



**PORTLAND  
PARKS & RECREATION**

Healthy Parks, Healthy Portland



# Urban Forest Action Plan

## 2018 Implementation Update

March 2019

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## **Cover photo:**

Douglas-firs in Lents Park

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## BACKGROUND

In 2007, a City of Portland inter-bureau team created the *Urban Forest Action Plan* to meet the goals established in the 2004 *Portland Urban Forest Management Plan*. The *Urban Forest Action Plan*, accepted by City Council on March 15, 2007, contains the major goals and desired outcomes of the management plan, along with 63 action items to attain those goals. Each action item was initially assigned a priority and time frame (current, early, 5-year, and 10-year).

This report summarizes annual fiscal year progress and accomplishments for the *Urban Forest Action Plan*, with efforts led by Portland Parks & Recreation Urban Forestry as well as other City bureaus. This report covers fiscal year 2017-2018, which extends from July 1, 2017 to June 30, 2018.

# URBAN FOREST ACTION PLAN

## GOALS AND OUTCOMES

### GOAL 1: PROTECT, PRESERVE, RESTORE, AND EXPAND PORTLAND'S URBAN FOREST.

- Outcome A: Enhanced Canopy  
The tree canopy is optimized, meeting stocking and canopy targets.
- Outcome B: Regulatory Program  
The City has a comprehensive, consistent, and clear regulatory program for trees.
- Outcome C: Development  
The urban forest is enhanced through development and redevelopment.

### GOAL 2: DEVELOP AND MAINTAIN SUPPORT FOR THE URBAN FOREST.

- Outcome A: Shared Stewardship  
Stewardship of the urban forest is shared by residents, agencies, non-governmental organizations, and businesses.
- Outcome B: Public Education  
The public has a strong awareness of tree benefits and ecosystem health issues; education opportunities are abundant.
- Outcome C: Stable Resources  
Stable resources support the urban forest.

### GOAL 3: MANAGE THE URBAN FOREST TO MAXIMIZE COMMUNITY BENEFITS FOR ALL RESIDENTS

- Outcome A: Street Tree Distribution  
Street trees are equitably distributed throughout the City.
- Outcome B: Livability  
The urban forest contributes to the health and well-being of Portlanders.
- Outcome C: Watershed Health  
The urban forest contributes to improved watershed health, including water quality, stream flow, floodplain function, habitat, and biological communities.

## PLANTING PROGRAMS

*Urban Forest Action Plans Goals and Outcomes Impacted:*

- *Goal 1, Outcome A: Enhanced Canopy*
- *Goal 2, Outcome A: Shared Stewardship*
- *Goal 2, Outcome B: Public Education*
- *Goal 3, Outcome A: Street Tree Distribution*
- *Goal 3, Outcome B: Livability*

### PP&R Developed Parks

PP&R Urban Forestry planted 133 trees in parks during the 2017-18 fiscal year. These trees are primarily replacements for trees lost in past years due age, structural failures, and storm damage. Many of the planted trees were natives, including Oregon white oak, Willamette Valley ponderosa pine, western hemlock, and Douglas-fir.

### Learning Landscapes

A Learning Landscape is a dynamic collection of trees that are planted and cared for by students and Portland Parks & Recreation (PP&R) Urban Forestry staff and volunteers. The Learning Landscapes program provides an outdoor educational experience for students, as well as environmental and aesthetic benefits for a school or other public place. The program is designed to connect youth and community members to places they live, work, and play, and to promote responsible stewardship of our shared spaces.

**Number of trees planted: 83**

**Percentage of large-form, evergreen or native trees planted: 64%**

**Number of student volunteers: 807**

**Number of community volunteers: 154**

**Percentage of trees planted in low canopy neighborhoods: 89%**

### PP&R Natural Areas

PP&R Land Stewardship staff planted more than 11,000 trees through the City's many natural areas, including Marquam Nature Park, Forest Park, Powell Butte, and Oaks Bottom Wildlife Refuge. The Land Stewardship division conducts tree planting activities under a programmatic permit from PP&R Urban Forestry.

### Environmental Services Tree Program

The Environmental Services Tree program planted 2,177 street trees and 771 yard trees this year. This planting program operates under a PP&R



*Kids from Forest Park Elementary line up and show off their dirty hands after a Learning Landscapes planting.*



Urban Forestry programmatic permit, and in partnership with Friends of Trees, other planting contractors, public partners, and Portland residents.

