP 8 Technical Title 11 code amendments	Code fixes, clarifications	<u>History</u> : Requested by Committee member in April 2015. Briefing on schedule and proposed amendments provided to Committee June 2015. No action taken.	

Definitions provided in February 2015: Types of Project and Code Issues

1. Code Intent & Purpose

-Why do we have a Tree Code? What are its goals?

2. Implementation Protocols and Deliverables

-What has been put in place (processes/staff) to accomplish the Tree Project objectives?

-What are the adopted or needed policies that standardize decision-making?

3. Code Fixes & Clarification

-Where is the Tree Code silent, unclear, or inconsistent?

4. Resources, Staffing, and Budget

-Are these sufficient to achieve project goals?

V. Appendix

B. Detailed Recommendations on Specific Committee Actions:

- OAC Memo Re: Comments on Interim Administrative Rule related to Replanting Requirements for Tree Removal on Private Property, City-Owned and Managed Sites and Public Rights-of-Way under Title 11 (August 12, 2015)
- OAC Memo Re: Stop-gap Title 11 code amendment proposal: Mitigating the removal of large trees in development situations (November 30, 2015)
- OAC Memo Re: Recommendation on Preserving Large Trees and Fee in Lieu of Preservation (Development Situations (December 14, 2015)

August 12, 2015

TO: Commissioner Amanda Fritz
Commissioner Dan Saltzman
Portland Bureau of Development Services
Portland Parks and Recreation, Urban Forestry

FROM: Tree Code Oversight Advisory Committee

RE: Comments on Interim Administrative Rule related to Replanting Requirements for Tree Removal on Private Property, City-Owned and Managed Sites and Public Rights-of-Way under Title 11

The Tree Code Oversight Advisory Committee was charged by Commissioner Amanda Fritz to:

- Provide community oversight, monitoring and review of tree code project implementation;
- Assess and provide feedback on what is and is not working related to project implementation, potentially leading to recommendations for code and/or administrative rules refinement;
- Provide Commissioner Fritz, Development Services (BDS) and Parks (PP&R) staff with input and recommendations during the outreach, education and implementation, and monitoring phases of the tree project; and
- Work with the Urban Forestry Commission to guide outreach by the Urban Forestry Commission subcommittee.

As a body, we adopted our own definition of success related to the Tree Code at our March 2015 meeting:

- The code is implemented as envisioned and intended;
- People understand the purpose and value of having a tree code;
- On-the-ground implementation occurs transparently, consistently and fairly;
- Residents, businesses and developers are able and willing to comply with the code in the short and long term; and
- Early implementation of the tree code contributes to meeting canopy targets as described in the 2007 Urban Forest Action Plan

Given our charge, adopted definition of success as well as the time devoted to understanding the Interim Administrative Rule, we believe it is our responsibility to provide comment. This document reflects the opinion of our 12-member Committee during discussions at a special meeting Aug. 10 and follow up communication. Please consider the following comments during the review process of the Interim Administrative Rule.

Comment #1: Public process was lacking for adoption and implementation of the Interim Rule.

This Committee first learned of the Interim Administrative Rule in early April and discussed it one week before it went into effect (April 20). There was no opportunity for discussion or modification of the rule separate from the process provided all other residents. As Committee members volunteering time to this effort, we find that the process used to be less than respectful and lacking transparency. We would expect, because of our charge, that issues of concern be brought to this Committee before policy action is taken so that we may consider it and have the opportunity to recommend a path forward.

In addition, there was insufficient public outreach from the Bureaus to alert the public of the change and comment opportunity. The Urban Forestry Commission held the only public hearing to date on the interim rule.

Recommendation: Future processes for interim rules should use a more robust public notification and outreach process prior to implementation.

Comment #2: Tree Project goals are missing from Interim Rule

The Interim Administrative Rule lists four of the admirable goals of the original Tree Project that resulted in Title 11 adoption. However, it does not list or incorporate the broader purpose of Title 11:

“To enhance the quality of the urban forest and optimize the benefits that trees provide.”

By omitting this broader purpose, the Rule undermines the intent of Title 11 and the original Tree Project.

Recommendation: The goal should be included in the Rule.

Comment #3: City Forester discretion has been unnecessarily reduced

Title 11 gives significant discretion to the City Forester to use knowledge of arboricultural practices, forest health, City policies and other factors to establish appropriate replacement quantities when trees are removed in order make progress toward meeting Title 11 and urban canopy goals. The City Forester has stated it is the intention of Urban Forestry to be accountable, transparent and consistent when applying and enforcing Title 11. Under the Interim Administrative Rule, when “up to inch-for-inch” mitigation is triggered for removed trees, the City Forester now requires two trees be replaced for every one removed, regardless of the size or benefit of the tree removed. Alternately, a fee in lieu of preservation may be paid. While we understand and appreciate the need to predictability and certainty within the permitting system, the Interim Administrative Rule goes too far in its attempt to define how discretionary approval criteria is applied. This is especially true when trees are removed from City-managed owned sites or right-of-way (see next comment). If the Interim Administrative Rule becomes permanent as is, progress will be slowed or reversed toward increasing tree canopy and accruing the proven benefits that trees provide.

Recommendation: A graduated replacement schedule should be considered to establish replanting requirements. In addition, a combination of factors should be identified and used when determining replanting levels to build in accountability, transparency and consistency and ensure equal treatment of all applicants.

Comment #4: City bureaus must be held to a high standard

The Interim Administrative Rule established a maximum tree planting requirement during development of two trees per every tree removed for City-owned or -managed projects (for trees larger than 6 inches dbh) and for right-of-way projects (for larger than 12 inches dbh). City bureaus also must meet require density standards in both development and non-development situations when trees are removed. The Code allows the City Forester to establish mitigation of up to “inch for inch” for removed trees that meet the threshold. The Committee believes that

public trees are an important resource and mitigation for their removal constitutes the protection of a valuable public resource. These include City Trees and Street Trees. The Committee is concerned that the Interim Administrative Rule, as drafted, lowers the replacement standard. The City, in replacing trees, has greater flexibility than in many private situations. City projects should be held to a high standard. As adopted, the Interim Administrative Rule will not achieve the goals of Title 11 and urban canopy targets if City bureaus are not required to plant and retain more trees than the 2-for-1 replacement on the sites they manage.

Recommendation: The City should set a high bar for its projects, serve as an example to its residents and businesses, and contribute to improving the urban canopy.

Comment #5: Opportunities to use tree credits should be retained

Title 11 allows Urban Forestry to use a prescriptive schedule to reduce tree replanting requirements if the species being planted is one that is native and desirable within city limits. Such trees are resistant to disease and well adapted to local weather patterns and soil conditions. With the establishment of replanting standards in the Interim Rule, the concept to tree credits appears to have been removed. Tree credits are a valuable tool that should be retained in order increase the number and size of native species.

Recommendation: The Committee recommends that the tree credit policy that was in effect prior to the adoption of the Interim Administrative Rule be reinstated and applied as part of discretion practiced by the City Forester.

Comment #6: Equity needed between Type A and Type B permits

Type A permits, which are administrative in nature and do not trigger up to inch-per-inch mitigation, require tree for tree replacement, or one for one. The City Forester may waive the mitigation requirements if density standards are met. Under the Interim Rule, Type B permits require the City Forester to waive replanting requirements if density standards are met. This difference in replacement standards establishes a disparity and will likely lead to lack to tree replacement on those sites with larger trees. The Committee is concerned that the application of the site density standard results in an inequitable mitigation requirement between Type A and Type B permits and overlooks an opportunity to address the City's canopy goals.

Recommendation: Use the same standard between the two permit types and rely on City Forester discretion when evaluating unique situations.

MEMORANDUM

DATE: November 30, 2015

TO: Commissioner Amanda Fritz
Commissioner Dan Saltzman

FROM: Tree Code Oversight Advisory Committee

RE: Stop-gap Title 11 code amendment proposal: Mitigating the removal of large trees in development situations

Background

Commissioner Amanda Fritz asked the Tree Code Oversight Advisory Committee on Nov. 4, 2015, to review and provide comment on a proposal for an immediate code amendment to address the loss of especially large trees in development situations.

To address this request, the Committee reviewed the proposal at its Nov. 9 meeting, reviewed permit data, and discussed potential options to improve the proposal.

This memorandum summarizes the recommendations of the Committee. Two points are inherent in this recommendation:

- The Committee recognizes the membership of the committee recently declined due to resignations of four members over their disagreement with both the process and the proposal itself. As a result, the perspective of the development community is absent from this recommendation.
- This recommendation is based on the premise that, should this proposal move ahead, another process to provide more long-term improvements to the tree code also will move forward. This Committee will provide separate comments related to longer-term code amendments.

Comments:

We are supportive of a “stop-gap” measure in concept to preserve large trees in development situations. However, we are not in favor of this proposal as it is currently drafted because it will not help preserve most large trees that are being removed for development. Only a small percentage of trees are larger than 48 inches DBH.

We have a concern that sufficient data does not exist from which to draw conclusions. However, based on a sampling of one month of permit data from August 2015 and information about the number trees 45 inches and greater permitted for removal in the first three quarters of 2015, we are able to make some recommendations at this time.

Recommendations:

1. **Decrease the threshold for inch-for-inch mitigation to 35 inches DBH.** The data from August 2015 shows that by decreasing the threshold, about 7 percent of trees removed in development

situations would be subject to inch for inch mitigation requirement. With a 48-inch threshold, less than 3 percent would be affected. In addition, many trees require several decades to reach 48-inches and some never grow to that size. This proposal does not take into account the sizes of mature native trees, which provide more value to native wildlife.

2. **Increase the notification timeframe to 30 days and include email to neighborhood association.** We support the addition of a neighborhood notification requirement in the code prior to large tree removal. We recommend the length of time be 30 days to allow local residents time to ask questions and potentially work with the permit applicant to identify alternatives to tree removal. We also recommend that the notice be emailed to the neighborhood association in addition to the site posting proposed.
3. **Relook at the idea of prohibiting the removal of large trees.** We understand the disadvantages of outright tree cutting moratoriums and the potential for such an action to result in a taking. However, we recommend the City Attorney evaluate whether prohibitions of large tree removal can be considered when such action would not result in all economic viability of a property being removed.
4. **Add a sunset clause.** We recommend a sunset clause be added to the proposal so it is clear that the mitigation code amendment would only apply until larger Title 11 reforms are adopted. We understand that a larger package of amendments is likely and could take about a year to be drafted, reviewed and adopted. This stop gap measure would fill a need from early 2016 to early 2017.

MEMORANDUM

DATE: December 14, 2015

TO: Commissioner Amanda Fritz
Commissioner Dan Saltzman

FROM: Tree Code Oversight Advisory Committee

RE: Recommendations on Preserving Large Trees and Fee in Lieu of Preservation (Development Situations)

Background

Commissioner Amanda Fritz asked the Tree Code Oversight Advisory Committee to consider means by which the rate of removal of very large, healthy trees in development situations could be reduced. A related question is whether the current fee in lieu of preservation is appropriate. The fee in lieu question was identified as an issue to be addressed by the Committee early in the process and is one of the potential tools available to address the preservation of large trees.

To address these issues, the Committee:

- Learned about the range of potential regulatory tools and the basis of the fee in lieu
- Participated in an online survey and responded to staff questions via email
- Heard from members of the public
- Discussed options and recommendations at four Committee meetings.

This memorandum summarizes the findings and recommendations of the Committee. Discussions on this topic began with a 12 member committee, however final discussion and adoption occurred with an 8 member committee after resignation of 4 members. The Committee recognizes that these recommendations may affect other parts of Title 11 and recommends a thorough review of the code to determine if other amendments are needed for consistency or to fully implement the intent of these recommendations.

1. Preservation of Large Trees

The current tree preservation requirement is to preserve at least one-third of the trees 12 inches and larger in diameter. For trees removed beyond the 2/3 allowance for tree removal, a fee in lieu of preservation is required (see discussion under #2 below). Concerns have been raised that all trees are treated the same, whether it is a 12 inch tree or an 80 inch tree, providing no incentive for large trees to be retained.

The Committee discussed a range of options to address large trees in development situations. This included establishing a new tree size threshold for “large” trees and applying different standards or discretionary criteria to those trees, changing the standard to encourage the preservation of large trees, and providing more flexibility in development regulations to make it easier to preserve trees. The Committee is supportive of making changes to the current regulations.

Recommendations include:

A. Consider adding a new tree size threshold for very large trees with additional standards and discretionary land use review requirements. The Committee agreed that a prescriptive tree preservation standard should be retained for smaller trees with the recommended changes listed below. However, additional requirements should apply for the removal of very large trees. A threshold of 35 inches is recommended. This threshold was chosen based on tree size information provided by staff showing a break in the data for the number of trees at this size. The Committee also considered information developed by Urban Forestry Commission member David Diaz about the recaptured value of large trees over time under two different mitigation standards (see attached).

It is recommended that Zoning Code tree removal requirements that apply in certain Plan District and Overlay zones (Johnson Creek Basin Plan District, Rocky Butte Plan District, Scenic Overlay zone) be used as a model. This would include standards that allow tree removal only when the tree conflicts with proposed development. If standards aren't met, a discretionary land use review (i.e. Tree Review) would be required to determine whether the tree can be retained while allowing for reasonable development of the site and, if allowed, the appropriate level of mitigation. The Committee members also suggested the addition of a process to modify development standards as part of this review.

Some members of the Committee also suggested that there be an optional discretionary review to seek an alternative to the prescriptive tree preservation standards and/or mitigation requirements.

B. Explore options to change the standard to encourage preservation of large trees. The current standard is to preserve 1/3 of the trees on the site. This applies to all trees that are 12 inches or larger, which means there is no incentive to preserve larger trees over smaller trees. Committee members suggested changing the standard to include a percentage of the total inches of tree diameter, in addition to 1/3 of the trees. This would encourage the preservation of larger trees because the required number of inches would be satisfied with fewer trees, while ensuring that a minimum number of trees would still be required to be preserved to meet the standard. The Committee did not agree on a specific percentage of tree diameter that should be applied, but suggested that the Title 33 land division regulations, which include similar standards, be consulted for guidance.

C. Explore options to add flexibility in the zoning code to make it easier to preserve trees. The Citywide Tree Project included several "flexible development options" available to projects that preserve trees. Most of that flexibility is available in multi-dwelling and commercial zones. The majority of the Committee is supportive of providing additional flexibility, including in single dwelling zones. The Committee recognizes that there may be trade-offs, such as impacts on adjacent properties. For this reason, some members suggested that this added flexibility only be available for preservation of trees over a certain threshold (20 inches was suggested). Concerns were expressed about allowing increased height or transfer of development rights. Support was expressed for reduced setbacks, waiving parking requirements in single-dwelling zones, and allowing parking and required outdoor area in the front setback. It was recommended that this issue be considered as part of the Bureau of Planning and Sustainability's Residential Infill Project that is currently underway.

2. Fee in Lieu of Preservation

The current fee in lieu of preservation is \$1,200 per tree removed beyond the allowable 2/3 of trees from a site. This is based on the City's labor and supplies costs in 2009 to plant and maintain two trees for two years (11.50.040.C). The question as to whether the fee in lieu of preservation is set at an appropriate level has been raised by Committee members, as well as the public. Some former members

believe the current fee is appropriate and provides mitigation for tree removal, while not being an unreasonable burden to development. Current members believe the fee should be much higher and reflect the environmental value of the trees. A number of options were considered, ranging from updating the fee schedule to reflect the current cost of planting and maintaining trees to full inch-for-inch mitigation. The Committee members felt it important to acknowledge that the current fee provides only partial mitigation for tree removal. In the short-term, a graduated fee in lieu of tree preservation schedule is recommended. In the long-term, the Committee would like to see the City develop an industry standard to fully compensate for the ecological, social and economic value of trees removed.

Recommendations include:

A. Update fee schedule to reflect current cost of tree planting and maintenance. Recent estimates prepared by Urban Forestry suggest that the current fee is significantly lower than the cost to the City. Urban Forestry's estimate indicates that it costs approximately \$1,200 to plant and maintain one tree for two years, making the cost for two trees double that, or \$2,400. The majority of the Committee agreed that the fee should be updated to reflect the true cost to the City to plant and maintain trees. Some former members indicated that the current fee is too high, particularly when compared with their experience of private costs to plant trees. It should also be noted that updating the cost estimates as suggested would likely affect fee in lieu payments for all situations (development and non-development). The Committee did not specifically review or recommend approval of specific cost estimates.

