

Watershed Events

Glenn and Gibson Creeks Watershed Council
Spring 2023



Green Energy: Building the Canopy

The Salem Climate Action Plan's (CAP) two goals include cutting Greenhouse Gas emissions (GGE) by 50% by 2035 and achieving carbon neutral status by 2050.

Trees are a big part of the achievement of these goals. Here is what the CAP has to say about the role of trees and plants: "Trees, the canopy formed by their branches and leaves, and the network of roots below the soil form an essential part of our community. They make Salem more livable and more beautiful. And they are an essential part of our city's natural infrastructure (along with our streams, wetlands, meadows, soils, natural areas), providing a variety of economic, environmental, and social benefits."

One of the ways Salem hopes to achieve the City's goal of 28% tree canopy city-wide is to hold planting events in public places like City parks. One recent event was held in Orchard Heights Park along the Glenn Creek riparian corridor.

Nearly 60 people came to join the Friends of Trees at Orchard Heights Park on March 4th. It was a rainy Saturday, but that didn't stop over 1,175 bare-root plants from getting in the ground. Some of the species included: Douglas spirea, blue elderberry and cascara. The work done along Glenn Creek will support habitat for wildlife and help with erosion for years to come. This could not have been done without volunteer effort to clean the air, protect our green spaces and build community.

The Friends of Trees is a non-profit organization based out of Portland that has planted 910,000 trees and native shrubs in 120+ neighborhoods in six counties across two states. The organization has had 3 planting events in West Salem this year and does this through engaging community members. Volunteers from the Glenn and Gibson Creeks Watershed Council, the City of Salem, Polk Soil and Water Conservation District and the West Salem Environmental Club.

Photo and article courtesy of Morgan Neil, Outreach coordinator, Polk Soil and Water Conservation District



For more information about Friends of Trees, or to volunteer or donate <https://friendsoftrees>

On Saturday, March 4, 38 volunteers eager and undaunted by the cold and ever-changing weather conditions participated in planting 1,175 plants along Glenn Creek in Orchard Heights Park. This planting is part of the third phase of a multi-year and multi-phased plant restoration project along the creek. The planting palette included ten different Oregon native species including vine maple, Douglas spirea, cascara, red elderberry, and Western Serviceberry.

The City contracts with Friends of Trees to coordinate the planting events. Event Crew leaders work with small groups of volunteers to teach them how to properly plant the trees and shrubs and to guide the operations of the day.

The restoration project has several goals. First, it helps the City meet its Total Maximum Daily Load Plan for Temperature by planting trees and shrubs along the creek. Having a diverse tree and understory canopy helps shade the streams and keep them cool for the aquatic animals who depend on cool water. Second, having a plant community with roots that hold the bank helps to prevent streambank erosion. Third, native plants provide the best habitat for the native wildlife.

The planting season is winding down, but the City of Salem and Friends of Trees have two more planting opportunities: Eola Ridge Park Planting on March 25 and Stephens-Yoshikai Park Planting on April 8. If you are interested in participating in the planting events, please visit the Friends of Trees website for more information at <https://friendsoftrees.org/Salem/>

Article courtesy of Deborah Topp, Environmental Education and Stormwater Inspections Supervisor. City of Salem Public Works Department

Building the Canopy: Upland Restoration

For this Eola Ridge Park upland restoration project, on Saturday, March 25, the City will be working with Friends of Trees and volunteers to plant 5 Oregon White Oak, 5 Pacific Madrone, 5 Incense Cedar, and 5 Willamette Valley Ponderosa Pine in the southern part of the park (circled in red on the screenshot below). This will provide a transitional area between the stream and the road and residential community nearby.

The master plan for the park included many trees in this area, and this project will add native, climate resilient species to align with the Climate Action Plan goals as well as to extend the native habitat for birds and wildlife. Once mature, these trees will provide cooler areas to rest on hot days, they will help filter and slow stormwater before it reaches the stream, they will sequester carbon, and provide many other wonderful benefits for the community.



