



Salem Tree Report January 2021
**2020 Summary of
Public Works Tree Projects**



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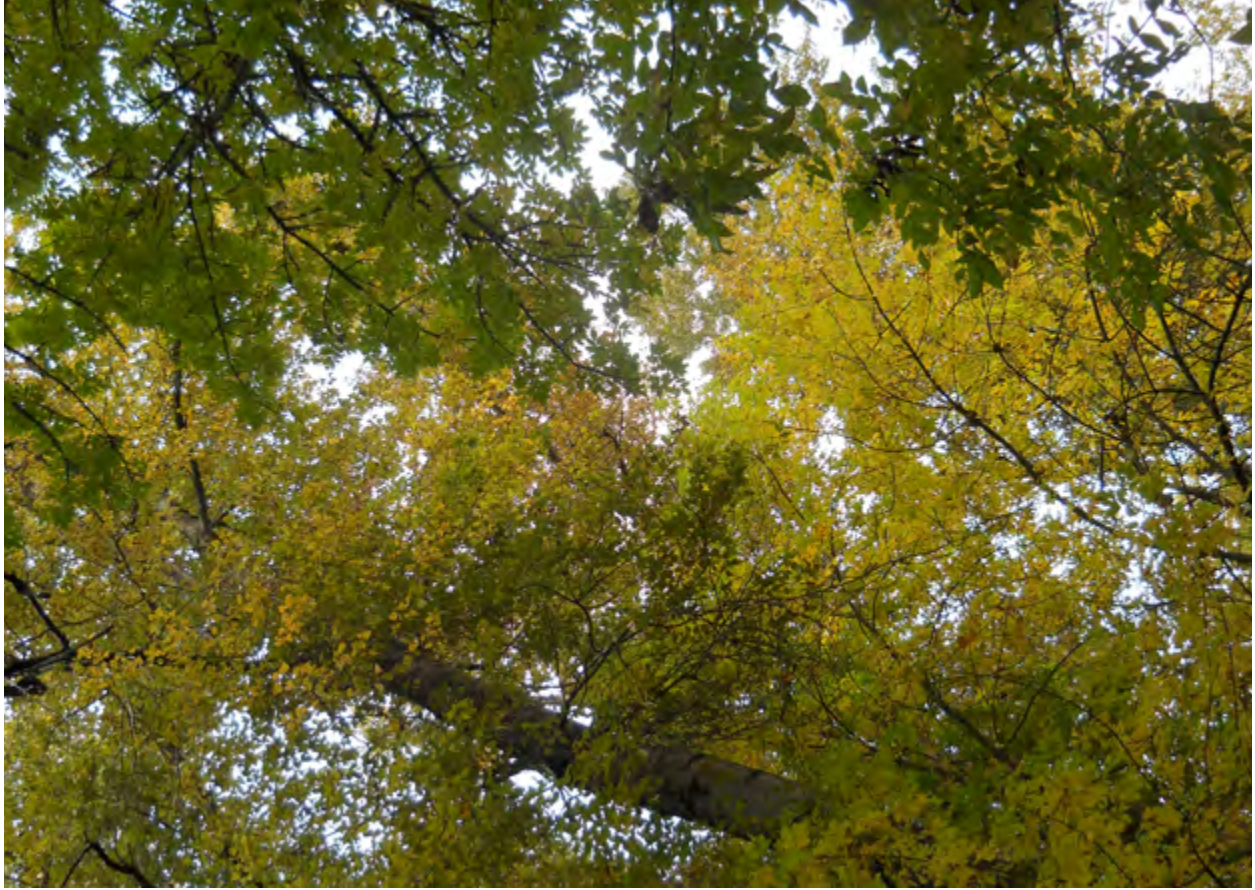


Figure 1: Trees reduce urban heat islands

THE URBAN TREE CANOPY

BENEFITS OF TREES

Trees make cities more livable, improve business, and encourage people to walk and get outside. Extensive research has been done over the last decade on the multiple economic, environmental, and social benefits that trees provide. Some of these benefits can be quantified monetarily, such as in stormwater reduction, air quality improvement, and carbon sequestration that helps reduce greenhouse gases. Trees also help reduce the urban heat island effect by providing shade and reducing temperatures. They provide “green infrastructure” that grows and increases in value over time.

Trees also provide less tangible but equally important benefits, such as natural beauty, a sense of place and identity, increased social interaction, and reduced crime. Healthy cities have healthy tree canopies. Healthy tree canopies can improve the health of cities both environmentally and socially.



SIGNIFICANT TREES AND HERITAGE TREES

Oregon white oaks (*Quercus garryana*), although reduced in population over the years because of development, are still found in the area. The native white oak is a signature tree of Salem and has a special place in Salem's history. Larger diameter (24-inch or greater diameter at breast height) Oregon white oaks are classified as "Significant Trees" and are given special protection under Salem's Tree and Vegetation Preservation Code, Salem Revised Code (SRC) Chapter 808, which is administered by the Community Development Department. In addition to Oregon white oaks, other trees located along riparian areas (streamside areas) are also protected under this code.