B. Implement a graduated fee schedule based on the size of trees removed now, with a shift to true mitigation cost long-term. The current fee in lieu of preservation requires the same fee be paid regardless of the size of the tree removed. In the short-term, the majority of committee members support a graduated fee schedule that would require a higher fee when larger trees are removed. This would allow for planting and establishment care of more replacement trees, providing a better correlation to the loss of canopy from removal of larger trees. It is recommended that there be a minimum of three tiers in the fee schedule.

Long-term, the Committee recommends that the City develop a methodology to calculate the true value of trees based on their environmental, social and economic benefits and apply this methodology when calculating fees in lieu of preservation. This methodology should consider the size, species and condition of trees, specifically recognizing the ecological value of smaller native trees. The Committee recognizes that developing this methodology will take time and robust community input. Therefore, a graduated fee schedule described above should be implemented while a true cost mitigation method is being developed. The Committee would also like to see valuable native tree species recognized in the short-term mitigation standards, but understands this may require a larger project.

Attachments:

- Tree Size Information from Aug 2015 Residential Permit Data, BDS Staff, Nov 2015)
- Mitigating for Removal of a 20-inch Douglas Fir (UFC member David Diaz, Nov 2015)

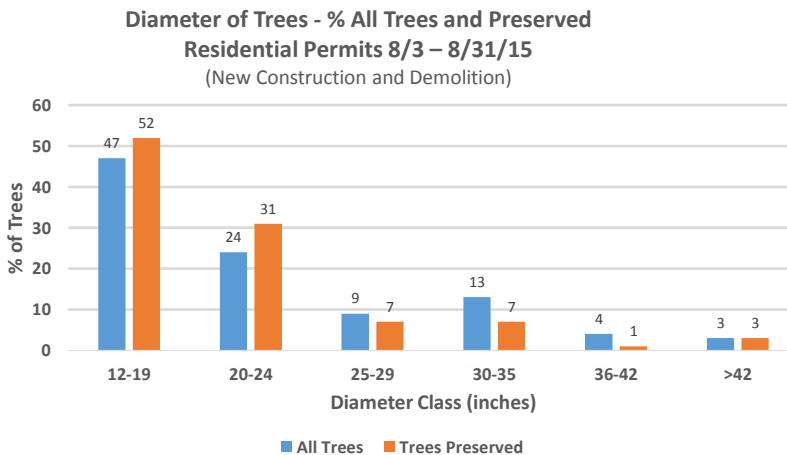
Tree Size Information – Residential Permits

- 110 permits (new construction and demolition; duplicates removed)
- 45 permits with trees over 12 inches (59%)
- 184 trees total, 75 preserved (41%)

Diameter of Trees Residential Permits Issued 8/3 – 8/31/15*			
Diameter Class (inches)	All Trees (# of Trees)	Trees Preserved (# of Trees)	% Preserved
12-19	86	39	45%
20-24	45	23	51%
25-29	17	5	29%
30-35	23	5	22%
36-42	7	1	14%
>42	6	2	33%
Total	184	75	41%

*New construction and demolition permits

Tree Size Information – Residential Permits



Choosing to mitigate for the removal of a 20 inch diameter Douglas fir by

VS

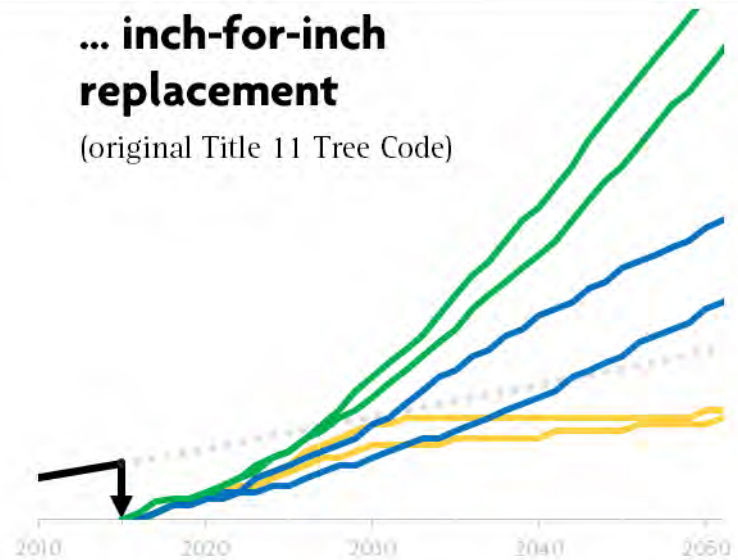
... inch-for-inch replacement

(original Title 11 Tree Code)

Large form trees planted

Medium form

Small form



With two trees planted for each tree removed:

- It takes two newly planted *large form* trees nearly 30 years to resume providing services at the rate the removed tree was already providing (and could have continued providing). *Medium form* trees take 50 years to match the rate of annual services lost, and *small form trees never match it*.
- There is a time lag in the provision of tree benefits. If the value of the services these trees provide for the next 100 years is discounted 5% per year, there are unmitigated losses in all planting scenarios. If a 20-inch Douglas fir removed and replaced by planting two small trees results in a loss of present value of \$1,750,800, a loss of \$1,160,350 if medium trees are planted; or \$270,190 lost with large trees planted.

From January to June 2015, more than 30 trees removed in Portland were 20 inch diameter or larger. Only 10 trees planted for mitigation were large form trees.

With inch-for-inch replacement

- If the 20 newly planted .5 seedlings are from a large form tree species, it still takes at least 30 years before they will resume providing services at the rate of the removed tree. *Medium form* trees take 25 years and *small form trees will never match it*.
- Due to the time lag in replacing the services of the removed tree, it still takes large form trees 250 years to make up the present value lost by the original tree removal. Depending on which species of medium form trees are planted, the present value may never be recouped, or may take more than 100 years. *Even with inch-for-inch replacement planting only small form trees still results in \$1,020,130 net loss of present value*.

Note: Storm water, air quality, and carbon sequestration benefits are factored into the value of the environmental services provided by trees (calculated using Tree) That does not capture the additional aesthetic value, reduction of urban heat island, energy saving, or property value enhancements that trees provide.

*For permits on private property in non-development situations alone. Through Q3 2015, 654 additional trees were removed in development situations. They averaged 17.6 in diameter.



CITY OF PORTLAND, OREGON - PORTLAND TREES

Bureau of Development Services • Portland Parks & Recreation

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Citywide Tree Project
Data Report
January 1-December 31, 2015

Prepared by:
Portland Parks and Recreation Urban Forestry
Bureau of Development Services

March, 2016

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I. Introduction

On April 13, 2011 the City Council adopted the Citywide Tree Regulatory Improvement Project (also known as the Citywide Tree Project). The overarching goals of the Citywide Tree Project were to 1) craft comprehensive tree regulations that support multiple city goals and are clear, consistent, easy to understand and work with, equitable, and cost-effective; 2) protect and enhance the urban forest; and 3) improve customer service.

To that end, the Citywide Tree Project consisted of three primary components: 1) a new Title 11, Trees; 2) amendments to the Portland Zoning Code; and 3) a set of customer service improvements. Title 11 is a new Title that combines tree requirements associated with development projects and tree requirements when no development is also proposed under one code, the Tree Code. The Tree Code was effective January 1, 2015. The Zoning Code contained tree regulations prior to the adoption of Title 11. These included tree planting specifications for parking lots and new single family development projects as well, and preservation standards for land divisions and environmentally sensitive areas of the city. The amendments to the zoning code served as an update to already existing tree standards. Customer service improvements were made, including the creation of a single point of contact for tree-related questions and improvements to the inspections process. The outcomes of the Citywide Tree Project are administered by two bureaus, the Bureau of Development Services (BDS) and Portland Parks and Recreation Urban Forestry (Parks Urban Forestry).

Development of the Citywide Tree Project included significant community and city resources over a three year period of time. Volunteers spent hundreds of hours and staff from BDS and Parks Urban Forestry, BES, and other infrastructure bureaus contributed responses to countless drafts during project development. Given the levels of both city and community involvement and city resources, BDS and Parks Urban Forestry are reporting on the outcomes of the first complete year of implementation, January 1-December 31, 2015.

This report will focus on the performance of the new regulations in the Tree Code (Title 11). The data presented also includes requirements of the Zoning Code (Title 33) for development-related tree requirements and outcomes. The report also contains information on tree requirements and outcomes in non-development situations, and on customer service efforts and outcomes. The report is focused around four topic areas:

- Development Permits on Private Property
- Non-Development Permits
- Development Permits in the Public Right of Way, City Owned and Managed Property, and Inspections
- Customer Service

II. Executive Summary

The primary findings highlighted by the data gathered for the first year of implementation of the Citywide Tree Project can be summarized as follows:

Development Permits on Private Property

- The rate of when tree planting and/or preservation is required by code is higher for Residential permits than Commercial permits (19.6% and 3.9%, respectively).
- Considering all permit types, the rate of required tree planting and/or preservation is 15.7%. This includes all permit sub-types: new construction, additions, demolitions, and alterations. Alterations account for the highest volume of permits issued, but have the lowest rate of required tree planting and/or preservation because they are most often internal to an existing building and don't trigger tree requirements. The rates are more significant when looking at new construction, demolitions, and additions. This is especially true for residential projects, which have a rate of required tree planting and/or preservation in new construction, additions, and demolitions of 63.0%, 27.6% and 34.2%, respectively.
- Approximately 1/5 of residential development sites (940 sites) did not require any tree preservation due to site size because they were under the 5,000 square foot size to trigger tree preservation standards. Approximately 1/3 of commercial development sites (439 sites) did not require tree preservation or planting because they were located in a zone exempt from those standards.
- The rate of tree planting and preservation for new single family residential construction is similar to what it was prior to the implementation of Title 11. In 2014, 86.1% of permits had planting, and 21.8% of permits had preservation. In 2015, 85.0% of permits had planting, and 19.7% of permits had preservation.
- Just 2% of new single family residential permits opted to pay a fee in lieu of planting requirements where planting was required, while about 18% of single family residential permits opted to pay a fee in lieu of preservation where preservation was required. 43% of residential demolition permits chose the fee in lieu of preservation where preservation was required.
- Approximately 13% of trees planted are in the large canopy size category; the remainder are in the small or medium canopy size categories.
- Approximately 1.5 times more inventoried trees were preserved (1,677) than were removed (1,128). The average size of both trees preserved and trees removed are approximately 17 inches.
- Approximately 60% of inventoried trees were preserved (1,677 trees and over 28,000 diameter inches).

Non-Development Permits

- Type A (non-discretionary) permits made up over 95% of all permitted private and street tree removals in 2015.
- In the fourth quarter of 2015, replacement of removed trees fell below 1:1 under issued Type B (discretionary) permits for private and street tree removal. The Administrative Rule, finalized in October, 2015, lowered maximum mitigation for many of these permits.
- Type A permits made up 97% of permitted private tree removals in 2015. Private trees that were dead, dying, or dangerous; nuisance species; or within 10 feet of a building or attached structure made up 72% of all private tree removal permits in 2015.
- On private lands, large form and evergreen trees are most often replaced with smaller, deciduous species. Title 11 established a minimum 1:1 mitigation for trees removed but allows

applicants the choice of species for replanting. As a result, private tree removal and replanting permits issued in 2015 resulted in a net loss of 1,051 large form trees (1,605 removed vs. 554 planted) and a net gain of 556 small form trees (465 removed vs. 1,021 planted). The same permits resulted in a net loss of 748 evergreen species (1,192 removed vs. 444 planted).

- Applicants rarely chose to pay a fee in lieu of planting to meet mitigation requirements in 2015. Of 2,842 street and private removal permits issued, 12 applicants chose to pay a fee in lieu of planting required replacement trees. In all other cases, applicants met required mitigation through planting or were granted a waiver from requirements.
- Parks Urban Forestry permitted the planting of 3,696 street trees in 2015, including those planted as mitigation for removals. 52% of these trees were small form varieties and 94% were deciduous.
- Parks Urban Forestry pursued 699 tree code compliance complaints outside of development in 2015. Of these, 22 resulted in violations; all other compliance issues were unfounded or resolved without proceeding to a violation process.
- Enforcement of the new tree code was “soft” during the first 6 months of 2015 in order to allow for a public outreach period when the regulations were new. As such, the numbers of violations and associated fines collected (\$11,325) were lower than may otherwise be expected.

Development Reviews and City Property Development

- Urban Forestry reviews of development projects increased 35% in 2015. Tree preservation and tree violation inspections, new under Title 11, increased over the year, with two-thirds of inspections occurring in the third and fourth quarters of 2015.
- A new process to standardize and streamline permitting for capital improvement projects (CIPs) was implemented under Title 11, requiring early consultation with Parks Urban Forestry in order to identify opportunities to preserve and protect trees when possible. Permit requirements of 17 completed CIPs in 2015 resulted in a net gain of 98 trees; most CIPs for which permits were issued in 2015 are still in progress.

Customer Service

- There was an overall increase of 34% in tree permit applications and 26% in public inquiries to Urban Forestry staff in 2015 over the previous year.
- While Title 11 roughly tripled the number of private properties where trees are regulated in Portland, applications for private tree removals increased more than four times from 2014 (470 applications) to 2015 (2,193 applications). It is unknown if more trees are being removed or, due to outreach efforts, more people are obtaining appropriate permits.
- Urban Forestry intake staff met response goals for 99% of public inquiries in 2015.
- Urban Forestry tree inspectors met goals for initial inspections at similar rates to the previous year, meeting goals for permit application response times at least 60% of the time (planting permits) and as much as 86% of the time (root permits) for other permit types.

General Conclusions

1. **Tree Planting and Preservation in Development Situations.** Title 11 requires tree planting and preservation in more commercial and residential development situations than prior to its adoption possibly resulting in an overall increase in tree planting and preservation. Planting and preservation occurrence in New Single Family Residential situations (as required prior to Title 11) has remained about the same after the adoption of Title 11. Payment of fees in-lieu of preservation occur most frequently with demolition permits, suggesting that this option is perhaps being utilized in preparation for re-development of a site.
2. **Workload and Customer Service.** There have been overall improvements to customer service despite large increases in permit applications and public inquiries and staff vacancies. However, some specific permit response times have increased.
3. **Citywide Tree Canopy.** Title 11 has had positive effects on the urban forest by requiring tree planting and preservation to new types of commercial and residential development and by expanding applicability of regulations to more properties for non-development situations. However, a significant proportion of trees planted are in the small and medium form varieties rather than large form varieties. Where sufficient data exists, it is estimated that the rate of removal of large form species trees is far outpacing their replacement, which suggests an overall reduction in tree canopy services to the city long-term.
4. **Code Compliance.** In non-development situations, where compliance is complaint driven, there has been an increase in the number of compliance cases which may be a result of a higher public profile for trees in the city. Compliance cases pertain to illegal pruning and tree removal, or whether mitigation trees have been planted. In most cases, compliance was resolved without proceeding to a violation process. In development situations, compliance for tree preservation is largely handled through inspections, and Parks Urban Forestry Inspectors facilitated resolution of several tree preservation violations. Compliance with tree planting requirements can be challenging because Parks Urban Forestry Inspectors do not have capacity to inspect tree planting and instead rely on Bureau of Development Services building inspectors to ensure compliance with planting requirements.
5. **Data Collection and Evaluation.** Adequate data to assess long-term effects of the new city code on the urban forest are limited. Implementation efforts prior to the effective date of Title 11 have resulted in improvement on the amount and type of data collected. This expanded data collection has been used to evaluate the effectiveness of Title 11 to date. However, limitations of existing data collection tools and the types of data collected have been identified. More detailed evaluation and evaluation of other outcomes could be facilitated by refining data collection tools and expanding the types of data collected. However, data entry with each permit adds staff time, as does data collection, so a balanced approach is needed in order to keep costs down (assuming costs are funded by fee revenue).

III. Development Permits on Private Property

Background

The Bureau of Development Services is responsible for administering tree preservation and density (planting) requirements found in Chapter 11.50, Trees in Development Situations for trees on private property.

