

# Columbia Land Trust

# Incredible Conservation Outcomes



Our strong relationships mean that we can be patient as we progress to a shared vision or move quickly to seize a fleeting opportunity.

A t Columbia Land Trust, we pride ourselves on exceeding expectations. Some goals we set for ourselves, as part of our mission to conserve and steward the most intact and valuable habitats of the Lower Columbia River. Other goals are made in partnership and reflect our value of working well with others to achieve shared outcomes. Our strong relationships mean that we can be patient as we progress to a common vision or move quickly to seize a fleeting opportunity.

Thanks to you and your support, in 2023 we secured 2,370 acres of new conservation lands, illustrating both of these timeline scenarios.

We conserved 300 acres of old growth forest on the West Fork Washougal River after 25 years of conversations, and 1,100 acres of working forest on the West Fork Grays River in only two years. In both cases the conservation benefit is incredible, for salmonids, for forest health, and for river restoration. Near Trout Lake, we helped protect organic farmland and keep wildlife corridors intact. Clark County has one of the fastest growing populations in our region, and we transferred 112 acres of conserved land to the county, to increase access to nature at three beloved regional parks. The Backyard Habitat Certification Program grew by another 2,000 households and continues to demonstrate that caring for soil, water, and native flora provides numerous benefits, whether across a small greenspace, or a few thousand acres.

For every stretch of land, water, or tidal zone Columbia Land Trust conserves, our team considers the best approach to restoration and management. Last October, we successfully implemented a prescribed burn (read more on page 40) as part of a collaboration to improve forest health and decrease the risk of catastrophic wildfire in the East Cascades. Your support of our work makes all this, and more, possible.

I feel appreciation for all of you, for what we achieved in 2023 and what we will accomplish together in 2024. With your support, our expert team can continue to conserve the nature you love. I am inspired by your generosity, your passion, and your deep understanding of the value of conservation. This powerful combination builds a legacy we can all be proud of. However, we still have more to do. The time to act is always now, because once land has been converted, it is almost never conserved again.

- Meg Rutledge, Executive Director

Cover photo: Trillium in the West Cacades. By Emma Browne Media. Above photo: A rainbow over Kerry. Island in the Columbia River Estuary. Across our region, we conserved 2,370 acres in 2023.



We expect 47 fire-adapted native plant species to benefit from a successful prescribed burn.



Nearly 500 people engaged with nature during Land Trust events and volunteer opportunities.





The East Cascade Oak Partnership established 108 monitoring sites to collect data and inform habitat restoration.



Columbia Land Trust has more than 1,300 generous donors who make this all possible!





### WHERE WE WORK

Mount Ramier

Columbia Land Trust's priority conservation areas span five ecoregions

Conservation Area

Tribal Reservation



# Our Approach

Columbia Land Trust has established priority conservation areas that are critical to ecosystems and wildlife throughout the region we serve, from rainy coastal mountains to the arid Columbia Plateau. To establish these conservation areas, we analyze the current presence of wildlife and habitat, landscape connectivity, and climate resilience.

We are committed to fundamentally changing the pace and scale of conservation in the Northwest through collaboration and community engagement. Ultimately, our success is not measured in dollars raised or acres conserved, but in ecological integrity and healthy relationships between people and nature.

GIS Coordinator Elizabeth Martin collecting ecological field data.

# CONSERVATION PRIORITIES

# **Ecological Integrity**

A state in which the nature of the Northwest is intact, functional, and supports a diversity of habitats, species, and processes. Landscapes with ecological integrity are self-sustaining; they are able to evolve and self-regulate within a natural range of variability.

# **Climate Resilience**

Resilience means that a system is able to deal with change (like fires and flooding) and continue to develop. Our definition includes human communities and we work to build climate resilience by restoring natural systems that are capable of adapting to changing weather and climate. For example, a mature restored forest can reduce flood risk for downstream infrastructure.

# **Climate Mitigation**

Mitigation is taking action to limit the magnitude or rate of global warming and its related effects. The Land Trust aims to leverage natural climate solutions, like the protection and restoration of forests and wetlands, to increase the rate of carbon sequestration by natural systems.

# **Connecting People to Nature**

Connecting with people and building relationships is at the core of our work. Our conservation strategies will not be effective over time if we do not build broad, enduring support for conservation. Furthermore, our conservation work needs to respond and adapt based on mutual learning and understanding.

# FRIENDS OLD AND NEW

A Reflection on Our Growing Conservation Community and 2023 Gatherings

he year 2023 was a triumphant return to in-person events for the Land Trust, following several years of reduced programming due to the pandemic.

With a cast of old and new friends, we visited familiar places as well as ones that came into the Land Trust's care more recently.

Through hikes, wildlife surveys, and volunteer events, we learned from nature and sought to be good stewards of the land. At community events, happy hours, and workshops, we learned from each other and recommitted to being good neighbors and allies.

Knowing the immense challenges our environment faces, it's a thrill every year to see the sandhill cranes return in the fall, the chum salmon in the winter, and the wildflowers in the spring. Their annual return is a reflection of both the resilience of nature, and of the commitment of the communities who care for it.

Last year Columbia Land Trust also had a presence in the broader community, as guests at partner organizations' events focused on the intersection of environmentalism and social justice. Two such events were Familias En Acción's Latino Health Equity Conference and Comunidades' Latino Earth Week gathering, where we staffed bilingual exhibitor tables and shared what our work is all about.



A personal highlight of the year was hosting a tour of our restoration projects in Clark and Skamania County for Land Trust Alliance's Rally Festival. It was such an inspiration to meet conservationists from around the country who share our passion for this work. This year I'm looking forward to meeting more friends and allies at our brewery series Habitap, which we'll host in Portland, Hood River, and Astoria. I hope to see you at an event in 2024!

- Peter Condra, Events Manager

- 1 Friends at Habitap Astoria
- 2 Watching sandhill cranes over the Columbia River
- 3 Volunteers survey endangered squirrel nests in the East Cascades
- 4 Oak gall ink art with the East Cascades Oak Partnership
- Regional Stewardship Manager Jen Zarnoch with tour participants
- A lemonade stand benefiting the Backyard Habitat Certification Program



# Monitoring & Adaptive Land Management

STEWARDSHIP BASED IN SCIENCE

ur conserved lands are intended to benefit future generations and exist in perpetuity, but there are countless variables that impact land management, including human activity, disturbances like floods and wildfire, invasive species of plants and animals, and climate change.

To manage this uncertainty, we employ adaptive land management strategies and continually assess how well our stewardship practices are working and whether we need to shift them to more effectively achieve our long-term goals. This creates space for flexibility, responsiveness, creativity, and problem-solving.

Monitoring allows us to track if what we are doing is working, or if we need to make adjustments. Collecting and analyzing data from the sites we manage helps determine project effectiveness and inform future restoration design.

In 2023, our stewardship team kicked off a vegetation mapping pilot program utilizing drone technology to chart large expanses of difficult-to-access and difficult-to-map terrain and outline key habitat areas. Data is collected on the ground and then fed through a machine learning algorithm that can identify the plant signatures, including invasive weeds, and map them across an entire site. If successful, this project will streamline our management planning and allow us to track changes in plant communities in much greater detail. The pilot program included nine sites, initially focusing on herbaceous plant communities in marshes, and eventually expanding to forest sites, where tracking plant stress through chlorophyl levels can be used to inform fire prevention strategies.