Photo and article courtesy of Jennifer Mongolo, City of Salem Public Works Department

Increasing the Canopy at Home

Whether you like to watch birds, love the look of a beautiful tree, or just want to do your part to save the Earth, planting a tree (or trees) in your own yard will help increase the tree canopy. The Arbor Day Foundation offers the following guidance:

- Plant natives - they are adapted to the area, require less maintenance and provide habitat for native flora and fauna.
- Pick the right tree for your space - consider the size of the space and the size of the space the full grown tree will require. Consider shade / sun exposure and site drainage.
- Look at the location of sidewalks and utility lines - will infrastructure and your tree be able to coexist?
- <https://arbordayblog.org/treeplanting/tree-planting-how-to-choose-the-right-planting-site/>

Reasons to preserve and add to Salem's tree canopy*

*Salem's Community Forestry Strategic Plan



Economic Benefits

The evaporation from a single large tree can produce the cooling effect of ten, room-size air conditioners operating 20 hours a day (National Arbor Day Foundation, 2004). This translates into **lower energy bills**. Homes on lots with many trees have **6-12 percent higher appraised values** (National Arbor Day Foundation, 2004). **A well-treed business district attracts shoppers** who will stay longer, spend more for parking, and spend up to 12 percent more for goods and services (Wolf, K.L., 1999). **Shaded streets last longer**, requiring resurfacing less often. Asphalt shaded by urban trees has been shown to last 40 to 60 percent longer than unshaded asphalt (Burden, D., 2006).

Environmental Benefits

Stormwater reduction Trees reduce runoff and erosion from stormwater by about 7 percent (Miller, Albin L., et. al. 1995). Trees intercept rain, absorb it through their root systems, and release it back to the air through transpiration. Reducing runoff means less pollution and less need to add more stormwater pipes. **Air quality** One tree over 50 years generates \$31,250 in oxygen, recycles \$37,500 of water, removes \$62,000 of air pollution, and controls \$31,250 worth of soil erosion (USDA Forest Service Pamphlet No. R1-92-100). **Shade and cooling** Trees in Davis, California, parking lots reduced asphalt temperatures by as much as 36 degrees Fahrenheit (Scott, Klaus I.; McPherson, E.G., 1999). **Carbon sequestration** Trees release oxygen and sequester carbon from the atmosphere, thereby reducing greenhouse gases. **Habitat** Trees provide habitat for birds, wildlife, and insects in the urban environment. Riparian trees along creeks also provide important sources of nutrients, shade, and wood for in-stream habitat.



Social Benefits



Safer neighborhoods: Buildings and neighborhoods with high levels of greenery have fewer crimes (Kuo, F. 2001). Trees can reduce the urban heat island effect. Temperatures can be 5-15 degrees cooler on a tree canopied street (Burden, D. 2006), making a pleasant walking environment in the summer and reducing the energy demand of buildings. Treed streets lead to **slower driving speeds** and **less road rage** (Burden, D. 2006). Trees provide visual, noise, heat, and wind buffers. **Trees reduce noise pollution** by absorbing sounds. There is a 7 decibel noise reduction per 100 feet of forest. A solid wall decreases sound by 15 decibels (Coder, Rim D. 1996).

Public Health Benefits

Trees have a calming effect. People who have access to trees and green spaces have reduced blood pressure and improved overall emotional and psychological health (Wolf, K., 2000). **Trees relieve stress** and improve concentration. Attention Deficit Hyperactivity Disorder in children is relieved after contact with nature (Ulrich, R. 1984). **Trees help heal.** Hospital patients who had a view of trees through their windows required less pain medication and left the hospital sooner than similar patients who lacked a view of nature (Ulrich, R. 1984).



Adding to the tree canopy in our watershed

Oak Savanna update

The Oak Savanna is rebounding from the grass fire last summer. Grasses and forbs (flowering plants) are rebounding, turning the field from black to a bright green. We continue to observe and monitor both prairie vegetation and trees to see what survived the fire.



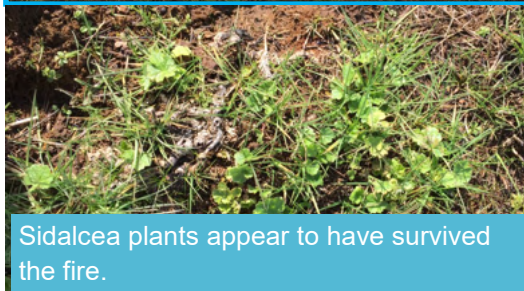
The overall appearance of the burn is green and grass covered. Parts of the field that were not burned show dried grasses of fall and winter.



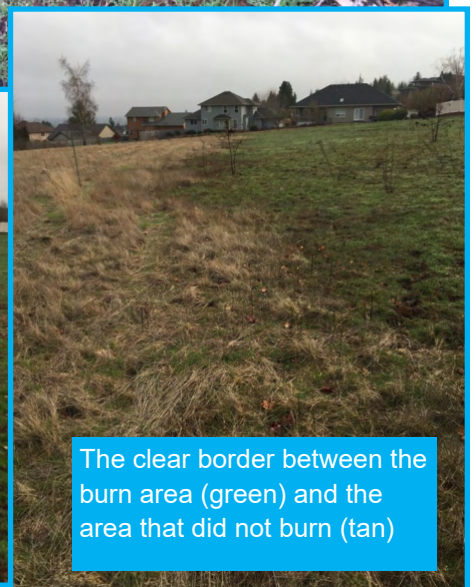
Smaller trees in the burn area look unlikely to survive but we continue to observe as they may sprout from the root.



This Oak tree appears to have survived the fire. The branch to the right has several live leaf buds even though the branch is singed and dark.



Sidalcea plants appear to have survived the fire.



The clear border between the burn area (green) and the area that did not burn (tan)

Invasive Species: One of the biggest threats to Biodiversity

Habitat loss and invasive plants are the leading causes of native biodiversity loss. Invasive plant species spread quickly and **can displace native plants, prevent native plant growth, and create monocultures**. A healthy plant community has a variety of herbs, shrubs, and trees.

Here is the March 2023 Weed of the Month from Mid Willamette Cooperative Weed Management Area (CWMA) via the Marion Soil and Water Conservation District



REED CANARYGRASS

Phalaris arundinacea



IDENTIFICATION

3-6' tall perennial grass with rounded hollow stems, flat leaf blades are hairless and stick out at 45 degree angle from the stem.

IMPACTS

Creates dense rhizomatous mats and mounds of dead stems that inhibit re-growth of native species. Infills streams and ditches.

MANAGEMENT

Avoid new introductions and remove where possible. Cover with shade cloth or thick sheet mulch. Shade out with dense canopy.



ABOUT US

The Cooperative Weed Management Area partnership connects land managers, increases weed awareness, and supports collaborative weed management efforts. Visit us at marionswcd.net/what-we-offer/mid-willamette-cwma/.

LEARN MORE ONLINE



MARIONSWCD.NET/PLANTS/REED-CANARYGRASS/

Urban Streams Stewardship Symposium



Saturday, April 1, 2023

Attend One or Both!

10:00 - 11:30 a.m. Urban Streams Presentation

**Salem Public Library,
Loucks Auditorium**
585 Liberty St. SE, Salem

Presentations and information about streamside resources and programs in Salem and accomplishments from the 2022 Stream Crew.

12:00 - 1:00 p.m. Streamside Nature Walk

Bush Pasture Park
890 Mission St. SE, Salem

Meet in the Mission St. Parking Lot

Join us for a Streamside Nature Walk to learn about identification of native and non-native streamside plants, as well as common techniques for planting native vegetation and controlling non-native weeds. Dress for the weather, rain or shine!



A FREE EVENT
Geared for Streamside Residents but
OPEN TO THE PUBLIC

RSVP: stormwateroutreach@cityofsalem.net