Purpose of Trees in Development Situations Chapter

11.50.010 Purpose

The regulations of this chapter support and complement other City development requirements, with a focus on achieving baseline tree preservation and total tree capacity on a site, considering the anticipated use and level of development. This Chapter regulates the removal, protection, and planting of trees through the development process to encourage development, where practicable, to incorporate existing trees, particularly high quality or larger trees and groves, into the site design, to retain sufficient space to plant new trees, and to ensure suitable tree replacement when trees are removed. It is the intent of these provisions to lessen the impact of tree removal and to ensure mitigation when tree preservation standards are not met.

New Tree Density and Preservation Applicability, Exemptions and Standards

Tree preservation and density (planting) standards in Title 11 replaced the T1 standards in Title 33 (Planning & Zoning) for one & two family residential development, and added standards for all other types of development (i.e. commercial, industrial, mixed use, multi-dwelling). Starting January 1, 2015 applications for new single family residential construction are subject to both tree preservation and tree density (planting) standards under certain circumstances. There are exemptions to both tree planting and tree preservation requirements. Title 11 Tree Density (Planting) and Preservation applicability, exemptions, and standards are summarized below:

Tree Density (Planting) Applicability. On private property applications for new development, exterior alterations to existing development and additions in excess of 200 square feet to single dwelling development must meet On-Site Tree Density (Planting) Standards.

Tree Density (Planting) Exemptions.

- Additions or exterior alterations to existing development with a project valuation less than non-conforming upgrade threshold noted in Title 33 (Planning & Zoning). This amount is currently set at \$155,900 and is adjusted annually.
- A specific condition of land use review approval exempts the site from density standards.
- Sites within the Portland International Airport Plan District or Cascade Station/Portland International Center Plan District that are subject to Airport Landscape Standards.
- Sites located within a zone intended for high intensity building coverage and uses, specifically IH (Heavy Industrial), IG1 (General Industrial 1), EX (Central Employment), CX (Central Commercial), CS (Storefront Commercial) or CM (Commercial Mixed) zone.
- Work conducted under Demolition, Site Development, or Zoning Permits.

Tree Density (Planting) Standards.

Tree density standards are a function of a land area called Required Tree Area, which is based on development type, and canopy size category of trees to be planted. In summary, residential uses have larger required tree areas while more intense uses and anticipated level of development such as industrial have smaller required tree areas. Within the required tree areas, planting of large canopy trees achieves greater credit than planting small canopy trees.

- 1. Required Tree Area.** The required tree area is based on the size of the site and the type and size of proposed and existing development as shown in Title 11 Table 50-1. Applicants may choose Option A or Option B for calculating required tree area except only Option A may be used to apply standards to a "Development Impact Area."

Development Type	Option A	Option B
One and Two Family Residential	40 percent of site or development impact area	Site area minus building coverage of existing and proposed development
Multi Dwelling Residential	20 percent of site or development impact area	
Commercial/Office/Retail/Mixed Use	15 percent of site or development impact area	
Industrial	10 percent of site or development impact area	
Institutional	25 percent of site or development impact area	
Other	25 percent of site or development impact area	

- 2. Required Tree Density.** The required tree area shall be planted with some combination of large, medium or small canopy trees at the following rates:

Canopy size category	Number of trees required per size of tree area	Min. required planting area per tree (min. dimension)
Large	1 per 1,000 s.f.	150 s.f. (10' x 10')
Medium	1 per 500 s.f.	75 s.f. (5' x 5')
Small	1 per 300 s.f.	50 s.f. (3' x 3')

Tree canopy types are categorized as small, medium, or large based on the estimated canopy size at maturity. The "Portland Tree and Landscaping Manual" suggested plant lists include the size categories recognized for many trees. For other trees, canopy size is calculated by specific formulas using factors of mature height, crown spread, and growth rate.

3. Tree Density Credits. Payment into the Tree Planting and Preservation Fund may be made in lieu of planting. Payment equivalent to the cost of planting and establishing one 1.5-inch tree is credited at a rate of one medium canopy size tree. The current fee for one 1.5-inch tree is \$450.00, based on a value established in 2009 of \$300.00 per inch.

In addition, existing trees may be preserved to meet tree density standards. Trees between 1.5 and less than 6 inches in diameter count as one small canopy size tree. Trees 6 or more inches in diameter count as one medium canopy size tree for each full increment of 6 diameter inches.

*Note: For ease of understanding, the remainder of this report **uses the terminology of “tree planting” as opposed to “tree density”**. Though trees may be preserved to meet tree density standards, most often they are planted. In addition, the data captured is represented in trees planted and trees preserved, and referring to tree planting as opposed to tree density is more consistent with how the data is collected and reported.*

Tree Preservation Applicability.

On private property, sites with ground disturbing activity that are 5,000 square feet or larger and have less than 85% building coverage must meet tree preservation standards.

Tree Preservation Exemptions.

Projects are not subject to tree preservation under any of the following circumstances:

- The site is less than 5,000 square feet.
- The project has existing or proposed building coverage \geq 85%.
- Sites located within a zone intended for high intensity building coverage and uses, specifically IH (Heavy Industrial), IG1 (General Industrial 1), EX (Central Employment), CX (Central Commercial), CS (Storefront Commercial) or CM (Commercial Mixed) zone.
- Tree preservation requirements approved through a land division or other land use review that is still in effect.
- Trees that are dead, dying, dangerous, or a nuisance species defined by the Portland Plant List.

Tree Preservation Standards¹.

At least 1/3 of trees 12 inches and larger must be preserved. Payment into the Tree Planting and Preservation Fund may be made in lieu of preservation. For each tree removed below the 1/3 requirement, payment to the Tree Planting and Preservation Fund is required equivalent to the cost of planting and maintaining two 2-inch trees for two years. The current fee for two 2-inch trees is \$1,200.00, based on a value of \$300.00 per inch.

Tree Planting and Preservation Fund

As noted above, payment may be made in-lieu of tree planting or preservation. Those payments are made to the Tree Planting and Preservation Fund. Those funds are used by the City to plant new trees to replace some of the services lost through permitted tree removal, or to acquire property with significant trees.

¹ Council considered amendments to regulations for tree preservation in development situations in March 2016. This data is reflective of the code in effect in 2015.

Data Collection

The following section details background information about the type of data collected and some important information about the synthesis of that data.

Permit Types

Tree data is collected by BDS for development review permits as part of the following permit types:

1. **Residential Building Permit (RS):** Residential building permits are for work associated with single family dwellings, duplexes and two-unit townhouses.
 - a. **New Construction-** New construction is erection of a new structure which could include a house, garage, accessory dwelling unit or other accessory structure. New construction involves ground disturbance.
 - b. **Additions-** An addition is work that increases the envelope of a building and generally adds square footage through new floor area or enclosing existing floor area. Additions could include adding a room to a house, enclosing a porch, or adding a dormer. They may or may not include ground disturbance.
 - c. **Alterations-** An alteration is work that does not increase the envelope of a building. Most alterations are interior to a building, though they may include some exterior changes like replacing or moving windows or doors. Alterations could include a kitchen remodel or finishing a basement. Alterations typically do not include ground disturbance.
 - d. **Demolitions-** Demolitions are removal of the entire superstructure of a building down to the subflooring. Most demolitions will contain ground disturbance, unless the foundation or slab remains.

2. **Commercial Building Permit (CO):** Commercial building permits are for work associated with all buildings other than single family dwellings, duplexes and two-unit townhouses, including but not limited to commercial, mixed-use, industrial, and multi-family buildings.
 - a. **New Construction-** New construction is the erection of a new structure which could include a building, trash enclosure, or other accessory structure. New construction involves ground disturbance.
 - b. **Additions-** An addition is work that increases the envelope of a building and generally adds square footage through new floor area or enclosing existing floor area. They may or may not include ground disturbance.
 - c. **Alterations-** An alteration is work that does not increase the envelope of a building. Most alterations are interior to a building, though they may include some exterior changes like replacing or moving windows or doors. Alterations could include improvements for a new commercial tenant, reconfiguring dwelling units in a multi-family building, or reconfiguring office space. Alterations typically do not include ground disturbance.
 - d. **Demolitions-** Demolitions involve removal of the entire superstructure of a building down to the subflooring. Most demolitions will contain ground disturbance, unless the foundation or slab remains.

3. **Development Review Permit (DR):** Development Review permits are for work where no building or structure is altered, moved or constructed but that may otherwise require review for conformance with portions of the building code (Title 24), and reviewed by multiple agencies for conformance with several Titles. Examples includes stormwater retrofits on non-residential property, parking lot construction or alteration, or vending cart sites. Most work covered under a Development Review permit will contain ground disturbance.
4. **Site Development Permit (SD):** Site Development permits are for work where no building or structure is altered, moved or constructed and that does not require a building permit. They primarily include work such as clearing, grading, tree cutting, landslide repair, private streets and groundwork related to new subdivisions. Most work covered under a Site Development permit will contain ground disturbance.
5. **Zoning Permit (ZP):** Zoning permits are for work that only requires review for conformance with Title 33 (Planning and Zoning) regulations and, in some cases also Title 11—but not building code regulations. The Bureau of Transportation or Bureau of Environmental Services may also review zoning permits, depending on the scope of work. Examples include residential driveways, small sheds or other accessory structures that do not require a building permit, tree or landscaping work in fulfillment of Title 33 land use review conditions of approval, and work in environmental overlay zones. Some, but not all work covered under a Zoning Permit will contain ground disturbance.
6. **Facilities Permits (FA):** Facilities permits are permits issued through the Facilities Permit Program (FPP). This program is designed to serve customers with on-going interior tenant improvements where facility maintenance, upgrade and renovations are frequent. Work includes tenant improvements for office spaces in large office buildings, interior remodels for college and hospital campuses, tenant improvements for industrial buildings, electrical or mechanical work in existing spaces, and others. Additions are generally not allowed through the FPP, so permits rarely include ground disturbance. In addition, most buildings in the FPP are located in the commercial and industrial zones that are exempt from Title 11 requirements. There were 5,999 FA permits issued in 2015. The type of work permitted through FPP was not intended to, and rarely does trigger Title 11 requirements. For this reason, coupled with the relatively large number of FA permits issued, **data on FA permits has been deliberately excluded from this report.** Inclusion of the data would greatly skew the data toward results that would diminish the overall applicability and effect of Title 11 requirements.

	Data Collected	Description
1	Total number of trees preserved	Total number of on-site trees to be preserved on a site
2	Total diameter of all inches preserved	Total combined diameter inches of on-site trees preserved on a site
3	Number of large trees planted	Total number of large canopy species trees to be planted on a site
4	Number of small and medium trees planted	Total of both small and medium canopy species trees to be planted on a site
5	Total trees planted	Total of large, medium and small canopy species trees to be planted on a site
6	Total number of trees removed	Total number of on-site trees to be removed from a site
7	Total diameter of all trees removed	Total combined diameter inches of on-site trees removed from a site
8	Tree fund – number of trees removed	Number of trees removed on a site that require a mitigation fee
9	Tree fund – number of trees not planted	Number of trees not planted on a site that require a mitigation fee

The data in this report is based on information entered into the City’s permitting system (TRACS) by BDS staff as part of permit review. Some of the information collected triggers tree preservation inspections or fees to be paid by the customer. Other information is collected for reporting purposes only. The following table describes the information that is entered by BDS staff for each development permit described earlier in this report.

Notes Regarding the Data

There are a few items of interest about the data that may be useful to consider when reading this report relating to the scope of the data captured, and an explanation of differences in quarterly data.

Inclusion of Other City Titles in the Data

BDS records the following tree data for each permit type listed above when tree preservation and/or planting requirements apply. **It should be noted that this data includes tree information for both Title 11 requirements and Title 33 (Planning and Zoning) requirements. It would also include trees planted to meet Stormwater management requirements.** For example, Title33 requires trees and other landscaping in parking lots. Therefore, a permit for a new commercial building and associated parking lot would include trees planted and preserved to meet BOTH Title 11 tree preservation and tree density requirements AND Title 33’s parking lot landscaping requirements. Another example is where a land use review required by Title 33 such as an Environmental Review or Land Division Review requires tree planting or preservation. The intent is to capture the results of Title 11 in concert with other complimentary regulations. Title 33 requirements are generally

less prevalent in one and two family residential development (RS) because the Title 33 standards for tree planting were replaced with Title 11 tree preservation and tree density (planting) requirements.

Quarterly Data

The data gathered for this report only captures permits that have been issued. For data presented quarterly, the data for Quarter 1 is often a significantly smaller amount than for Quarters 2 and 3. This is due to a timing issue related to when permits are applied for versus when they are issued. A permit issued in March will be allocated to Quarter 1, while a permit issued in September will be allocated to Quarter 3. However, all permits in the data set were applied for in 2015. Thus, to be included in Quarter 1 data, the permit must be both applied for and issued within Quarter 1. In contrast, a permit issued in Quarter 3, may have been applied for in Quarter 1, 2, or 3. Given that many permits take longer than 2 or 3 months to issue, the base data set for Quarter 1 is smaller. In addition, some permits that were applied for in 2015 may not yet have been issued at the time the data in this report was extracted (January 2016). This is especially true for permits applied for in Quarter 4. Therefore, Quarter 4 numbers may be lower than other quarters. This is not necessarily reflective of trends, only that there is a smaller data set for Quarter 1 and Quarter 4.

Tree Planting and Preservation in Different Permit Types

Unless exempt, the Title 11 tree preservation standards and tree planting standards apply to development permits for new construction, additions, alterations, and demolitions. **Table 1** below represents the number of permits where a) tree planting standards applied; b) where tree preservation standards applied; c) and the aggregate where either or both tree planting and preservation standards applied. It is possible that both tree planting standards and tree preservation standards apply to any given permit. **The data includes both where trees were planted or preserved to meet the standard, or where fees were paid in-lieu of meeting the preservation or planting standard; it does not distinguish between preserving the tree(s) or paying a the fee in-lieu.** The table is meant to capture how many development permits triggered tree planting standards and/or tree preservation standards.

The table summarizes issued Residential permits, Commercial permits, Site Development permits, Development Review permits, and Zoning permits. Residential and Commercial permits are further broken down into categories of new construction, additions, alterations, and demolitions to add further insight into the type of work that most often triggers tree preservation or tree planting standards.

In summary, tree standards applied to 19.6% of all Residential permits, 3.9% of all Commercial permits, and 15.7% of all permits. Broken down, tree planting standards applied to 9% of Residential permits, 2.7% of Commercial permits, and 7.6% of all permits. Tree preservation standards applied to 12.5% of Residential permits, 2% of Commercial Permits, and 9.6% of all permits.

Within the new construction and demolition subtypes, the rate of applicability is much higher, at 63.0% and 34.2% for Residential permits, respectively. Also, 27.6% of Residential addition permits triggered either or both tree planting or preservation.

In contrast, alteration sub-types have a much lower occurrence, at 2.6% for Residential permits. This is to be expected since alterations generally do not include ground disturbance (and therefore do not trigger tree preservation standards) and are relatively less expensive (and therefore are exempt because they are less than

the exempt value threshold, currently \$155,900). Alterations also make up the highest volume of permits issued, which negatively affects the overall percentage of permits that triggered tree planting and/or preservation (19.6% for all Residential permits). Also, addition sub-types have a low rate of planting occurrence (2.3%), primarily due to the fact that many additions are exempt from tree density requirements due to the value of the alteration or addition project (less than \$155,900) and are exempt from tree planting requirements- as approximately 95% of all issued permits are below this value.

Further discussion regarding tree planting and tree preservation applicability and exemptions and how they may affect the rate of applicability follows in the next section.