Of the 771 yard trees, 172 were the recipient of Treebate credits. The Treebate program offers an incentive in the form of a utility bill credit for stormwater fee ratepayers in Portland who plant trees on their residential private properties. Because larger trees manage more stormwater, Treebate credits 50% of the tree's purchase price up to \$50, \$25, or \$15, depending on mature tree size and stormwater management potential.

Treebate trees must be at least 1 inch caliper and 6 feet tall (4 feet for conifers) at time of planting and may not be otherwise subsidized by the City (e.g., trees planted through Friends of Trees), required by a condition of mitigation or development, or on the City's Nuisance Plants List. The program relies on local retail nursery partners, utility bill inserts, Treebate web pages, media coverage, and word of mouth to get the word out about the offer.

#### Yard Tree Giveaways

PP&R Urban Forestry piloted offering free trees for Portland residents, focused on low-canopy and low-income neighborhoods in East Portland. Residents received up to two medium or large-species trees at events held in Hazelwood, Centennial, Cully, and Mt. Scott-Arleta. In total, 576 trees were given out to be planted in residential yards. This program helps to meet the City's goals for more large-form, native, and evergreen trees. In total, 60 percent of trees given away are large-form, 40 percent are native to the Willamette Valley, and a third are evergreen species. These trees will continue to be monitored by Urban Forestry staff and volunteers throughout their establishment period to ensure that trees were planted correctly, in suitable locations, and receive proper watering and other care. Based on the success of this pilot year, Urban Forestry plans on expanding this program in FY19, with a continued focus on low-income and low-canopy neighborhoods in East Portland.



*Portlanders received free trees, including this giant sequoia, at Yard Tree Giveaways in October and November 2017.*

**TABLE 1: INSPECTIONS AND PERMITS ISSUED BY PP&R URBAN FORESTRY IN FY2017-2018**

STREET TREES			
	INSPECTIONS COMPLETED	PERMITS ISSUED	TREES PERMITTED
<i>Planting, Total Street Trees</i>	<i>5,321</i>	<i>1,944</i>	<i>5,208</i>
Planting, Non-Development*	154	145	1,745
Planting, Development**	3,101	598	1,286
Planting, Environmental Services	2,066	1,201	2,177
Pruning	3,009	4,240	9,390
<i>Removal, Total Street Trees</i>	<i>1,186</i>	<i>1,100</i>	<i>1,887</i>
Removal, Non-Development	1,186	996	1,688
Removal, Development	n/a	104	199
Root Pruning	875	762	1,379
Other***	494	112	1,389
PARK AND SCHOOL TREES			
Planting, Parks	0	0	133
Planting, School Arboreta	0	9	83
Pruning	84	79	310
Removal	104	106	212
Root pruning	3	2	7
Other	101	14	40
PRIVATE TREES			
Removals	2,898	2,659	3,882
Planting, mitigation	n/a	n/a	3,516
Other	56	35	74
EMERGENCY			
Emergency response	808	n/a	n/a
TOTALS			
Planting	5,321	1,953	8,940
Pruning	3,093	4,319	9,700
Removals	4,188	3,875	5,981
Root pruning	878	764	1,386
Other	651	161	1,503
Emergency	808	n/a	n/a
Totals	<b>14,939</b>	<b>11,072</b>	<b>27,510</b>

\*Number of trees permitted includes trees required to be planted as part of other permits

\*\*Includes RS, CO, FP, and SD street tree reviews as well as OTC street tree reviews. Does not include Land Use

\*\*\*Does not include Code Compliance Inspections



## REGULATORY PROGRAMS

*Urban Forest Action Plans Goals and Outcomes Impacted:*

- *Goal 1, Outcome B: Regulatory Program*
- *Goal 1, Outcome C: Development*
- *Goal 3, Outcome A: Street Tree Distribution*
- *Goal 3, Outcome B: Livability*

Development Permits: Urban Forestry's primary role in development situations is to regulate Street and City Trees. The Bureau of Development Services (BDS) regulates privately owned trees in development situations. Urban Forestry assists BDS when requested by conducting tree preservation inspections and providing peer reviews of arborist reports for private trees. Here is a summary of typical permit types:

*Early Assistance (EA):* Early Assistance reviews are optional reviews that allow the applicant to receive documentation of City requirements for a proposed development.

*Pre-Application (EA):* Pre-Application conferences occur prior to submittal of a land use review, and are required for all Type III and IV land use reviews.

*Land Use:* Land Use reviews are required when the zoning code triggers a review for a specific use or development project.

*Building Permit:* The Building Permit is where on site work is reviewed and approved. Work within the Right-of-Way is attached to the building permit when there is not an associated Public Works Permit.

