Program Evaluation Plan

On January 1, 2015, Title 11, Trees and amendments to Title 33, Planning and Zoning took effect nearly 4 years after adoption by City Council in April, 2011. Together, these changes comprise the Citywide Tree Project. The new and amended regulations include new permit requirements for customers and new procedures for staff. This program evaluation plan identifies data that will be tracked and reported in order to 1) assess whether regulatory changes are resulting in intended outcomes and 2) identify changes in staffing or procedures necessary to meet increased workloads.

Regulatory and staffing changes instituted as part of the Citywide Tree Project are meant to support the following objectives, set by the Bureau of Planning and Sustainability:

Objective 1: Minimize canopy loss during development and tree removals
- Preserves trees during development projects
- Establishes a minimum tree for tree replacement for removals when no development is proposed

Objective 2: Increase and improve canopy over the long term through planting and mitigation
- Requires planting through tree density standards during development
- Heightens mitigation for removals of significant trees
- Automatic permit approval for nuisance species and trees that are dead, dying, or dangerous
- New Tree Planting and Preservation Fund facilitates tree replacement and mitigation

Objective 3: Improve customer service
- Single point of contact to answer all tree-related questions
- Increased staff for more timely customer response
- More regulatory transparency

Objective 4: Improve enforcement of tree violations
- More efficient violations enforcement methods
- Elevates the status of trees during the development process through tree inspections and training of staff building inspectors

Objective 5: Create consistent permit requirements across public and private properties
- Ends inconsistent regulation of trees on private property
- Programmatic permits allow for efficient and consistent regulation of routine maintenance activities by public agencies and utilities.

Report Structure

Evaluation and reporting will be divided into the following sections in order to reflect Citywide Tree Project objectives and current permitting procedures:

1. Development

2. Non-Development

3. Customer Service

4. Code Compliance

5. Long-term Evaluation Goals

1. Development

New tree regulations in Title 11 and Title 33 apply to tree preservation and planting in development situations. The intent of these changes, as in cases where no development is proposed, is to address both quantity and quality of tree canopy in Portland. While development activities will often necessitate tree removal, tree preservation requirements will encourage large, healthy trees to be preserved. In cases of tree removal below preservation standards, mitigation payments will ensure that canopy is replaced within that watershed.

During development activity, regulated trees that are removed as well as those preserved or planted due to code requirements will be tracked by BDS and UF staff. Tree preservation standards will be applied to development projects on lots 5,000 ft^2 or greater, where there is ground disturbance and less than 85% building coverage. Tree density standards for new development, exterior alterations, and additions over 200ft^2 will require a minimum percentage of canopy coverage, which can be achieved by planting or preservation of existing trees. Evaluation of tree permit activity during development will aid in assessment of whether code changes are meeting canopy objectives and if staffing levels are adequate to accommodate new policies and procedures.

Evaluation of tree activity in development situations will answer the following questions:

How much canopy is lost due to development?

How many trees are being planted as part of the development process? How many are being removed?

Are large trees being preserved during development?

How many trees are preserved according to tree preservation plans? How often do developers choose to pay the fee in lieu of preservation?

Is canopy quality being addressed in development?

How many large canopy trees are being planted due to tree density and street tree planting requirements?

What are the effects of exemptions in the code?

Tree preservation plans are not required on lots under 5000 ft^2 or have greater than 85% building coverage. What proportion of development cases trigger tree preservation or tree density standards? Are those cases predominately within certain zoning? How will that impact neighborhoods?

Are staff resources adequate to address new development-related work?

How many applicants will choose to preserve, plant, or pay a fee? How many Tree Preservation Plan inspections are triggered?