Table 1
Issued Permits Where Tree Planting or Preservation Were Required Relative to
Total Issued Permits, by Permit Type and Sub-type, 2015

Permit Type		Total	Planting Applied		Preservation Applied		Planting and/or Preservation Applied	
Permit Type	Permit Sub-Type	Permits Issued	# of Permits	% of Permits	# of Permits	% of Permits	# of permits	% of permits
Residential (RS)	All subtypes	5,060	456	9.0%	630	12.5%	994	19.6%
	New Construction	856	428	50.0%	185	21.6%	539	63.0%
	Additions	700	16	2.3%	187	26.7%	193	27.6%
	Alterations	2,509	7	0.3%	62	2.5%	65	2.6%
	Demolitions	571	0	0.0%	194	34.0%	195	34.2%
Commercial (CO)	All subtypes	1,730	46	2.7%	35	2.0%	67	3.9%
	New Construction	177	26	14.7%	15	8.5%	33	18.6%
	Additions	140	10	7.1%	7	5.0%	13	9.3%
	Alterations	1,311	10	0.8%	6	0.5%	14	1.1%
	Demolitions	98	0	0.0%	7	7.1%	7	7.1%
Development (DR)		20	2	10.0%	1	5.0%	3	15.0%
Site Development (SD)		33	6	18.2%	8	24.2%	13	39.4%
Zoning (ZP)		178	25	14.0%	0	0.0%	25	14.0%
Total		7,021	530	7.6%	674	9.6%	1,102	15.7%

Tree Planting and Preservation Applicability and Exemptions

The tree code excludes some projects from tree preservation and tree planting standards, which aids in further explanation of the data in Table 1.

Tree Planting Applicability and Exemptions

As summarized earlier in the report, projects do not need to meet tree planting standards if any of the following circumstances:

- Additions or exterior alterations to existing development with a project valuation less than non-conforming upgrade threshold noted in Title 33 (Planning & Zoning). This amount is currently set at \$155,900 and is adjusted annually.
- A specific condition of land use review approval exempts the site from density standards.
- Sites within the Portland International Airport Plan District or Cascade Station/Portland International Center Plan District that are subject to Airport Landscape Standards.
- Sites located within a zone intended for high intensity building coverage and uses, specifically IH (Heavy Industrial), IG1 (General Industrial 1), EX (Central Employment), CX (Central Commercial), CS (Storefront Commercial) or CM (Commercial Mixed) zone.
- Work conducted under Demolition, Site Development, or Zoning Permits.

Tree Preservation Applicability and Exemptions

As summarized earlier in the report, projects are not subject to tree preservation under any of the following circumstances:

- The site is less than 5,000 square feet.
- The project has existing or proposed building coverage $\geq 85\%$.
- Sites located within a zone intended for high intensity building coverage and uses, specifically IH (Heavy Industrial), IG1 (General Industrial 1), EX (Central Employment), CX (Central Commercial), CS (Storefront Commercial), or CM (Commercial Mixed) zone.
- Tree preservation requirements approved through a land division or other land use review that is still in effect.
- Trees that are dead, dying, dangerous, or a nuisance species defined by the Portland Plant List.

The following tables show the number of permit applications that were exempt from tree preservation or tree planting for measurable exemptions. These tables provide additional insight into why some permits shown in Table 1 were not subject to tree preservation and/or tree planting requirements. It is possible for a site to be exempt from tree planting or preservation standards for more than one reason. Thus, while the tables do not offer definitive reasons why a particular permit was not subject to tree preservation, they do provide information about the scale of applicability of particular exemptions.

For example, per **Table 2**, approximately 21% of Residential permits and 6% of Commercial permits could have been exempt from tree preservation standards due to site size. On a case-by-case basis, they may also be exempt because they are located in an exempt commercial zone, or they may not trigger tree preservation at all because they do not include ground disturbing activity, or do not contain any trees on site. However, it is useful to know that approximately 1/5 of residential development activity would not have triggered tree preservation due to site size.

Table 2
Issued Permits Where Site is Less than 5,000 Square Feet:
Exempt from Tree Preservation Standards, 2015

	# of Permits*	# of Sites < 5,000sq.ft.	% of Sites <5,000 sq. ft.
Residential Permits	4,500	940	20.9%
Commercial Permits	1,338	75	5.6%
Total	5,838	1,015	17.4%

*excludes permits with no information regarding site size

Similarly, as shown in **Table 3**, 34% of Commercial permits and 1% of Residential permits could be exempt from tree preservation standards and tree planting standards due to their location in an exempt zone. This number is significantly higher for commercial development since the exempt zones contain primarily commercial uses. Thus, it can be generalized that approximately 1/3 of commercial development activity could be exempt from tree preservation requirements due to their location in a specific zone, while this exemption has little effect on residential development.

Table 3
Issued Permits Where a Site is in IH, IG1, EX, CX, CS, or CM Zone:
Exempt from Tree Preservation and Tree Planting Standards, 2015

	# of Permits*	# of Sites in Exempt Zones	% of Sites in Exempt
Residential	4,576	45	1.0%
Commercial	1,296	439	33.9%
Total	5,872	484	8.2%

*excludes permits with no information regarding zone

Tree Planting and Preservation for New Single Family Residential Construction (NSFR)

Pre-Title 11 tree preservation and planting for NSFR permits

Prior to Title 11, tree preservation and planting requirements were reviewed as part of new single family residential construction projects under *Chapter 33.248, Landscaping and Screening* (also known as the *T1 Standards*). To meet these standards, applicants could preserve trees, plant new trees, or pay a fee in lieu of planting or preservations. The options could be utilized singly or in combination. There were no exemptions to the standard.

The T1 standards were as follows:

- 1) Tree preservation.** Preserve at least 2 inches of existing tree diameter per 1,000 square feet of site area.
- 2) Tree planting.** Plant at least 2 inches of tree diameter per 1,000 square feet of site area.
- 3) Tree fund.** Pay a fee in lieu equal to the cost to purchase and plant at least 2 inches of tree diameter per 1,000 square feet of site area. The most recent fee amount was \$300 per diameter inch.

With the implementation of Title 11, applications for new single family residential construction must now meet both tree preservation and tree planting standards. This is different than the T1 standards, where

applicants could *choose* to preserve *or* plant trees to meet standards. However, under Title 11, several exemptions apply based on the zoning designation, site size and valuation of the project. Again, no exemptions existed under the T1 standard.

Table 4 below represents 2014 NSFR tree data for each of four quarters and for the year in its entirety. This data shows that the majority of applications met the T1 standards by planting trees. In summary, in 2014 a total of 418 new single family residential permits were issued. Of the 418 permits 360 (86%) planted trees, and 91 (22%) preserved trees. (Note: some permits may have contained a combination of planting and preservation to meet the T1 standard).

Table 4
Issued Permits for New Single Family Construction Where Trees Were Planted or Preserved
By Quarter, 2014

2014	# of Permits	# Permits With Planting	% Permits With Planting	# Permits With Preservation	% Permits With Preservation
Q1	24	20	83.3%	5	20.8%
Q2	109	94	86.2%	23	21.1%
Q3	143	119	83.2%	37	25.9%
Q4	139	126	90.6%	13	9.4%
2014	418	360	86.1%	91	21.8%

Post-Title 11 tree preservation and planting for NSFR permits

Interestingly, the data for 2015 is similar. **Table 5** below represents 2015 NSFR tree data for each of four quarters and for the year in its entirety. In summary, a total of 401 new single family residential permits have been issued. Of the 401 permits, tree planting occurred in 341 (85%) cases, and tree preservation occurred in 79 (20%) cases. (Note: some permits may have had both tree planting and tree preservation).

Table 5
Issued Permits for New Single Family Construction Where Trees Were Planted or Preserved
By Quarter, 2015

2015	# of Permits	# Permits With Planting	% Permits With Planting	# Permits With Preservation	% Permits With Preservation
Q1	136	111	81.6%	30	22.1%
Q2	152	129	84.9%	30	19.7%
Q3	90	79	87.8%	14	15.6%
Q4	23	22	95.7%	5	21.7%
2015	401	341	85.0%	79	19.7%

It is important to note that, prior to 2015, there were no requirements for tree planting or preservation for additions, alteration, or demolitions, for either Residential or Commercial permits. In addition, there were no planting or preservation requirements for new construction of anything other than houses—new construction of garages, accessory dwelling units, or other accessory structures did not require planting or preservation.

Table 6 below is taken from Table 1, and shows the occurrence of tree planting or preservation for residential permits only. (Note: some permits may have had both tree planting and tree preservation). **The data includes both where trees were planted or preserved to meet the standard, or where fees were paid in-lieu of meeting the preservation or planting standard; it does not distinguish between preserving the tree(s) or paying a the fee in-lieu.** Again, the occurrence of planting and preservation is lower for alterations, given that they are often exempt from planting requirements due to the value threshold (currently \$155,900) and rarely include ground disturbance to trigger preservation. Similarly, additions are also often under the value threshold for planting, and don't always include ground disturbance. However, as noted above, planting and preservation requirements now apply to a larger percentage of all new construction; not only new single family residences, but also accessory structures including ADUs, garages, and sheds. Planting in association with residential new construction (including accessory structures) is now occurring at a rate of 50% of permits and preservation is occurring at a rate of 22%. In addition, preservation is now occurring with approximately 1/4 of all residential additions and 1/3 of all residential demolitions.

Table 6
Issued Residential Permits Where Tree Planting or Preservation Were Required, 2015

Permit Type	Total	Planting Required		Preservation Required	
		# of Permits	% of Permits	# of Permits	% of Permits
New Construction	856	428	50.0%	185	21.6%
Additions	700	16	2.3%	187	26.7%
Alterations	2,509	7	0.3%	62	2.5%
Demolitions	571	5	0.9%	194	34.0%
All subtypes	5060	456	9.0%	630	12.5%

Comparison of Pre- and Post- Title 11 tree preservation and planting for NSFR permits

The data shows that roughly the same percentage of permits result in trees planted and trees preserved, with 2015 having a slightly lower percentage. However, there are several considerations that are important to remember when evaluating the results of Title 11 implementation:

- **Number of Trees Planted or Preserved:** The data shows only if trees were planted and/or preserved, not how many. Title 11 attempts to achieve tree density appropriate to the expected area not covered by buildings and considering the intensity of the use, while the previous T1 standards were based purely on site size. Thus, this data does not capture the effectiveness of Title 11 in terms of either aggregate numbers of trees added or retained, or to the appropriateness of those numbers given site conditions.
- **Canopy Size of Trees Planted:** The data does not show what types of trees were planted. Title 11 attempts to incentivize the planting of larger canopy trees by assigning them a larger portion of the Required Tree Area from which planting requirements are derived. The previous T1 standards had no

such incentive; planting of a larger canopy tree counted toward meeting the standard at the same level as planting a small canopy tree. This data does not give any information regarding the mature canopy size of trees to compare pre- and post- Title 11 implementation results.

- **Tree Planting and Preservation for Permits other than New Construction.** Again, the comparative data is for new single family construction only. Pre-Title 11, there were no planting or preservation requirements for alterations, additions, or demolitions, or for new construction of accessory structures.

Payment In-lieu of Tree Planting and Preservation

The following information illustrates how often the option of paying a fee in-lieu of preserving or planting trees is utilized, and how much has been contributed to the Tree Preservation and Planting Fund to-date. The tables below present that information for New Single Family Residential construction and Residential demolitions, two permit categories with higher rates of required tree planting and preservation (See Table 1).

Tables **7a, 7b, and 8** show two things 1) how often trees were actually planted or preserved to meet the tree planting or preservation standards, compared to the total number of permits issued and 2) how often payments were made in-lieu of planting and preservation, compared to when **planting or preservation was required (either by planting or preserving OR paying a fee in-lieu)**.

Tables 7a and 7b show this information for New Single Family construction only. This development scenario usually offers the fewest constraints on tree planting and preservation, as there are typically little or no constraints in the form of existing development or other limits on building design to maximize opportunities for tree preservation or planting.

In 2015, 85% of issued permits for New Single Family Construction included trees to be planted. 2% of permits (7 permits) that required tree planting (accomplished either by planting trees or paying a fee in-lieu) chose to pay a fee in lieu of planting for some or all of the trees.

For tree preservation, 19.7% of issued permits included trees to be preserved in 2015. 17.7% of permits (17 permits) that required tree preservation (accomplished either by preserving trees or by paying a fee in-lieu) opted to pay a fee in lieu of tree preservation. It is possible to pay a fee in-lieu for some or all of a site's tree planting or preservation requirements. This table does NOT show the number of trees paid for in-lieu, just the number of permits that had at least one tree paid in-lieu—that payment in-lieu occurred. For reference, 22% of Residential new construction permits required tree preservation in 2015 (See Table 1).

Table 7a
Issued Permits for New Single Family Construction,
Where Trees Were Planted,
and Where Fees Were Paid in-Lieu of Planting
by Quarter, 2015

2015	Total #of Issued Permits	# of Permits With Tree Planting	% of Total Permits with Tree Planting	# of Permits With Planting Fee In-Lieu	% of Permits With Tree Planting Required That Paid Fee In-Lieu
Q1	136	111	81.6%	0	0.0%
Q2	152	129	84.9%	4	3.0%
Q3	90	79	87.8%	2	2.5%
Q4	23	22	95.7%	1	4.3%
2015	401	341	85.0%	7	2.0%

Table 7b
Issued Permits for New Single Family Construction,
Where Trees Were Preserved,
and Where Fees Were Paid in-Lieu of Preservation
by Quarter, 2015

2015	Total #of Issued Permits	# of Permits With Tree Preservation	% of Total Permits with Trees Preserved	# of Permits With Preservation Fee In-Lieu	% of Permits With Tree Preservation Required That Paid Fee In-Lieu
Q1	136	30	22.1%	6	16.7%
Q2	152	30	19.7%	9	23.1%
Q3	90	14	15.6%	2	12.5%
Q4	23	5	21.7%	0	0.0%
2015	401	79	19.7%	17	17.7%

Table 8 shows how often payments are made in Residential demolitions. Residential demolitions typically include ground disturbance, therefore, unless exempt, the sites are usually subject to tree preservation requirements. Note: all demolitions are specifically exempt from tree density requirements, so payment in lieu of tree planting is not applicable. Residential Demolitions include demolitions of houses and duplexes, but also of accessory structures such as accessory dwelling units, garages, and sheds that are of sufficient size to require a demolition permit.

In 2015, 19.7 % of issued permits included trees to be preserved. 43% of Residential demolition permits (86 permits) that required tree preservation (accomplished either by preserving trees or by paying a fee in-lieu) paid a fee in-lieu of preservation for some or all of the trees. This table does NOT show the number of trees

paid for in-lieu, just the number of permits that had at least one fee in-lieu payment. For reference, 34% of Residential demolition permits required tree preservation in 2015 (See Table 1).

Table 8
Issued Permits for Residential Demolition Where Trees Were Preserved,
and Where Fees Were Paid In-Lieu of Preservation
by Quarter, 2015

2015	Total #of Issued Permits	# of Permits With Trees Preserved	% of Total Permits with Trees Preserved	# of Permits With Preservation Fee In-Lieu	% of Permits With Tree Preservation Required That Paid Fee In-Lieu
Q1	139	25	18.0%	14	35.9%
Q2	184	39	21.2%	42	51.9%
Q3	147	33	22.4%	17	34.0%
Q4	101	16	15.8%	13	44.8%
2015	571	113	19.8%	86	43.2%

To summarize, trees were planted in association with 85% of issued New Single Family permits. For both Residential demolitions and New Single Family permits, just under 20% had trees preserved. Where tree planting was required for New Single Family development, only 2% of permits chose to pay a fee in-lieu of planting. However, where tree preservation was required for New Single Family development, 17.7% of permits paid a fee in-lieu of preservation. Finally, for Residential demolitions, 43% of permits chose to pay a fee in-lieu of preservation, where tree preservation was required.

Notably, the rate of payment in lieu of preservation is significantly higher for residential demolition permits (43%) than for new single family construction permits (18%). This could indicate that, on sites where demolition is occurring prior to new construction, applicants are opting to pay in lieu of preservation during the demolition phase of work, to make room for new construction.

Finally, **Table 9** shows the absolute number of trees not planted and not preserved but instead paid for in-lieu of planting or preservation. It also shows the corresponding contribution to the Tree Planting and Preservation Fund. As stated in the Background section, payment in-lieu into the Fund for each tree not planted is equal to a payment of one 1.5-inch tree at \$300.00 per inch, for a total of \$450.00 per tree not planted. Payment in-lieu into the Fund for each tree not preserved is equal to a payment of two 2-inch trees at \$300.00 per caliper inch, for a total of \$1200.00 per tree not preserved. A total of \$262,950 has been contributed to the Tree Planting and Preservation Fund from these permits at the cost of not planting or preserving 306 trees.