Trees can be designated as "Heritage Trees" under SRC Chapter 808. Heritage trees must be nominated by the property owner and approved by resolution of the City Council. Heritage trees are so recognized due to their location, size, age, botanical interest, commemorative planting, or historic significance. Once designated, heritage trees receive protection under SRC Chapter 808.

COMMUNITY FORESTRY STRATEGIC PLAN

In 2013, Council adopted the [Community Forestry Strategic Plan](#). This plan provides specific goals and actions to protect and increase Salem's urban tree canopy. See the Community Forestry Strategic Plan for additional information.

The six goals of the Strategic Plan are:

- Goal 1:** Protect, increase, and enhance Salem's tree canopy;
- Goal 2:** Increase education and outreach about tree benefits, community forestry program, tree regulations, and incentives;
- Goal 3:** Develop support at political, management and public levels;
- Goal 4:** Improve City coordination, communication, and codes related to trees;
- Goal 5:** Develop and implement a Community Forestry Management Plan; and
- Goal 6:** Establish a stable funding for the Community Forestry Program.

URBAN TREE CANOPY ASSESSMENT

The City of Salem Public Works Department assesses the urban tree canopy every ten years to monitor changes in canopy coverage over time. This assessment is required every census year per SRC Chapter 808. This canopy assessment is conducted "...for the purposes of measuring the effectiveness of this Chapter and other development-related ordinances in preserving and improving the amount of tree canopy area within the City or the Salem-Keizer Urban Growth Boundary" (SRC Chapter 808.060(b)). In 2010, Salem had 18.3% canopy. In 2013, the Community Forestry Strategic Plan set a goal of 23% canopy and focused tree planting efforts on City properties and low canopy neighborhoods.



In 2019 the City conducted its latest canopy assessment.

(www.cityofsalem.net/citydocuments/tree-canopy-assessment-report-2019.pdf)

The 2019 study determined the City's tree canopy is 24%, a 6% increase from the previous study in 2009 and exceeding our goal of 23%. Based on the assessment, all neighborhood association areas gained canopy, ranging from 2% in Lansing Neighborhood to 8% in Southwest Area Neighbors. Using the previously established 75th percentile methodology for canopy goal setting, the new city canopy goal will be 28% by 2030. Tree planting efforts will continue to focus on low canopy areas and available planting areas along street rights-of-way within the City.

The environmental benefits of Salem's tree canopy were calculated in the 2019 assessment. According to the report, Salem's trees provide \$80 million in total annual benefits, including air quality, stormwater, and carbon sequestration. The next canopy assessment will take place around the year 2030.