"Combining drone imagery with on the ground plant observations is a powerful method to expand our knowledge from small-scale to site-scale," said Monitoring Program Manager Amy Borde.

Technology supplements on the ground monitoring work, which often requires traveling deep into wetlands or forests. "There is no better way to get to know the landscapes the Land Trust cares for than spending hours squelching knee-deep in the marsh on a hot summer day," said Stewardship Assistant Helen Gavrilov. "I've discovered beaver dams while navigating tidal marshes, been swallowed up by cattails, come face to face with marsh wren, and seen juvenile salmon utilizing newly restored habitat. It is immensely satisfying to see these conserved lands thriving and full of life because of our work." Land Steward Helen Gavrilov capturing data at Mill Creek Ridge above the Columbia River.

Data is collected on the ground and then fed through a machine learning algorithm that can identify the plant signatures, including invasive weeds, and map them across an entire site.





#### ECOREGION

# COAST RANGE & ESTUARIES





# OBJECTIVES

**GIVE** rivers room to move and flood naturally, enabling them to support healthy salmon runs and riverside habitat without threatening communities and infrastructure.

**PROTECT** older forests, ensuring that large expanses are managed in ways that connect critical habitat areas, set the stage for more old forests, and support the survival of endangered species.

**INCREASE** the prevalence of tidal wetlands in the Columbia River Estuary and continue managing invasive species.

**CONSERVE** and restore the last remaining large, undeveloped properties containing coastal interdunal wetlands and lakes, associated forests, and beaches.

**STRENGTHEN** local economies and expand public awareness of conservation benefits by providing healthy and functional natural areas.

Aerial imagery shows the activation of tidal channels and wetlands, and deposition of sediment within the creek and the floodplain at Nelson Creek. 4 Acres

# **Grays River Confluence**

#### **Conservation Area: Grays Bay**

Wahkiakum County, WA

We conserved a small, vital four-acre site in Grays Bay that will be a key piece in the larger restoration work we have planned here. This parcel will enable the management of water around flood control infrastructure and support the forest and emergent wetland habitat we are working to restore in the area. Restoration of the surrounding 100-acre floodplain is planned for several years from now.

1103 Acres

# West Fork Grays River

## **Conservation Area: Grays River**

Pacific County, WA

Protecting the forests and rivers of the Grays River watershed is a long-time priority for Columbia Land Trust. With the conservation of these 1,000+ acres, we've secured an important parcel that works toward



our vision of a connected coastal landscape that fosters salmon recovery, improves forest health and water quality, and supports community goals related to flood reduction, recreation, and public access.

This site protects land along 2.5 miles of the West Fork Grays River, helping to create a corridor of habitat lands connecting two large blocks of state-managed forest in Pacific and Wahkiakum counties.

It feels remote and rugged, but this landscape is important to human communities who rely on forests as an economic driver and healthy rivers for water quality. It is also home to big, old trees that are critical for federally endangered marbled murrelet (*Brachyramphus marmoratus*). As the forests grow under the Land Trust's stewardship, we anticipate the development of new suitable marbled murrelet habitat over the next 20-40 years.

The Grays River watershed provides significant salmon habitat within the lower Columbia River ecosystem. It supports several salmonid populations but stands out as the most important watershed for chum salmon in the Columbia River basin. Our stewardship will prioritize maintaining and restoring fish populations through management of upland forests and implementation of in-stream restoration that collectively cool water, moderate floods, capture sediment, and create diverse habitat for fish and wildlife.

This land acquisition was funded by grants from the federal Endangered Species Act, Section 6 for marbled murrelet, the Salmon Recovery Funding Board and the Washington Wildlife and Recreation Program – Critical Habitat category.

Forest stands of different ages along the West Fork Grays River.

## STEWARDSHIP

# Cedar Creek

### Conservation Area: Clatskanie Watershed

Columbia County, OR

Conserved in 2021, the 640-acre Cedar Creek Forest came into our care in already thriving ecological conditions. In 2023, we enlisted a team of highly skilled botanist volunteers from throughout Oregon to conduct a thorough botanical survey of the site's plants and fungi over several months. Their findings revealed that the forest is home to at least 143 different species of vascular plants, representing 112 genera from 53 families. Non-vascular plants found included five species of liverworts, 13 species of moss, and 28 species of lichens. The survey also cataloged 138 different species of fungi, including a few rare or threatened types. This was a pilot project in partnership with the Coalition of Oregon Land Trusts, as they look to build the botanical survey capacity of land trusts across the state.

# Clatsop Ridge

### Conservation Area: Oregon Coast Range

#### Clatsop County, OR

At this 2,500-acre forest easement, conserved in 2021, Land Trust staff have been working with foresters to develop a prescription for a one-time thinning of overstocked riparian buffers. Existing riparian buffers were increased significantly under the terms of the conservation easement, but they remain heavily overstocked from previous plantings about 20 years ago. The current density of trees slows development toward old growth forest conditions. This is a wonderful example of how conservation within a working forest can improve habitat with minimal cost to forestry operations.

# Devil's Elbow

## Conservation Area: Grays Bay

Wahkiakum County, WA

Adjacent to the Raistakka site in the lower Grays River basin, Devil's Elbow was previously restored in 2004, and a setback levee was installed as part of that project to protect the Raistakka site from flooding. Now that the Land Trust owns the adjacent property, we are working with the Natural Resource Conservation Service to see if it is possible to link the 154-acre Devil's Elbow floodplain with the 50-acre Raistakka floodplain. This would allow us restore and reconnect an even larger section of floodplain to benefit salmon. Devil's Elbow was a test site for our aerial vegetation monitoring pilot program which launched in 2023, and one of several sites where we did purple loosestrife weed control work. Purple loosestrife is a long-lived wetland perennial that can grow to more than nine feet tall. Plants can produce over two million seeds, enabling it to out-compete and suppress native wetland species. Like several of our restored sites in the region, we now see thriving native wapato growth in the Devil's Elbow marsh.

# Indian Jack Slough

### Conservation Area: Lower Elochoman River

Wahkiakum County, WA

The Land Trust removed three derelict structures, as well as a significant amount of concrete, at this site near Cathlamet, Washington. Nearly 80% of the materials were salvaged and reused by neighbors and local residents. This was an important step in a floodplain and wetland restoration project that is planned to begin this summer and will restore approximately 25 acres of freshwater wetland habitat to benefit migratory waterfowl, salmon, and other wetland species, while maintaining habitat for Columbian white-tailed deer (Odocoileus virginianus leucurus). This is the final phase of a North American Wetland Conservation Act grant that the Land Trust was awarded five years ago. The project also received additional funding from the Natural Resources Conservation Service's **Environmental Quality Incentives** program that will assist in revegetation efforts and post-restoration maintenance for the next three years.

# Island & Loomis Lake

### Conservation Area: Long Beach Peninsula

#### Pacific County, WA

On Washington's Long Beach Peninsula, many of the sites we manage are fairly intact and serve many ecological benefits. Our stewardship work here, which will continue in 2024 and beyond, often focuses on mitigating invasive



The lowest intertidal wetlands now have restored topographic complexity which allows a variety of wetland trees and shrubs to grow and provide shaded refuge for fish. species pressures. Loomis Lake and other neighboring conserved lands have such value for wildlife, such as wildfowl, migratory songbirds, and native mammals including cougar, bear, and porcupine. These animals utilize the conserved sites as refuges within a geographically small peninsula that is fairly heavily populated. In 2023, our stewardship team replanted a few specific areas around Loomis Lake with native western redcedar and Sitka spruce, in addition to treating invasives.