Table 9
Funds Collected as Fees-in-Lieu of Trees Planted or Trees Preserved
by Quarter, 2015

Quarter	# of Trees Not Planted	Fees for Trees Not Planted	# of Trees Not Preserved	Fees for Trees Removed
Q1	98	\$ 44,100	36	\$ 43,200
Q2	16	\$ 7,200	78	\$ 93,600
Q3	24	\$ 10,800	33	\$ 39,600
Q4	1	\$ 450	20	\$ 24,000
2015	139	\$ 62,550	167	\$ 200,400

Number of Trees Planted and Preserved

The final set of information presented deals with the absolute total numbers of trees planted, preserved, and removed on private property in development situations since implementation of Title 11. The data is gathered from issued permits of all permit types discussed and shown in Table 1.

Tree planting standards applied to 530 permits in 2015. In total, 2,844 trees were planted as part of these permits. The vast majority of trees, approximately 87%, were in the small and medium canopy classification. Conversely, only 13% of trees planted were in the large canopy classification.

Table 10
Number and Canopy Size of Trees Planted in All Permit Types
by Quarter, 2015

Quarter	#of Large Trees Planted	# of Small & Medium Trees Planted	# of Total Trees Planted	Large Trees as Percentage of Total
Q1	122	855	977	12.5%
Q2	202	1,224	1,426	14.2%
Q3	76	612	688	11.0%
Q4	19	153	172	11.0%
2015	419	2,844	3,263	12.8%

Tree preservation standards applied to 674 permits in 2015. As **Table 11** shows, 1,677 trees were preserved through those permits, while 1,128 trees were approved for removal through those permits. The average size of trees preserved was 17.6-inches and the average size of trees removed was 16.9-inches. In summary, 1.5 more trees are being preserved than removed. Some reasons for this could include the use of preservation to meet tree density (planting requirements) of Title 11, preservation requirements through land divisions or other land use review conditions of approval, or voluntary preservation. Regardless, approximately 60% of inventoried trees were preserved and approximately 40% of trees were removed. This exceeds the requirement to preserve 1/3 of trees on sites subject to tree preservation standards.

It is also useful to note that Title 11 tree preservation rules require that trees 12-inches or greater be subject to tree preservation standards. However, other tree preservation options, such as to meet Title 11 tree density

(planting) standards, allow for preservation of trees smaller than 12-inches to count toward meeting preservation requirements. This could skew the average size of trees preserved toward a lower number. Thus, the average size of trees preserved strictly through Title 11 tree preservation requirements may be larger than 17.6-inches.

Table 11
Number and Size of Trees Preserved and Removed in All Permit Types
By Quarter, 2015

Quarter	# of Trees Preserved	Total Inches Preserved*	Avg Inches Per Tree Preserved	# of Trees Removed	Total DBH Removed*	Avg DBH Per Tree Removed
Q1	424	7,570	18.2	324	4,840	15.5
Q2	792	12,975	16.9	476	7,779	18.0
Q3	311	5,361	17.9	212	3,828	19.0
Q4	150	2,753	18.9	116	1,638	14.1
2015	1,677	28,659	17.6	1,128	18,085	16.9

*There was no information for inches preserved for 50 trees and for inches removed information for 67 trees. Those trees were excluded from the Total Inches Preserved, Average Inches Removed, Total Inches Removed, and Average Inches Removed, but included in the # Trees Preserved or the # of Trees Removed.

IV. Non-Development Tree Permits

Background

Under Title 11, and prior to that under Titles 20.40 and 20.42, the City Forester is responsible for administering tree requirements in non-development situations on public and private property and in City rights of way.

Prior to Title 11, regulations for trees outside of development situations included all City-owned trees, trees in the right of way, and private trees 12" or greater in diameter on divisible lots and in environmental zones. Exemptions for private trees on non-dividable single-family lots and for private trees in certain overlay zones created situations where similar trees on the same or adjoining lots might be regulated differently or by different bureaus within the City. A main objective for the Citywide Tree Project was to replace this often confusing and inconsistent system with a clear, cohesive, and consistent regulatory framework for trees in non-development situations that is understandable to residents, equitable, and that provides protection for trees that contribute significantly to Portland’s tree canopy.

Changes to regulations for trees in non-development situations under Title 11 include the following:

- extension of tree removal permit requirements to all single family non-dividable lots;
- establishment of a minimum tree-for-tree replacement for trees that are dead, dying, or dangerous;
- creation of a tiered permitting system that centers greater staff resources on reviewing permits for removal of large, healthy trees or multiple trees; and

- creation of programmatic permits, which cover routine and on-going maintenance programs and resource enhancement programs managed by public utilities and agencies.

Together, these changes seek to protect the quantity and quality of Portland’s tree canopy and have substantially increase the workload of Parks Urban Forestry staff. Information included in this section will cover tree permitting data, workload indicators, and where applicable, comparisons of pre- and post-Title 11 data for use in evaluating to what extent Title 11 is meeting stated objectives.

Tree Permit Requirements (No Associated Development)

11.40.010 Purpose

The purpose of this Chapter is to manage, conserve, and enhance the urban forest when development activity is neither proposed nor occurring. The provisions of this chapter encourage preservation of high quality trees, large trees, and groves; regulate pruning and planting on City-owned and managed sites and streets to protect public safety and public infrastructure; and ensure replacement for trees that are removed. The permitting procedures that are required to implement these provisions are intended to not only enforce maintenance, removal and preservation requirements but also to educate property owners about the intrinsic urban benefits of trees as well as the principles of tree care.

Objectives (Citywide Tree Project Recommended Draft Report to City Council, Volume 1, 2010):

- 1) Minimize canopy loss from tree removals through protection of large, healthy trees on all private lots and minimum tree-for-tree replacement of dead, dying, dangerous, or nuisance trees.
- 2) Streamline permitting through tiered A/B permitting system.
- 3) Create a consistent and transparent process for applicants across public and private properties.

Title 11 created a tiered permitting system for tree activity in non-development situations (see Appendix A for summary of permit requirements). The system breaks permits into the following two categories:

- Type A permits are issued for pruning and planting where applicable, and for removals of smaller trees, trees in poor health, trees identified as nuisance species in the Portland Plant List, or trees that pose a threat to residents or infrastructure.
- Type B permits are issued for the removal of larger trees in good health, or in cases of more than four removals within a calendar year.

Type A tree removal permits are meant to streamline the process for tree removals in certain situations without inspection or option for public appeal. Minimum tree-for-tree replacement is required in these cases. Type B tree removal permits are reserved for the removal of large, healthy, non-nuisance private trees, and for any healthy City or street tree that meets size and quantity thresholds. Escalated mitigation requirements, clarified in the Administrative Rule, “*Replanting Requirements for Tree Removal on Private Property, City-Owned and Managed Sites, and Public Rights-of-Way,*” apply in these situations, based on a set of factors that seeks to balance economic, ecological, and community concerns, and also the reasonable use and enjoyment of private properties.

Data Collected

Data included in this section will cover tree permitting applications, issuance, and denials on public and private properties, as well as appeals and non-development related code violations. Permit types and reviews include the following:

- Planting
- Pruning
- Removal and Replanting
- Root Pruning
- Health Inspection
- Emergency Response
- Code Compliance

In some cases, it is possible to compare pre- and post-Title 11 permitting activity in non-development situations, and these comparisons are included in this section. Data related to private trees in these comparisons should be interpreted with the knowledge that trees located on approximately one-third of private lots were regulated prior to Title 11, with the remaining two-thirds of lots coming under regulation with the new tree code in 2015.

Non-Development Related Permit Applications and Reviews

Metrics in Table 12 measure overall workload and identify which types of requests are generating inspections. As regulation of trees under Title 11 varies by location, data are reported by location: private lots, rights of way, and city-owned or managed properties.

Table 12. Applications Received, 2014 and 2015

Permit Type	2014 Reviews	2015 Reviews	Trend
Planting	220	237	Up
<i>Private</i>	<i>n/a</i>	<i>n/a</i>	
<i>Right of Way</i>	181	214	
<i>City</i>	39	23	
Pruning	1,336	1,653	Up
<i>Private</i>	23	26	
<i>Right of Way</i>	1,216	1,557	
<i>City</i>	97	70	
Removal and Replanting	1,614	3,304	Up
<i>Private</i>	470	2,193	
<i>Right of Way</i>	1,023	1,025	
<i>City</i>	121	86	
Root Pruning	714	782	Up
<i>Private</i>	0	0	
<i>Right of Way</i>	712	781	
<i>City</i>	2	1	
Health	511	360	Down
<i>Private</i>	21	6	
<i>Right of Way</i>	467	286	
<i>City</i>	23	68	
Emergency Response	1,105	1,068	Down
<i>Private</i>	54	18	
<i>Right of Way</i>	962	965	
<i>City</i>	89	85	
Code Compliance	583	686	Up
<i>Private</i>	56	108	
<i>Right of Way</i>	525	574	
<i>City</i>	2	4	
Other	86	169	Up
<i>Private</i>	37	15	
<i>Right of Way</i>	38	142	
<i>City</i>	11	12	
TOTAL	6,169	8,259	Up

Overall, permit applications have increased 34% from 2014 to 2015. This is due to an increase in private tree removal applications, which increased from 470 in 2014 to 2,193 in 2015, caused by the regulation of more private properties under Title 11.

Denials of Removal and Replanting Permits

In order to ensure that significant adverse impacts of tree removals are avoided, the City encourages retention of healthy trees where practicable alternatives to removal exist. In the absence of extraordinary circumstances, the City will not permit the removal of a healthy, functioning street tree. In the case of private tree removals, broader factors are considered, including economic, ecological, and community concerns, and the reasonable use and enjoyment of property.

In non-development situations, non-exempt trees that meet the size or quantity thresholds for B permits may be denied a permit for removal. Denials of removal and replanting permits occurring in 2014 and 2015 are shown in Tables 13a and 13b, below.

Table 13a. Permit Denials, 2014

Permit Type	Applications	Denials	Proportion of applications denied
Removal and Replanting	1,614	117	7.2%
<i>Private</i>	470	46	9.8%
<i>Right of Way</i>	1,023	69	6.7%
<i>City</i>	121	2	1.7%

Table 13b. Permit Denials, 2015

Permit Type	Applications	Denials	Proportion of applications denied
Removal and Replanting	3,304	156	4.7%
<i>Private</i>	2,193	93	4.2%
<i>Right of Way</i>	1,025	62	6.0%
<i>City</i>	86	1	1.2%

The total number of denials of removal and replanting permits increased in 2015, consistent with an increase in overall applications, but the rate of denials proportionate to applications received has dropped from 7.2% to 4.7%. The rate of denial of private tree removal applications decreased by more than half, from 9.8% in 2014 to 4.2% in 2015.

Permits Issued

Permitting in non-development situations under Title 11 falls into two categories. While each permit type (e.g. pruning, planting, removal/replant) has one application, Type A permits are issued for pruning and planting where applicable, and for removals of smaller trees, trees in poor health, or trees that pose a threat to residents or infrastructure. Type B permits are issued for the removal of larger trees in good health, or in cases of more than four removals within a calendar year. Prior to Title 11, permits were not issued according to these categories.

Data in this section are organized by location: private, street, and city trees.

Private Trees

Permitting activity for private trees in non-development situations under Title 11 is limited to the pruning of heritage and native trees in environmental zones and removals of regulated trees. Prior to Title 11, permits to remove private trees 12 inches or larger were only required on developable or dividable lots, which amounted to approximately one-third of all private lots in the city. Under Title 11, permit requirements were extended to all private lots. The tables below summarize permits issued for tree activity on private properties in 2014 and 2015 (Table 14) and display quarterly data for 2015 (Table 15).

Table 14. Private Tree Permit Activity, 2015

Permit Type	2014	2015, A Permits	2015, B Permits	Trend
Pruning				Down
Permits issued	25	19	n/a	
Trees permitted	36	17	n/a	
Removal/Replant				
Applications	470	2,193		Up
Permits issued	300	1,923	51	Up
Trees permitted for removal	470	2,796	110	Up
Trees permitted for planting*	473	2,448	123	Up
Replacement ratio (Ratio of trees planted : trees removed)	1 : 1	.9 : 1		Down
Denial rate (permits denied)	9.8% (46)	4.2% (93)		Down

**fee in lieu of planting paid for in 12 permits (19 trees) in 2015.*

Table 15. Private Tree Removal/Replant Permit Quarterly Detail, 2015

	Applications	A permits issued	Trees permitted for Removal	Trees Permitted for Planting	B Permits issued	Trees permitted for Removal	Trees Permitted for Planting
Q1	441	358	508	455	5	8	15
Q2	603	540	763	680	18	34	45
Q3	595	486	700	606	14	18	22
Q4	554	539	825	707	14	50	41
Total	2,193	1,923	2,796	2,448	51	110	123

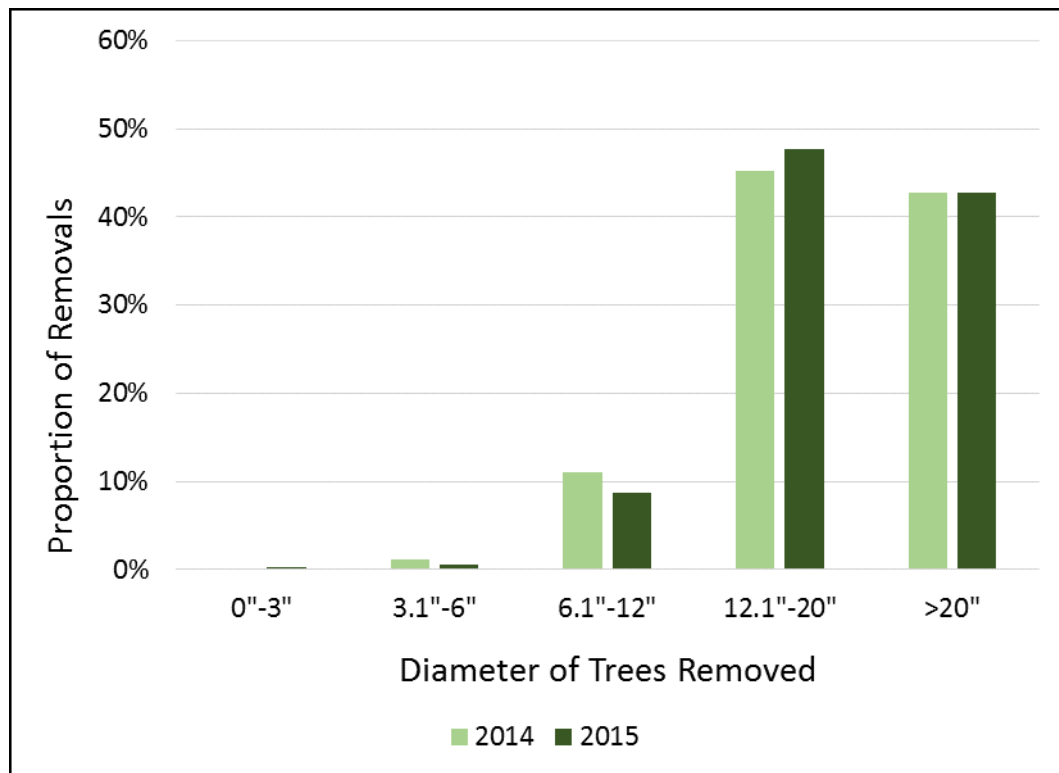
Both prior to and under Title 11, very few pruning permits for private trees have been issued as these permits are only required in rare circumstances. In 2015, there was a large increase in removal permits both applied for and issued and a subsequent rise in private trees permitted for removal, from 470 in 2014 to 2,906 trees

removed under A and B permits in 2015. This six fold increase exceeds the generally expected rise in private tree removals permitted under Title 11, which brought trees on all private properties under regulation.