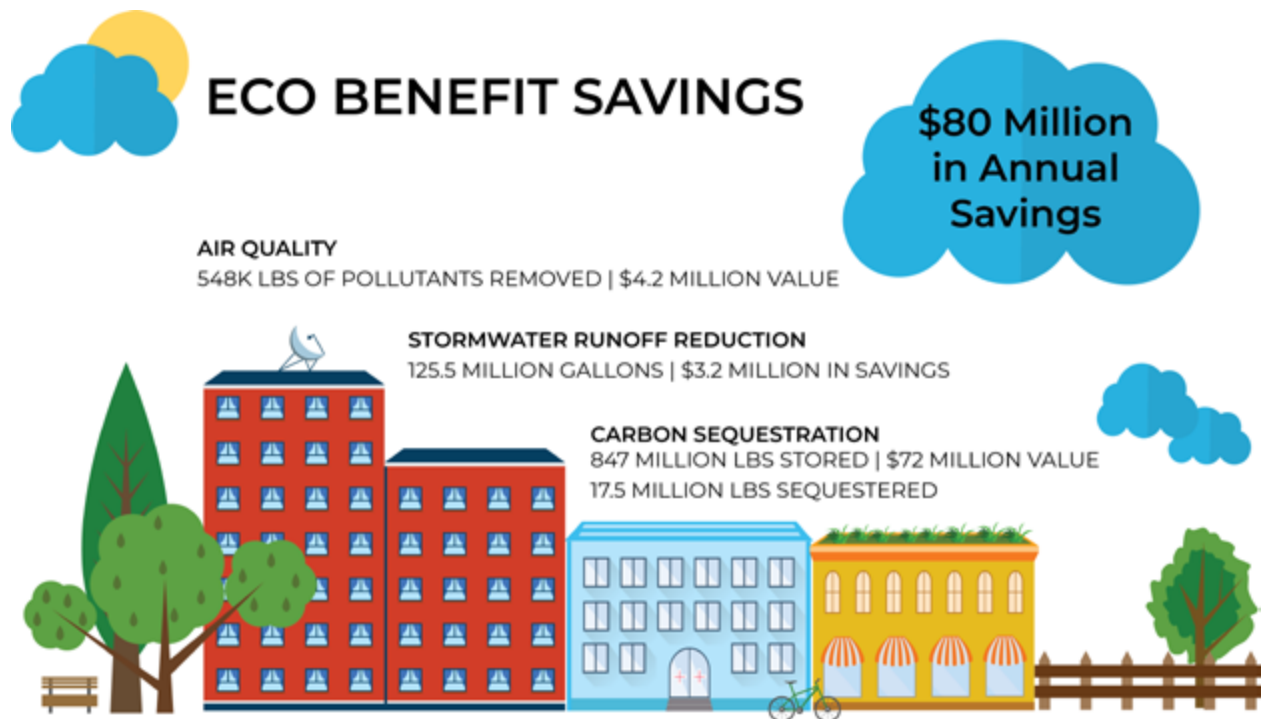


Figure 2. Eco-Benefits Provided by City Trees

2020 PROGRAM PARTICIPATION

Salem has a variety of programs and initiatives that promote and enhance our urban tree canopy. Initiatives like "Tree City USA" and "Cities4Forests" connect Salem with national and international municipalities and experts.

Our Urban Forestry Division within Parks Operations maintains, removes, and plants trees along our city streets, in public parks, and in other City properties.



Contracts with nonprofits and contractors such as Friends of Trees and Treecology expand our planting capacity while also providing outreach, education, and volunteer opportunities.

Contracts with local arboricultural companies Mountain View Tree Service and Buena Vista Arbor Care help with tree removals in the right-of-way and in city parks. Mountain View assists the Urban Forestry Division with larger projects, specialized arbor care and collaboration on some city projects where their expertise is required.



Figure 3. Trees provide aesthetic beauty in urban environment

TREE CITY USA



The City of Salem has been a Tree City USA for 44 years. Tree City USA is a program from the Arbor Day Foundation that began in 1976. The program recognizes and guides achievement in four core standards of sound urban forestry management: **1)** maintaining a tree advisory board; **2)** having a community tree ordinance; **3)** spending at least \$2 per capita on urban forestry; and **4)** celebrating Arbor Day and having an Arbor Day Proclamation.

The City of Salem is proud to be one of only 17 cities in the country to have been a charter participant in the Tree City USA program. In 2020, celebrated 44 consecutive years of participation. In 2015, Salem became a “Sterling City,” having received ten Arbor Day Foundation “Growth Awards” in recognition of innovative and/or increased program participation. In 2020 the City spent \$8.17 per capita on the urban forest.

Arbor Day in the U.S. was started in Nebraska in 1872 “to inspire people to plant, nurture, and celebrate trees.” Each year, Salem hosts an Arbor Day tree planting event for community volunteers that improves Salem’s urban tree canopy. In recent years, the Arbor Day planting event has been coordinated by Friends of Trees, an Oregon-based nonprofit that organizes volunteer tree planting events.

In 2020, Salem Public Works successfully applied for a grant of \$485 from Oregon Community Trees (OCT) for outreach materials to distribute at the Arbor Day event in April. Unfortunately, the 2020 Arbor Day volunteer planting at Geer Park was canceled because of COVID-19 safety precautions. The City rescheduled the volunteer Arbor Day planting to November 14 with a reduced number of volunteers, however it was also canceled due to



Figure 4: 2020 Planting at Wallace Marine Park



the global pandemic restrictions. In both cases, the trees were planted by Friends of Trees staff and Salem tree crew leaders.

CITIES4FORESTS

In 2018, the City of Salem signed on as a founding member of Cities4Forests, a new initiative that focuses on the value and benefits of trees in cities and forests across the globe.

It is an international effort spearheaded by the World Resources Institute. It aims to cultivate awareness and stimulate action on the part of urban residents to recognize the importance of trees and forests to human well-being. In urban areas, the “inner forest” is a critical component of a healthy city. City trees improve public health, reduce air pollution, protect water quality, store carbon, and help a city become climate resilient. Cities4Forests has a goal of integrating trees into city growth and development, and of harnessing the value of trees to meet multiple objectives, such as: improving public health; protecting drinking water supplies; and providing benefits for air quality, water quality, and heat island mitigation.

Cities4Forests

Figure 6 wri.org/our-work/project/cities4forests

Membership in Cities4Forests complements the City’s current urban forestry programs. Cities4Forests is a voluntary coalition involving mayors’ offices from around the world. Salem was among the 50 founding cities worldwide. Salem staff attended Cities4Forests-hosted information sharing events such as international webcasts and conference calls to share urban forestry information between cities around the world.