*Public Works:* The Public Work Permit is where work within the Right-of-Way is reviewed and permitted.

In FY 2018, PP&R Urban Forestry Tree Inspectors and Tree Techs processed more than 4,097 development permits.

Non-Development Permits: PP&R Urban Forestry issued 3,665 permits for tree removal in non-development situations, 1,346 street tree planting permits, 4,240 street tree pruning permits, and 762 root pruning inspections in FY 2018.

Programmatic Permits: Programmatic Permits are issued to public agencies and utilities conducting routine tree work in the City of Portland. These permits are not subject to normal Type A or B permit review factors, and are instead intended to prevent cumulative adverse impacts to the urban forest, including no net reduction in canopy coverage over time, and to support the goals of the Urban Management Plan. PP&R Urban Forestry administered 18 programmatic permits in FY 2018.



*PP&R Urban Forestry regulates street tree planting in the city, encouraging diverse species to increase resilience to pests, diseases, and climate change.*

## EDUCATION & POLICY

*Urban Forest Action Plans Goals and Outcomes Impacted:*

- *Goal 1, Outcome A: Enhanced Canopy*
- *Goal 2, Outcome A: Shared Stewardship*
- *Goal 2, Outcome B: Public Education*
- *Goal 3, Outcome B: Livability*

### Tree Care Providers Workshops

PP&R Urban Forestry staff offer a Local Tree Care Provider Workshop for local tree care professionals. The program consists of free workshops offered on a semi-annual basis, providing training on City regulations involving trees and approved pruning standards. After completing the workshop and providing proof of a valid business license and arborist certification, workshop participants are listed on the PP&R Urban Forestry website. In 2017/18, two workshops were offered, with 59 professionals from 45 different landscape, consulting, and tree care companies participating.

### Neighborhood Tree Teams

In fiscal year 2017-2018 Urban Forestry helped facilitate 17 workshops. The workshops were directly organized and lead by Urban Forestry staff or lead by Urban Forestry volunteers with assistance from Urban Forestry staff. These included pruning workshops, tree walks, tree plantings, and workshops on Portland's Tree Code. Two new workshops were also debuted. These were Advanced Tree Pruning and Tree Walk Leader Training and were designed to allow Tree Teams to easily set up their own stewardship events in their neighborhood. Through all the workshops, a total of 383 volunteers dedicated 1,204 hours to education and stewardship, including the pruning of 308 young street trees.

### Neighborhood Tree Stewards

Twenty-nine community members representing 18 different neighborhoods graduated from the Fall 2017 Neighborhood Tree Steward (NTS) Program. Classes were held primarily in East Portland neighborhoods in an effort to make the classes more accessible to residents of this part of the city. Seven students represented neighborhoods east of 82nd Avenue. The theme for this year's NTS program was "Equity and the Urban Forest." Over the course of seven class sessions (22 hours) students learned about the importance of addressing inequities in the distribution of urban canopy. Class topics included an introduction to the concept of equity and how it applies to urban forestry, tree biology and identification, the benefits of trees, further study into equity and environmental justice, pests and



*Volunteers for the Tree Inventory Project measure the width of tree canopy in Alberta Park.*

pathogens, city tree code, wildlife habitats, tree pruning and maintenance, history of Portland's urban forest, Portland's heritage tree program, Q&A with NTS alumni, community partner presentations, and a capstone tree planting event at Harrison Park, which is the only park in the Jade District, a low canopy area of Portland. Our 2017 graduates join over 300 NTS alumni helping care for our city's trees since the program began in 1997.

### Arbor Day

Portland celebrated Arbor Day on April 21, 2018 at Mt. Scott Park, with over 1,000 visitors attending the event throughout the day. The Arbor Day celebration included the presentation of the 41st consecutive Tree City USA Award to Portland. Carol Lee received the Individual Bill Naito Community Trees Award for her contributions to helping create tree planting opportunities in the Jade District and the St. Johns Tree Team received the Group Award for their continued active stewardship work in their neighborhood. Twenty-one community partners joined PP&R Urban Forestry to provide nature and tree-focused activities and outreach for visitors.

### Tree Inventory Project

After completing a full inventory of Portland's 218,000 street trees in FY17, PP&R Urban Forestry and volunteers continued the project in Portland's developed parks this year. Together, staff and volunteers collected information about the species, location, size, and condition of nearly 6,000 trees in 51 parks across the city. More than 200 individuals donated 2,400 hours to the inventory, including 6 Neighborhood Tree Teams who helped organize over 20 workdays throughout the summer. In Spring of 2018, PP&R Urban Forestry partnered with Neighborhood Tree Teams to use inventory data and install 3 "Pop-up Arboreta" in Cathedral, Irving, and Ventura parks, educating the public about some of the most noteworthy trees in each park.