Under Title 11 in 2015, more trees were permitted for removal than for replanting on private property. This is indicated by the replacement ratio of trees planted (or paid for) to trees removed, which dropped from 1:1 in 2014 to .9:1 in 2015. The replacement ratio is a key indicator for tracking whether or not Title 11 regulations are meeting the goal of minimum tree for tree replacement, a goal set by the Citywide Tree Project (Citywide Tree Project Recommended Draft Report to City Council, Volume 1, 2010). Most permits (97% of all permits) issued for tree removal on private property in 2015 were Type A permits, which require a direct tree-for-tree replacement. While Type B permits issued in 2015 resulted in a greater than 1:1 planting to removal ratio for the first 3 quarters of 2015, mitigation requirements were reduced under the Administrative Rule, finalized in October, 2015. Under the Administrative Rule, Type B permits often required less than a tree-for-tree replacement in cases where properties met on-site and ROW tree density requirements after tree removal; this is reflected in the fourth quarter data, which show 50 trees permitted for removal and 41 trees required for replanting.

The size of trees permitted for removal on private lots followed similar patterns in 2014 and 2015, with most trees removed over 12" diameter. The chart below shows the proportion of trees removed each year by diameter group.

Figure 1. Diameter of Private Tree Removals in 2014 and 2015



Over 40% of private trees permitted for removal in 2015 were greater than 20” in diameter. Trees of this size on private property may be permitted for removal under a Type A permit if they are in poor health, a nuisance species, or within 10 feet of an attached building or structure (see following section for more explanation of exemptions from type B criteria for large trees). In all other cases, trees of this size would require a type B permit for removal. Only 3% of all permits issued for private tree removals in 2015 were type B, which indicates that in most cases, trees 20” or greater permitted for removal on private lots in 2015 were dead, dying, or dangerous; a nuisance species; or within 10 feet of a building or attached structure.

Exemptions for Private Trees

Under Title 11, all trees within 10 feet of an attached structure, all nuisance species, and all trees that are dead, dying, or dangerous are automatically granted a type A permit for removal on private lots, regardless of size. In the case of the 10 foot and nuisance exemptions, trees are automatically permitted for removal, regardless of condition. Trees that meet these criteria are exempt from the review factors and heightened mitigation levels of type B permits. Table 5, below, shows the permits issued and trees removed due to private tree exemption criteria in 2015.

Table 16. Private tree removals by code exemption, 2015

Exemption	Permits Issued	Trees Removed
Dead, Dying, or Dangerous (DDD)	644	991
Nuisance, non-DDD	211	302
Within 10 feet of a building or attached structure, non-DDD/non-nuisance	573	749
Total issued Removal/Replant permits	1,974	2,906

Over one-third (991) of all 2,906 private trees permitted for removal in 2015 were for trees that were dead, dying, or dangerous. Additionally, 302 nuisance trees in otherwise healthy condition were permitted for removal. The exemption for trees within 10 feet of a building or attached structure was applied to 749 otherwise healthy, non-nuisance trees, representing 26% of all private trees approved for removal. Overall, 72% of all private tree removal permits issued in 2015 fell under one of these three categories.

Composition of Private Trees Planted and Removed: Mature Tree Form and Functional Type

Objectives for Title 11 include minimizing tree canopy loss through planting and replacement, which is consistent with goals set out in the Urban Forest Management Plan to maintain and enhance the urban forest (UFMP, 2004). Additionally, the UFMP sets objectives for the planting of large, evergreen, and native trees when appropriate. When planted in the right location, these trees will provide more benefits to Portland’s residents over a longer period than smaller, shorter-lived species.

While the planting of large, evergreen species is not always feasible, it is important to monitor the types of trees planted and removed as a result of Title 11 regulations and Parks Urban Forestry policies because this information determines the overall tree canopy services provided to residents. The tables and figures below

display data for all private trees planted or removed in 2015 as a result of non-development permits and inspections, including planting, removal/replanting, emergency response, and code compliance. Planting data are only for trees required to be planted as mitigation for trees removed; permits are not otherwise required for tree planting on private lands under Title 11. Trees removed include those permitted under A or B permits and those required to be removed as a result of code compliance inspections or emergency response. Numbers in the tables below include only those trees where species information was reported.

Table 17. Mature Size of Private Trees Planted/Removed, 2015

	Large Form	Medium Form	Small Form
Trees Planted	554	867	1021
Trees Removed	1605	951	465

Figure 2. Mature size of private trees planted and removed in 2015

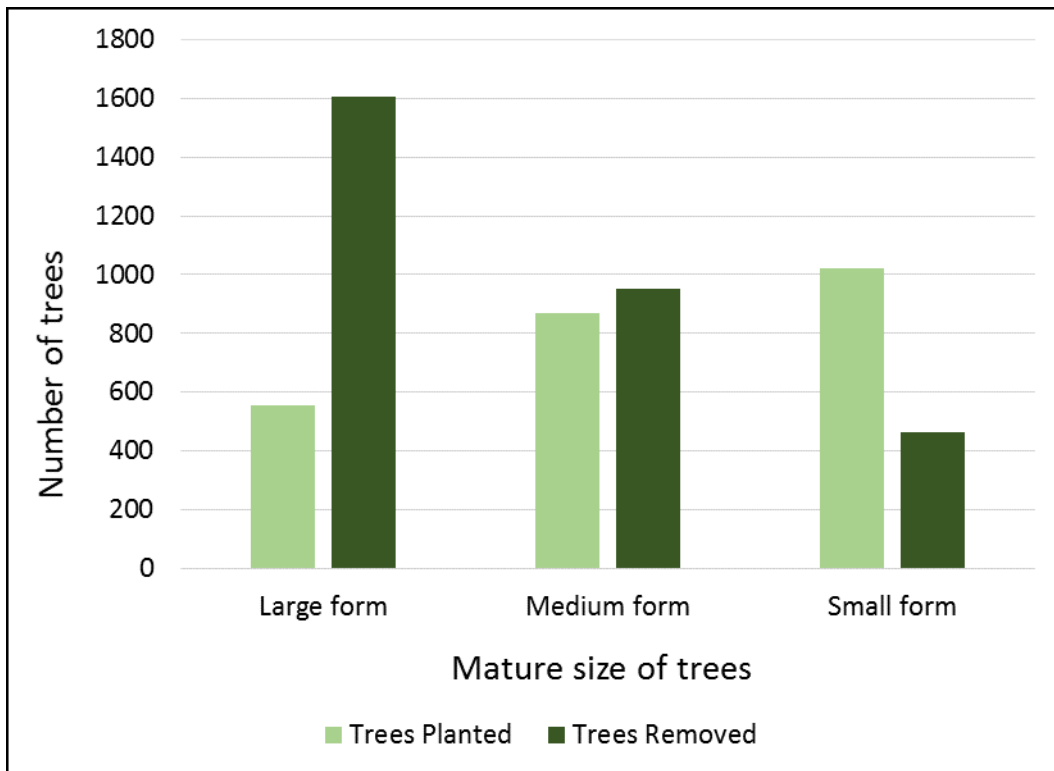
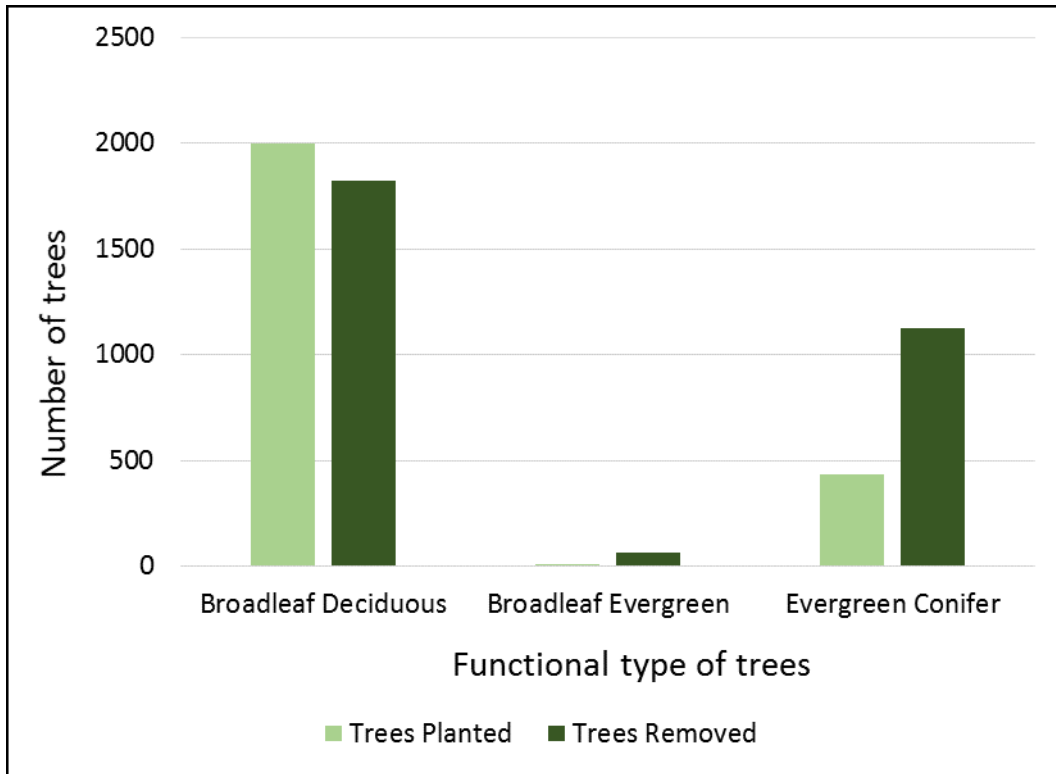


Table 18. Functional Type of Private Trees Planted/Removed, 2015

	Broadleaf Deciduous	Broadleaf Evergreen	Evergreen Conifer	Other
Trees Planted	1996	9	435	2
Trees Removed	1823	65	1127	6

Figure 3. Functional type of private trees planted and removed in 2015



On private lands, large form trees are being removed at nearly three times the rate that they are being replaced (Table 17 and Figure 2). Similarly, evergreen trees are removed at more than twice the rate that they are replaced (Table 18 and Figure 3). Generally, the tables and graphs above point to a trend toward smaller, deciduous trees planted to replace trees removed. While Title 11 prohibits the planting of any nuisance species, applicants can choose to plant any non-nuisance tree species as mitigation for a permitted tree removal. Data in the tables above suggest that given this choice, applicants most often choose smaller, ornamental species as replacements on private lands.

Street Trees

Both prior to and under Title 11, a permit is required to plant, prune, or remove any street tree greater than 1/4" diameter in non-development situations. Under the A/B permitting system instituted in 2015, removals of healthy trees 3" diameter or greater require a B permit. All dead, dying, and dangerous trees, as well as trees under 3" diameter, require A permits for removal.

While information on tree activities completed under Programmatic Permits is primarily covered in a separate section in this report, street trees planted by the Environmental Services Tree Program, managed by the Bureau of Environmental Services (BES), are included in the table below as they account for the majority of permitted street tree plantings in 2014 and 2015. Parks Urban Forestry works cooperatively with BES and Friends of Trees (FOT) to provide permits for street tree plantings under this program. BES and FOT canvassers approach homeowners with potential street tree planting spaces, and Parks Urban Forestry issues final permits for homeowners who sign up with the program.

The tables below show permits issued for street trees in 2014 and 2015 (Table 19) and display quarterly data for street tree permits in 2015 (Table 20).

Table 19. Street Tree Permit Activity, 2014 and 2015

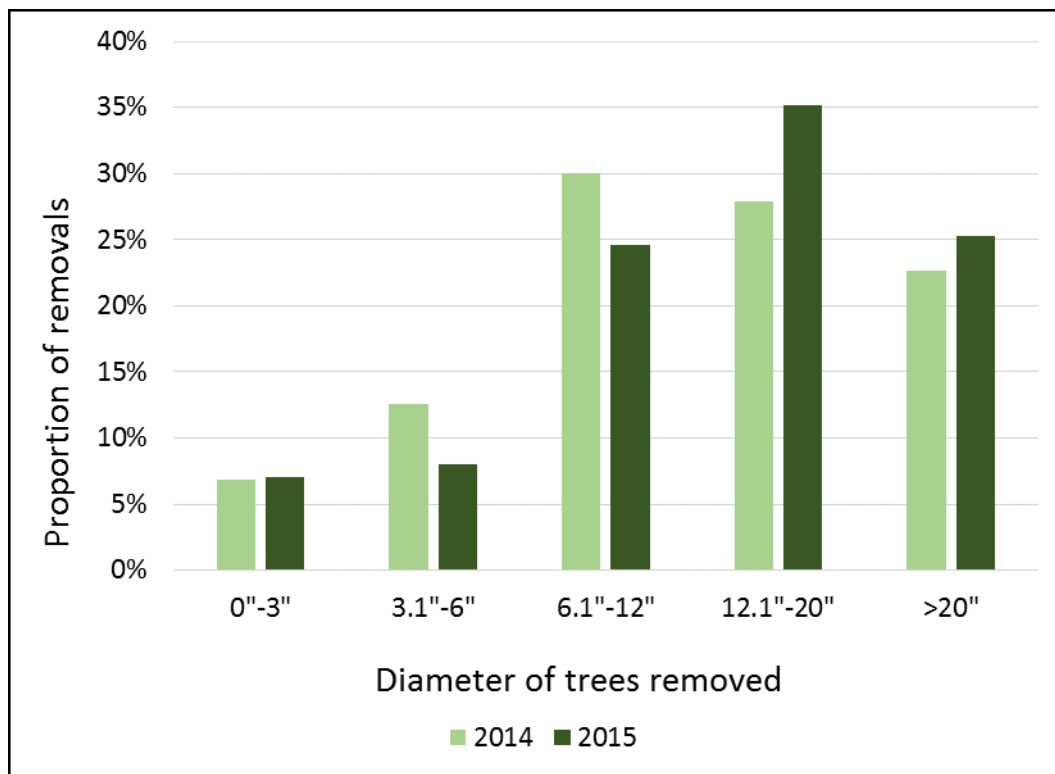
Permit Type	2014	2015, A Permits	2015, B Permits	Trend
Planting				Down
Permits issued	79	176	n/a	
Trees permitted for planting	121	291	n/a	
Tree Program permits issued	2,170	1,279	n/a	
Tree Program trees permitted for planting	3,877	2,268	n/a	
Pruning				Up
Permits issued	1,277	931	n/a	
Trees permitted	3,035	2,676	n/a	
Online permits issued	637	1,084	n/a	
Trees permitted	1,452	2,369	n/a	
Removal/Replant				Up
Permits issued	701	831	37	
Trees permitted for removal	1,270	1,281	81	
Trees permitted for planting	1,136	1,137	65	
Replacement ratio (Ratio of trees planted : trees removed)	.9 : 1	.9 : 1		
Root Pruning				Up
Permits issued	678	722	n/a	
Trees permitted	1,248	1,333	n/a	

Table 20. Street Tree Removal/Replant Permit Quarterly Detail, 2015

	Applications	A permits issued	Trees permitted for Removal	Trees Permitted for Planting	B Permits issued	Trees permitted for Removal	Trees Permitted for Planting
Q1	208	218	386	387	1	1	1
Q2	246	168	237	193	8	10	8
Q3	303	212	308	255	7	16	14
Q4	267	233	350	302	21	54	42
Total	1024	831	1281	1137	37	81	65

In 2015, more removal/replanting, pruning, and root pruning permits were issued than the previous year. Outside of the Environmental Services Tree Program, planting permits increased over 100% in 2015, from 79 to 176 (Table 19). The replacement ratio of trees planted to trees removed under a removal and replanting permit did not change year to year, remaining at 0.9 to 1. While minimum tree-for-tree replanting is generally required with any permitted street tree removal, adequate space does not always exist after a tree is removed, in which case a waiver of replanting requirements may be granted. As such, not all permits issued will meet the minimum tree-for-tree replacement.

Figure 4. Diameter of street tree removals in 2014 and 2015



The size of street trees permitted for removal increased in 2015 compared to the previous year, with a higher proportion of trees removed greater than 12” in diameter (Figure 4).

Composition of Street Trees Planted and Removed: Mature Tree Form and Functional Type

Objectives for Title 11 include minimizing tree canopy loss through planting and replacement, which is consistent with goals set out in the Urban Forest Management Plan to maintain and enhance the urban forest (UFMP, 2004). Additionally, the UFMP sets objectives for the planting of large, evergreen, and native trees when appropriate. When planted in the right location, these trees will provide more benefits to Portland’s residents over a longer period than smaller, shorter-lived species.