Evaluation Metrics: Development

Planting/Preservation Triggered	# RS/CO/DR/SD/FA/ZP permits where tree planting, tree preservation, or street tree planting applied, by work proposed (short list below): • Alteration • Addition • Demolition • New Construction
	Proportion of total development cases where tree planting, tree preservation, or street tree planting applied.
Tree Planting/ Preservation Reviews	# Tree planting or preservation inspections conducted
	# Trees preserved
	Average DBH of trees preserved
	# Trees removed
	Average DBH of trees removed
	# Trees required to be planted
	# Large trees planted
	# Small and medium trees planted
Land Use Reviews	# Reviews
Early Assistance Reviews	# Reviews

Mitigation	$ collected as fee in lieu of:
	 • Preserving
	     o # of trees mitigated in lieu of preserving
	 • Planting
	     o # of trees mitigated in lieu of planting

	% Cases where payment chosen in lieu of planting or preservation.
Street Tree Reviews	# Street tree inspections conducted
	# Street trees required
	# Street trees approved for removal
	# Street trees retained

Capital Improvement Projects

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. When projects include street improvements, size threshold for regulation rises from 6" DBH to 12" therefore these will be evaluated separately.

Evaluation Metrics: Capital Improvement Projects

City Projects	Street Projects
# Projects	# Projects
# Trees removed	# Trees removed
Species, form of removals	Species, form of removals
Avg. DBH of removals	Avg. DBH of removals
# Trees planted	# Trees planted
Species, form of plantings	Species, form of plantings
# Trees preserved	# Trees preserved
Species, form of trees preserved	Species, form of trees preserved
Avg. DBH of trees preserved	Avg. DBH of trees preserved
# Trees mitigated in lieu of planting	# Trees mitigated in lieu of planting
$ Collected as fee in lieu of planting	$ Collected as fee in lieu of planting
# Trees mitigated in lieu of preserving	# Trees mitigated in lieu of preserving
$ Collected as fee in lieu of preserving	$ Collected as fee in lieu of preserving

2. Non-Development

Changes to tree regulation in non-development situations under Title 11 have the intention of creating more consistency, more transparency, and greater protection for trees that contribute significantly to Portland's tree canopy. Previous to 2015, private trees were only regulated in environmental zones and on divisible lots. Title 11 extends regulations to trees on all private lots in the city in order to achieve an understandable and equitable system for residents that recognizes the importance of large, healthy trees on all private lots across the city.

These changes will protect the quantity and quality of Portland's tree canopy, but also substantially increase the workload of Urban Forestry staff. This evaluation plan is meant to help managers assess whether Title 11 is meeting intended objectives for tree canopy and identify appropriate staffing requirements. Evaluation of non-development related tree activity under Title 11 will answer the following questions:

Are large, healthy trees on private land being preserved under Title 11?

How many healthy private trees ≥20" DBH are denied removal/replant permits? How many are approved? How many approvals are under automatic "A" permits, resulting from trees being a nuisance species or within 10 feet of building?

How many trees were planted as a result of Title 11?

Between heightened mitigation for significant trees and an increase in the number of regulated trees on private land, how many trees were planted that would not have been required prior to Title 11?

Does Title 11 improve the quality of Portland's tree canopy?

How many removal/replant permits include dead, dying, or dangerous trees, or nuisance species? What proportion of trees planted as a result of removals are native, evergreen, or large canopy? Have these numbers increased since 2014?

What are the effects of a mitigation "cap" on tree removals?

Under current mitigation policy, a $1200/tree cap will apply to tree removals that would otherwise call for inch for inch mitigation. How often is this cap applied? What are the canopy effects of this policy, if fewer trees are planted as a result?

Are staff resources adequate to meet additional workload?

To what extent are newly regulated private trees increasing workload, in terms of numbers of inspections, permits issued, and appeals?

Evaluation Metrics: Non-Development

Pre-issuance applications and inspections

Metrics in this category measure overall workload and identify which types of requests are generating inspections. Where applicable, numbers will be reported by ownership (private, street, or City) in order to track whether and how changes in the tree code (e.g. regulation of trees on an additional 50,000 private lots) increase workloads and whether current staffing levels are adequate. In the case of removals, assessment of the size and species of permit denials will aid in evaluating how new review factors are being applied, and how many large, healthy trees are being preserved due to Title 11.