# Kandoll Farm

#### **Conservation Area: Grays Bay**

Wahkiakum County, WA

After undergoing restoration more than ten years ago, Kandoll Farm was one of two intertidal freshwater wetland restoration sites where we conducted a six-year reed canarygrass control method study, in partnership with the Pacific National Laboratory. Reed canarygrass is an invasive grass found in freshwater wetlands throughout North America. It has a wide inundation tolerance and can outcompete many native species. We monitored the sites prior to treatment, for four years during treatment, and two years after treatment. The results are very promising with a large reduction in reed canarygrass in all treatment plots and an increase in native species, with some notable differences between the sites related to how recently they were restored and how much specific areas are inundated. This information can be used to reduce reed canarygrass at conservation sites and to plan effective treatment at future restoration sites.

The field experiment was completed in 2023 and we have already seen the return of native wapato plants. Because of this success, our team plans to continue utilizing the control methods on an additional three to five acres beyond the initial experiment area.

# Kerry Island

### Conservation Area: Columbia River Estuary

#### Columbia County, OR

The Land Trust team completed floodplain enhancement and salmon habitat restoration at Kerry Island in 2016, and planted nearly 50,000 trees and shrubs here in early 2017. The 109-acre site was also part of our recently completed study on reed canarygrass control methods. Post-restoration, the site began to be colonized by reed canarygrass in the higher marsh areas. The site responded very favorably to the control treatment, with the study area becoming dominated by wapato and other native wetland species by the end of the study. The site overall had a surge in native species in the past few years helped in part by plantings, the control treatment immediately following restoration, and favorable hydrology limiting reed canarygrass growth.

# Nelson Creek Swamp

#### **Conservation Area: Lower Elochoman**

#### Wahkiakum County, WA

After completing a large restoration project in 2022 that included the construction of a new 50-foot bridge for Nelson Creek to flow beneath and the excavation of about two miles of stream channel and tidal tributaries. 2023 brought the installation of 181,325 plants at this site along the Elochoman River. We also completed 30 acres of weed control and plant maintenance. With the realignment of Nelson Creek into its natural pathway and floodplain, and the massive planting efforts, our restoration vision for Nelson Creek has begun to take shape. The lowest intertidal wetlands now have restored topographic complexity, which allows a variety of wetland trees and shrubs to grow and provide shaded refuge for fish. Newly installed plantings will continue to leaf out and, over time, turn the fields into a dense forest filled with dozens of native tree and shrub species. So far, plant survival has been excellent and weed control and plant maintenance will continue in 2024 and beyond. In addition to improving habitat for salmonids, the project restored over 150 acres of habitat for threatened Columbian white-tailed deer.

# Raistakka

### **Conservation Area: Grays Bay**

Wahkiakum County, WA

The Raistakka floodplain restoration project is in early phases of design and picking up momentum. The Land Trust has held multiple meetings with neighbors to discuss the project, our approach, and landowner concerns. The project has the potential to link three Land Trust properties: our Raistakka site in the center,

Progress photos from Nelson Creek, taken about ten months after planting, show the quick growth of native vegetation.



plus Secret River to the west, and Devil's Elbow to the east. Connecting these large floodplain areas would further enhance ecological processes, improve nutrient flux into the estuary for endangered salmon populations, defray floodwaters across a larger area, and increase cold water refugia for salmon during the summer months. Our vision is a mutually beneficial restoration project and we are excited to continue working towards implementation in 2025 or 2026.

# Wallacut River Confluence

## Conservation Area: Columbia River Estuary

#### Pacific County, WA

This site near Ilwaco, Washington is located on the north side of Baker Bay and contains approximately 3,100 feet of bay frontage and 5,100 feet of Wallacut River frontage, which drains into Baker Bay. It is home to wildlife including bear, deer, kinglets (ruby and golden crowned), chickadees, red crossbills, and song sparrows. The Land Trust completed a restoration project here in 2016, reconnecting more than 100 acres of tidal floodplain by filling in irrigation ditches, leveling a dike, and re-creating side channels that salmon use for food and shelter on their journey to the ocean. In 2023, our stewardship efforts focused on invasive weed control, specifically gorse, the primary invasive species of concern at this site. Gorse is ecologically damaging because it creates a monoculture, perpetuates in the seed bank for many years, and doesn't provide the same resources for wildlife as native shrubs would. Also, the plant's oils make it highly volatile in the event of fire.

Top: Bald eagle on the beach outside Warrenton, Oregon. Photo by Doug Gorsline. Right: Natural Area Manager Ramona Arechiga installs hydrology monitoring equipment.



Monitoring allows us to track if what we are doing is working, or if we need to make adjustments. Collecting and analyzing data from the sites we manage helps determine project effectiveness and inform future restoration design.



ECOREGION

# WILLAMETTE VALLEY AND PUGET TROUGH



Conservation Report 2023-2024



## **OBJECTIVES**

**RESTORE** the health and function of the floodplains, forests, and wetlands associated with our rivers.

**PROTECT** maintain, and restore oak and prairie habitats.

**MAKE** urban areas more conducive to wildlife through thousands of nature-scaped properties that allow pollinators, resident and migrating birds, and other wildlife to move across the landscape.

**BUILD** strong partnerships between agriculture and conservation communities to benefit wildlife habitat, movement, and migration.

**PROVIDE** meaningful opportunities for people to connect to nature throughout both cities and natural areas.

Sandhill cranes in flight. Photo by Lenkerbrook Photography.

### LAND PROTECTION

3,000 Acres Enrolled

# Backyard Habitat **Certification Program**

**Conservation Area: Clackamas, Multnomah** and Washington Counties, OR and **Clark County, WA** 

The Backyard Habitat Certification Program (BHCP), co-managed by Columbia Land Trust and Bird Alliance of Oregon, operates throughout the urban and suburban parts of four counties in Oregon and Southwest Washington. In 2023, more than 1,500 new properties signed up and 350 properties were certified, bringing the participant total to just under 12,000 households and 3,000 acres enrolled. Participants act as partners in conservation by planting native plants, removing priority weeds, eliminating pesticide use, managing stormwater on site, and stewarding wildlife. Each participant receives technical assistance, incentives like coupons and certification signs, and encouragement. Then they dig in to enhance habitat on their property. BHCP gets neighbors talking and working together to build wildlife corridors, with the added benefit of building community. Individuals, apartments, businesses, schools,



places of worship, and community organizations are all encouraged to participate.

In 2023, BHCP deepened its collaboration with Centro Cultural, a Latino-based community organization in Washington County, and the Tualatin Soil and Water Conservation District to empower youth in creating and implementing a plan to protect the trees on Centro's campus from emerald ash borer (*Agrilus planipennis*). Youth in their Climate Justice Leadership Program attended workshops to learn how to collect data, create management plans, and monitor trees on campus. The campus is close to the site where emerald ash borer was first identified, near Forest Grove, Oregon, putting Centro on the frontlines of managing the invasive species.

Each year, BHCP contributes to the local green economy in numerous ways. One includes advertising local businesses that provide tree care and landscaping services in ways that enhance the ecosystem. Another is partnering with local neighborhood nurseries that sell native plants to offer a discount to program participants. Including incentives provided to participants when they enroll and receive certification, the estimated positive economic impact to local economies is \$2 million.

In early 2024 BHCP launched a website redesign after months of work. The new design will greatly increase accessibility, an element that was sorely missing from the previous site. It's also significantly more user friendly so that participants and the general public can find the information and resources they need to implement their habitat projects. You can explore the new site at **backyardhabitats.org**.

Top: Backyard Habitat participant planting in their yard. Right: A Pacific tree frog (Pseudacris regilla) at Atfalati Prairie.

## STEWARDSHIP

# Atfalati Prairie

## **Conservation Area: Tualatin River**

Washington County, OR

The Land Trust's partners at the Tualatin Soil & Water Conservation District began controlling weeds in preparation for native tree and shrub plantings to enhance 15 acres of riparian forest habitat at this 212-acre site along the Tualatin River. The Land Trust is temporarily leasing the remainder of the property to a local farmer to stabilize the site while we prepare for a large restoration project that will include the creation of wetland, prairie, oak savanna, and oak woodland habitats. In the meantime, staff are working with the Tualatin SWCD to prevent the spread of puncturevine, a noxious weed, as well as monitoring Oregon ash trees for signs of the emerald ash borer. The Oregon Department of Agriculture and Oregon Department of Forestry are working to slow the spread of this invasive insect in the area surrounding Forest Grove, where it was discovered in 2022. The current infestation is within a few miles of Atfalati Prairie, and over time we expect to lose many of the Oregon ash trees at this site. Our staff are working with the SWCD and other local partners to consider options for replacement tree species in the future.

# Columbia Stock Ranch

### **Conservation Area: Deer Island**

#### Columbia County, OR

We concluded our four-year project to restore 150 acres of endangered Columbian white-tailed deer habitat at this site. In the fall, we performed maintenance and weed control on land we had previously revegetated with over 150,000 native plants, and in January we completed an additional planting effort to replace about 2,000 plants in an area with low plant survival. Our team is collaborating with U.S. Fish and Wildlife Service biologists to conduct fawn surveys and monitor wildlife cameras to increase our knowledge of deer movement and track the success of the translocation of the deer, which were gradually moved to this site.

# Cranes' Landing

### **Conservation Area: Vancouver Lowlands**

#### Clark County, WA

Our multi-year project to bury overhead powerlines and prevent bird strikes was completed in January 2023 with the help of Clark Public Utilities and contractors. In this final phase, we buried 1,700 feet of powerlines over interior farm fields. When combined with the 4,600 feet we buried in 2021, we buried about 6,000 feet of powerline in total to allow the migratory sandhill cranes (*Grus canadensis*) easier and safer access to the 400 acres we farm here as bird habitat.

Land Trust Monitoring Scientist Cindy McCormack is in her third season in this role, conducting project effectiveness monitoring at Cranes' Landing, which includes counting and mapping crane use of the different fields and observing crane activity and behavior throughout the overwintering season. Cindy's observations are incredibly valuable as it helps to inform the management actions each year and increase our understanding of this population of cranes in the Pacific Flyway.

November 2023 was our biggest November in terms of crane use days since we began monitoring, tallying an average of more than 1,600 cranes per day. Crane use of the property remained high through January, reaching an average of nearly 2,000 cranes per day!

In early 2024, with the help of volunteers, key berms surrounding the site were planted with more native trees and shrubs to continue enhancing the screening of the property and create privacy for the cranes as they forage in the fields, as they are easily startled by dogs and passing vehicles.

We farm about 380 acres of this 527-acre site and in 2023, we kept the farming plan very similar to the 2022 plan. Our adaptive management strategy means that, after making comparatively more drastic changes to our farming plan in prior years and seeing relatively strong crane numbers in the previous season, we decided to not make any major changes to the farming plan. This will allow us to test our management hypotheses and create continuity for the cranes.

We are also working to eventually restore about six acres that we currently farm into rare, native wet meadow/ prairie/grassland habitat, that would eventually be self-sustaining habitat. This year, we will begin site preparation and remove remnant crops before we begin planting native bulbs and seeds. In 2024, we will also continue our general weed control and maintenance across Cranes' Landing.

# Optimist Club

### **Conservation Area: East Fork Lewis River**

Clark County, WA

After conserving this 46-acre site by working with the Optimist Club of Vancouver to purchase a conservation easement in 2022, it quickly became an engaging place for us to host volunteer opportunities and engage with the community.

In April, we welcomed local Scout Troop 344 for a volunteer weeding event to help clear Scots Broom and blackberry. Then in October, a corporate group worked enthusiastically to clear two additional enormous piles of the invasive weeds.

Both of these volunteering events were in preparation for a larger effort that will begin in 2024 to restore a portion of the site where Douglas-fir trees succumbed to laminated root rot and the Scots Broom outcompeted previous plantings and was able to take over the area. In 2024 and 2025 we will plant western redcedar trees that are resistant to root rot, and carefully control any nearby weeds until they no longer pose a threat to the native trees, which will eventually shade out the weeds. We also helped the Optimist Club secure a cost-sharing grant from the Natural Resources Conservation Service that will support this work.

# Rainbow Natural Area

### **Conservation Area: Tualatin River**

Washington County, OR

Last fall the Land Trust was awarded a total of \$110,000 from the Tualatin Soil & Water Conservation District and the Oregon Wildlife Foundation, to begin restoring a 50-acre agricultural field along the Tualatin River to Oregon white oak woodland, oak savanna, and wet prairie habitat. We are partnering with a local farmer, an expert local botanist, and a local plant nursery to design and implement this project. Site preparation began in fall 2023 to control weedy vegetation and prepare the site for planting. In summer of 2024, we will plant bulbs including camas, brodiaea, and onion to begin establishing native prairie vegetation in the field. In the second year we will seed a diverse mix of prairie plants like grasses, sedges, forbs, and rushes, followed After seeing relatively strong crane numbers in the previous season, we decided to not make any major changes to the farming plan. This will allow us to test our management hypotheses and create continuity for the cranes.

in future years by the planting of Oregon white oaks and other native trees and shrubs to establish oak savanna and woodland habitat. Additional support is needed and fundraising for this project is ongoing.

Simultaneously, we are continuing habitat enhancement in the existing band of riparian forest along the Tualatin River, which covers about 18 acres. This work will include weed control and interplanting oaks, other trees, and shrubs in the riparian forest to increase shade for the river, reduce bank erosion, and increase plant species diversity and understory structure for wildlife. We will also remove a small number of conifer trees that are encroaching on the canopies of existing large, mature oaks.

When complete, the entire 69-acre site will be restored to native riparian and floodplain habitat that will benefit native fish and a wide range of wildlife. Oak savanna, oak woodland and, in particular, wet prairie are rare habitat types in the Tualatin watershed and the Willamette Valley, and this project will provide important habitat for birds and other species that are declining in their range.

# Woods Landing

Conservation Area: N/A

Clark County, WA

Staff continued working to control blackberry and maintain previous native tree and shrub plantings at this chum spawning site along the Columbia River in Vancouver, Washington. In December, volunteers from the staff of Hewlett Packard returned to Woods Landing, continuing their long history of support for this site. After observing the spawning salmon, the group of 10 volunteers spent three hours pulling weeds and laying mulch to support our forest restoration.



Top left: Western redcedar at Optimist Club. Bottom left: Fascinating fungus at a conserved site along the Clackamas River. Right: A volunteer helps remove invasive Scots Broom at Optimist Club.



# WEST CASCADES





## OBJECTIVES

**ENSURE** large swaths of both public and privately owned forestlands are intact and functional, connecting habitat for migratory species.

**HALT** the net loss of older forests and increase the number of forested acres managed toward old-growth forest habitat.

**PROTECT** important rivers for salmon and steelhead by removing barriers to migration, improving river conditions, and restoring floodplains.

**CULTIVATE** local and regional public support for conserving working forestlands by demonstrating their economic and recreational value.

A side channel of the Sandy River within the recently expanded Barlow Trail site.

4 Acres

# Barlow Trail

## **Conservation Area: Sandy River**

Clackamas County, OR

In fall 2023, Columbia Land Trust conserved four acres outside Brightwood, Oregon on the mainstem Sandy River. These newly conserved parcels are adjacent to our existing 26-acre Barlow Trail site. Together, the now 30-acre site conserves a section of the Sandy River and its shoreline, protects riparian forest, and creates space for the river to continue to move and change within the floodplain.

The waters that rush along the cobbly riverbank here are ice cold, fed by glacier melt at the Sandy's headwaters on Mt Hood. Beaver, osprey, American dipper, flycatchers, deer and coyotes, and a host of other critters share the shoreline, floodplain, ponds, and forest with the neighborhood's human residents. The river and its side channels support endangered wild fish runs of winter steelhead and spring Chinook.

The history of this conservation project is unique. In December 1964, massive floods on this stretch of the Sandy River caused the river to avulse, redirecting out



The forest is noteworthy for its tall, old trees, the cool water flowing from the hillslopes, the diverse native vegetation, and the massive old snags created in the Yacolt Burn that are interspersed across the landscape. of its channel and carving a new pathway through the landscape.

Due to this flooding, and ongoing changes in the river channel over the last several decades, several privately owned tax lots that were previously on land are now partially or fully located on a small island in the river channel, or in the channel itself, and are no longer buildable.

Eight of these lots, totaling about four acres of land, eventually ended up under the ownership of Clackamas County, who in 2023 agreed to sell them to Columbia Land Trust. The newly conserved acreage will become part of our existing Barlow Trail site, which the Land Trust has stewarded since it was conserved in 2007.

The Sandy River is considered a stronghold for endangered fish populations in the lower Columbia River system, and the last two decades have seen a surge of fish habitat restoration efforts across the basin, intended to keep those populations healthy.

The newly conserved acreage includes portions of a large island between the river channel and the side channel, as well as sections of the shoreline on both sides of the river. Land Trust staff will incorporate the parcels into our long-term management plan for the Barlow Trail site and existing floodplain habitat. Stewardship activities include monitoring the restoration project to see that it is functioning as intended for salmon and steelhead, continuing to remove invasive weeds such as Scots Broom and knotweed, and allowing the public to enjoy the site while ensuring that this important habitat is protected.

Conserving this land is a win for nature and for the community," said Natural Area Manager Emily Matson. Four acres may not sound like a lot, but permanently protecting the shoreline, even a small part, contributes to the larger goal of a healthy, functioning watershed now and in the future.

**300** Acres

# West Fork Washougal Forest

#### **Conservation Area: Washougal River**

Clark County, WA

This 300-acre newly conserved site sits along the West Fork Washougal River and is home to old forest and riparian habitat that is increasingly rare and threatened in the West Cascades. The forest here is believed to have regenerated following the Yacolt Burns of the early 20th century, making it more than 100 years old.

The conserved area includes over one mile of the West Fork of the Washougal River and over a half mile of Jackson Creek—both of which are salmonid bearing streams. Because of the older trees that shade these two waterways and cool the water, this site carries cold water into the mainstem Washougal River, which is important for maintaining a water temperature beneficial to salmon.

Today the forest is noteworthy for its tall, old trees, the cool water flowing from the hillslopes, the diverse native vegetation, and the massive old snags created in the Yacolt Burn that are interspersed across the landscape. "On a hot summer day, it is a cool oasis of green and it supports a diversity of wildlife from salamanders and freshwater mussels to pollinators and larger mammals," said Land Trust Stewardship Director Ian Sinks.

Our conservation goals here are to maintain the relatively old, forested habitat, protect water quality in the Washougal River watershed, and protect habitat for salmon and steelhead in the West Fork Washougal River. This site adjoins the 1,200-acre Wildboy Forest, which we conserved in 2020 and where we are collaborating with the Cowlitz Indian Tribe to remove Kwoneesum Dam-an unused 55-foot dam built half a century ago to create a summer camp swimming hole. Together, these two forests protect a network of waterways that connect the Cascade foothills to the Columbia River.

Left: A newly conserved section of the West Fork Washougal River. Right: Northwestern salamander (Ambystoma gracile) egg masses found at Howard Canyon. The property was conserved with grants from the Salmon Recovery Funding Board, the Washington Wildlife and Recreation Program, The Conservation Alliance, and a Department of Ecology Clean Water grant secured in partnership with the City of Washougal. Additionally, the family who previously owned this land worked with Columbia Land Trust for more than 20 years toward a conservation outcome and donated a portion of the value.

# STEWARDSHIP

# Wildboy Creek Conservation Area:

**Washougal River** Skamania County, WA

The Kwoneesum Dam removal project led by the Cowlitz Indian Tribe is on track to break ground in spring 2024 at this 1,294-acre site the Land Trust conserved in 2020. This major project will remove the 400-foot wide dam and restore access to nearly seven miles of salmonid habitat in the upper West Fork Washougal River watershed. Regulatory project approvals and permits have been secured, and a contractor has been hired to complete the deconstruction and in-stream restoration work.

De-watering of the reservoir is scheduled to begin in May and we expect dam removal to be complete by the fall. We continue to collaborate with the Cowlitz Indian Tribe on outreach and communications.

In addition to dam removal planning, 2023 work at Wildboy included weed control and road maintenance in preparation for construction traffic. We also will be thinning key forest stands in spring 2024. Some of the materials harvested by this process will be used as features in the in-stream restoration work once the dam is removed.

# Howard Canyon

### Conservation Area: Sandy River

Multnomah County, OR

After conserving this 437-acre site as part of the larger Nestwood Forest project at the very end of 2022, 2023 was focused on getting to know the land and our neighbors, beginning to build potential partnerships, and exploring funding opportunities for stewardship and community engagement as part of our long-term management plan. Our stewardship team and contractors began working to maintain forest roads and trails and improve forest habitat along stream corridors, including removal of Himalayan blackberry and planting native willows and other shrubs.

In addition to continuing the work above, this year we are planning to undertake monitoring efforts that include amphibian egg-mass surveys and mussel surveys along the creek corridors. Land Trust staff will continue to connect with Tribes, Indigenous communities, and community-based organizations in the greater Portland area, as well as with the local neighbors.



# Pierce Island

#### **Conservation Area: Beacon Rock**

Skamania County, WA

In a continuing collaboration with the U.S. Fish and Wildlife Service, local native plant nursery Humble Roots, and the U.S. Forest Service, we monitored the success of last year's planting of the rare plant species Wormskiold's northern wormwood (*Artemisia campestris var. wormskioldii*), a plant endemic to the Columbia River region and listed as endangered in both Oregon and Washington. The Land Trust has been part of a dedicated group working to increase the plant's population along the Columbia, and we were excited to find good survival rates among last year's plantings, so we decided to plant more northern wormwood on Pierce Island.

In November 2023, project leaders from the U.S. Fish and Wildlife Service, Humble Roots Nursery, and the U.S. Forest Service organized planting days at a site conserved by Columbia Land Trust. Staff and volunteers from Columbia Land Trust, Skamania Wild, and Friends of the Columbia Gorge all came together to plant 180 wormwood seedlings, adding to the 250 planted last year at the same site. The plants preferred habitat is cobble and gravel shoreline, so digging holes to plant the seedlings is an arduous task.

We will monitor the new transects going forward to determine survival rates and learn more about habitat conditions that are best for this threatened species. We also continued our partnership with the Skamania County Noxious Weed Control Program to treat noxious weeds on Pierce Island, part of our work to make more space for native species. The Land Trust has been part of a dedicated group working to increase the northern wormwood population along the Columbia, and we were excited to find good survival rates among last year's plantings.

Top: Cobble and gravel shoreline found along Pierce Island is the preferred habitat of rare Wormskiold's northern wormwood. Right: Stewardship Assistant Adam Baek on the boat to Pierce Island.



# Pine Creek

### **Conservation Area: Mount St. Helens**

Skamania County, WA

Last year at Pine Creek we completed an inventory and assessment of the four forest stands we planted with Douglas-fir and western hemlock in late 2022 to revegetate the site and improve wildlife habitat by increasing forest diversity. We also collected drone imagery over two of the stands to help track the survival of the newly planted trees.

These plantings followed a strategic thinning project, and our team hosted Congresswoman Marie Glusenkamp Perez, Washington State Rep. Greg Cheney (18th District), and Washington State Rep. Paul Harris (17th District) on a tour of these conserved lands to highlight our forest management goals as we work toward a multi-story, mixed species, late succession forest. We shared how Land Trust forest management provides forestry jobs, sends logs to regional lumber mills, and creates public access to nature, in addition to providing habitat for forest-dependent species.

We are also in the early stages of a partnership with Cramer Fish Sciences, who are designing an in-stream restoration project to benefit bull trout (*Salvelinus confluentus*). Pine Creek is a tributary of the Lewis River and an important spawning habitat for this federally threatened fish. The Cramer team visited the site to collect baseline data for Pine Creek and its key reaches, measuring things like flow rate, temperature, the presence of woody debris, pebble counts, and other key river characteristics. Lastly, our stewardship team replaced two gates to prevent unauthorized motorized access to the site.

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# EAST CASCADES & COLUMBIA PLATEAU





# EAST CASCADES OBJECTIVES

**PROTECT** and restore major east-side rivers and key tributaries.

**PRESERVE** oak woodland habitat systems and opportunities for wildlife migration and movement.

**MAINTAIN** the integrity of unique transition zones between riverside and upland habitats, high and low elevations, and wet and dry climates.

**COLLABORATE** with local stakeholders and increase public awareness about the benefits of oak woodlands, sustainable forestry, river conservation, and ecological processes.

**SUPPORT** community leaders in championing conservation strategies and leading implementation.

# COLUMBIA PLATEAU Objectives

**PROTECT** intact and functional prairie and shrub-steppe habitat from land-use conversion and degradation.

**RESTORE** native plant species, habitat functions, and ecological processes on affected lands.

**RAISE** awareness of the benefits of conservation in prairie and shrub-steppe landscapes.

**INVEST** time in the area to learn more and build relationships to determine how we can be most helpful in local conservation efforts.

Mt Adams between two Oregon white oak trees. Photo by Doug Gorsline.

# LAND PROTECTION

#### 75,000 Acres

# Columbia Gorge Forest

Conservation Areas: Columbia Gorge, Conboy Lake, Klickitat River, Little White Salmon River, Lower White Salmon River, Major Creek, Rattlesnake Creek, Wasco Oaks, and Wind River

Klickitat and Skamania Counties in Washington, Hood River and Wasco Counties in Oregon

Columbia Land Trust is working toward conservation outcomes for approximately 75,000 acres in the eastern Columbia River Gorge in both Oregon and Washington. Thanks to creative collaboration with a national conservation organization and forest industry partners in 2021, the Land Trust has a few years to implement conservation strategies for working forestlands, as well as older forests and Oregon white oak landscapes that are critical to watershed health, wildlife habitat connection, climate resilience, and local recreation. Our goals include preventing conversion to development and protecting sensitive ecosystems and wildlife habitat. By the end of 2023 we had conserved the first three properties within this multi-year project and we anticipate that rate of conservation will accelerate notably in 2024 and beyond!

#### 40 Acres

# Trout Lake Agricultural Easement

#### **Conservation Area: Trout Lake Valley**

#### Klickitat County, WA

This August, Columbia Land Trust conserved 40 acres of agricultural land in Trout Lake, Washington using an innovative new approach to farm conservation called Buy-Protect-Sell. A partnership between the Washington State Conservation Commission and the Washington State Housing Finance Commission, Buy-Protect-Sell makes it possible for land trusts to conserve farms facing imminent threat of conversion by accessing the necessary funding much more quickly than was possible using traditional funding sources. Working with the Schmid Family, who have run an organic dairy farm here since the late 1800s, Columbia Land Trust used a loan and grant funding to purchase the farmland, place a permanent agricultural conservation easement on it, and promptly sell the land back to two of the Schmid sons. The land was able to be sold to the farmers at an affordable price since the new easement extinguished the development rights.

This groundbreaking project accomplished two major things: permanently protecting important farmland that provides organic dairy products to the entire region, and facilitating a transition to the next generation of farmers. This was the first project completed in the state of Washington using this new tool, and it would not have been possible without support and partnership from the Washington Association of Land Trusts, American Farmland Trust, the Washington State Conservation Commission, the Washington State Housing Finance Commission, and the Schmid family.

#### 915 Acres

# Rattlesnake Creek

#### **Conservation Area: White Salmon River**

Klickitat County, WA

This 915-acre site achieves nearly all of the goals outlined in Columbia Land Trust's Conservation Agenda for the East Cascades ecoregion, which include conserving intact oak habitats; protecting major rivers and their tributaries; and maintaining integrity of transition zones that link upland and riparian habitats. It also hosts mature and younger cohorts of Douglas-fir and ponderosa pine forest, surrounded by about 6,000 acres of Washington Department of Natural Resources trust land that is managed for timber and wildlife habitat. This connectivity with adjacent public lands enhances the overall conservation value of the site. The diversity of habitat types here offers unique opportunities to manage the landscape for fire resilience, thriving oak woodlands, and functioning riparian corridors.

This land purchase conserved 4.35 miles of creek and tributary stream corridor. Rattlesnake Creek is the largest anadromous tributary to the White Salmon River, and when combined with state-conserved land, this parcel protects the entire upper four miles of Rattlesnake Creek. U.S. Geological Survey biologists found that this reach of the creek remains the coolest throughout the year, which is important for climate resilience. "Conserving this important site was a major victory because loss of habitat is a very real risk in this area. The Land Trust and our partners were able to act quickly to seize this opportunity to make a difference for nature."

Nate Ulrich, Conservation Lead

The site is located in the ceded territory of Yakama Nation just south of the Tribe's Reservation. Our stewardship team is working on a floodplain enhancement project led by Yakama Nation to increase the creek's water quality, water holding capacity, and salmonid habitat. Land Trust staff partnered with Yakama Nation Fisheries to secure a Salmon Recovery Funding Board (SRFB) grant with the goals of adding complexity and diversity to instream and riparian habitat by thinning alder and conifer stands, and placing thinned trees instream. This work will improve the quality and quantity of habitat for threatened steelhead (*Oncorhynchus mykiss*) by promoting sustainable fluvial processes that result in a healthy and resilient riverscape.

"This place really matters for wildlife," said Conservation Lead Nate Ulrich, "Federally threatened steelhead and federally at-risk fisher are known to use the riparian areas, and the forested habitat benefits federally threatened northern spotted owls." The acquisition was enabled by the Land Trust's partner, The Conservation Fund who purchased the property in 2021, creating time for us to raise funds to purchase the site and permanently conserve it. Grants funding the purchase came from the Washington Salmon Recovery Funding Board and the U.S. Fish and Wildlife Service's Section 6 Endangered Species habitat conservation program, administered by the Washington Department of Natural Resources.

"Conserving this important site was a major victory because loss of habitat is a very real risk in this area," said Ulrich. "The Land Trust and our partners were able to act quickly to seize this opportunity to make a difference for nature."

Our team will continue working on the second phase of this project in 2024.

Rattlesnake Creek. Photo by David Lindley.



# STEWARDSHIP

# Bear Creek

# **Conservation Area: Klickitat River**

Klickitat County, WA

The biggest news at this 3,900-acre site in 2023 was the successful completion of the Land Trust's first ever prescribed burn. As you can read in more detail on page 40, this was a huge collaborative effort. Prior to the era of fire suppression, low to moderate intensity fires were common in forest stands like this. Restoring fire was not a decision we made lightly or without a lot of planning. Our first entry prescribed burn was conducted on 47 acres, and we look forward to applying the experience gained and lessons learned as we continue to explore the benefits of good fire on the landscape.

# Bowman Creek

## **Conservation Area: Klickitat River**

#### Klickitat County, WA

Columbia Land Trust conserved Bowman Creek Natural Area in 2009, a 337-acre site in Klickitat County that was at risk of being subdivided and developed. Its rugged canyon, open meadows, old oaks, and mature conifers offer prime wildlife habitat, including for western gray squirrels, which were recently uplisted from threatened to endangered in the state of Washington. These squirrels have faced substantial habitat loss over the last few decades and there are thought to be just three isolated populations currently surviving. March 2023 brought the return of our biennial nest survey volunteering event, during which a group of dedicated community scientists identified 324 nests over three days.

In the fall of 2023, we were awarded a grant from the Wild Turkey Federation to fund habitat enhancement work on the property. Stewardship staff are using these funds to thin overstocked stands of trees and release Oregon white oaks from conifer encroachment, control invasive weeds, and plan and prepare the property for prescribed fire. Together, these treatments enhance wildlife habitat by promoting oaks, improving forest resilience to insect and disease outbreaks, improving understory biodiversity and forage quality, and reducing the risk of catastrophic wildfire.

# East Cascades Oak Partnership

### **Conservation Area: East Cascades Ecoregion**

Klickitat, Skamania Counties, WA and Hood River and Wasco Counties, OR

Columbia Land Trust is proud to steward the East Cascades Oak Partnership (ECOP), a collaboration of over 25 organizations including tribes, state and federal agencies, businesses, nonprofits and over 270 individuals. Over the past year, we've made incredible strides addressing knowledge gaps and management uncertainties in Oregon white oak systems. In addition to securing support from the Hugh and Jane Ferguson Foundation, we jumpstarted implementation of our FIP award

(a \$7.1 million, multi-year investment by Oregon Watershed Enhancement Board to address high priority strategies in our Oregon white oak conservation plan). \$1.3 million of our FIP's conservation funding was allocated to projects across the East Cascades this year, catalyzing momentum on several monitoring projects, engagement work, and four technical assistance projects that will help partners like the Mt. Hood National Forest, Confederated Tribes of the Warm Springs, and Oregon Parks and Recreation Department assess, prioritize, and move projects into a "shovel ready" state. Two restoration grants will treat invasive annual grasses and weedy forbs on 220 acres, including on Columbia Land Trust's Mill Creek Ridge Natural Area. Developing access to native plant materials and getting native seeds planted are both elements of this important work. Hello elk sedge, goodbye cheatgrass!

Thanks to our two new full-time ECOP staff members, Kat Shepard and Stacy Simanonok, our monitoring and outreach plans are finalized. ECOP developed a disturbance monitoring protocol that has now been used on multiple projects to track pre- and post-restoration forest conditions. In 2023, we engaged hundreds of participants through 16 events and learning tours in addition to our four quarterly meetings. ECOP's workshops and tours focus on core competencies needed to make informed management decisions-skills like wildflower and grass identification, utilization of prescribed fire, as well as learning opportunities around monitoring and grazing practices. Increasing accessibility to ECOP's learning opportunities, we uploaded recordings of our speakers at quarterly meetings to a new YouTube playlist which hosts 16 videos from experts in conservation ecology and land management. We've professionalized our e-newsletter and created a listserv where ECOP members can pose their own questions around managing Oregon white oak habitats. Our membership has grown to over 270 individuals this year with more joining every month. More connected than ever, we look forward to what we can achieve together in the year ahead.

Top: Grazing cattle at a conserved organic dairy in Trout Lake. Photo by Paloma Ayala. Bottom: A mighty Oregon white oak (Quercus garryana). Photo by Doug Gorsline.

# Haul Road

### Conservation Area: Klickitat County

Klickitat County, WA

More than six years after the completion of a massive restoration project that removed a two-lane derelict road and returned this section of the Klickitat River to its historic floodplain, our stewardship of the Haul Road site is focused on restoring more than eight miles of river corridor through native planting and invasive weed control. In 2023, Columbia Land Trust and Washington Department of Fish and Wildlife continued collaborating on weed control along the restored floodplain. This effort is funded through a joint Salmon Recovery Funding Board grant, and we have funding for similar expanded efforts in 2024.

# Klickitat Canyon

#### Conservation Area: Klickitat River

Klickitat County, WA

In 2023, we collaborated with Mt. Adams Resource Stewards, Yakama Nation, and other local partners to secure funding through the Community Wildfire Defense Grant, which supports hazardous fuels reduction and safe and effective ingress/egress throughout western Klickitat County.

We plan to conduct fuels reduction work on approximately 170 acres adjacent to the Glenwood Highway, which borders this site. Our efforts will focus on releasing Oregon white oaks from conifer encroachment, thinning ladder fuels, and creating a more open forest structure. These treatments are important for improving resiliency to high intensity wildfire and impacts from climate change.

# Klickitat Stewardship Area

### Conservation Area: Klickitat River

Klickitat County, WA

In 2023, Columbia Land Trust secured a grant from the Washington Department of Natural **Resources Division of Forest** Resiliency to conduct an in-depth analysis of forest stands that have potential to generate commercial timber as a byproduct of our ecological restoration activities. We hired a local forestry consultant to conduct the analysis, with support from our stewardship team. This project is focused on the Klickitat Stewardship Area, which includes Summit Creek, Klickitat Canyon, Bear Creek, and Bacon Creek.

Many site visits were required to verify stand conditions and familiarize the forestry consultant with the Land Trust's desired future conditions. The final product was a comprehensive report describing estimates of treatment costs and commercial timber revenue for 21 different stands spanning about 2,000 acres, which will inform our stewardship planning and budgeting for future restoration.

# Mill Creek Ridge

#### Conservation Area: Wasco Oaks

Wasco County, OR

At Mill Creek Ridge Natural Area, we have preserved an impressive diversity of native wildflowers, but we still need to restore native species where aggressive weeds like rush skeletonweed and nonnative grasses have invaded the native prairie and oak savanna understory. This summer, Columbia Land Trust applied for and received a \$75,000 grant from Oregon Watershed Enhancement Board through the East Cascades Oak Partnership to restore native understory plants in oak savanna habitat at Mill Creek Ridge Natural Area. This Natural Area is over 400 acres but this project will focus on just 20 acres where the vegetation has been particularly altered from its native condition. Over the course of four years, we plan to eradicate nonnative grasses and other invaders from two old fields, and then replant with native grass and wildflower seed. We will be working with the East Cascades Oak Partnership to gather and grow out native seed for use in this project and other habitat restoration efforts in our ecoregion.

After collecting pre-project vegetation data following a protocol developed by the East Cascades Oak Partnership, a 20-acre area of the property was treated to control rush skeletonweed with the help of a contractor and stewardship staff. Mill Creek Ridge was one of the sites included in the drone vegetation mapping pilot program [see



page 10]. This aerial mapping will allow us to assess the current extent of certain invasive plants, including rush skeletonweed, and help us make better plans for controlling weeds and allow us to track our progress over time.

# Powerdale North

#### Conservation Area: Hood River

Hood River County, OR

In early 2023, the Hood River Valley Parks and Recreation District put the finishing touches on a new trail section on Columbia Land Trust property on the west rim of the Hood River canyon. To celebrate, the Land Trust and Parks District brought the community out to celebrate (and do some final clean-up work!) on Earth Day in April. Following a ribbon cutting to formally open the trail, about 100 volunteers worked enthusiastically to haul about 500 old tires from an abandoned dump site that was discovered during trail construction. Hood River Garbage donated dumpsters and hauling fees to dispose of the tires. Volunteers also helped tackle removal of a trailside patch of invasive blackberry. Community members have shared lots of positive feedback and appreciation for the trail with Land Trust staff.

# Summit Creek

## Conservation Area: Klickitat River

#### Klickitat County, WA

Conserved in 2018, this 3,200-acre site is home to vibrant ponderosa pine forests, threatened oak habitat, talus and canyon habitats, 1.1 miles of the mainstem Klickitat River, and 1.5 miles of anadromous fish-bearing tributary streams. We manage the forest here toward older growth forest characteristics, fire resilience, and improved wildlife habitat.

In 2023, we secured a competitive grant through the U.S. Forest Service Landscape Scale Restoration Program, in partnership with Washington Department of Natural Resources, who will administer the grant. These funds, in combination with the required matching funds, will be used to treat about 300 acres of low-elevation, dry mixed conifer and oak woodlands. Work will be implemented from 2024 through 2026 and include thinning to reduce the risk of high severity wildfire, restore forest stands to a more open structure, and shift tree and age structure to a more drought and fire tolerant composition.

Natural Area Manager Kate Conley with a portion of the debris removed from Powerdale Natural Area during a volunteer clean up event.

# Good Fire in the Gorge

n fall of 2023, Columbia Land Trust staff and a team of partners implemented a successful prescribed burn at our Bear Creek Natural Area in the East Cascades. This marked a major milestone after years of working to incorporate prescribed fire as a stewardship tool to benefit the long-term health and resiliency of lands we manage.

Our ecological goals at Bear Creek were to reduce the number of conifer seedlings, saplings, and woody cover, and to consume litter and duff on the forest floor. Preemptively burning these surface fuels reduces the risk of high intensity fires for several years and gives overstory trees time to mature.

"Bear Creek is home to approximately 100-year-old Ponderosa pines that we would love to see move into the 200-year-old age class and beyond, becoming more fire resilient as they age," said Natural Area Manager Adam Lieberg.

The Bear Creek burn took place during the inaugural Columbia Gorge TREX event, hosted by Mt. Adams Resource Stewards (MARS). TREX is an abbreviation for Prescribed Fire Training Exchanges, which have been taking place around the country since 2008, drawing participants from federal, local, and state agencies, Tribes, nonprofits, and private organizations. These intensive training events facilitate knowledge sharing and hands-on learning, with the goal of making prescribed fire implementation and knowledge more inclusive and accessible.

The Land Trust team participated in order to increase organizational capacity to safely, responsibly, and effectively implement prescribed fire, which we view as an important tool in the stewardship and restoration of lands we manage. This is especially true east of the Cascades, where many landscapes are fire-adapted and require frequent, low-intensity fire to be healthy

# A CELEBRATION OF PARTNERSHIP, ECOLOGY, AND STEWARDSHIP

and resilient. One of our conservation objectives in the East Cascades is to restore natural disturbance regimes, including beneficial fire, to the land and ecosystems we care for.

Utilizing prescribed fire is also aligned with the Land Trust's focus on natural climate solutions, as the carbon emissions resulting from a catastrophic wildfire are significantly greater than emissions from a controlled burn. Prescribed fire has in fact been found to reduce carbon fire emissions across the Western United States when applied at scale.

Damp fall weather created challenging conditions, but the TREX group accomplished pile burning at multiple sites and completed two broadcast burns, one at Bear Creek and another at a Mt. Adams Community Forest site.

The site of the broadcast burn was a 47-acre unit within our 3,900-acre Bear Creek Natural Area, conserved in 2021. Located in the upper reaches of the Klickitat River, Bear Creek links conserved lands on the Yakama Nation Indian Reservation with lands managed by the Washington Department of Fish and Wildlife and Department of Natural Resources, to create an expansive corridor protecting wildlife habitat and migration routes.

Months of preparation goes into any prescribed burn, and after all the planning you still often need a bit of luck for conditions to align. "Finding the right weather window is one of the most challenging aspects of applying prescribed fire," said Cornelius.

Implementing prescribed fire safely is a balancing act, as a certain minimum intensity is required to accomplish our ecological goals. For example, some mortality of



# Mount Adams Prescribed Burn Association

In 2023, Columbia Land Trust partnered with Mount Adams Resource Stewards and Sustainable Northwest to form the Mt. Adams Prescribed Burn Association (PBA). The focus of this collaboration is to increase the pace and scale of prescribed fire on private lands by working together and pooling resources.

Columbia Land Trust secured a grant from Washington Department of Natural Resources to support stewardship staff participation and leadership in the development of this local PBA. Additionally, we will use these funds to purchase prescribed fire equipment and host a planned demonstration burn in 2024 or 2025.

Land Trust staff on the ignition line during a prescribed burn at Bear Creek Natural Area.

Preemptively burning these surface fuels reduces the risk of high intensity fires for several years and gives overstory trees time to mature. overstory trees is expected, but we did not want to kill more than 10% of the overstory.

The burn itself lasted only an afternoon, transforming the landscape in a matter of hours. Land Trust staff held multiple roles, including participating in ignition operations, monitoring control lines, and working with the burn boss. "It was rewarding to see such a variety of participation, and watch all the pieces come together," said Lieberg.

"This was our first entry burn and we are really pleased with the results," he said. "We selected this location in part because it is representative of an additional 2,000 acres in similar condition that we think could benefit from prescribed fire. We now have a 47-acre anchor point to build from."

Columbia Land Trust could not have implemented this burn without our many partners and fellow TREX attendees.

"As I watched the flames move across the forest floor. I considered all that had brought us to this place and this moment-igniting grasses and needles for the good of the forest. My early training with fire had all been about suppression. Watching this mellow fire burn at my feet, I considered how people had this kind of positive relationship with fire for millennia, knowing and understanding its benefits and role in our ecosystems. Finding our way back to that feels really good."

> – Lindsay Cornelius, East Cascades Oak Partnership Manager



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Fireweed (Epilobium angustifolium) is an early successional native species that typically establishes at higher elevation burn sites.



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