While the planting of large, evergreen species is not always feasible in the public right of way due to limitations in planting strip width and soil volume, it is important to monitor the types of street trees planted and removed as a result of Title 11 regulations and Parks Urban Forestry policies. The tables and figures below display data for street trees planted or removed in 2015 as a result of non-development permits and inspections, including planting, removal/replanting, emergency response, and code compliance. Planting data include both trees required to be planted as mitigation for trees removed and those planted under street tree planting permits. Tree removals in tables below include those removed under A and B permits and those required to be removed as a result of code compliance inspections or emergency response. Numbers in tables below include only those trees where species information was reported.

Table 21. Mature Size of Street Trees Planted/Removed, 2015

	Large Form	Medium Form	Small Form
Trees Planted	532	856	1503
Trees Removed	495	739	567

Figure 5. Mature size of street trees planted and removed in 2015

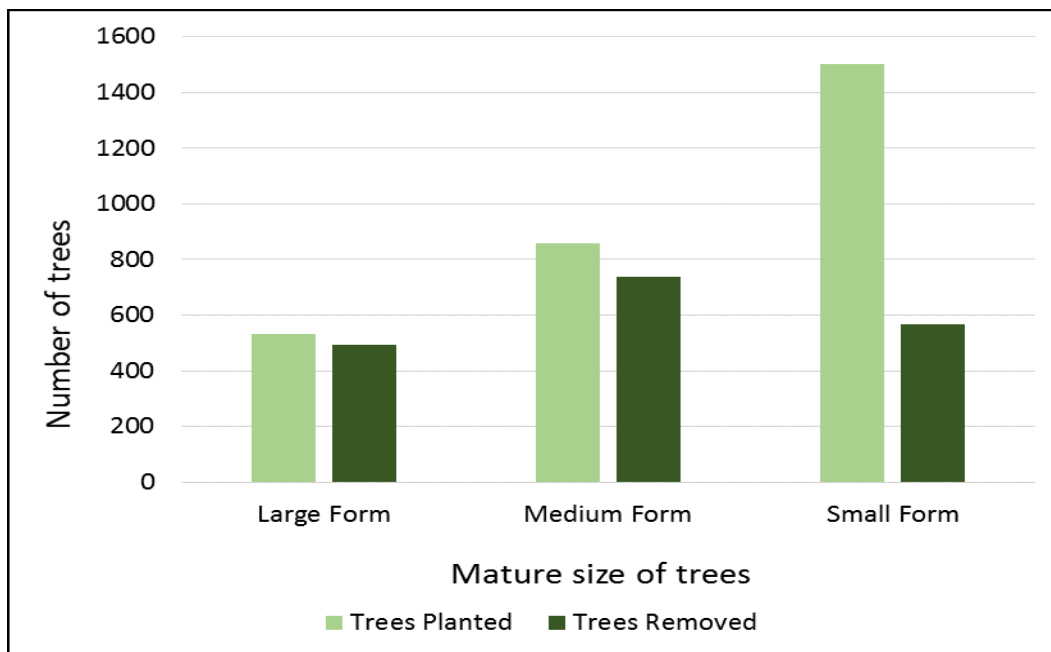
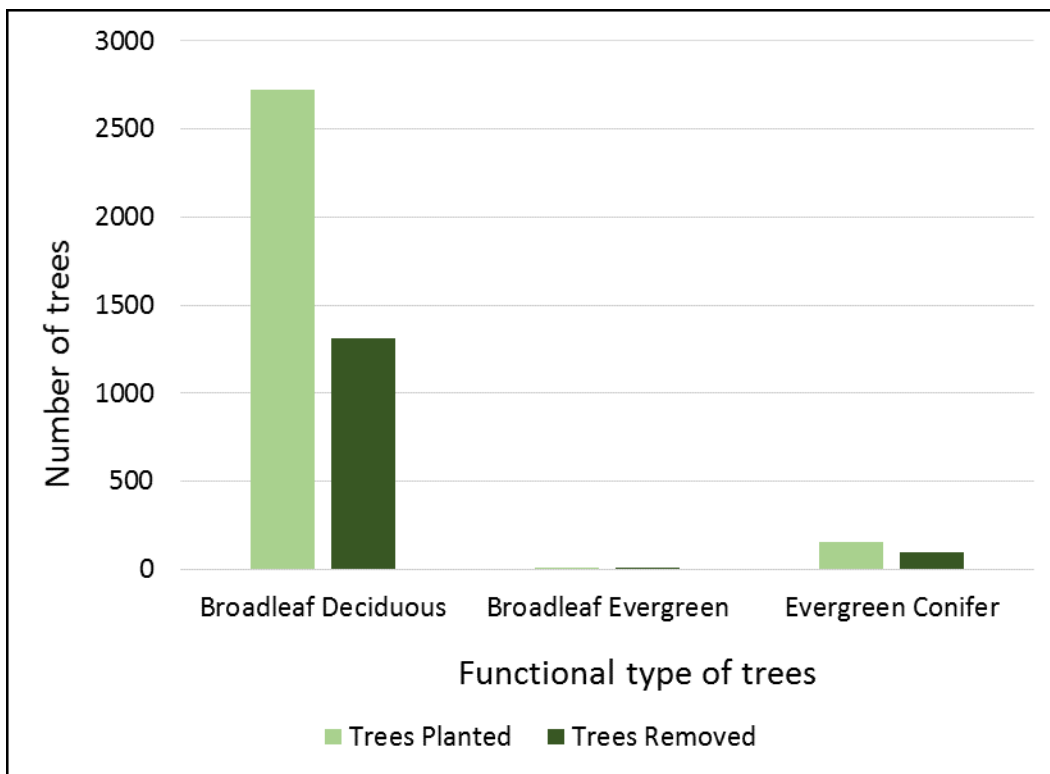


Table 22. Functional Type of Street Trees Planted/Removed, 2015

	Broadleaf Deciduous	Broadleaf Evergreen	Evergreen Conifer	Other
Trees Planted	2725	12	152	2
Trees Removed	1643	13	145	0

Figure 6. Functional type of street trees planted and removed in 2015



The majority of tree plantings represented in the tables above occurred through the Environmental Services Tree Program, which operated under a Programmatic permit that prioritized the planting of large form and evergreen trees. As a result, more large form trees were planted than removed in 2015 (Table 21 and Figure 5). While evergreens still represent a small proportion of total street tree plantings, plantings exceeded removals at a rate of more than 2:1 (Table 22 and Figure 6). Despite these positive outcomes, 52% of street trees planted were small form varieties, and 94% were deciduous species, due limitations of planting sites.

While planting large trees will always be a challenge in Portland’s often small planting strips, use of the city’s Approved Street Tree Planting Lists promotes planting the largest tree appropriate for the site, maximizing the benefits provided by this public resource located on City property.

City Trees

Prior to Title 11, permits were required for the planting, pruning, or removal of any tree on City-owned property. Title 11 limited permitting requirements for removals of trees to only those 3" in diameter or greater, and exempted minor pruning of branches or roots (less than 1/4" in diameter). Tree planting on City-owned property outside of development continues to be regulated under Title 11.

Most permitted tree activity on City-owned land in non-development situations takes place within Parks properties. To date, data concerning this work is limited; the table below represents only those cases where individual permits were required, most often occurring in developed parks as opposed to natural areas. Prior to Title 11, most natural area parks activities fell under blanket permits, which were guided by master plans or desired future conditions established by Portland Parks & Recreation. These have been replaced under a Title 11 with Programmatic Permits, which are discussed in the following section.

Table 23. City Tree Permit Activity, 2014 and 2015

Permit Type	2014	2015, A Permits	2015, B Permits	Trend
Planting				Up
Permits issued	33	22	n/a	
Trees permitted	99	41	n/a	
Pruning				Up
Permits issued	71	87	n/a	
Trees permitted	252	328	n/a	
Removal/Replant				Up
Permits issued	90	100	1	
Trees permitted for removal	162	205	1	
Root Pruning				Down
Permits issued	2	0	n/a	
Trees permitted	29	0	n/a	

Programmatic Permits

Programmatic permits were created under Title 11 to streamline the permitting process for public agencies and utilities that conduct routine tree maintenance and/or resource enhancement programs over a large scale. Programmatic permits are blanket permits that eliminate the need for qualifying applicants to apply for individual tree removal, pruning, or planting permits. Programmatic permits do not apply to tree activities associated with development and are not subject to the standards, review factors, or general procedures of other non-development permits discussed earlier in this report. Instead, applications are evaluated to prevent cumulative adverse impacts on the urban forest and ensure that on balance the activities will meet the goals and objectives of the Urban Forest Management Plan while supporting the permittee's property management objectives.

The first permits issued under this new program took effect in 2015. To date, 14 Programmatic permits have been issued, and four more are expected to be issued by June 2016. The majority of programmatic permits will apply for a duration of two years, and permits cover routine tree maintenance activities primarily on city property and in the right of way and, in limited cases, on private property. Applications are received twice per year, and more permits may be issued depending on new applications received in 2016. Programmatic permits were issued to the following agencies and utilities in 2015:

- Bureau of Environmental Services Watershed Revegetation Program
- CenturyLink
- Portland Parks & Recreation Community Gardens Program
- Hoyt Arboretum
- Leach Botanical Garden
- Multnomah County Drainage District
- PacifiCorp
- Portland General Electric
- Portland Public Schools
- Portland Water Bureau
- Portland Parks & Recreation City Nature
- Portland Parks & Recreation Zone Operations
- TriMet light rail
- West Multnomah Soil and Water Conservation District

Data reporting for these permits will vary according to the nature of each program. At a minimum, the number of trees planted and removed will be self-reported by applicants on an annual basis and will be subject to monitoring and verification by Parks Urban Forestry staff. Parks Urban Forestry will receive annual reports for the first round of issued permits beginning in August 2016.

Mitigation and Appeals

Fees in Lieu of Planting

Under Title 11, mitigation planting requirements for tree removals in non-development situations are based on the size, species, condition, and location of the tree. In cases where insufficient or unsuitable area exists to accommodate some or all of the required replacement trees, applicants may pay into the Tree Planting and Preservation Fund at a rate of \$300/inch of required planting or request to have the fee waived. Waivers from replanting requirements are granted to applicants whose properties meet on-site and street tree density planting standards described in the development chapter of the code, 11.50.050 and 11.50.060, after the tree has been removed.

For single-family residential properties, replacement trees must be a minimum of 1.5” caliper, leading to a typical payment of \$450/tree. In multi-family, commercial, and other zones, minimum planting sizes for street trees are higher, requiring payments of \$600-\$750/tree. The table below includes payments received in lieu of required planting in non-development situations.

Table 24. Fees Collected in Lieu of Planting, 2015

Permits opting to pay fee in lieu of planting	12
<i>ROW</i>	<i>4</i>
<i>Private</i>	<i>8</i>
Total collected	\$8,375
<i>ROW</i>	<i>\$3,300</i>
<i>Private</i>	<i>\$5,075</i>

As Table 24 indicates, very few applicants in non-development situations chose to pay a fee in lieu of planting. Partly accounting for this is the reduction of maximum mitigation requirements for non-development tree removals under the Administrative Rule, first implemented in April 2015 and revised in October 2015. Over the course of 2015, \$8,375 was paid in lieu of planting 19 trees, making up less than one percent of removal and replanting permits issued (2,842) and mitigation trees required (3,773) in the right of way and on private lands.

Appeals

Applicants may appeal any permit decision under Title 11, whereas the public may appeal permits issued only in cases where public notice is required. The table below includes all appeal applications received in 2014 and 2015. After applications to appeal are received, cases undergo administrative review and re-inspection, at which point many are resolved by the permit being issued or by the applicant's withdrawal of their application. If cases cannot be resolved, appeals are heard by the Urban Forestry Commission Appeals Board.

Table 25. Appeals Applications Received, 2014 and 2015

	2014 Appeals	2015 Appeals
Street Trees	8	0
Private Trees	1	7

Despite increased permitting activity under Title 11, appeals have not increased over the reporting period (Table 25).

Code Compliance

Improvement in the enforcement of tree violations is one measure of success of the Citywide Tree Project, as put forward by the Bureau of Planning and Sustainability. Information on the number of reported and confirmed non-development related violations in 2014 and 2015 is included in the table below.

Table 26. Code Compliance Cases, 2014 and 2015

Violation Type	2014		2015	
	# Reported	# Found	# Reported	# Found
Failure to Plant	15	9	24	18
Hazard Tree	31	20	119	61
Improper Pruning	65	46	76	47
Low Limbs	319	241	285	217
Removal	97	48	146	87
Other	55	29	49	14
Grand Total	582	393	699	444

While reported code compliance violations increased in 2015, this is not an indication of more violations to the tree code citywide. Staff limitations result in a largely complaint-driven code compliance program, therefore the increase in cases is possibly a reflection of increased public scrutiny of tree activity in the city.

In some cases, violations can be corrected with no penalty while in others, fines will be assessed. In the first six months of Title 11 implementation, violations fines were not assessed in many cases and instead violators were informed of changes to the Tree Code, and that penalties would be applied for new violations beginning July 1, 2015. Consequently, relatively few fines were collected during the reporting period. Prior to 2015, fees collected as a direct result of violations were not tracked independently.

Table 27. Fines Collected, 2015

Dollars	\$11,325
Cases	22

V. Development Permits in the Public Right of Way, City Owned and Managed Property, and Inspections

In addition to non-development related reviews, Parks Urban Forestry Tree Inspectors review development permit projects primarily administered by BDS when tree preservation is required, where trees in the right of way will be affected by the project, or to review street tree planting requirements.

Tree Preservation and Tree Violation Inspections are new requirements under Title 11, therefore none were conducted in 2014. While reviews of public works projects were conducted in 2014, improvements in permit processing associated with Title 11 allowed for accurate tracking of these cases in 2015. The table below

includes data on all other reviews of residential and commercial development projects by Parks Urban Forestry Tree Inspectors in 2014 and 2015.

Development Review Workload

Table 28. Quarterly Detail: Development Reviews Workload, 2014 and 2015

Review Type	Q1		Q2		Q3		Q4		Total		Trend
	2014	2015	2014	2015	2014	2015	2014	2015	2014	2015	
Tree Preservation Inspection	n/a	37	n/a	97	n/a	143	n/a	126	n/a	403	
Tree Violation Inspection	n/a	0	n/a	6	n/a	9	n/a	6	n/a	21	
Public Works	n/a	91	n/a	41	n/a	33	n/a	31	n/a	196	
Early Assistance Response	10	39	22	20	23	64	27	115	82	238	Up
Land Use Response	95	93	115	76	137	91	128	67	475	327	Down
Street Tree Review	628	671	824	947	815	889	677	1025	2,944	3,532	Up
Grand Total	733	931	961	1187	976	1229	832	1370	3,501	4,717	Up

There has been a 35% increase in development reviews of commercial and residential projects in 2015, with the number of development reviews increasing throughout each quarter of the reporting period. Not included in the above table are consultations such as peer review of tree preservation plans and arborist reports, regularly provided by Parks Urban Forestry Tree Inspectors. These consultations are a result of improved coordination between Parks Urban Forestry and BDS staff under Title 11. Systems for tracking this workload were developed late in 2015, and will inform future staffing needs.

Capital Improvement Projects (CIPs)

Development on City-owned property is regulated differently than development on private lands. Under Title 11, project managers are required to consult with the City Forester at the preliminary project design phase before any development activity occurs on site in order to identify opportunities to preserve and protect existing trees when possible.

Nuisance species, and trees that are dead, dying or dangerous are exempt from tree preservation requirements in CIPs, and do not require a permit for removal. Preservation and permitting requirements otherwise apply to all non-exempt trees 6" or greater in diameter, or in the case of half or full-street improvements, to non-exempt trees 12" or greater in diameter. Trees that fall below these size thresholds do not require a permit for removal. Tree data below includes only regulated trees.

The table below includes data on CIPs initiated in 2015.

Table 29. Capital Improvement Projects, 2015

Number of Applications Received	123
Number of Projects Completed	17
# Trees Removed	59
# Trees Planted	157
# Trees Preserved	221

Due to the often large scale of many projects initiated in 2015, relatively few were completed within the year. For CIPs initiated and completed in 2015, regulated trees were more often preserved than removed. Additionally, plantings associated with CIPs resulted in a net gain of 98 trees.

