



“Art can evoke things that history can’t.”



What’s inside

Conservation updates

Learn how Metro is protecting nature in the region
[page 3](#)

Lone Fir Cemetery

A memorial is coming to its historic Chinese section
[page 4](#)

Willamette Cove

Cleanup reaches important milestone
[page 6](#)

TABLE OF CONTENTS

Conservation updates	3
Lone Fir Cemetery memorial	4
Next steps in Willamette Cove’s cleanup	6
Get involved	8
Field guide: Newell Creek Canyon Nature Park	10
Tools for living: 11 ways to reduce waste in the new year	11
Coloring: Smelt season	12

If you picnic at Blue Lake or take your kids to the Oregon Zoo, enjoy symphonies at the Schnitz or auto shows at the convention center, put out your trash or drive your car – we’ve already crossed paths.

So, hello. We’re Metro – nice to meet you.

In a metropolitan area as big as Portland, we can do a lot of things better together. Join us to help the region prepare for a happy, healthy future.

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Pets policy

To protect plants, wildlife and people, Metro does not allow pets at most regional parks and natural areas. Pets can damage sensitive habitat and threaten wildlife the region has worked to protect. In natural areas where pets are not allowed, people see more wildlife and get closer to it. Seeing-eye dogs or other service animals are allowed. Please bring cleanup materials.



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Share your nature and win!



Winner: Michael Beymer, Portland

“Morning was warming up the meadow at Wilke’s Creek as I completed a cold hike to see the headwaters and trillium blooming. While catching some rays, a garter snake appeared next to me with a dewdrop on their cheek. Probably they were cold too. So we enjoyed the sunrise together.”



Meghna Rickabaugh Rich, Portland

“Walking through Westmoreland Park to escape some friends during a game of hide-and-seek, we spotted this magnificent heron. We stood there admiring its beauty until he flew away.”



Adam Smith, Gladstone

“A spider weaving a September web over the clear Clackamas River.”

Submit your photo

Win an annual parking pass, a full-day picnic shelter reservation at Graham Oaks or Scouters Mountain nature parks, or a choice between a tennis court session or round of golf for four people including cart at Glendoveer Golf and Tennis Center.

To enter, submit a photo taken at a park or natural area in greater Portland – your friends and family, a view of wildlife or a sunset, for example. Include a 50-word description of your experience. Where were you? What were you doing? What captured your attention?

The winner will appear in this space. By submitting a photo, you consent to Metro’s future use and publication of your photo. Send your photo and description between January 1 and February 1 to ourbigbackyard@oregonmetro.gov

Like what you see?

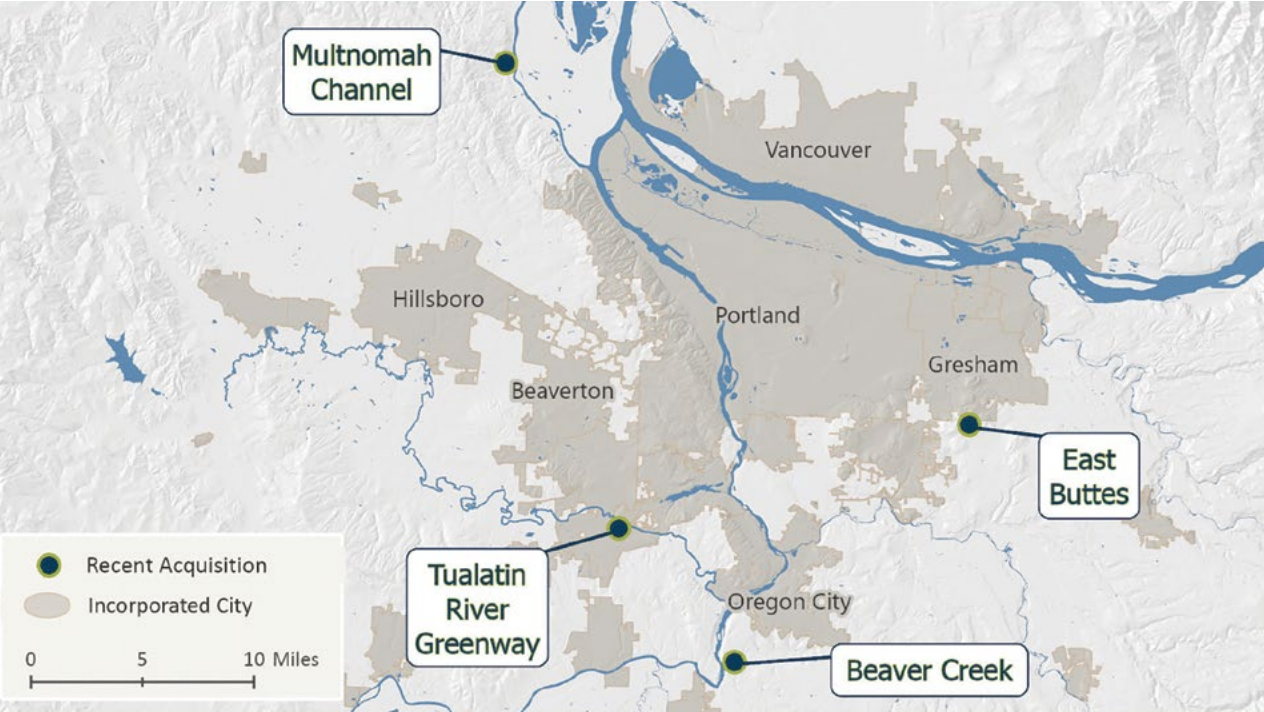
Sign up for the print edition of the quarterly magazine, change your address or save paper by switching to a digital subscription. Email ourbigbackyard@oregonmetro.gov or call 503-797-1545.