STREET TREE INVENTORY

Since 2018, the City has been surveying streets in Salem to build an inventory of street trees. The objective of street tree inventory has been to gain a more detailed understanding of Salem’s urban forest structure. By knowing the location, species, condition, and size of existing street trees, the City can implement more effective practices for planting and maintaining healthy trees in the future. The random surveys in 2018/19 estimated a statistical sample inventory of 42,892 street trees in Salem and an overabundance of maples. Several recommendations were also made related to increasing the health and diversity of Salem’s street trees.

This information led to updating the City’s Recommended Street Tree List to reduce the number of maples planted and increase the variety of species on the list. This will increase species diversity and reduce our vulnerability to pests, disease, and climate change impacts to the urban forest.

In 2020, under the leadership of a new Urban Forester, the Urban Forestry Division of Salem Parks Operations worked with the Parks Planning and Public Works GIS staff to continue the inventory of city street trees and park trees. Urban Forestry employees performed the 2019 street tree survey and continued the inventory work in 2020, significantly reducing the training needed compared to seasonal employees or interns. In 2020, City staff began compiling a



detailed, spatial (with GPS locations) inventory of street trees (or managed park trees, or both), including potential planting spaces, to inform urban forestry planning, operations, and decision-making.

Using the ArcGIS collector app connected to the city GIS Salem Maps Online, forestry staff used iPhones and iPads to update existing tree and proposed tree locations. The inventory collected a comp key, an individual GIS ID number/ Object ID, Unit ID, address, tree species, cultivar, diameter at breast height (dbh), health rating, planting space size, space ownership, utilities present, comments, user ID and last edited date. With this current data, we can identify dead trees and trees that are in poor condition to monitor for removal. We also identified over 2,500 new locations where street trees can be planted.

Currently 18,874 tree locations have been updated in the inventory and over 14,500 of those locations were inventoried in 2020.

We will use this information to manage our program more effectively and will continue with the inventory until it is complete. This database has already proved useful for documenting unpermitted tree removals as well as for health appraisals. The Urban Forestry Division will continue to update the inventory even after completion to help manage and promote the urban tree canopy of Salem.



Figure 7. New Street Trees

CITY TREE PROTECTION AND POLICY

The City of Salem Public Works is responsible for administering SRC 86 Trees on City Owned Property and uses an Administrative Rule of the same name, 109-500-002, to accomplish the goals of that code chapter. Public Works changed how it administers these rules in 2020, coinciding with the hiring of a new Urban Forester. The change became an opportunity to re-establish the protections and guidelines put in place with SRC 86. In 2020, the department has taken a stronger role in protecting street trees from the impacts of development and pursuing violations of the code. Monies taken in for violations are placed into a fund dedicated to street tree plantings by Urban Forestry.

The Public Works Department is in the process of revising SRC Chapter 86 to clarify the protections in place for City street trees, how violations are assessed and resolved, and to update the associated administrative rule, including the City's street tree list.

Salem Parks and Recreation Advisory Board (SPRAB), as part of its purview, hears appeals to tree code violations. In 2020 SPRAB held two hearings.

TREE PLANTING AND MAINTENANCE

2020 OVERVIEW

Tree planting and maintenance of City-owned trees in 2020 was performed by three groups: Salem Urban Forestry, Friends of Trees, and Treecology.

Trees on City-owned property are managed by the City’s Urban Forestry Division, in the Parks Operations Division of Public Works. To supplement the work of Urban Forestry, Public Works has contracted over the last seven years with Friends of Trees, a nonprofit organization, for community tree planting events, primarily in parks. Friends of Trees’ mission is to bring people together to plant, care for, and learn about trees in communities across the Pacific Northwest. This important work engages Salem’s residents and local volunteer groups who actively participate in planting trees in low tree canopy neighborhoods and along streams with limited shade. Planting locations are selected each year and focus on low canopy areas of the City and along streams that lack shade.

Recognizing the limitations of working with large groups of volunteers and the need to plant more trees along city streets, Public Works began contracting in 2018 with a private arboriculture company, Treecology. Through this renewable contract, approximately 150 trees will be planted each planting season in City rights-of-way, and three years of watering and tree care will also be provided. This will ensure that the new trees get off to a good start. After the initial three-year establishment period, Salem Urban Forestry will take over the maintenance of the trees. The goal of this contract is to increase our street tree planting capability to grow the overall canopy and species diversity. Treecology is an experienced tree service and restoration contractor that has been performing similar contract tree planting work for the City of Portland.

Tree maintenance also includes tree trimming and tree removal. Trees are trimmed for health and structure, vision or access clearance, or because of damage. Tree removals occur due to development, damage, hazard risk, or disease.