VI. Customer Service

The goals of the Citywide Tree Project include the regulatory changes discussed earlier in this report as well as customer service improvements meant to create a simple, efficient, and responsive system for answering tree-related inquiries. Prior to 2015, public confusion over tree permit requirements and bureau responsibility, and concerns about inadequate enforcement of violations led to a number of changes to staffing and procedures in conjunction with the implementation of Title 11 in 2015.

Solutions Implemented in 2015:

- Single point of contact for tree-related questions and concerns—two and later three additional staff (“Tree Technicians”), whose duties include the following:
 - Dispatch tree emergency response
 - Return phone messages
 - Answer customer email
 - Process permit applications
 - Issue some permits over the counter
 - Take in-person inquiries and applications at the Development Services Center (DSC)
- Additional two and a half Tree Inspectors to handle increased workloads associated with development inspections and private tree removals.
- Co-location of two Tree Inspectors, Tree Technicians at the 1900 Building to streamline development-related work and provide a central service location for the public.
- Improved website (www.portlandoregon.gov/trees) provides access to:
 - Explanations of permit processes and timelines, and when a permit is required
 - Permit applications
 - Approved street tree planting lists
 - Tree care information, including contacts for local commercial arborists

Prior to 2015, Parks Urban Forestry staffing levels allowed limited ability to respond to customer questions in a timely fashion, resulting in particularly poor response to non-emergency inquiries after major storm events. Where data exists, this section will provide comparisons to pre-Title 11 response times as a measure of implementation success in improving customer service objectives.

Workload and Response Rates

Table 30 below lists overall intake and workload for Parks Urban Forestry permitting staff. Housed in the 1900 Building, Parks Urban Forestry Tree Technicians answer all questions from the public by phone, email, and in person at the DSC as well as processing all permit requests and dispatching tree emergencies during regular business hours. Development and non-development reviews and inspections are conducted by Parks Urban Forestry Tree Inspectors. Data regarding emails and walk-ins was not collected in 2014, and were estimated by staff to be 5 emails/day and 1 walk-in/day for that time period.

Table 30. Overall Workload in 2014 and 2015

Quarter		1	2	3	4	Grand Total
Intake - Permits and Reviews						
Applications received	2015 # of non-development applications	1,875	2,070	2,298	2,016	8,259
	2015 # of development reviews	931	1,187	1,229	1,370	4,717
	2014 # of non-development applications	1,071	1,467	1,776	1,855	6,169
	2014 # of development reviews	733	961	976	832	3,502
Totals, by year	2015 total applications and reviews	2,806	3,257	3,527	3,386	12,976
	2014 total applications and reviews	1,804	2,428	2,752	2,687	9,671
	<i>Percent Increase, 2014 to 2015</i>	<i>56%</i>	<i>34%</i>	<i>28%</i>	<i>26%</i>	<i>34%</i>
Intake - Public Inquiries						
Emails	2015 # of emails received	2,787	3,070	2,646	2,700	11,203
	2014 est. # of emails received	305	320	320	310	1,255
Walk-ins	2015 # of walk-ins	343	486	464	362	1,655
	2014 est. # of walk-ins	61	64	64	62	251
Calls	2015 total phone intake	1,943	2,042	2,137	1,790	7,912
	2014 phone intake	3,499	3,875	4,050	3,516	14,940
Totals, by year	2015 total intake	5,073	5,598	5,247	4,852	20,770
	2014 total intake	3,865	4,259	4,434	3,888	16,446
	<i>Percent Increase, 2014 to 2015</i>	<i>31%</i>	<i>31%</i>	<i>18%</i>	<i>25%</i>	<i>26%</i>
Total Workload						
Totals, by year	2015 total intake	7,879	8,855	8,774	8,238	33,746
	2014 total intake	5,669	6,687	7,186	6,575	26,117
	<i>Percent Increase, 2014 to 2015</i>	<i>39%</i>	<i>32%</i>	<i>22%</i>	<i>25%</i>	<i>29%</i>

Year to year, staff workload increased by 29% (Table 30). This includes a 34% increase in permit reviews and inspections, and a 26% increase in public inquiries. In addition to the increase in overall inquiries, the manner by which the public interacted with Forestry staff changed as well in 2015, with a larger proportion of questions reaching staff via email and in person than over the phone. This can be attributed to the centralized location of intake staff in 2015, as well as an updated website, which directs the public to email tree-related questions.

Response Rates

The tables below list overall response rates for intake and some non-development inspections in 2014 and 2015. When phone calls, emails, or permit applications are received by Parks Urban Forestry staff, response is measured by the time it takes to return messages and emails, or conduct an initial inspection or permit review. Note that some response data does not exist prior to 2015.

Table 31. Response Goals Met, by % of Total, 2014 and 2015

Activity	Response Goal	2015				2014 Response Goals Met (# Total Applications)	2015 Response Goals Met (# Total Applications)	Trend
		Q1	Q2	Q3	Q4			
Intake - Public Inquiries								
Phone calls	2 business days	98%	99%	100%	100%	<i>no data</i>	99%	n/a
Emails	2 business days	99%	99%	99%	99%	<i>no data</i>	99%	n/a
Initial Inspections								
Planting	10 business days	73%	64%	41%	50%	79% (220)	60% (237)	Down
Pruning	10 business days	75%	75%	83%	80%	71% (1,336)	78% (1,653)	Up
Removal/Replant	10 business days	76%	71%	65%	69%	70% (1,614)	68% (3,304)	Down
Roots	2 business days	80%	92%	86%	85%	80% (714)	86% (782)	Up

New Parks Urban Forestry staff have been able to respond to 99% of phone calls and emails within the goal of 2 business days. While reliable data does not exist for response to phone calls and emails prior to 2015, the current response rate can be seen as a substantial improvement. It should be noted that the two full-time Tree Technicians funded as part of Title 11 implementation were not able to maintain this level of service alone. For the first 3 quarters of 2015, Parks Urban Forestry employed a seasonal Community Service Aide II to support the Tree Technicians in responding to customer inquiries and permit intake, adding resources equivalent to .5 FTE to these tasks. In the fall of 2015, a third Tree Tech was hired to maintain this high level of service on a permanent and on-going basis.

Despite the increase in applications received in 2015, as well as numerous staff vacancies, Tree Inspectors were able to improve the rate of response to pruning and root pruning permit requests, meeting response goals in 78% and 86% of cases of each type, respectively. Response to removal/replant permit requests dropped slightly

in 2015, despite double the amount of applications received over the year. Response to planting permit requests dropped in 2015, meeting the goal in 60% of cases. This drop can be attributed to a shortage of Tree Inspectors to handle the increased permitting workload under Title 11. Response rates indicate that for quicker permit turn-around times, more Tree Inspection staff would be necessary.

Customer Service Survey

An online customer service survey was conducted by the outreach consultant EnviroIssues for two weeks in December 2015 to assess progress toward meeting the Citywide Tree Project goal of improving customer service. The survey focused primarily on reaching non-development tree permit customers. There were 353 responses where at least one question was answered, and 304 respondents completed all questions. More than 60 percent of respondents rated customer service as good or outstanding compared to 23 percent who said it was poor or needs improvement. Most respondents indicated customer service improved in 2015 compared to earlier experiences.

VII. Conclusions

Based on the information collected during permit review and described in this report the following conclusions can be drawn:

Conclusions

Tree Planting and Preservation in Development Situations

New development types are now subject to tree planting and preservation. It is important to remember that prior to Title 11, there were no tree planting or preservation requirements for anything but new single family residences, or sites that had undergone a land division (or other requirements of Title 33). Planting and preservation requirements are new to alterations, additions, and multi-dwelling residential, mixed use, commercial, and industrial development.

Occurrence of planting and preservation in New Single Residential construction (the development type that can offer comparisons pre-and post- Title 11) is similar pre- and post- Title 11. However, data are not available on the number or sizes of trees preserved or species of trees planted prior to Title 11, so outcomes of those measures cannot be determined at this time.

Fees in lieu of preservation are occurring most frequently for demolition permits. Demolition is often the first step in new construction projects. As such, it may be that applicants are opting to pay fees in lieu to create room for new development. Allowed removal as part of a demolition permit may also circumvent tree preservation that would apply as part of a subsequent land use review, such as a land division.

Workload and Customer Service

Despite improvements in customer service in 2015, large increases in permit applications, reviews, and public inquiries, as well as significant staff vacancies, have resulted in lowered response times to some permits. Additional Parks Urban Forestry staff funded as a result of the Citywide Tree Project (two Tree Technicians and two and a half additional Tree Inspector positions) were augmented with significant use

of temporary staff in order to provide this level of service in 2015. Trends outlined in this report indicate no expected decrease in permit volume or staff workload in 2016, therefore more sustainable funding of permanent staff will be necessary to improve customer service levels to acceptable standards going forward. A third Tree Technician position was established in fall 2015; use of Parks Urban Forestry permit fees to fund additional staff positions is expected.

Citywide Tree Canopy

Title 11 has had positive effects on the urban forest by requiring tree planting and preservation in new types of residential and commercial development, and by expanding regulations in non-development situations to include all private properties in the City, rather than only developable or dividable lots. This has led to the preservation of trees in development that would not have been required prior to 2015, and replacement of hundreds of trees whose removal was not regulated before Title 11.

However, development and non-development related tree permitting data presented in this report suggest long-term negative impacts on citywide tree canopy, especially on private lands. While no data exist regarding the species of trees removed in development, just 13% of trees planted are large form varieties despite incentives for planting these desirable species. In non-development situations, permitting the removal and replacement of private trees results in fewer, smaller trees—the ratio of replacement is 0.9 trees planted for each removed, and large form trees are being removed at three times the rate they are being replanted.

While significant fees have been contributed to the Tree Planting and Preservation Fund in lieu of tree planting and preservation in 2015, the current fees (\$1200 per tree removed beyond the allowed removal of two-thirds of trees on site and \$450 per tree not planted) are based on an outdated calculation of the cost to the City of tree planting and establishment. It is estimated that the current cost to plant and maintain a 2" caliper tree is approximately \$600/inch, not the \$300/inch currently charged. Funds collected in lieu of planting and preserving 325 trees in 2015 (including 19 trees not planted in non-development permits) will pay for the cost of planting and maintaining approximately 226 trees. The current fee in lieu system is therefore not achieving tree-for-tree replacement and will result in approximately 266 fewer trees than the code intended (two trees for each not preserved, one tree for each not planted).

Code Compliance

Ensuring compliance with tree regulations and requirements in development and non-development situations is critical to the long-term health and growth of Portland's urban forest. The rise in code compliance cases in 2015 may be related to a higher public profile for trees in the city, which is a positive outcome of Title 11. Parks Urban Forestry Tree Inspectors inspected 699 code compliance cases in non-development situations in 2015, requiring correction in 444 cases—most of which were resolved without proceeding to a violation process. The system for compliance with non-development tree requirements is primarily complaint-driven, relying on the public to contact Parks Urban Forestry with possible violations. This system's reliance on a public with the knowledge and free time to submit violations may have equity implications, where tree regulations may be more closely followed in certain neighborhoods. Violations include illegal pruning and removal of trees and also whether applicants have planted trees required as mitigation. In order to gauge the effectiveness and equity of this system, Parks Urban Forestry plans to collect planting compliance data across all of Portland's neighborhoods in 2016.

In development, Parks Urban Forestry Inspectors reviewed 21 cases of violations to tree preservation plans in 2015. No punitive action is taken in cases where these violations are confirmed; if trees are damaged so as to be unviable for preservation, then applicants must submit a site plan revision rather than pay a fine. While the public may submit reports in these cases, often trees will not be visible from public space. In these cases and more generally, BDS Building Inspectors are relied upon to confirm a variety of tree-related information on development sites, including the accuracy of tree plans where no preservation is proposed, that trees preserved on site were not harmed by construction activities and remain viable after projects are complete, and the size and species of any trees required to be planted by Titles 11 or 33. While Parks Urban Forestry Tree Inspector staff do not currently have the capacity to perform such inspections, trained arborists performing review and confirmation of tree plans before construction and inspection of trees planted or preserved after completed construction would likely have a positive impact on compliance with tree regulations during development.

Data Collection and Evaluation

Adequate data to assess long-term trends in the urban forest are not currently available. Implementation efforts prior to the effective date of Title 11 have resulted in improvement on the amount and type of data collected. This expanded data collection has been used to evaluate the effectiveness of Title 11 to date. However, limitations of existing data collection tools and the types of data collected have been identified. More detailed evaluation and evaluation of other outcomes could be facilitated by refining data collection tools and types of data collected.

The following data points could be used to better assess long-term trends in the urban forest:

- Species and size of trees planted, preserved, and removed in development on regulated sites.
- The number, size, and species of trees lost to development on exempt sites.
- The rate of compliance with tree planting requirements in development and non-development situations.
- The effect of the Administrative Rule, *Replanting Requirements for Tree Removal on Private Property, City-Owned and Managed Sites, and Public Rights-of-Way*, on tree mitigation requirements.

Appendix A: Non-development Permit Requirements

**Table 40-2
Summary of Permit Requirements for City and Street Trees**

Activity	Permit Type	Tree Replacement [1] (See Section 11.40.060)	Public Notice / Public May Appeal
No Permit is required for: <ul style="list-style-type: none"> - pruning branches or roots <1/4”; - removing City Trees <3” in diameter; - removing street trees that are sucker shoots, self-sown trees < 1/4”; - other activities that are exempt from the requirements of this Chapter (see 11.40.030). 			
Planting trees Pruning branches or roots larger than ¼” Other activities as described in 11.40.040 A.3	A	n/a	No
Removal of any regulated tree that is: - dead, dying, or dangerous	A	tree for tree	No
Removing up to 4 healthy trees per site, or abutting right of way per year as follows:			
- less than 3” in diameter	A[2]	tree for tree	No
- 3 to <12” in diameter	B	tree for tree	No
- 12 to <20” in diameter	B	tree for tree	No
- 20” and larger in diameter	B	inch for inch	Yes
Removing more than 4 healthy trees per site, or abutting right of way per year as follows:			
- less than 3” in diameter	A[2]	tree for tree	No
- 3 to <12” in diameter	B	tree for tree	No
- > 12” in diameter	B	inch for inch	Yes
- 20” and larger in diameter	B	inch for inch	Yes

[1] “Tree for Tree” means one tree is required to be planted for each tree removed, “inch for inch” means the City Forester may require up to an equivalent number of inches be planted for the total diameter inches of the tree being removed.

[2] Applies to all Street Trees, in addition to any other City Trees planted as part of a landscaping or mitigation requirement, including trees planted to replace trees removed under a previous tree permit.

Appendix A: Non-development Permit Requirements

**Table 40-3
Summary of Permit Requirements for Private Trees**

Activity	Permit Type	Tree Replacement[1] (See Section 11.40.060)	Public Notice / Public May Appeal
No permit is required for: <ul style="list-style-type: none"> - planting trees - pruning trees outside of the environmental protection (p), environmental conservation (c), or Pleasant Valley Natural Resource (v) overlay zones; - removal of trees smaller than the sizes regulated by this chapter (see 11.40.020 B.); or - other activities that are exempt from the requirements of this chapter (see 11.40.030) 			
Pruning native trees in c, p, or v overlay zones	A	n/a	No
Removal of any tree that is: <ul style="list-style-type: none"> - dead, dying, or dangerous - a nuisance species identified in the Portland Plant List - located within 10 feet of building or attached structure 	A	tree for tree	No
Removing up to 4 healthy non-nuisance species trees per site per year as follows:			
- Smaller than 20" diameter	A	tree for tree	No
- 20" diameter and larger	B	inch for inch	Yes[2]
Removing more than 4 healthy non-nuisance species trees per site per year as follows:			
12" diameter and larger	B	inch for inch	Yes

[1] "Tree for Tree" means one tree is required to be planted for each tree removed, "inch for inch" means the City Forester may require up to an equivalent number of inches be planted for the total diameter inches of the tree being removed.

[2] No public notice or opportunity for public appeal is required for removal of one healthy tree \geq 20" diameter per lot per year in any residential zone.