On the cover: Visitors left offerings at Lone Fir Cemetery’s Block 14 last year during Qing Ming, a Chinese festival to honor the dead.

Conservation updates

By Hannah Erickson

Thanks to voters investing in nature, Metro has been able to protect habitat through strategic land acquisitions all around the region. Here’s a look at some of the acquisitions made this fall, funded through the 2019 parks and nature bond.



Saving a forest near Multnomah Channel

In September, Metro purchased 60 acres near Wildwood Golf Course in Northwest Portland, just off of Northwest St. Helens Road. The property is part of the 2019 parks and nature bond’s Multnomah Channel Headwaters target area.

Protecting forests along the slopes of the Tualatin Mountains helps to keep streams that feed into the Multnomah Channel cool and clean. This, in turn, helps native species like salmon, trout and red-legged frogs. Other species will benefit because this forest is located in an important wildlife movement corridor between the North Tualatin Mountains (which include Forest Park) and the Coast Range, allowing animals to move safely around their habitat.

In an area that has been heavily impacted by timber harvesting, protecting forests like this one becomes even more crucial.



Making connections in the East Buttes

In late October, Metro acquired 6.2 acres of forestland south of Gresham. The acreage may seem small, but it provides a crucial connection between two Metro-owned properties that together comprise nearly 230 acres of the Sunshine Butte Natural Area.

Sunshine Butte, in turn, is part of the East Buttes target area of the parks and nature bond. Metro has been working in this area for 30 years, building a network of 1,300 protected acres throughout the region, preserving intact habitats and riparian corridors in an urbanizing area. These corridors are crucial for wildlife that need to be able to move safely from one area to another in order to find food, escape predators and look for better habitat during seasonal or longterm climate changes.

Curious to know more about how the 2019 parks and nature bond dollars are being spent? Read our annual report:

oregonmetro.gov/parksreport2024



Closing trail gaps in Tualatin

The City of Tualatin has closed one of the last gaps in the Tualatin River Greenway Trail with the purchase of a 2.79-acre property made possible with funds supplied by Metro.

The property lies between Tualatin Community Park and Southwest Boones Ferry Rd. It includes 425 feet of Tualatin River frontage, allowing the city to route the greenway along the riverside instead of the current detour that requires crossing a heavily used arterial.

Additionally, the parcel includes a portion of Hedges Creek, which will help protect water quality in the region when the city completes its plan to turn the rest of the property into a natural area. The city also plans to build an ADA-accessible entry for non-motorized boats at the site, improving access to the Tualatin River.



Above, left to right: A recently purchased property in Tualatin and what it could look like as a trail and nature park. Images courtesy of the City of Tualatin.

The purchase, which closed in early October, was made possible through a combination of funds from Metro and from City of Tualatin’s 2022 voter-approved parks and trail bond measure.

“We were very impressed with the City of Tualatin’s proposal,” said Metro conservation director Dan Moeller. “They had a clear plan for completing this work and just needed additional funding to kick-start it into action.”

Planning for the future park and trail segment will begin in spring 2025, with community engagement to help shape the site’s design. Design is expected in 2026 with construction to follow in 2027-2028.



Protecting salmon habitat near Oregon City

Also in early October, Metro announced the acquisition of 50 acres in rural Clackamas County south of Oregon City. The

acquisition protects an important segment of Beaver Creek, which is a tributary of the Willamette River.

“This acquisition has the potential to improve the health of salmon and lamprey, which rely on riparian and aquatic habitats,” said Metro real estate manager Shannon Leary. “We have a chance to improve both kinds of habitat here, as well as upland oak habitat.”

Clackamas County’s Beaver Creek (which is a separate waterway from the Beaver Creek in east Multnomah County) is an important cold-water refuge for native fish and has been designated by the State of Oregon as essential salmon habitat.

Progress continues on memorial at historic Chinese section of Lone Fir Cemetery

By Hannah Erickson



The field at the southwestern corner of Lone Fir Cemetery, labeled “Block 14” on cemetery maps, remains quiet for now. Only a few signs reveal its history as the Chinese section of the cemetery. Behind the scenes, however, the site has been the focus of nonstop work toward building a new memorial there. That work is now headed into a new phase.

“A lot of the past two years has been spent in preparation work – research, hiring consultants, community engagement, design, those sorts of things that are somewhat invisible to anyone walking by the site,” said Metro senior planner Karen Vitkay. “That’s going to be true this year, too, as we go through the next phase: land-use approval, permitting, getting construction bids, hiring contractors. The actual construction work, which is scheduled to begin in 2026, is really just the last fraction of a much longer process.”

The project was first proposed almost two decades ago. Over the years, the vision for the memorial has evolved as new information was discovered and additional feedback from community members was received. However, the central purpose of the memorial remains: to honor those who were buried in the space.

Between the 1860s and 1920s, more than 2,800 people of Chinese ancestry were buried in Lone Fir Cemetery – the majority of them in Block 14. Not all of those bodies remain: Over the years, many were exhumed and returned to their family burial plots in China, in accordance with cultural practice.



The Oregon Chinese Consolidated Benevolent Association (CCBA) oversaw this practice, as well as Block 14’s upkeep and record-keeping. By the early 1900s, the block held funerary burners and an altar for making offerings to the deceased.

But when Multnomah County took over ownership of Lone Fir Cemetery in 1928, it began working to remove the Chinese area of the cemetery. In 1947, it pressured the CCBA to remove all remaining bodies from Block 14 so that the land could be used for a maintenance facility. By 1953, the site had been built over.