URBAN FORESTRY

Street trees, trees in parks, and trees on other City-owned properties in Salem are maintained by the Urban Forestry Division in Public Works. The Urban Forestry Division operates under the direction of the City’s Urban Forester, Milan Davis. Currently there are seven full-time employees and one seasonal staff. There are now four ISA (International Society of

Trees Inventoried	14,936
Trees Planted	265
Trees Removed	286
Trees Pruned	3,372

Table 1. Summary of Work by Urban Forestry in 2020



Arboriculture) Certified Arborists on staff who inspect all tree-related permits and Public Works-generated service requests.

Urban Forestry Division responsibilities include tree removal, pruning, stump grinding, planting and all tree-related work in the city right-of-way and on City-owned properties. They also provide 24-hour response for removing fallen trees or branches obstructing traffic, and work to keep all streets, sidewalks, paths, and bike lanes clear. Approximately 90% of their work supports City projects or is in response to requests from other public agencies or Public Works divisions. The remaining 10% of their work comes from citizen complaints or requests for services. Table 1 summarizes the work done by Urban Forestry in 2020.

Urban Forestry has worked hard to find efficiency and improvement through cooperation with other workgroups and agencies. Wood chips generated from tree removals and trimming are used for landscaping and trails in parks, and this saves the City around \$15,000 per year in material costs. Large wood from tree removals is collected by Marion County Youth Services and is either cut to serve their “firewood for the needy” program or milled into saleable lumber. This partnership benefits the youth program with free materials and saves Urban Forestry the burden of dealing with the logs themselves resulting in an additional annual savings of \$15,000.

Urban Forestry Division supports other tree projects and programs in the City with their expertise and experience. They are also tasked with reviewing all plans and construction documents regarding tree-related work to meet City standards and current codes. Utilizing the experience and expertise of the ISA-certified arborists within Urban Forestry to consult on Public Works tree-related projects ensures that we are planting and preserving a healthy urban canopy.

FRIENDS OF TREES

Eight years ago, the City of Salem contracted with Friends of Trees and began working together to enhance the City’s urban tree canopy and to restore its streambanks and riparian areas.

In 2020, the City and Friends of Trees organized tree planting events at Wallace Marine Park, Cascades Gateway Park, Orchard Heights Park, Geer Park, Bill Riegel Park, Fisher Road Park, and McKay School Park.

Due to the COVID-19 pandemic and restrictions on public gatherings, public participation was canceled beginning in March and Friends of Trees staff and crew leaders, and Urban Forestry staff completed the work.



Figure 8. Pre-Pandemic Planting at Cascades Gateway Park 2020



Friends of Trees staff and volunteers planted 182 large stock trees in 2020 in Salem. Friends of Trees planted an additional 2,120 small stock trees, shrubs, and smaller plants in Salem parks and natural areas.

This planting work was accomplished thanks to nearly 1,000 volunteer hours from 275 volunteers. To help facilitate the events, Friends of Trees has trained local crew leaders. These individuals receive additional training on tree planting, tree care, and how to conduct volunteer events. In 2020, these local crew leaders helped fill the gap caused by the pandemic restrictions. With the help of the crew leaders, city staff, and Friends of Trees staff the City was able to complete all planned planting projects in 2020.

A summary of the 2020 Friends of Trees’ events is available in Table 2.

Friends of Trees will continue to work with the City, beginning in early 2021 with plantings in Lansing Park, McKay School Park, Hammond School Park, and an Arbor Day planting at Northgate Park and its surrounding neighborhood. Planting sites for later in 2021 are being assessed using information from our 2019 canopy study and will be based on a variety of factors including prioritizing neighborhoods with low tree canopy.



Figure 9: A Pre-Pandemic Newly Planted Tree in Cascades Gateway Park 2020

Date	Site	Trees (large stock)	Small stock trees and shrubs	Volunteers	Volunteer Hours
1/11/2020	Wallace Marine Park	50	0	86	272.50
2/22/2020	Cascades Gateway Park (Dog Park)	41	0	91	319.50
3/7/2020	Orchard Heights Park	0	1842	77	297.25
4/4/2020	Geer Park	50	0	4	28.00
10/17/2020	Bill Riegel Park (Crew Leader Training)	4	3	3	9.00
11/14/2020	McKay School Park	6	275	6	28.50
12/7/2020	Fisher Road Park	31	0	8	32.00
2020 Total		182	2120	275	986.75

Table 2: Summary of 2020 Friends of Trees Events in Salem



TREECOLOGY

In 2020, 208 trees were planted by Treecology along streets in Salem. Planting occurred in January through April and then resumed in December.

This contract has identified opportunities where large unused right-of-way spaces are available to plant uncommon and large canopy street tree species. By planting less common tree species, the diversity of our street tree population is increased, which adds interest and increases resilience against future pests and disease.

Plantings by Treecology in 2020 were along Liberty Street SE, Clay Street NE, Pearl Street NE, Ricky Street NE, Winter Street NE, Campbell Drive SE, and the Salem Parkway. Plantings occurred in six neighborhoods: SCAN, ELNA, NEN, SEMCA, Grant and Northgate.