Permit Type	Metric
Removal/Replant	# Applications
	Private/Street/City
	# Inspections
	Private/Street/City
	# Trees Denied
	Private/Street/City
	Species/Form/DBH
Planting	# Applications
Pruning	# Pruning applications
	# Pruning inspections
	Private/Street
	# Root pruning applications
Health	# Applications
Emergency	# Inspections

Permits Issued (non-development)

Permitting in non-development situations under Title 11 falls into two categories; "A" permits are issued for pruning and planting where applicable, and for removals of smaller trees, trees in poor health, or which pose a threat to infrastructure. "B" permits are issued for larger trees that are generally in good health, or in cases of more than four removals within a calendar year.

Private Trees

	A	**B**
Pruning	# Permits issued	n/a
	# Trees permitted	
Removal/Replant	# Permits issued	# Permits issued
	# Trees permitted	# Trees permitted
	# ≥20", # <20"	*# ≥20", # <20"*
	Species, form of removals	*Species, form of removals*
	Number of nuisance trees removed	n/a
	Inches removed	Inches removed
	Proportion of permits that cite any of the below exceptions: • DDD • Nuisance • <10ft	
	# Replacement trees planted	# Replacement trees planted
	Species, form of replacements	*Species, form of replacements*
	$ Collected as fee in lieu	$ Collected as fee in lieu
	# of trees mitigated in lieu of planting	# of trees mitigated in lieu of planting

Street Trees

	A	B
Pruning	# Permits issued	n/a
	Online/Inspected	
	# Trees permitted	
	Online/Inspected	
Root Pruning	# Permits issued	n/a
Planting	# Permits issued	n/a
	# Trees permitted	
	Species, form of trees planted	
Removal/Replant	# Permits Issued	# Permits Issued
	# Trees permitted	# Trees permitted
	DBH of removals (<3, 3-12, 12-20, >20)	*DBH of removals (3-12, 12-20, >20)*
	Species, form of removals	*Species, form of removals*
	Inches removed	Inches removed
	How many permits are because any of the below exceptions: • DDD	
	# Replacement trees planted	# Replacement trees planted
	Species, form of replacements	*Species, form of replacements*
	$ Collected as fee in lieu	$ Collected as fee in lieu
	# of trees mitigated in lieu of planting	# of trees mitigated in lieu of planting

City Trees

Prior to Title 11 implementation, Urban Forestry tracked permitting activities for City-owned trees in non-development situations in Portland Parks as well as City-owned trees permitted through Interagency Agreements. Under Title 11, Programmatic Permits will be issued to public utilities and government agencies involved in routine maintenance of City trees. While these permits are not subject to the Type A or B system, they are required to result in a net gain of overall forest function and benefits. This program will allow for more systematic evaluation of tree activity on City-owned properties.

Programmatic Permits	
	# Programmatic Permits Issued
Planting	# Trees planted # planted in natural areas* # planted in developed areas
	Species, form of trees planted
Removal	# Trees removed # removed from natural areas # removed from developed areas
	Species, form of removals
	# >20" in diameter
	# nuisance species removed

Trees planted in natural areas will often be of smaller size than standard caliper requirements specified in Chapter 11.60 of the City Code.

Appeals (non-development)

Under Title 11, the number of appeals will potentially rise due to greater requirements for public notice under Type B removal/replant permits, as well as the general increase in overall number of regulated trees. A necessary component of tree regulation, the appeals process is also lengthy and demands staff resources. As such, the number of appeals will be monitored to gauge its effect on staff workload.

Appeals	
Street Trees	# Appeals
	Applicant or non-applicant?
Private Trees	# Appeals
	Applicant or non-applicant?

3. Customer Service

Improving the level of customer service is a main objective of the Citywide Tree Project. Additional staff and changes in workload allocation will aid in response to customer inquiries, turnaround times for issuing permits, code compliance, and enforcement. Quantitative measures of service, including turnaround times for response, inspection, and permit issuance will be tracked.

Tree Techs	
Inquiries	
Phones	# Phone calls received
Emails	# Emails received
Walk-ins	# Walk-ins
Response	% Weeks/months where response goal was met?
	Phone Calls
	Emails
Automatic Permits	# "A" permits issued by Tree Techs
	# of online pruning permits issued

Inspectors	
Time to inspect, non-development	• Type A removals, inspection required • Type B removals • Planting • Pruning • Root pruning • Health • Code compliance
	% of above that met goals each month?
Time to inspect/review, development	• Street Tree Reviews • Tree Preservation inspections • Tree planting (development tree density) • Land Use • Early Assistance
	% of above that met goals each month?