When the county transferred ownership of the cemetery to Metro in 1994, it no longer included Block 14. Some years later, the county announced plans to demolish the building and sell that parcel for development, prompting outcry from community members and organizations. When the site’s previous status as sacred ground became clear, the county deeded it to Metro. In 2007, it was reconnected to the cemetery and work began on a design for a memorial garden.

It wasn’t until voters passed the 2019 parks and nature bond that Metro had the funding in place to begin work. That work is now entering



These illustrations show the proposed design for the memorial, which includes an entrance into a semi-enclosed area holding a circular pavilion with a stone altar at its center to use for making offerings to the departed. Surrounding the pavilion are seating, interpretive signs and landscaping.

an exciting new phase as the project continues toward its goal of opening by the end of 2026.

New findings

Once Metro Council allotted \$4 million of bond funding toward the memorial, the project team could begin due diligence, including researching the site and the burials it may have held.

At the time, it was widely believed that patients from the 19th-century Oregon Hospital for the Insane were also buried in or near Block 14. However, researchers determined that it was highly unlikely that any patients were buried in that block, and that many were instead buried in Block 10, which was once known as the “asylum grounds” in cemetery records. A separate project is now underway to erect headstones for those patients whose burial locations were identified during the research.



Top to bottom: A photo from the Oregon Historical Society shows what Block 14 looked like in the early 1900s, with a funerary burner and an altar for making offerings to the deceased; community input will help decide the colors of the metal “spirit tablets” that will create a screen around the memorial’s round altar, hundreds of which will be inscribed with the names of people who were buried at Block 14.

determining how financially feasible the design is and whether or not certain elements will need to be revised or eliminated to stay within budget.

From design to construction

From 2022 through 2024, the project team held a number of events to engage with community members, some with particular focus on Chinese American community members. It became clear that certain elements needed to be part of the memorial: Culturally relevant plantings, storytelling, space for making offerings to the departed, and seating areas.

The design has evolved to meet these needs. Plans show a square walled entrance area to the west of the site. Lined with metal plaques telling the story of the place, it holds a circular pavilion with a stone altar in its center. Surrounding the pavilion is a curtain of metal tablets inscribed with the names of known burials at the site, taken from ledgers kept by the CCBA. A curved walkway leads through ginkgo and magnolia trees to a seating area and interpretive space where the Chinese altar once stood.

Challenges remain

Building on ground that still holds human remains presents challenges.

“We can’t dig deep into the ground or build permanent structures if we think there’s even the possibility of bodies being buried there,” explained Vitkay. “That’s why the structures have been placed at the west end of the site. We know the west end was private property and not incorporated into the cemetery until 2007, so graves would not have been placed there. The walkway and plantings in the middle have been designed to discourage walking on potential gravesites.”

Meanwhile, construction costs have escalated since 2019. That and the sensitive nature of the site have presented financial challenges for the project. Part of this next phase will involve

Public art

All public construction projects in Oregon set aside a certain percentage of their budget for public art. In late 2024, Metro announced an intent to award that funding. Lead Pencil Studio, an artist collective run by Annie Han and Daniel Mihalyo, will receive \$180,000 to create art at the site. The studio has produced many well-known art installations, including Inversion Plus Minus on Portland’s Hawthorne Street, the memorial at Oregon State Hospital, and exhibits at the Wing Luke Museum in Seattle.

Additionally, Metro has awarded about \$20,000 to Portland-based artists Qi You and Sophia Xiao-fan Austrins to work with community members on ideas for the memorial’s altar and ways to create connection between ancestors and the living.

Telling the stories, finding a name

The project team has hired local historian Dr. Jennifer Fang to help create interpretive materials for the site. In December, she shared her ideas for the themes with Chinese American community members at an information session. Those themes included the history of Block 14 as well as the history of Chinese American immigration in the greater Portland region.

While community engagement around the memorial’s design is largely complete, there will still be opportunities over the coming year for community members to learn about and weigh in on other aspects of the project, including the public art projects and the memorial’s permanent name. Sign up for updates on the project at oregonmetro.gov/lonefirgarden.



Serenading the departed

By Myla Janssen

On the evening of Oct. 11, the bare field of Block 14 glowed with unexpected additions: a rippling translucent projection screen surrounded by small tables adorned with red tablecloths and candles.

As the sun lowered, community members gathered on a path along the edge of the block to hear plaintive strains of traditional Chinese music played by musicians whose images fluttered, ghost-like, on the cloth screen.

This was the first night of “Serenading the Dead,” a two-night event created by artist collective MediaRites and funded by a Metro Community Placemaking grant. The event streamed both pre-recorded and live performances of music, opera and storytelling onto the screen to connect the past with the present.

Artist and event organizer Horatio Law described the event as a bridge between youth, elders and ancestors – as well as a collaboration between artists, youth storytellers and technology experts.

“Using art, music and technology, we hope to create a virtual bridge to connect Chinese and Asian Americans, as well as the larger public, to the history behind Block 14, Lone Fir Cemetery and to Chinatown-Old Town,” Law said. “The performances simulate the pastimes that the Chinese community would have enjoyed at a teahouse: tea drinking, musical performance and storytelling.”

The first night of the event took place on Chung Yeung, also known as the Double Ninth Festival, a traditional Chinese holiday that takes place on the ninth day of the ninth month in the Chinese calendar. Hiking and drinking chrysanthemum wine are both common activities for this holiday, as well as visiting ancestral graves to clean them, repaint inscriptions and offer food to the departed.

Instead of food, music and storytelling served as offerings. Presenting the performances virtually allowed Law to use the space without having people physically stepping on land that could still potentially hold graves.

“Art can evoke things that history can’t,” Law said. “There [are] so many layers of history and art and music and sound to be found on this empty land without disturbing anything, really.”