The most notable planting was made possible through an Intergovernmental Agreement (IGA) with the Oregon Department of Transportation (ODOT) to plant trees within an ODOT-controlled right-of-way near the city limits along Salem Parkway, a main entrance into Salem. This planting took place in December 2020 and lines a popular multi-use path along the Salem Parkway between Cherry Avenue NE and Hyacinth Street NE.

Over the first three years of the contract with Treecology, 401 trees have been planted along Salem streets in 11 different neighborhoods. Treecology is on contract through 2022 to continue with street and right-of-way tree planting. This contract may be renewed in the future.



Figure 10. New trees on Salem Parkway

EDUCATION AND OUTREACH

In 2020, Salem Parks and Recreation Advisory Board (SPRAB) formed a tree committee to assist in promoting Salem's tree canopy and streamlining the permitting process. As a result of that work, several permitting flow charts were created and a new educational brochure was developed by the City.

In 2020, the City also participated in commemorating the 50th anniversary of the bombing of Hiroshima through the planting of a "Peace Tree" at Pringle Park. The persimmon tree was grown from a seed of a tree that survived the bombing. A commemorative plaque was installed and a new kiosk with an informational poster has been installed in the park. Unfortunately, due to the pandemic, the planned planting ceremony was canceled; however, the tree was planted and continues to thrive.

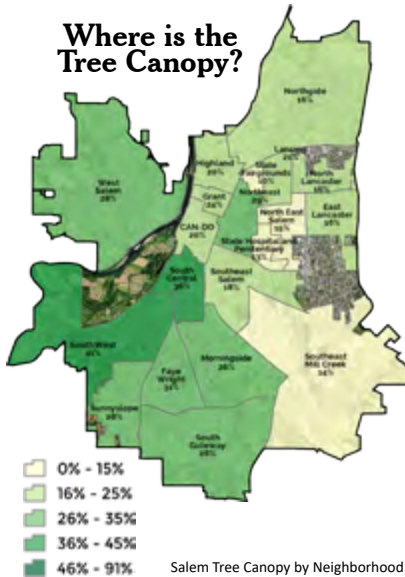
About Salem's Tree Canopy

The Salem City Council adopted a Community Forestry Strategic Plan in August 2013 to help the City reap the environmental, economic, and social benefits that an urban forest provides.

The Plan's overarching goals are to preserve and increase the tree canopy within Salem and to educate the public, decision-makers, and City staff about the benefits of trees.

In addition, City Council set an urban canopy goal of 23 percent to be reached by 2020. Salem succeeded in reaching that goal, and set a new goal of 28 percent to be attained by 2030.

Where is the Tree Canopy?



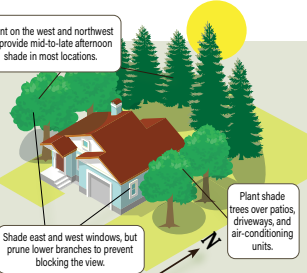
Help Us Grow Salem's Urban Forest

Reports show that 34% of Salem can support tree canopy where currently there is none. **The City is working to plant public spaces, but we need your help to grow the canopy.**

Plant trees in your yard and around your home. Consider strategic planting of trees for energy conservation.

Plant trees in the community! Volunteer at one of our tree-planting events by volunteering with Friends of Trees or becoming a crew leader. Events run November through April.

Plant on the west and northwest to provide mid-to-late afternoon shade in most locations.



Shade east and west windows, but prune lower branches to prevent blocking the view.

Plant shade trees over patios, driveways, and air-conditioning units.