*Arbor Day featured an opportunity for the public to climb over 100 feet up a Douglas-fir tree in Mt. Scott Park.*

# CITYWIDE TREE CARE AND MAINTENANCE PROGRAMS

*Urban Forest Action Plans Goals and Outcomes Impacted:*

- *Goal 1, Outcome A: Enhanced Canopy*
- *Goal 2, Outcome A: Shared Stewardship*
- *Goal 2, Outcome B: Public Education*
- *Goal 3, Outcome A: Street Tree Distribution*
- *Goal 3, Outcome B: Livability*
- *Goal 3, Outcome C: Watershed Health*



*Youth Conservation Crew members work to maintain trees in parks, schools, and other public spaces.*

PP&R Urban Forestry oversees tree maintenance for parks and many City-owned properties through inter-agency agreements. In FY 2018, maintenance activities included establishment care and watering, pruning, canopy raising, removals, and hazard abatement.

## Dutch Elm Disease (DED) Management

As part of the PP&R Urban Forestry Elm Protection Program, 41 public, private, and park elms were removed due to DED in FY 2018. The program includes vigilant monitoring, timely diagnosis of DED, and preventative maintenance of elms, as well as public education on symptom recognition, proper pruning, enforcing the elm pruning moratorium from April 15 to October 15, and elm wood disposal.

Staff arborists worked with neighborhood associations and friends' groups to select healthy right-of-way elm candidates for inoculation, as well as permit inoculation activity. Neighborhood groups inoculated 52 right-of-way elms and 125 park trees were inoculated by Urban Forestry staff.

## Youth Conservation Crew Tree Crew

In the summer of 2017, PP&R staff hired six high-school students plus one adult crew leader to conduct much needed maintenance and establishment tree work. The Youth Conservation Crew (YCC) Tree Crew weeded and mulched over 400 young trees and pruned 248 trees at parks, schools, and public spaces throughout Portland. In addition, the YCC Tree Crew participated in the first year of the Park Tree Inventory, inventorying 102 park trees.

## Protect the Best

PP&R Land Stewardship Division's Protect the Best program is designed to prevent small patches of invasive, non-native plant species from spreading in ecologically healthy natural areas. In FY 2018, the crew



performed treatments in Big Four Corners Natural Area, Buttes Natural Area, Forest Park, Maricara Park, Mitchell Creek Natural Area, Powell Butte, Ross Island Natural Area and Oaks Bottom Wildlife Refuge. In total, 649.5 acres were treated. The majority of non-native tree species removed were English holly, European hawthorn, and non-native cherry. Removal helps stop the spread by eliminating seed sources. Tree removals, tree planting, and mitigation in PP&R natural areas are managed under a PP&R Urban Forestry programmatic permit.

#### Watershed Revegetation Program

In FY18 BES' Watershed Revegetation Program (WRP) managed over 1,000 acres of natural area projects on private and public property throughout Portland. Management by WRP includes the removal of invasive vegetation and the planting and maintenance of native plants. WRP planted 19,382 native trees and 35,370 native shrubs on 202 acres in natural areas and stormwater maintenance facilities. BES Watershed Revegetation Program tree removals, planting, and mitigation are managed under a PP&R Urban Forestry programmatic permit.

#### Volunteer work hours

65,367 volunteer hours valued at \$781,789 were provided to the urban forest in FY 2017-2018, as reported by PP&R. Volunteers planted, pruned, and maintained trees in parks, natural areas, and rights-of-way; removed invasive species; and worked at environmental education events, among other activities.

#### Community Tree Care Program

The Community Tree Care Program, a partnership between Friends of Trees and PP&R Urban Forestry with funding from the Bureau of Environmental Services, works with volunteers to structurally prune young street trees to aid their long-term growth. The fifth season of this program kicked off with a pruning event in the Roseway neighborhood and annual Pruning Leader training in the Montavilla neighborhood. Events were then held in the Cully, Brooklyn, Humboldt, Laurelhurst, Kerns, Lents, and Madison South neighborhoods, run concurrently with FOT planting events. Approximately 1,300 young street trees were pruned for clearance, health, and structure this season with the help of about 75 trained volunteer pruners and arborist partners who worked approximately 997 volunteer hours. About 661 properties were reached and given additional education on the importance of follow-up street tree care.



*Volunteer Neighborhood Tree Stewards prepare to plant a tree in Harrison Park with UF Operations Supervisor Larry Maginnis.*

## PERFORMANCE MEASURES

The Urban Forest Action Plan Performance Measures Task Force established performance measures for the *Urban Forest Action Plan* to gauge progress in meeting the goals and objectives of the plan.

**TABLE 2: MEASUREMENTS AND INDICATORS OF PROGRESS IN ACHIEVING URBAN FOREST ACTION PLAN GOALS**

PROTECT, PRESERVE, RESTORE, AND EXPAND PORTLAND'S URBAN FOREST					
	FY08	FY09	FY10	FY11	FY12
Urban forest canopy cover* % of total city	26*	-	-	29.9	-
Urban forest canopy coverage* % of public property	27*	-	-	-	-
Urban forest canopy coverage* % of private property	26*	-	-	-	-
Ratio of street tree plantings to removals	-	6.6	11.1	5.9	3.6
DEVELOP AND MAINTAIN SUPPORT FOR THE URBAN FOREST					
Volunteer hours, PP&R		67,049	68,439	63,277	66,548
Volunteer hours, Friends of Trees (FOT)	17,860	17,003	18,307	22,482	25,518
Neighborhood Tree Stewards trained	0	0	23	11	29
Website visits, PP&R Urban Forestry and <a href="http://www.portlandoregon.gov/trees">www.portlandoregon.gov/trees</a>	32,440	46,959	90,831	70,844	118,292
Arboreta developed at Portland schools (total trees planted)	2 (54)	5 (185)	9 (152)	5 (160)	6 (78)
Total budget, PP&R Urban Forestry (\$)	2.52M	2.42M	2.47M	3.06M	3.01M
MANAGE THE URBAN FOREST TO MAXIMIZE COMMUNITY BENEFITS FOR ALL					
Trees planted in low-income and low-canopy neighborhoods by FOT	962	1,510	1,261	1,597	2,044
Carbon sequestration, lbs**	24.8M	-	-	-	-
Air pollutants removed, lbs**	599,023	-	-	-	-
Stormwater retained, gallons**	413.7M	-	-	-	-
Canopy cover in riparian areas	-	66.6%	-	-	-

\*Canopy data uses imagery for year 2002 as a baseline, but were reported in FY08.

\*\*Baseline data derived from 2002 conditions and reported in FY08.



## PERFORMANCE MEASURES CONT.

**TABLE 2 CONT.: MEASUREMENTS AND INDICATORS OF PROGRESS  
IN ACHIEVING *URBAN FOREST ACTION PLAN* GOALS**

PROTECT, PRESERVE, RESTORE, AND EXPAND PORTLAND'S URBAN FOREST						
	FY13	FY14	FY15	FY16	FY17	FY18
Urban forest canopy cover* % of total city	-	-	-	30.7	-	-
Urban forest canopy coverage* % of public property	-	-	-	-	-	-
Urban forest canopy coverage* % of private property	-	-	-	-	-	-
Ratio of street tree plantings to removals	3.6	3.3	3.5	3.0	3.1	2.8
DEVELOP AND MAINTAIN SUPPORT FOR THE URBAN FOREST						
Volunteer hours, PP&R	61,082	65,448	71,682	68,024	63,294	65,367
Volunteer hours, Friends of Trees (FOT)	29,002	20,713	21,279	20,770	18,750	19,755
Neighborhood Tree Stewards trained	32	30	20	30	30	29
Website visits, PP&R Urban Forestry and <a href="http://www.portlandoregon.gov/trees">www.portlandoregon.gov/trees</a>	152,345	374,206	442,839	680,440	1,330,000	1,248,721
Arboreta developed at Portland schools (total trees planted)	9 (57)	8 (91)	9 (95)	8 (69)	11 (61)	9 (83)
Total budget, PP&R Urban Forestry (\$)	3.38M	3.34M	3.93M	4.06M	\$4.6M	\$5.7M
MANAGE THE URBAN FOREST TO MAXIMIZE COMMUNITY BENEFITS FOR ALL						
Trees planted in low-income and low-canopy neighborhoods by FOT	1,843	2,016	2,061	1,666	1,780	1,781
Carbon sequestration, lbs**	-	-	-	-	-	-
Air pollutants removed, lbs**	-	-	-	-	-	-
Stormwater retained, gallons**	-	-	-	-	-	-
Canopy cover in riparian areas	-	-	-	-	-	-

\*Canopy data uses imagery for year 2002 as a baseline, but were reported in FY08.

\*\*Baseline data derived from 2002 conditions and reported in FY08. Updated data expected in FY19.