Metro reaches milestone for Willamette Cove cleanup

By Cory Eldridge



Cleanups like those taking place at Willamette Cove have strict milestones to meet before dirt starts to be removed. This fall, Metro and the Port of Portland, the two partners working to clean up the upland at Willamette Cove, reached one of those milestones when they submitted an important planning report to the Oregon Department of Environmental Quality (DEQ).

This document, called the “basis of design” report, sets out how Metro and the Port will design the upland cleanup along the Willamette River in North Portland. The upland cleanup covers the land from the top of the riverbank and inland; it is being done to make the site safe for use as a nature park. A separate cleanup is being planned from the top of the riverbank down into the river. (See sidebar.)

Let’s take a look at what milestones the project has already met and how the basis of design report is a step forward.

What is in the basis of design report?

The basis of design report lays out an updated estimate of how much contaminated soil is

Above: Broken concrete along the riverbank edge at Willamette Cove. All of the ground and vegetation shown here will be removed during the two cleanups.

going to be taken out of every square foot across the upland. It explains why, based on past studies, it is that much and then what needs to be done to cover the remaining soil. It also details how Metro and the Port will check their work to make sure they’ve met DEQ’s requirements and how they’ll design a long-term monitoring plan to make sure the cleanup stays cleaned.

Very importantly, the basis of design report reaffirms that there will not be a consolidated mound of excavated soil anywhere on the site.

Didn’t DEQ already say what needs to be done at Willamette Cove?

In 2021, DEQ selected the cleanup method for Willamette Cove in what’s called a “record of decision.” This document was based on work going back to 2000, including soil studies and assessments of three cleanups focused on the highest concentrations of contaminants. Public comments on a draft of the record of decision led DEQ to provide a cleanup option that took even more soil off the site, which Metro has chosen to follow.

- The record of decision laid out the requirements for what must be done to clean up the soil at Willamette Cove from the top of the riverbank to the upland property line.
- All contamination that is a high risk to human health – called “human health hot spots” – must be hauled to a DEQ-approved landfill (human health hot spots were cleaned up in 2008 and 2015, and further studies have found no new human health hot spots).

In-water cleanup

The agencies planning the in-water cleanup also released a major design document last fall. Here’s a bit of what they shared:

What is the plan for the in-water cleanup?

The proposed in-water cleanup plan includes a combination of:

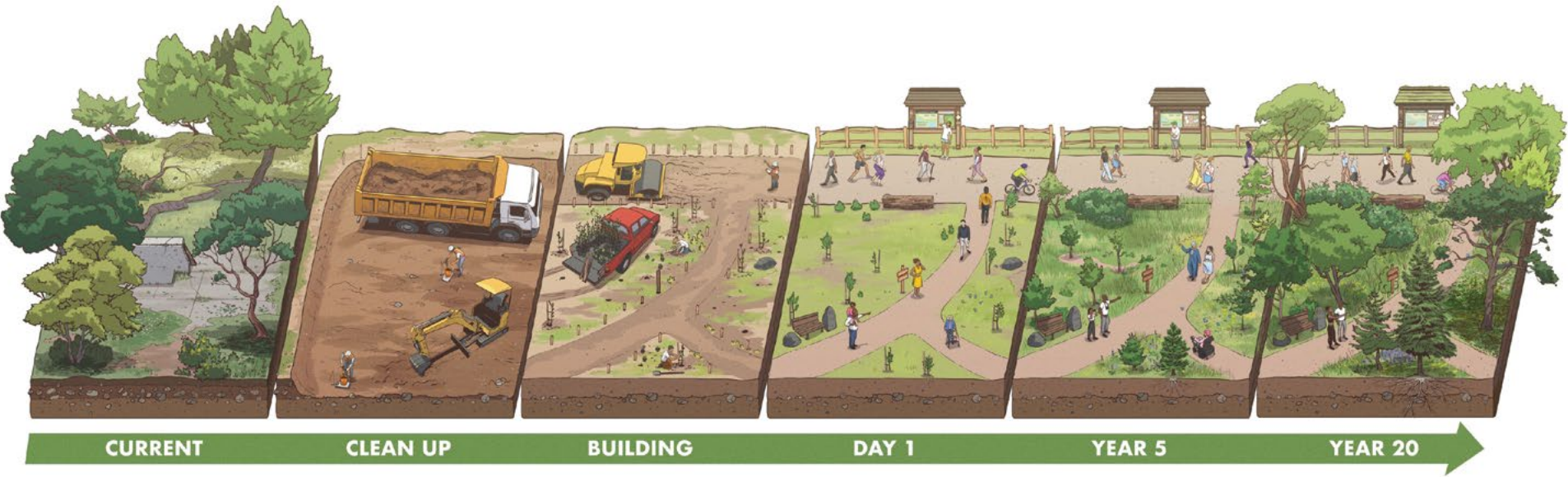
- Dredging to remove contaminated sediment from the river.
- Capping to prevent exposure to contaminated sediment. The sediment cap will be designed with a habitat layer to help organisms in Willamette Cove return to a healthy condition.
- Riverbank excavation, also known as laybacks, to remove contamination and leave Willamette Cove with more gentle slopes, which are better for wildlife and human access.

Will the river look different?

Most of the cleanup will occur in the Willamette River, and while it may not look different, it will become a safer habitat for fish.

The riverbanks, however, will look different. Currently, riverbanks are steep and contain large boulders that help to stabilize them. The riverbank excavation in the proposed in-water cleanup plan will create gentler slopes.

Learn more about the in-water cleanup at portland.gov/bes/willamette-cove



Above: It will take many steps to take Willamette Cove from its current, unsafe state to becoming a nature park and then a nature park with thriving habitats. Community members will get to watch the new park grow up. Illustration by Aki Ruiz

- All contamination from metals that are a high risk to plants and animals – called ecological hot spots – must be hauled to a DEQ-approved landfill or covered with a protective barrier of clean soil.
- At least one foot of clean topsoil will be placed over the entire site as part of the final cap and to help re-establish native plants that will be planted across the site.

The next set of milestones figures out the specifics needed to make this happen.

What is a cleanup design?

To implement the cleanup, we have to think about the end goal and work backwards. Metro and the Port have started the remedial design process to develop detailed plans for the construction of the cleanup. It’s a bit counterintuitive, but a cleanup is really a type of construction project, so let’s look at a more familiar type of construction project to understand the steps in the cleanup.

Let’s say you want to build a building at a specific spot. You start by looking at how much space you have, whether the ground is flat or steep, and what type of neighborhood it’s in. You think about what you want from the

building: is it a home or an office or a water tower? Let’s say it’s a home. It could be super modern, a split-level ranch or a bungalow. You need to decide all of this first.

This is what the record of decision does. The basis of design report, for its part, is a fairly detailed sketch of the house and description of how you’ll make decisions while you build it. The basis of design report isn’t the blueprints, but it makes the process of drawing the blueprints much smoother. That step is about to start. Metro and the Port are scheduled to submit the next design document, called the remedial design work plan, to DEQ early next year.

How did you determine how much dirt needed to be excavated at any spot?

The most important data guiding the decisions about how much soil needs to go came from an extensive study in 2022 that looked at the top three feet of soil. The study divided the cove into 44 roughly half-acre sections and took 5,130 samples that showed the average amount of the contaminants in the first, second and third foot below ground level. This was a far more precise and extensive study than had been done before.



Above: Community members discuss the designs for Willamette Cove’s nature park at a September workshop. More than 50 people attended the event.

Nature park next steps

Last fall, Metro’s Willamette Cove team shared three designs for the future nature park with community members. Through a series of workshops, an open house and a survey, community members weighed in on the designs, telling the team what they preferred on park elements from the regional trail route to the size of a canoe launch and swimming dock.

The team heard from well over 1,000 people, and for the next few months they’ll use what they were told to create a single design that

community members will get to see and comment on sometime around early summer.

Along with input from the community, the design team will be working with information from a study of the riverbank that is being done for Willamette Cove’s in-water cleanup. The riverbank is where the two cleanups at the site, one of the land and one of the riverbed, meet.

When Willamette Cove’s upland was turned into an industrial area in the early 20th century, the bank was built steep and high to raise buildings and machinery out of the

The basis of design report used that data to determine which of the contaminants was the biggest problem in any half-acre section and if any combination of chemicals added up to a health risk for people, plants and animals. The report then evaluated how deep down we need to excavate to remove the targeted contaminant or group of contaminants. Finally, it helped determine how thick the cap of clean soil needs to be to make that area safe.

Finally, there will be a plan for maintenance if the monitoring ever finds a problem that needs to be fixed.

What’s the next milestone?

The next milestone is the blueprints we talked about earlier. The remedial design work plan will have engineering drawings and schematics that are the instructions the construction crews will use to know where and how deep they need to dig. The document will also lay out the schedule for the cleanup and the detailed steps for managing the day-to-day work.

There will be three to four more drafts after that. All of this is to make sure that when the work crews roll on site, they know exactly what they need to do to make the Willamette Cove uplands safe.

Willamette’s floodplain. This was done using infill from construction projects and sediment dredged from the river. The in-water cleanup will flatten the riverbank into a more gentle slope, which will reduce erosion. This, in turn, helps protect the work done on the cleanup.

The study of the riverbank will help them plan how to do this. The information will also help Metro understand where it would be best to place park elements, like a beach or dock, and where to develop in-water habitat for salmon and lamprey. In the designs shared with community members in the fall, locations for these were rough approximates.

As with the initial designs, Metro’s nature park planners will work with cleanup and conservation staff at Metro and with the agencies working on the cleanups to make sure the park and the nature elements of the design are achievable. Then Metro will share the design with the six tribes who have informally consulted on the nature park, making sure the design is meeting the goals the tribes have laid out for the project, especially the importance of in-water habitat.

And then you’ll get to see the design and share your thoughts on the nature park.

To get a heads-up when that happens, please sign up for the Willamette Cove newsletter at oregonmetro.gov/cove


Get involved

CLASSES AND EVENTS



Unless otherwise noted, all events require pre-registration, which can be done online at oregonmetro.gov/calendar or by phone at 503-220-2782. When you register, you'll receive an email with additional information about the event, as well as notification if an event is canceled.

Children must be accompanied by adults.

If you have a disability and need accommodations, call 503-220-2781, or call Metro's TDD line at 503-797-1804. If you require a sign language interpreter, call at least 48 hours in advance. Activities marked with this symbol are wheelchair accessible: 

Bus and MAX information
503-238-RIDE (7433) or trimet.org

SUN. JAN. 12 SUN. FEB. 2 SUN. FEB. 9

Waterfowl in winter

Join local nature educator Gladys Ruiz in learning about the wild waterfowl who love winter weather. Share stories and memories and observe the unique differences of these birds at the seasonal ponds and wetlands in and around the park. Dress for the weather – it may be cold and/or rainy. Warm beverages, binoculars and scopes provided.

Sun. Jan. 12 Howell Territorial Park

Sun. Feb. 2 Killin Wetlands Nature Park

Sun. Feb. 9 Smith and Bybee Wetlands Natural Area

10 a.m. to noon
\$6/person, fee waiver available. Parking: free
All ages
Registration required
Difficulty: easy

SAT. JAN. 18

Glendoveer planting and tending

Join Metro staff as we plant native plants and tend to the nature patch at the Glendoveer Golf Course and Nature Trail. All supplies and tools provided. No experience needed and participants are not required to stay for the entirety of the planting. Repeated bending and/or crouching as well as the use of hand tools and shovels to be expected. Please dress for the weather as this a rain-or-shine event.

Glendoveer Golf course
10 a.m. to 1 p.m.
Free. Parking: free
All ages
Difficulty: moderate

SAT. JAN. 25

Lichen bioblitz at Lone Fir

Use the mobile app iNaturalist to identify and record lichens growing at Lone Fir Cemetery. Identification guides and gloves provided. An email will be sent to registered participants prior to the event with more information about installing and using the iNaturalist app.

Lone Fir Cemetery
Noon to 2 p.m.
Free. Parking: free
All ages
Difficulty: moderate

SUN. JAN. 26

Fabric arts for a changing climate

Local biologist and educator Anna Le explains the science of climate change and how art could be used as a tool for people to be stewards and community scientists. Learn about ways to connect and track changes in the climate. The workshop will explore fabric arts and use a temperature blanket as an example. A morning session and an afternoon session are scheduled; please choose one.

Nature House at Cooper Mountain Nature Park
10 a.m. to noon or 1 to 3 p.m.
\$6/person, fee waiver available
Parking: free
All ages
Difficulty: easy



SAT. FEB. 1 SAT. FEB. 8

Intro to ivy weaving and tending

In this two-part series, expert weaver Celeste Whitewolf will teach how to properly harvest, process and weave with invasive English ivy. Each class begins with ivy pulling along the nature trail, followed by lesson in weaving under an outdoor tent. In the end, you'll make your own small basket to bring home with you! Please sign up for both dates, as you will need to attend both sessions to complete the basket. No experience needed. Supplies, tools and light refreshments will be provided.

Glendoveer Golf Course
10 a.m. to 2 p.m.
Free. Parking: free
Ages: 16+
Difficulty: moderate

SAT. FEB. 15

Lichen bioblitz at Smith and Bybee Wetlands

Participants will help map the various species of lichen at Smith and Bybee Wetlands in a "bioblitz" using the mobile app iNaturalist. Participants should have the iNaturalist app loaded on their phone or mobile device before attending.

Smith and Bybee Wetlands Natural Area
11 a.m. to 1 p.m.
Free. Parking: free
All ages
Difficulty: easy

SUN. FEB. 16

Learn the basics: fly fishing

This workshop consists of introductory-level, in-classroom fly fishing instructions. Local biologist and educator Anna Le teaches about freshwater insects, water quality, fly selections, knot tying, the basics of setting up a fly fishing rod, trout ecology and behavior, and what you need to know to prepare for field days in the springtime. Personalized instruction will focus on using fly fishing as a tool and conversation starter, and how to better conserve nature as anglers and stewards. A morning session and an afternoon session are scheduled; please choose one.

Nature House at Cooper Mountain Nature Park
10 a.m. to noon (morning session) 1 p.m. to 3 p.m. (afternoon session)
\$6/person, fee waiver available. Parking: free
All ages
Difficulty: easy

SAT. FEB. 22

Scouters Mountain planting day

Join Metro Parks and Nature in planting native plants at Scouters Mountain. This planting may involve walking off trail on uneven terrain. Tools, supplies and light snacks and beverages provided.

Scouters Mountain Nature Park
10:30 a.m. to 1:30 p.m.
Free. Parking: free
Ages: 16+
Difficulty: moderate

SUN. FEB. 23

Introduction to wildlife photography

Local biologist, educator and wildlife photographer Anna Le will focus on basics such as species identification, wildlife behavior and habitat, ethics, and developing the skills to capture nature photos. By learning more about wildlife behaviors and ecology, people can better gauge and understand animal movements to time the photograph and capture the ideal picture. A morning and afternoon session are scheduled; please choose one.

Smith and Bybee Wetlands Natural Area
10 a.m. to noon or 1 p.m. to 3 p.m.
\$6, fee waiver available. Parking: free
All ages
Difficulty: easy

FRI. FEB. 28

Multnomah Park Cemetery tending

Participants will clean grave markers, learn about symbols found on headstones and support litter pickup. Refreshments, tools and gloves provided.

Multnomah Park Cemetery
10:30 a.m. to 1:30 p.m.
Free. Parking: free
All ages
Difficulty: easy

SAT. MAR. 1 SAT. MAR. 8

Intermediate ivy weaving and tending

In this two-part series, expert weaver Celeste Whitewolf will teach how to properly harvest, process and weave with invasive English ivy. Each class begins with ivy pulling along the nature trail, followed by lesson in weaving under an outdoor tent. In the end, you'll make a large basket to bring home with you! Please sign up for both dates, as you will need to attend both sessions to complete the basket. No experience needed, but the techniques used will be more advanced than in the introductory class. Supplies, tools and light refreshments provided.

Glendoveer Golf Course
10 a.m. to 2 p.m.
Free. Parking: free
Ages: 16+
Difficulty: moderate

SUN. MAR. 2 SUN. MAR. 9

Our winged neighbors at Canemah Bluff Nature Park

Join local nature educator Gladys Ruiz on a journey to explore the ways that we each have forged a relationship with birds. Amble through this amazing oak savanna habitat and share stories of birds, migration, and community. A morning and an afternoon session are scheduled each day. Please choose one.

Canemah Bluff Nature Park
10 a.m. to noon or 1 to 3 p.m.
\$6, fee waiver available. Parking: free
All ages
Difficulty: easy

SAT. MAR. 15

Planting and lichen bioblitz at Chehalem Ridge

Join Metro staff at Chehalem Ridge Nature Park in planting native species and connecting with the land. Tools, warm refreshments and snacks provided. Following the planting, participants can search for and observe lichen and moss populations around the park in an optional "bioblitz," using the iNaturalist app to log their findings. Please note, you must have the app loaded onto your mobile device to participate in the bioblitz.

Chehalem Ridge Nature Park
10:30 a.m. to 1:30 p.m.
Free. Parking: free
All ages
Difficulty: moderate

Field guide

NEWELL CREEK NATURE PARK

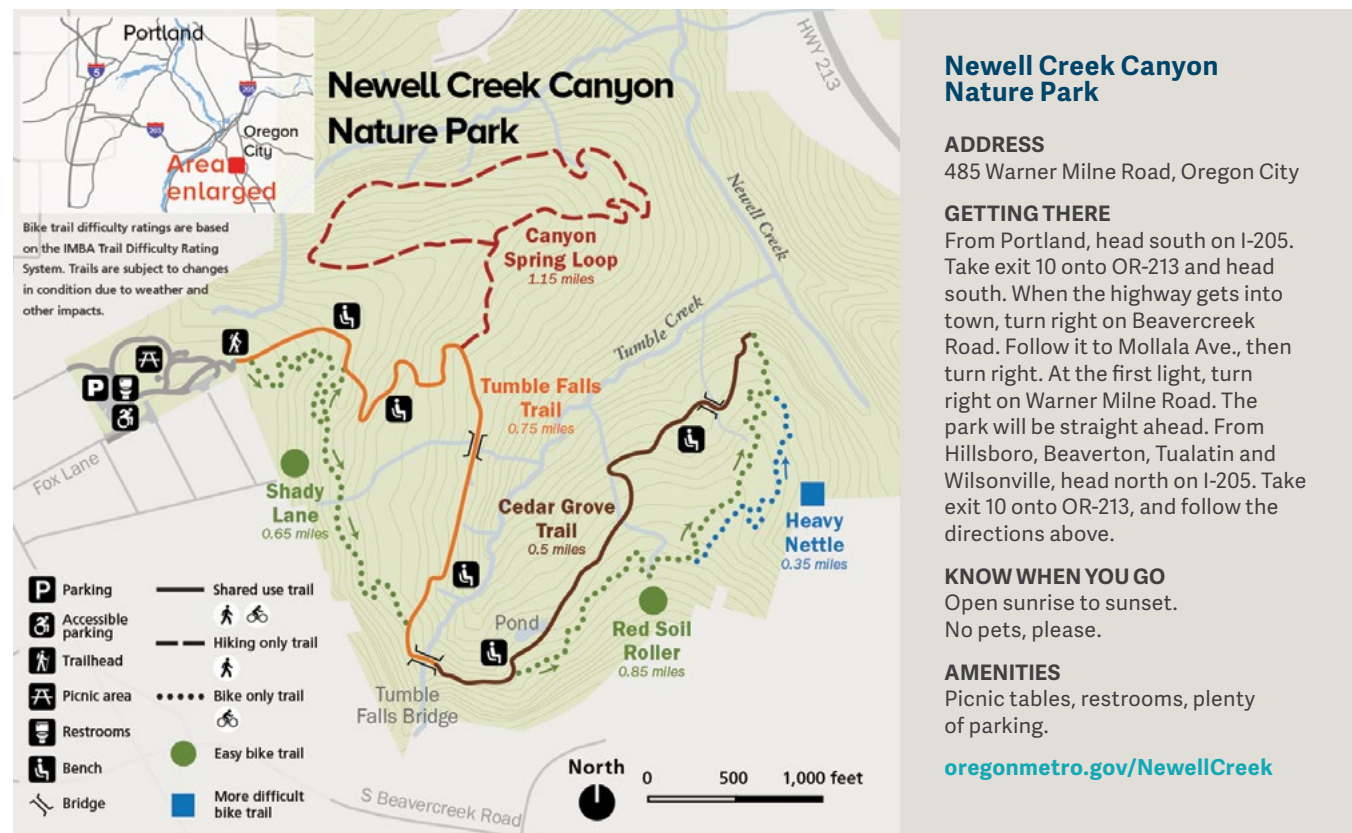


Story by Kelsey Wallace
Photograph by Cory Eldridge

Bigleaf maples frame an open meadow as you exit the hustle and bustle of city life and arrive at Newell Creek Canyon Nature Park. Past the parking lot entrance, a winding trail and wooden bridges offer spectacular views of braided crystal-clear creeks and falls. This 236-acre forested canyon is a special space, offering a multiuse trail system for hikers, cyclists and wildlife viewers alike to take in scenic viewpoints and experience unique topography. In the park's meadow, enjoy a picnic under the maple canopy sheltering this hidden gem.

Movement through the canyon brings you between 150 and 400 feet in elevation, inviting views of two geologic formations — the relatively level Boring lavas of the upper terrace, and the cemented sands and gravels that form the architecture of the canyon. The Boring lavas are made up of red soils with large embedded boulders, brought over by the cataclysmic Missoula floods more than 13,000 years ago. The sand and gravel layers are composed of the Troutdale and Sandy River mudstone formations. These were laid down by the Columbia River, which once flowed further south where Oregon City presently stands.

While Newell Creek Canyon was named through settler colonial practices, Metro acknowledges these lands as the ancestral



and contemporary homelands of Indigenous peoples of this place, and is currently tasked with careful stewardship in consultation with them.

Metro acquired parcels of this site over several decades, and has worked to restore its riparian forest that houses red alder, bigleaf maple and salmonberry as well as the upland

conifer forest dense with Douglas fir, western redcedar and western hemlock. Restoration work has included multiple projects to remove weeds and reintroduce native tree and shrub species. These efforts have helped create a nature park built for connecting community to the land while creating safe habitats for sensitive species like frogs and steelhead.

Be on the lookout!



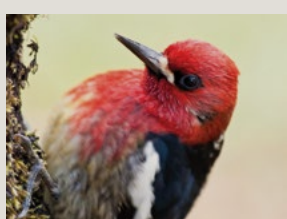
NORTHERN
RED-LEGGED FROG



BIGLEAF MAPLE



COASTAL
CUTTHROAT TROUT



RED-BREASTED
SAPSUCKER

Season by season

FALL: This transitional time brings a chill, and coaxes mushrooms into their fruiting form. Keep an eye out for angel wing and oyster mushrooms growing on the decaying wood of conifer trees, especially hemlock trunks. Below the tree line look out for black and orange caterpillars called wooly bears and banana slugs scattered along the trails.

WINTER: As shorter days loom and mist blankets the upland forest, listen for the leisurely pecking and piping call of the pileated woodpecker. This large red-capped forager seeks carpenter ants and larval insects in the wooded bark of downed or dying trees. Don't forget to look to the forest floor as well for signs of deer and cottontail rabbits who venture into the cold to find food.

SPRING: In this season of renewal and awakening, look for the bloom of trillium and fairy bell flowers that paint the forest understory with hues of white and pink. With waters returning and warmer days, keep an eye out for breeding amphibians and egg masses that belong to the northern red-legged frog and Pacific chorus frog near the water's edge.

SUMMER: With beaming sun-filled days and perfect weather twilights, opportunity unfolds to spot elusive wildlife like beavers, red fox and black-tailed deer. In the tributaries, juvenile coho salmon, trout and Pacific lamprey can be found in several ponds and winding waterways seeking protection from predators and nutrition from the forest's many insects.

Tools for living

11 WAYS TO REDUCE WASTE IN THE NEW YEAR



As the hustle of the holiday season comes to an end, the new year offers a chance to think about new beginnings. It is a fresh start for our habits and offers an opportunity set a vision for the year ahead.

There are many actions you can do to conserve resources, minimize the impacts of products, and reduce waste in your daily life. Check out these New Year's resolutions and pick the one that works best for you.

Buy sustainable products

1. Use reusable bags for groceries. Opting for reusable bags saves resources, reduces plastic pollution and protects the workers who remove plastic bags that get tangled in sorting machines. Using reusable bags twice a week for a year would keep 104 single-use bags out of the trash.
2. Bring your own reusable water bottle. People in the U.S. purchase about 50 billion bottles of water per year and 75% go into the trash. Switching to refillable water bottles reduces one of the biggest contributors to plastic waste.
3. Ditch the paper towels. Paper towels contribute 7.5 billion pounds of waste per year. Instead, you can swap to Swedish dishcloths, cotton kitchen towels or repurpose old clothing into rags.

Start new habits to prevent waste

4. Stop before you buy. The phrase "Reduce, Reuse, Recycle" is organized in that order for a reason. It takes a lot of energy and natural resources to manufacture new products. Buying fewer things, choosing things that will last longer and giving gifts of experiences all lessen the impacts of manufacturing.
5. Repair instead of discarding. Repairing broken things can reduce waste and save money. Look for local experts or learn a new skill yourself. Check out www.portlandrepairfinder.com to find repair services near you.

Need some info to get started?
Call Metro's waste prevention experts
for more tips to achieve your New Year's
waste prevention resolution.

Ask Metro at 503-234-3000



6. Cut down on food waste. Food that ends up in the trash emits methane, a powerful greenhouse gas that contributes to climate change. Use a "first in, first out" method to go through groceries and look for meal planning calculators to see how much food you need to make.



7. Make use of bulk food and refill stores. Buying from the bulk food aisle and zero waste stores helps reduce bulky containers and packaging. Check to see if your local store will allow you to bring your own clean containers.
8. Donate your unwanted things. When you donate things you can't use anymore, you give someone else a chance to make use of them. From furniture banks and sports stores to musical instrument exchanges and art supply resellers, greater Portland has a huge variety of local reuse organizations who can give your goods a second life.

Keep toxic wastes out of the environment

9. Recycle your old electronics. Many old electronics contain harmful materials like lead and mercury that we want to keep out of our environment. The Oregon E-cycles program has over 200 collection locations throughout the state. Find a site by visiting EcycleOregon.org or calling 1-888-532-9253.
10. Use eco-friendly cleaning products. People use an average of 40 pounds of cleaners each year, and many common cleaning products contain harmful ingredients. You can switch to less toxic store-bought products or make your own healthy cleaners at home. Find easy-to-use cleaner recipes at www.oregonmetro.gov/greencleaners.
11. Go pesticide free in your garden. Garden chemicals can be harmful to humans, pets, wildlife and waterways. Switching out your practices and products can make your garden as safe as it is beautiful. Got a question on how to start? Try the Metro area Master Gardener hotline at 503-821-1115.

My New Year's Waste Reduction Resolution is...

Write your resolution here, cut it out,
and post it on your fridge to remember



Ask Metro
503-234-3000
oregonmetro.gov/recycle

Color and discover!

Smelt season

Winter marks the peak of the smelt run. These little fish are also called eulachon (sometimes anglicized to “hooligan”) and candlefish. They return from the ocean by the millions to spawn in tributaries of the Columbia and Willamette rivers, where they are nourishment for birds like gulls, cormorants and mergansers. Even sea lions swim up the Columbia to get in on the feast. Humans, too, have fished for smelt in this region since time immemorial, although currently both commercial and recreational fishing are limited to protect fish populations.

Want to keep up on all the seasonal changes at Metro parks and natural areas? Follow @OregonMetro on Instagram and Facebook or visit oregonmetro.gov/parks