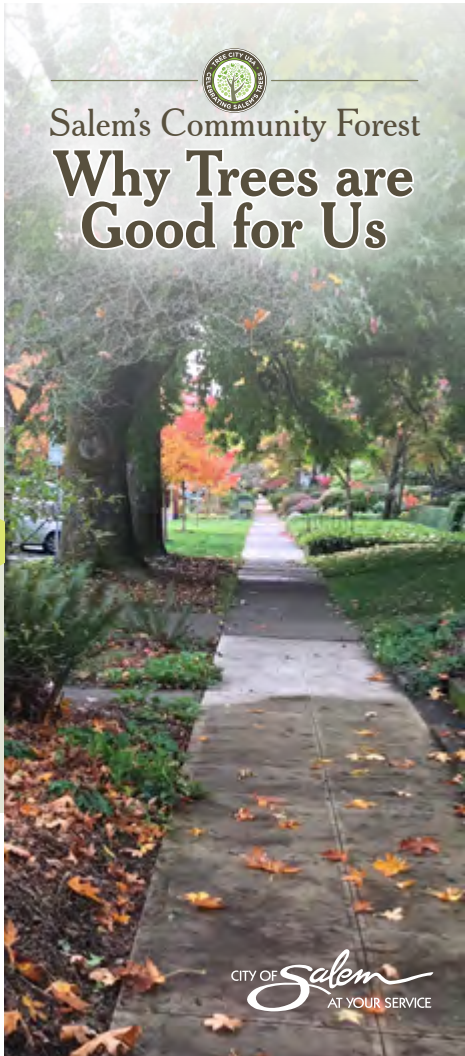
Right Plant, Right Place

Choosing the right plant for the right place is important for a plant to thrive. Knowing the site characteristics, such as soil, moisture, and shade, will help you decide what plant will be best suited for the location. The height and width of your location also helps you ensure that the plant will not outgrow its space. To learn more about right plant, right place, go to www.arborday.org/trees/righttreeandplace.

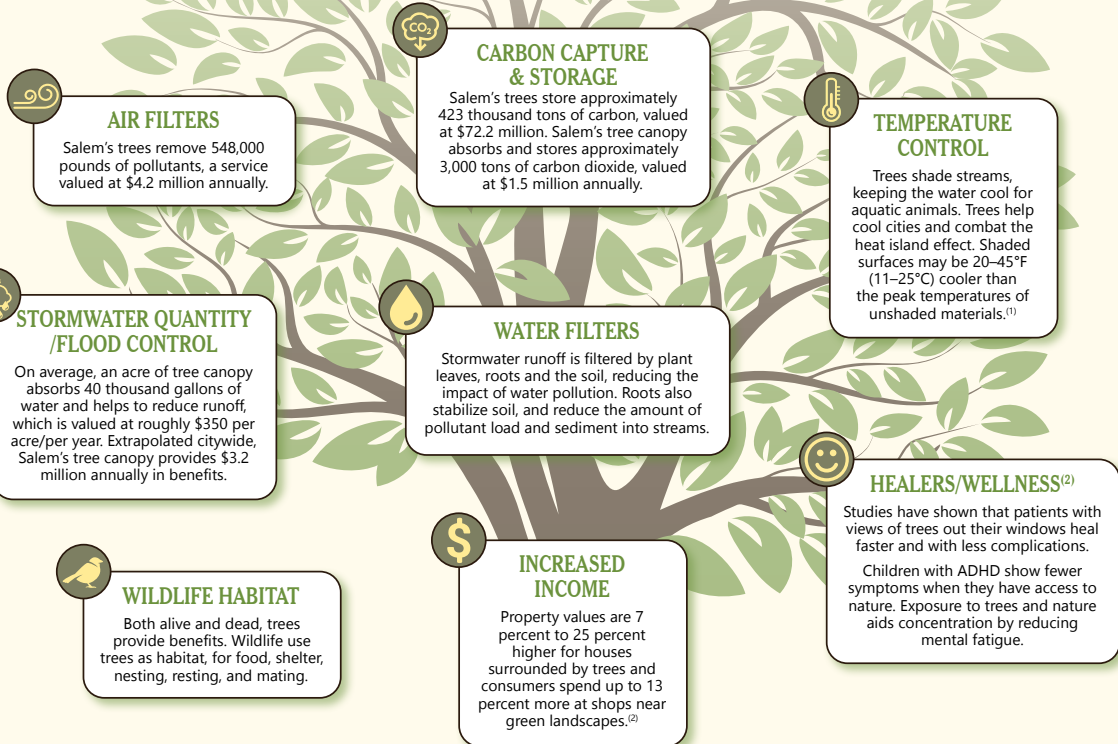


Phone: 503-588-6336
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Web: www.cityofsalem.net/community-forest
Address: 1410 20th ST SE Bldg 14, Salem OR 97302

Salem's Community Forest Why Trees are Good for Us



How Trees Benefit our Community



Salem's tree canopy provides \$80 million a year in environmental benefit enhancing air quality, filtering stormwater, and capturing and storing carbon to help combat climate change.

1. Akbari, H., D. Kurn, et al. 1997. Peak power and cooling energy savings of shade trees. Energy and Buildings 25:139–148. / 2. EarthShare.org

Marking the 75th Anniversary of the End of World War II

HIROSHIMA PEACE TREE PLANTING

Friday, April 10, 2020

10 a.m. to Noon

Pringle Hall

606 Church St. SE

Salem

In honor of the occasion, an Asian persimmon tree, grown from a seed collected from a tree in Hiroshima, Japan that survived the atomic bombing of the city on August 6th 1945, will be planted as a continuing reminder of our desire for peace.

The event will include refreshments and entertainment.



Reasonable accommodation and accessibility services will be provided upon request.
Servicios razonables de alojamiento y accesibilidad se facilitarán por petición.