BDS Planners	
	Turnaround time for reviewing NSFR permits

Applicant Survey

A survey of new and return applicants (those who have submitted permit applications both pre and post Title 11) is a way to measure qualitative satisfaction with the process. Surveys are currently under development, and a final list of questions will result from this process.

Possible questions include:

- How did you know that there are tree regulations in the city?
- Were tree regulations easy to access and understand?
- Was website info helpful?
- What info was difficult to find?
- If you contacted Tree Techs, was it helpful and was response timely?
- If you called 823-TREE, were the directions easy to understand? Was it easy to submit your question?

Staff Surveys

Staff involved with customer service are best suited to judge how code changes are experienced by the public, and identify potential areas of improvement in workflow, staffing, or public education. Groups to be surveyed include:

- BDS planners
- Tree Techs
- Tree Inspectors

4. Code Compliance

Improvement in enforcement of tree violations is one measure of success of the Citywide Tree Project, as put forward by the Bureau of Planning and Sustainability. Increased staffing is expected to lower response times to code compliance inquiries, and new procedures for tracking and inspecting violations to tree preservation plans during development will better protect trees in these situations.

Code Compliance	# Complaints
Violations (Development)	# Tree violation inspections conducted
	# of violations found
	# Permits requiring Tree Plan revisions due to violations.
	$ Paid into Urban Forestry Fund as a result of violations
Violations (Non-development)	# Violations reported, by type • Failure to plant • Hazard tree • Improper pruning • Low limbs • Removal
	# Violations found, by type • # Corrected • # Unresolved
	$ Paid into Urban Forestry Fund (street trees) or Tree Planting and Preservation Fund (private trees) as a result of violations

Planting Compliance

Tree planting is often required as a condition of tree removal permits in non-development situations, or street tree review and tree density requirements during development. Field inspection will investigate whether or not trees required to be planted as a condition of a permit were actually planted, and if plantings meet standards for caliper and species. Annual reporting on compliance with planting requirements will take place separately from this evaluation report, due to the fact that compliance checks will take place up to a year after permit issuance.

	Compliance Rate
Non-development	Planting required due to removal/replanting permits • Street tree removals • Private tree removals Correct species/form and caliper at planting • Street tree removals • Private tree removals
Development	
Street Trees	Planting required due to street tree review • New construction, residential/commercial • Remodels, residential/commercial Correct species/form caliper at planting • New construction, residential/commercial • Remodels, residential/commercial
Private Trees	Planting required to meet tree density requirements • New construction, residential/commercial • Remodels, residential/commercial Correct species/form caliper at planting • New construction, residential/commercial • Remodels, residential/commercial

5. Long-term Evaluation Goals

Urban Forestry currently publishes a canopy cover estimate every 5 years, the last report based on 2010 aerial imagery. This report breaks canopy estimates into zoning types, rather than by public or private ownership. Based on the nature of questions regarding the relationship of canopy cover change to tree policy, it may be necessary to alter the protocol of these studies.

Tracking change in canopy extent is critical to adaptive management of the urban forest, and future studies will inform management decisions regarding necessary revisions to the Urban Forest Management Plan or internal permitting procedures. Program evaluation reports will be published on an annual basis as resources allow, and will provide valuable information on trends in tree activity as they change over time. While change in overall canopy extent cannot be attributed to code changes alone, there are a number of ways to estimate canopy loss or gain as a result of tree regulations in the City of Portland. Examples include:

- Canopy area estimates of trees approved or denied for removal
- Canopy potential of trees planted as a result of permit activities (e.g., predicted canopy area at 30 years)
- Canopy currently within zones/lots exempt from tree preservation or density requirements

Long-term program evaluation may require separate studies or information gained from ongoing programs such as the Tree Inventory Project, and may or may not be included in annual program evaluation reports.