SUMMARY

Salem is involved in a variety of projects, programs, and initiatives that are working to achieve the goals of the Community Forestry Strategic Plan. Community outreach and planting events, primarily in partnership with Friends of Trees, spread the message of tree benefits and give an opportunity for the community to be involved with growing the urban forest. Programs like Tree City USA and Cities4Forests provide opportunities for Salem to be recognized for our urban canopy work and to keep informed of innovative urban forestry programs around the world.

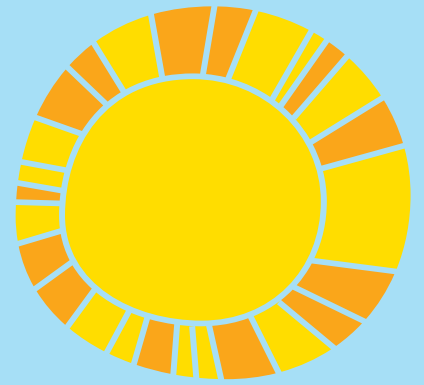
The Urban Forestry Division works daily to maintain, promote and increase the tree canopy through high standards in work practices and safety. Staff responds to all weather emergencies and helps keep city streets and the rights-of-way safe 24 hours a day, 365 days a year. With a limited full-time city staff, it is important to have contractors like Mountain View Tree Service for tree removals, and contractors like Treecology & Friends of Trees for expanding our tree planting capabilities.

Despite the unique challenges faced in 2020 due to COVID and wildfires, 655 trees were planted. The urban canopy should continue to grow as Urban Forestry Division takes an increasingly active role in managing existing trees and putting money from fines and permits towards new plantings.

Salem Public Works will continue to promote tree planting efforts to enhance the City’s tree canopy, increase education and outreach about the urban forest, and improve the level of expertise in staff. Urban Forestry’s 2021 Work Plan calls for developing an Urban Forestry Management Plan and seeking program accreditation through Society of Municipal Arborists.



Plant Trees in Salem



Individuals and families are invited to plant trees for a healthier Salem!

Saturday mornings, November 2020 - May 2021, 9am-1pm
Social Distancing and Masks Required, for more information on how Friends of Trees is Following COVID-19 guidelines visit: Friendsoftrees.org/covid

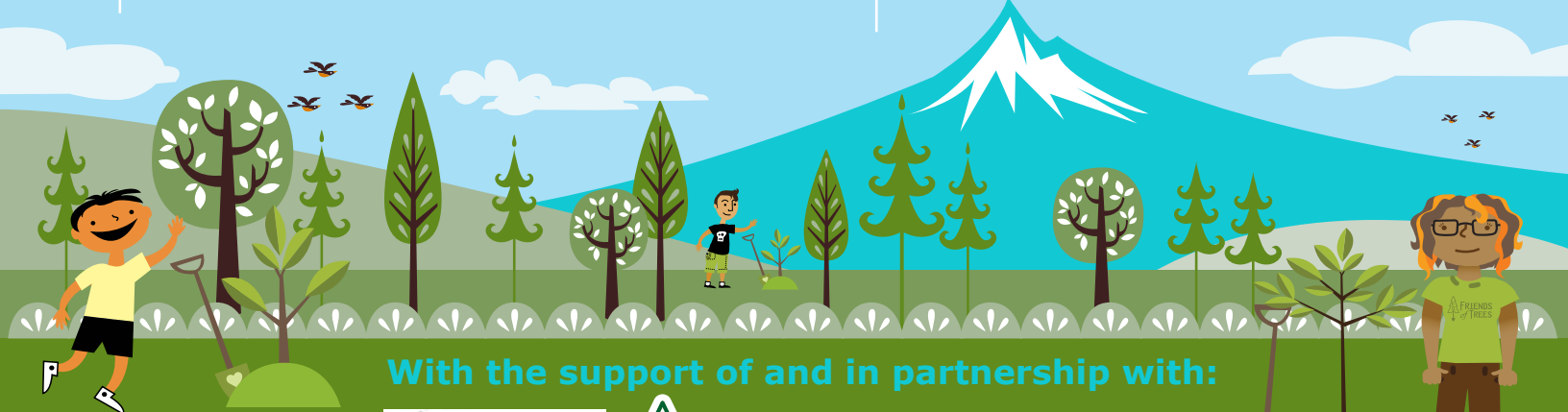
For more information about events please visit: FriendsOfTrees.org/Salem

NOV
DEC
JAN
FEB

- 11/14/20
McKay School Park
Arbor Day Event
NE Salem
- 12/5/20
Fisher Road Park
NE Salem
- 1/9/21
McKay School Park
NE Salem
- 2/13/21
Lansing Park
NE Salem

MAR
MAR
APR
MAY

- 3/6/21
McKay School Park
NE Salem
- 3/20/21
Hammond School Park
NE Salem
- 4/3/21
Northgate Park
Arbor Day Event
NE Salem
- 5/1/21
McKay School Park
Tree Care Event
NE Salem



With the support of and in partnership with:

