

Columbia Land Trust

CONSERVATION & RESTORATION REPORT

2016-2017



Exploring our Curious Nature

It's hard to live in the Pacific Northwest and not develop a love for the outdoors.

We all have our own ways and reasons. Some explore new trails and backroad adventures, others spend weekends gardening in the backyard or relaxing in a neighborhood park, and still others work the land for a living. No matter how we connect with nature, the connection helps us slow down, look closer, breathe easier, and see the world with fresh eyes. The more we listen to and learn about the world around us, the deeper our reverence, awe, and curiosity grow.

At Columbia Land Trust, we're decicated to protecting and restoring the Northwest's vital natural places so that curiosity always has a place to thrive. Thanks to supporters like you, we were successful in protecting some of our region's most important places, and we're well situated to expand on those successes in the years to come.

In 2016 alone, we conserved 3,526 acres, increasing our lifetime total by more than 10 percent. While we're proud to of this momentous achievement, acreage alone can't fully describe the nature of our work.

For years, Columbia Land Trust has been building relationships: listening, learning, and changing what we do based on what we learned. We have even seen a few successes in bridging cultural chasms, such as the urban-rural divide, by unearthing our common love for the Northwest.



Columbia Land Trust has helped to find simple solutions that overcome our regional "timber and fish wars" by finding the common ground. We have implemented solutions that are good for nature, economy, and our local communities. Land brings us all closer together, as a people.

And yet, our work has just begun. Looking ahead, I see our most powerful opportunities. Columbia Land Trust has spent the last few years establishing new relationships with working family foresters, industrial forest landowners, farmers, ranchers, and our urban populations. We are poised to implement new programs—we call it our Conservation Agenda—that takes our relationship-building to the next level. We are poised to offer powerful new solutions to our most vexing challenges.

None of this would be possible without the support of people like you. Thank you for protecting the nature of the Northwest now and for generations to come.

In friendship,

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Glenn Lamb, Executive Director, Columbia Land Trust



Nurturing Your Investment

Our Work is Rooted in Sound Science and Strong Relationships

For a quarter century, we've listened to individuals and communities about their needs, found common ground, and crafted lasting conservation solutions to a wide variety of challenges.

Columbia Land Trust delivers a tremendous return on investment for its supporters. On average, **every dollar donated to Columbia Land Trust is leveraged at a rate of 30 to 1.** We develop partnerships, secure grants, and prioritize projects so that each donation contributes to large-scale, meaningful conservation. Our deep understanding of the region and its people allows us to get the most out of each dollar. Simply put, your money goes further with Columbia Land Trust.





COAST RANGE 8 ESTUARIES

Crooked Creek, Wahkiakum County, WA

Recently Conserved



Crooked Creek Wahkiakum County, WA

In January 2017, Columbia Land Trust conserved this 31-acre property along Crooked Creek and on the Columbia River, adding to an adjacent 120 conserved acres at the confluence of Crooked Creek and the Columbia River at Grays Bay. Columbia Land Trust plans to restore the Crooked Creek properties together through dike and tide-gate removal, ditch filling, large wood placement, and native planting.



Hines Marsh, Leadbetter Point Pacific County, WA

In 2015, the Land Trust was awarded a U.S. Fish and Wildlife Service (USFWS) National Coastal Wetlands Conservation grant to purchase—in four ownerships—up to 130 acres of oceanfront land at the northern tip of Long Beach Peninsula, adjacent to Leadbetter Point State Park and Willapa National Wildlife Refuge's Leadbetter Unit. In March 2016, we purchased the first property at Hines Marsh, which contains ocean frontage, coastal dunes, and interdunal wetlands. It hosts federally–listed snowy plover and streaked horned lark, and Washington State–listed pink sand verbena.

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Willapa Bay, Seal Slough Pacific County, WA

On Willapa Bay, Seal Slough consists of 374 acres of tidal wetlands, sloughs, freshwater creeks, riparian areas, and associated upland coniferous forest. The Land Trust purchased the property in December 2016. It contains 1 mile of Willapa Bay frontage, 15 miles of streams, 70 acres of salt marsh, and mature conifer forest, and it is just south of more than 900 acres of Willapa Bay shoreline conserved by Columbia Land Trust, Washington Department of Fish and Wildlife (WDFW), and Forterra.



Chinook River Pacific County, WA

The Chinook River is one of the last watersheds in Washington before the Columbia River meets the Pacific Ocean. In 2001, the Land Trust aided in the transfer of 870 acres from Washington State University to WDFW. In January 2017, the Land Trust acquired 285 acres just upstream from the WDFW Wildlife Unit, which links to the 600-acre Fort Columbia State Park.

The property protects 1 mile of the Chinook River, 3 fish-bearing tributaries, and 245 acres of associated wetland habitats. The acquisition will enable habitat restoration, including road removal, weed control, and native planting. The project will also support local and out-of-basin salmonids, as well as federally-listed eulachon.

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Upcoming Acquisitions

Grays Bay Watershed Wahkiakum County, WA

Though specific properties are currently being evaluated, the Land Trust is in the process of purchasing multiple properties in 2017 at the confluences of Grays River, Deep River, and Crooked Creek and Columbia River at Grays Bay. With the acquisition of additional properties, we will be able to complete three largescale intertidal wetland restoration projects, benefitting salmon, steelhead, eulachon, and numerous migratory waterfowl and shorebirds.



Columbia Land Trust has conserved 281 acres at the northernmost tip of Long Beach Peninsula,

Leadbetter Point, and in 2017, we expect to purchase three more properties totaling 104 acres. The land will support ESA-listed nesting snowy plover and streaked horned lark, Roosevelt elk, and black bear, among other wildlife.



South Tongue Point Clatsop County, OR

The Land Trust is in the process of fundraising for this 90-acre property on the Columbia River in Astoria, Oregon. The land will be owned by Clatsop Community College, which owns a marine education facility next door and will use the property as a living laboratory for its students. Likely funders include the USFWS National Coastal Wetlands Conservation Grant Program and the Oregon Watershed Enhancement Board. With the acquisition of the property, estimated to take place in 2018, the college will be able to work with partners to complete a large-scale intertidal wetland restoration project, benefitting salmon, steelhead, eulachon, and numerous migratory waterfowl and shorebirds.

Recently Restored



In 2015, Columbia Land Trust entered into a three-year agreement with Cowlitz County to treat invasive weeds on 25 acres of riparian vegetation along lower Abernathy Creek, west of Longview, Washington. The Land Trust holds conservation easements on seven private properties along the creek, and we have been partnering with the landowners to steward the land. This year was the second year of efforts by the Cowlitz County Noxious Weed Control Board crew.



Columbia Stock Ranch: Floodplain Restoration Columbia County, OR

The Land Trust is working with the U.S. Army Corps of Engineers to design and initiate restoration of approximately 500 acres of disconnected floodplain habitat along the main-stem Columbia River. Work includes removing the levee along the river shoreline, excavating a new tidal channel network and marsh habitat, and reestablishing the native vegetation community. The design and outreach process continued through 2016, with the intention of awarding a construction contract for the work in 2017. This project involves a multiyear effort to complete earthwork and establish native habitat communities throughout the floodplain.



Crazy Johnson Creek: Floodplain Enhancement Wahkiakum County, WA

In the last year, Columbia Land Trust partnered with Lower Columbia Fish Enhancement Group to plant 14,000 trees and shrubs in approximately 30 acres of the floodplain along Crazy Johnson Creek. This river is one of the most productive chum salmon spawning areas in the lower Columbia River.

This reforestation of the floodplain is a multiyear effort that will continue to consist of monitoring survival, restocking plants that were not able to survive, and controlling weeds to try to get rid of a variety of invasive species.



Indian Jack Slough: Wetland Habitat Enhancement Wahkiakum County, WA

In 2016, the Indian Jack Slough property benefitted from native plantings as well as installation of down woody debris (DWD) and snags. The DWD provides highly productive habitat for amphibian species as well as juvenile salmon and Columbian white-tailed deer. The logs will prevent wind-generated wave action from disturbing emergent vegetation, where amphibian egg masses are deposited, and enhance breeding and basking sites for a variety of species. The snags-standing dead wood structureswill provide roosting sites for birds of prey and, over time, habitat and forage for a variety of avian species. Lastly, in 2016 we conducted another round of monitoring amphibian egg masses throughout the site, the survival of previous plantings, the productivity of purple martin gourds, and the activity at wood duck boxes. We also treated several acres of prior planting areas for invasive blackberry, increasing the ability of other plants to thrive.



Kerry Island: Tidal Restoration Columbia County, OR

Among many acres of historic tidal floodplain habitat sits 100 acres of prime juvenile salmonid rearing and overwintering habitat that Columbia Land Trust has acquired and restored. The site had significant restoration potential since being diked, ditched, and drained between the 1930s and the 1950s. During the



summer of 2016, the Land Trust and partners established full tidal reconnection after removing several thousand feet of levee and excavating more than a mile of a historic tidal channel. Intensive seeding and weed control is under way, with the planting of 50,000 trees and shrubs scheduled for early 2017 to help establish a diverse, native vegetative commu-

establish a diverse, native vegetative community. We removed acres of invasive blackberry after construction to create additional space for native plantings.

conditions within the forest, we created snags and placed down woody debris on the forest floor. The Land Trust planted more than 16,000 trees consisting of four species within thinned areas, and another 10,000 are planned for early 2017. Early indications suggest that the plantings are thriving, and the canopy associated with the mature trees on the property is much improved, allowing for more rapid growth.



Upper Elochoman Forest: Restoration Enhancement Wahkiakum County, WA

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The Land Trust aquired the Upper Elochoman Forest property, containing two miles of Elochoman River frontage and many of its tributaries, after it was harvested, farmed, and re-planted with a single species. To enhance structural and species diversity, we thinned existing trees, established a more diverse cohort of conifer species historically found in this region, and planted dense shrubs within a 4-acre wetland following several years of weed treatments. To mimic late-successional



Wallacut River Confluence: Tidal Restoration Pacific County, WA

In September 2016, the old levee along the Wallacut River was removed and tidal channels were constructed to allow approximately 109 acres of land to be reconnected with the river. Located at the confluence of the Wallacut River and the Columbia River Estuary, this restoration project provides a unique opportunity to restore important habitat function for a wide variety of species, including federally listed salmonids. In all, the Land Trust removed approximately 2,000 feet of levee, restored access to more than 700 feet of historic tidal channel, and constructed 1,200 feet of new tidal channel.

Upcoming Restoration Projects



The Land Trust will plant 50,000 trees and shrubs in early 2017 in order to expedite the establishment of native species throughout this property. In part an experiment, the site has subsided–lost elevation–significantly compared to reference conditions. The floodplain currently exists below the lowest elevational extent at which woody vegetation can survive, so the Land Trust is watching closely to see what species flourish. This will inform necessary weed control and seeding activities into the future. In the meantime, we will plant woody species on higher ground, consisting of any remaining levee structure, and fill other areas for topographic complexity.



Lower Elochoman Forest: Tidal Restoration Wahkiakum County, WA

The Lower Elochoman Forest is ready for its final phase of restoration. A portion of the property that was until recently a poplar plantation will have its habitat functionality restored in 2017. We will remove a dike, fill ditches, and excavate meandering tidal channels to restore critical juvenile salmonid habitat. The property benefits from many acres of adjacent conserved land, including a national wildlife refuge. Lower Elochoman Forest will provide habitat for not only salmon but the federally listed Columbian white-tailed deer as well. We will prep the site prior to tidal restoration to prevent an outbreak of invasive weed species, followed by intensive seeding and planting after the earthwork.

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Upper Elochoman Forest: In-stream Enhancement Wahkiakum County, WA

The Land Trust secured funding and expects to obtain permits for the enhancement of a stretch of main-stem Elochoman River and three of its tributaries, work that was originally slated for 2015. Fifteen engineered logjams (ELJs) are slated for installation within the river, and twenty smaller structures are planned for three adjacent tributaries. Additional work includes re-meandering Cat Creek into a historic channel from its current linear flow path. The large wood will provide channel roughness; aid in floodplain activation; and provide shading, prey production, and nutrient availability as well as help create additional spawning habitat through gravel sorting. Previous forestry activity greatly diminished the amount of wood available to the stream, which juvenile fall chinook salmon and steelhead use for rearing and spawning. The forest stand enhancement work we completed in 2016 provided more than 350 logs, which will be utilized for in-stream enhancement. We will plant 10,000 additional trees in thinned areas in early 2017.



Wallacut River Confluence: Tidal Restoration Pacific County, WA

We will continue planting, monitoring, and weed control work here to ensure that this project continues on a good restoration trajectory. February 2017 will see the installation of approximately 20,000 plants. Control of gorse-the primary invasive species of concern at this site-will continue through early spring. We anticipate additional planting during the winter of 2017/18, and weed control will be an ongoing effort until woody vegetation is well established. The Land Trust will continue monitoring site hydrology, channel morphology, vegetation changes, and sediment dynamics on the site for five years post-construction.

WILLAMETTE VALLEY & PUGET TROUGH

Seasonal flooding at Atfalati Prairie, Washington County, OR

Recently Conserved



Atfalati Prairie, Tualatin River Washington County, OR

The Land Trust acquired the 210-acre Atfalati Prairie conservation area in 2015 and began restoration planning. In September 2016, we acquired a 2.5-acre inholding of the property; ownership of this inholding will simplify restoration and stewardship of the larger site. We are currently working with partners to bring back native oak, wet prairie, and floodplain habitat on the property.



Cranes' Landing Clark County, WA

On March 15, 2016, Columbia Land Trust obtained 541 acres of lowlands from the Port of Vancouver. This property will be managed to provide foraging and overwintering habitat for sandhill cranes, which are endangered in Washington, and for other species. The project is intended to redress habitat loss caused by the port. We are utilizing a detailed management plan to ensure habitat is created and maintained.



Also in March 2016, the Land Trust acquired 20 acres along the East Fork Lewis River in order to close a small gap in the greenway here. We have partnered with Clark County for more than 20 years to create a greenway along the river, and this acquisition represents another opportunity to build on the system, which protects important fish and wildlife species as well as public access to recreation lands.



Washougal River Clark County, WA

This property represented an extremely rare opportunity to conserve 20 acres of habitat and future parkland along the Washougal River right within the City of Washougal. This is the largest undeveloped section of frontage on the lower river. Columbia Land Trust has worked with the City of Washougal and Clark County to advance this project on property the city acquired in 2016. The floodplain portion of the property (approximately 15 acres) will remain as a natural area, and the upland portion (approximately 5 acres) will be developed as a city park.

Upcoming Acquisitions



Clark County Conservation Clark County, WA

The Land Trust is working with Clark County and several cities within the county to identify priority acquisition projects for the protection of natural areas and parks. With the Land Trust's support and leadership, the county is poised to invest millions of dollars in the coming years to conserve multiple sites throughout the area.

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Columbia Stock Ranch Columbia County, OR

This acquisition expands the 960-acre Columbia Stock Ranch conservation area and incorporates a plot that is important for restoration design. The restoration of the Columbia Stock Ranch property will reconnect hundreds of acres presently isolated from the Columbia River floodplain, reestablishing important salmonrearing spots and improving habitat for wildlife.



East Fork Lewis River Greenway Clark County, WA

The Land Trust is continuing to work with Clark County to build a connected greenway along the lower 13 miles of the East Fork of the Lewis River. This planned acquisition is adjacent to Lewisville Park and will allow for expansion of hiking trails while also protecting important wildlife habitat.



East Fork Lewis River Watershed Clark County, WA

The Land Trust is in the process of conserving multiple properties in the East Fork Lewis River watershed. Specific properties are currently being evaluated for us to move forward on in 2017. With the acquisition of additional properties, we will be able to protect habitat for large concentrations of migratory waterfowl, wintering bald eagles, and federally listed populations of steelhead, coho, Chinook, and chum salmon.



Recently Restored



Atfalati Prairie: Initial Stabilization Washington County, OR

In 2016, the Land Trust began initial weed control at the Atfalati Prairie site. This task was delayed due to unexpected cultural resources compliance needs, but the Land Trust, with its partners, was able to work through these needs and began treatment on invasive blackberry this past fall. We also acquired a small inholding to the property, which will facilitate planned riparian enhancement. Work in 2017 will include further weed control, some planting of trees and shrubs to expand the riparian habitat along the Tualatin River, and planning. Future restoration will include reestablishing diverse wet prairie, oak woodland, and riparian forest habitats through a natural hydrologic regime and planting.

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Boardman Creek: Urban Restoration Program Clackamas County, OR

Columbia Land Trust is partnering with landowners in Milwaukie to restore 0.8 wooded acres on a property where the we hold a conservation easement. Our staff worked closely with the landowners in 2016 to develop a five-year restoration plan. The project will enhance wildlife habitat, improve storm water retention, and protect water quality in a springfed stream at the headwaters of Boardman Creek. The landowners also envision the site as a future community resource for education and engagement with nature, particularly because of the site's proximity to the local high school and an adjacent walking path. Weed control began in 2016, with the majority of the effort focused on the removal of invasive trees this past fall. Tree removal work included the creation of standing snags and downed-wood piles for wildlife habitat. Intensive weed control will continue for at least one more year. Planting will begin in 2017 or 2018 to enhance riparian vegetation along the stream and restore a native plant understory below two large, beautiful Oregon white oaks.



Cranes' Landing: Foraging Habitat Enhancement Clark County, WA

The Port of Vancouver, in cooperation with Columbia River Alliance for Nurturing the Environment (CRANE), recently transferred nearly 541 acres of critical habitat designated for sandhill cranes in March 2016 to be owned and managed by the Columbia Land Trust. The property is located just across the Columbia River from Sauvie Island and the mouth of the Willamette River, and just west of Vancouver Lake. In May and June of 2016, a family farming duo from Woodland, Washington, planted 110 acres of corn, 30 acres of peas, 30 acres of alfalfa, and 60 acres of sorghum as a late-season food source for an estimated 1,500 to 2,000 sandhill cranes that winter in close proximity to the property. Our current and intensive monitoring shows cranes have been utilizing various portions of the property, targeting areas of wind-thrown corn, large blocks of planted peas, and naturally occurring yellow nutsedge (chufa).

Monitoring crane behavior and foraging habits in 2016 and 2017 is a crucial strategy that will help dictate how and what crops should be planted in 2017. Aggressive weed control efforts occurred in August 2016, which removed nearly 20 acres of blackberries and reed canarygrass. Volunteers have been instrumental in removing old fence lines, monitoring grain crops, and disposing of more than 1.5 tons of garbage.



Green Cathedral: Urban Greenspace Restoration

Clark County, WA

Columbia Land Trust planted 6.9 acres with more than 2,000 trees and shrubs following weed control and site preparation efforts. The species list was a diverse mix that will provide both habitat and forage for a variety of species. After planting, we took an aggressive approach to plant maintenance, by chemically treating around each tree to reduce competition as well as mowing the remaining vegetation along each planting row. Green Cathedral has also received continued management of invasive species. This property, located in Orchards right off Highway 503, is pinned between commercial and industrial areas and is an important haven for wildlife living in the urban-wildlands interchange.

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Keller Woodland: Urban Forest Restoration Multnomah County, OR

Columbia Land Trust is working with partners in southwest Portland to complete a 3-year forest restoration project on the 40-acre Keller Woodland site along Terwilliger Boulevard. Work began in the spring of 2016 with a group of dedicated local volunteers, who spent two days hand-pulling English ivy along a walking trail. In September, a restoration crew treated dense English ivy infestations across 7 acres of the property. Project partners began weed control on English ivy and invasive trees at nearby sites this fall. Over the next two years, work will continue with native tree and shrub plantings to restore areas where weeds have been removed. This restoration project emerged from more than 20 years of community efforts to protect forest canopy and connect wildlife habitat in urban forests of the West Hills.



McGahan Property: Weed Control Clackamas County, OR

In partnership with the Clackamas Soil and Water Conservation District, we continue to implement yearly weed control at this 23-acre forested site near the Clackamas River, west of Estacada, Oregon. For the last two years, the Land Trust has also been working to restore areas along the forest edge that were disturbed by residential use from the surrounding housing community, which had led to rapid invasions



by non-native plants. Restoration activities have included planting native trees and shrubs as well as controlling weeds, and have largely been completed with the help of volunteers.



Woods Landing: Habitat Restoration Clark County, WA

Columbia Land Trust will continue working to restore 3 acres of a 13-acre conservation area on the Columbia River near the I-205 overpass. This project focuses on improving the natural conditions of the fee-owned land, which is sandwiched between an additional 4-acre and 6-acre conservation easement. Columbia Land Trust has been working, primarily with a great team of volunteers, to remove ivy, blackberry, and holly, and to plant native trees and shrubs. Volunteers and staff have removed derelict infrastructure in anticipation of future enhancement activities.

Upcoming Restoration Projects



Atfalati Prairie: Initial Stabilization Washington County, OR

Work in 2017 will include further weed control, some planting of trees and shrubs to expand the riparian habitat along the Tualatin River, and planning for future restoration. Subsequent efforts at this site will include restoring diverse wet prairie, oak woodland, and riparian forest habitats through reestablishing the natural hydrologic regime and planting. Oak release will also likely occur in 2017, which will remove conifers affecting the ability of oaks to reach their full potential.



Weed control will continue in 2017, including efforts by the landowners to remove groundcover weeds by hand. Planting of native trees and shrubs will begin as early as fall 2017, with the goal of enhancing riparian vegetation and restoring both the forest canopy and the upland forest understory below two mature Oregon white oaks.



Cranes' Landing: Foraging Habitat Enhancement Clark County, WA

Approximately 10 acres here will be reforested with native trees and shrubs in March 2017. Several miles of berms are proposed for construction in 2017, which will create visible barriers along the walking path and roadways. These barriers are essential for the sandhill cranes to feel secure while foraging within the property. The berms will then be planted with native trees and shrubs to create elevated, native hedgerows. The Land Trust is working in cooperation with the City of Vancouver (the property lies within the city limits), Olson Engineering, and Archaeological Investigations Northwest to complete the necessary permits. Weed control efforts will continue in 2017 and for many years to come. Farming efforts in 2017 will be tailored to mimic the 2016 efforts, currently being heavily utilized by sandhill cranes.



Green Cathedral: Urban Greenspace Restoration

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Clark County, WA

Additional weed control will occur in 2017 where initial work released a flush of new weeds. Weedy trees will be suppressed, and staff will be tackling weeds using a variety of methods. Infill planting will occur later in the winter.



Keller Woodland: Urban Forest Restoration Multnomah County, OR

Weed control will continue next year at the Keller Woodland site, including potential weedy tree removal early in 2017. Over the next two years, weed-controlled areas will be planted with native trees and shrubs to restore the native forest community.



Nicolai Woods: Habitat Restoration Multnomah County, OR

Outreach to neighbors and weed control efforts will be the focus at Nicolai Woods in 2017. Blackberry stands and other weeds have expanded, affecting the native forest, and will be treated. Follow-up plantings will occur in 2018.



Rainbow Farm: Initial Stabilization Washington County, OR

Some initial weed control work will be conducted in 2017. The farmer cultivated much of the site in 2016, helping to begin weed control. Non-farmed areas will be addressed in 2017, along with fencing repair, outreach, restoration planning, and grant writing.

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Woods Landing: Habitat Restoration Clark County, WA

Strategic removal of ivy along stream banks and dense planting of ferns and shrubs will be conducted this year. There is a push by neighbors at this site to eradicate weeds without the use of chemicals, which is a challenge at such a disturbed site. Staff will be experimenting with removal techniques for hard-to-control species. Ivy and blackberry will continue to be suppressed manually by volunteers.



Backyard Habitat Certification Program

In partnership with the Audubon Society of Portland, Columbia Land Trust has managed the Backyard Habitat Certification Program (BHCP) since 2009. The BHCP is an initiative within the Portland metropolitan area that works with residents to preserve privately held green space in the developed landscape. The program fosters environmental stewardship of urban neighborhoods by giving participants the tools and incentives to become conservationists and preserve critical habitat in their own backyards.

Specifically, the BHCP educates city residents about natural habitats and empowers them to make meaningful changes to their communities, one backyard at time. The work members are doing in their yards is crucial to habitat in the urban center, an area very much in need of green space that allows migratory birds and other wildlife sanctuaries to thrive. Moreover, this work is critical to engaging city residents in effectively stewarding and maintaining a healthy environment.



Working in 4 cities in the Portland region, we enroll more than 500 new properties a year. Currently, the program has nearly 3,400 properties enrolled, covering 820 urban acres. Of those properties, 1,567 are certified, covering 224 acres. Annually, volunteers dedicate more than 5,000 hours to supporting program operations and working with local green businesses to provide tens of thousands of native plants to participants.

Over the last two years, the BHCP has seen an increased interest from local municipalities, which recognize the environmental and community benefits of the program and want to offer it to the communities they serve. In 2016,

we worked with the City of Gresham to expand our services into Gresham and Fairview. In 2017, with funding from local agencies serving Clackamas County, we will be utilizing a plan developed in 2016 to expand our services into the cities of West Linn and Milwaukie.

WEST CASCADES

Southern slopes of Mount St. Helens, Skamania County, WA

Upcoming Acquisitions



Mount St. Helens Forest, Phase II Skamania County, WA

The Mount St. Helens Forest Phase II conservation easement will protect 7,900 acres of forestland on the southern flank of Mount St. Helens. This project will connect 1.4 million acres of federal, state, and private conservation lands, including Mount St. Helens National Monument. Federally threatened northern spotted owl and bull trout as well as Washington State's largest elk herd rely on this property for habitat.



Wind River, Double Bend Phase III Skamania County, WA

This forest property includes 100 acres of mature mixed forest and 35 acres of old-growth habitat. It also protects more than a mile of west bank riparian habitat for wild steelhead along the Wind River. The property lies entirely within a northern spotted owl nest circle and is surrounded on two sides by WDNR owl habitat lands. The Land Trust's Double Bend project area lies just to the north, and this phase would expand the entire project area to 236 acres. The USFWS considers this a high priority northern spotted owl habitat conservation project.

> Federaly threatened northern spotted owl and bull trout, as well as Washington State's largest elk herd rely on this property for habitat.



Recently Restored



E. Fork Lewis River, Rock Creek: Riparian Forest Enhancement Clark County, WA

In January 2015, the Land Trust acquired 51 acres of riparian and upland forest along Rock Creek, a major tributary to the East Fork Lewis River. At the time the property was acquired, surface runoff along the property's unmaintained forest roads was delivering fine sediments to Rock Creek and threatening critical habitat for winter steelhead. This summer, the Land Trust removed failed culverts and restored stream crossings along 1.25 miles of forest roads. Planting of the former roadbed in early 2017 will complete the road abandonment and allow the forest to slowly take over. Adjacent forest stands will also be under-planted to increase diversity and enhance habitat for wildlife. Weed control began in spring of 2016 and will continue through spring of 2017.

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Pine Creek East: Restoration Forestry Skamania County, WA

Columbia Land Trust continues to implement its long-term forest management plan on the 2,500-acre Pine Creek East conservation property. The primary objective is to facilitate the development of old-growth forest with the vegetation and structural attributes of a late successional forest benefitting northern spotted owl, bull trout and, in the anticipated near future, gray wolf. Work in 2016 included thinning of overstocked stands, monitoring the impacts of work completed in 2014, maintaining roads and other infrastructure, and planning for future work. It is anticipated that in 2017 additional thinning will be implemented and poorly stocked young stands will be planted to enhance cover and species diversity. Weed control in recent clear-cut areas is an ongoing effort.





Pierce Island: Rare Plant Monitoring and Weed Control Skamania County, WA

Pierce Island in the Columbia River, downstream of Bonneville Dam, supports a population of the rare plant persistent-sepal yellowcress (*Rorippa columbiae*) in gravelly shoreline habitats. In summer 2016, Columbia Land Trust reviewed past persistent-sepal yellowcress survey data, collaborated with other rare plant experts, and surveyed current populations on Pierce Island and nearby Columbia River shorelines. Additionally, we continued weed control work to reduce populations of false indigo bush, a shoreline invader that could compete for space with the scarce yellowcress.



Sandy River: Barlow Trail Floodplain Restoration Clackamas County, OR

In partnership with the Land Trust, the Sandy River Basin Watershed Council (SRBWC) completed a floodplain restoration project on our Barlow Trail property. This included installation of three large engineered logjams along with smaller in-stream structures to enhance habitat for fish. Though this was primarily a fish-enhancement project, the restoration also created a new channel, routing water away from several homes adjacent to the river that were vulnerable to river dynamics. The SRBWC has been working to replant areas affected during logjam construction, using crews from Project YESS, a program of Mount Hood Community College.

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Upcoming Restoration Projects



Mount St. Helens, Pine Creek East: Forest Conservation Skamania County, WA

In order to ensure the regeneration of recently clear-cut stands, the Land Trust is initiating a supplemental planting effort on approximately 370 acres to increase stocking levels and the diversity of species found in these forests. In all, we expect to plant more than 400,000 seedlings in the next several years to accomplish this. Work will also include plant maintenance and protection, particularly from elk browsing.

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Wind River: Riparian Enhancement Skamania County, WA

Columbia Land Trust's forested property along the Wind River includes approximately half a mile of river frontage. The riparian zone contains diverse native species as well as a band of thick Scots broom and other non-native invaders. In 2017, we will work to systematically reduce the riparian weed populations to allow native species to recolonize this critical zone, improving wildlife habitat and increasing future shading and large wood recruitment for the Wind River, an important salmon and steelhead river.

EAST CASCADES & Columbia plateau

Mount Hood from atop Mill Creek Ridge in Wasco County, OR

Recently Conserved



Klickitat Canyon Klickitat County, WA

Located near Mount Adams on the east side of the Cascade Mountains in Washington, this conservation project will protect 2,400 acres of open ponderosa pine forest and steep canyon habitats, including 3.1 miles of the Klickitat Wild and Scenic River. The project links lands protected by the WDNR and the Yakama Indian Nation, and complements other public lands in close proximity: WDFW's Klickitat Wildlife Area, Conboy Lake National Wildlife Refuge, Gifford Pinchot National Forest, and Mount Adams Wilderness. Due to its diversity of microclimates and its location, The Nature Conservancy designated it a landscape of high climate resilience. The site supports numerous priority fish and wildlife species and functions as a critical wildlife corridor. Its sensational river canyon, mountain views, and plentiful recreational opportunities make it extremely vulnerable to low-density residential development, which would threaten its habitat and connectivity functions.



Mill Creek Ridge, Phase IV Wasco County, OR

In February 2016, the Land Trust acquired 115 acres of high-quality Oregon white oak woodland and native prairie. The property's wildflowers and bunch grasses bloom profusely in spring and support a host of native pollinators, migratory and resident birds, and other important wildlife. This parcel is the final link between existing conserved properties owned by the Land Trust on Mill Creek Ridge and brings our total ownership on the ridge to more than 400 acres.

> The Klickitat's sensational river canyon & mountain views make it vulnerable to low-density residential development.



Upcoming Acquisitions



Klickitat Canyon, Phase II Klickitat County, WA

Building on the success of Klickitat Canyon Phase I, Phase II will conserve 3,200 acres of ponderosa pine forest, talus slopes and canyon habitats, 1.1 miles of the main-stem Klickitat River, and 1.5 miles of tributary streams. These riparian corridors complete protection of more than 40 percent of observed wild steelhead spawning ground in the Klickitat watershed. Because it is a fee acquisition, Columbia Land Trust will be able to manage for old-growth forest characteristics, fire resilience, and improved wildlife habitat on this property. We anticipate closing on this property in December 2017.



Klickitat Canyon, Phase III Klickitat County, WA

Fundraising is under way for the planned final phase of the Klickitat Canyon project area. This northernmost acquisition phase includes 1.5



Hood River, Neal Creek Hood River County, OR

In December 2016, the Land Trust secured a commitment for funding to acquire this Hood River–Neal Creek confluence property. Neal Creek is one the highest priority streams for wild steelhead spawning in the mid–Columbia River region. The site is also home to old and rare river-bottom oak habitat and cottonwood gallery forests. It connects directly to the Land Trust's existing Powerdale Corridor and extends the footprint of the project area to the south. Acquisition protects the parcel from a farm and barn development currently planned for the site.



miles of the main-stem Klickitat River and many more miles of tributary streams, which provide important clear-water refuge to anadromous fish heading up the Klickitat to spawn. This phase seeks to protect the last large, private parcels remaining on the upper Klickitat where it flows out from tribal and public ownership.



Trout Lake Valley, Phase II Klickitat County, WA

This project is the Land Trust's second easement, protecting iconic organic dairy pastures in the scenic Trout Lake Valley. It conserves important pastureland leased by the state's first Organic Valley cooperative dairy. The valley is an agricultural gem because of its abundance of water and prime agricultural soils as well as its temperate climate and geographic isolation from pollution. But its natural beauty also means it is threatened by vacation-home development. At the time of this report, the Land Trust is in the final phases and intends to close on the property in early 2017.

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Trout Lake Valley, Phase III Klickitat County, WA

This project will acquire conservation easements on an additional 280 acres of organic dairy pasture in Trout Lake Valley. This will be the fifth agricultural easement that the Land Trust has completed in the valley overall, bringing the total to 700 acres. The project protects a fourth-generation farm-Mountain Laurel Jerseys-for a fifth generation and ensures that the gateway to the community of Trout Lake will forever retain its iconic character. The project ranked 3 of 24 in its funding category within the Washington Wildlife and Recreation Program and is likely to be funded in June 2017.

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Recently Restored



A 10-acre fallow agricultural field that was infested with skeletonweed and annual grasses has undergone three years of site preparation and was planted with oak and pine during the winter of 2016. With a healthy crop of emerging native grasses planted on the property last fall, we remain hopeful that a healthy oak and pine woodland will emerge in the years to come. However, initial results highlight how difficult it can be to establish vegetation in this harsh climate. Many pines survived, but most of the oak did not. We are working with a forester from Natural Resources Conservation Service (NRCS) to determine the variables that may have influenced survival, which we believe include soil conditions. We will likely attempt another planting in the coming years that will involve inoculating tree roots with mycorrhizal fungi, a key symbiont that may be lacking in the soil due to decades of fallowing.

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Mill Creek Ridge: Weed Control Wasco County, OR

In 2016, we initiated an ambitious new monitoring project to track the status and trends of noxious weed infestations and native plant cover at our grassland properties in The Dalles. The experimental design is still under development and will be fully implemented in 2017. This project will give us a better understanding of the impacts of our continuing noxious weed control work on prairie habitats, enabling us to make scientifically driven management decisions.



Highland Forest, Little White Salmon Stewardship Area Skamania County, WA

Columbia Land Trust staff and volunteers have persisted with survival monitoring for the reforestation project within a 25-acre highland forest planting area of the Little White Salmon properties. The groups have continued to replant to maintain the necessary plants per acre to successfully return these fields to a healthy forest. Staff is also continuing to treat and control various invasive species throughout the property, including bull thistle, Canada thistle, and Scots broom.



Powerdale Corridor: Public Access Management Hood River County, OR

The Powerdale Recreation and Access Plan was completed in early 2016. The Powerdale Lands Advisory Committee, a multi-stakeholder group, spent the year further developing strategies outlined in the plan. With assistance from a National Park Service program, the Land Trust was able to produce a summary map to illustrate the plan's key recommendations in a concise, visual format. The plan and map were presented to the Hood River County Board of Commissioners this past fall, and a public presentation is scheduled for early 2017. Columbia Land Trust established a key partnership with Trailkeepers of Oregon, a nonprofit organization that has agreed to help with on-the-ground trail design and lead volunteer trail crews in 2017.

> We remain hopefull that healthy oak and pine woodland will emerge in the years to come.





Powerdale Corridor: Riparian Revegetation Hood River County, OR

In 2016, Columbia Land Trust completed several riparian revegetation projects on the Hood River. Volunteers planted live stakes and a contracted crew planted native shrub seedlings to restore native cover to the 3-acre floodplain area we reconnected to the river last year. Several youth and adult groups toured the site on educational field trips, and some participated in weeding around the plantings. We completed weed management to support recent plantings at this floodplain, the nearby Whiskey Creek Riparian Enhancement Project site, and the riverbank revegetation areas adjacent to the former Powerdale Dam site. At the former dam site, we achieved a 96 percent survival rate from fall 2015 to fall 2016 of seedlings planted in winter 2014/15.

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The sixth and final phase of the Haul Road restoration project will revitalize and enhance another three miles of Klickitat River, thereby completing the removal of the road infrastructure along the main-stem of the river between Dead Canyon Creek and the Little Klickitat River (eight miles). The Land Trust chose to delay Phase VI construction from summer 2016 to summer 2017 because key staff left on maternity leave during the two-month construction window, and because WDFW was planning to remove the Dead Canyon bridge and was interested in coordinating construction contracts but was not yet ready to move forward.

We have continued to coordinate restoration activities around multiple user interests, including angling, hiking, and hunting. Planting and maintenance of the entire corridor continued to ensure that the overall restoration objectives are being met, including installation of approximately 5,000 native plants in the Phase V project area.



Margerum Ranch: Prairie Enhancement Trial

Klickitat County, WA

Columbia Land Trust explored a potential partnership with NRCS to restore annual grassinfested prairie east of the Klickitat River. NRCS is interested in launching test plots at Margerum Ranch to study native plant establishment using a variety of site preparation and native plant installation methods.



Upcoming Restoration Projects



Mill Creek Ridge: Weed Control Wasco County, OR

In 2017, we will conduct several rounds of vegetation sampling and data analysis as our new vegetation monitoring project ramps up. By closely tracking status and trends of noxious weed infestations and native plant cover across approximately 400 acres, we will improve our ability to manage prairie sites for native plant protection. In addition, we will continue controlling the persistent and aggressive rush skeletonweed so that we do not lose ground gained during the past two years of weed control.

> We continue to coordinate restoration activities around user interests, including angling, hiking, and hunting.



Powerdale Corridor: Public Access Management Hood River County, OR

The Powerdale Lands Advisory Committee, coordinated by Columbia Land Trust, intends to present the Powerdale Recreation and Access Plan to the public in 2017. The goals are to educate the public about the constraints on recreational development at this popular destination and to build support for recreation management strategies that will allow for better public access while protecting natural resources.

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Powerdale Corridor: Wetland Restoration Hood River County, OR

The Powerdale Corridor on the lower Hood River includes an off-channel wetland complex. Two ponds in this area have been overtaken by non-native plants along their shores, and the wetlands themselves have been similarly affected. In 2017, Columbia Land Trust intends to work with partners to develop restoration plans for this site that will benefit resident and migratory birds, fish, amphibians, and other wildlife.



Organization-Wide Efforts

Volunteering in 2016

Volunteers make up some of Columbia Land Trust's best and most active supporters. In 2016, 291 people jumped into volunteer projects on the land and in the office. Thirty outdoor events engaged volunteers in planting 2,000 trees, removing half an acre of invasive weeds, surveying sensitive flora and fauna, maintaining trails, removing 500 pounds of garbage, and more. Twenty-six site stewards personally tended to Land Trust-owned properties spanning more than 2,000 acres through regular site visits. A specially trained group of volunteers completed 42 formal property monitoring reports, producing land management information required to meet Land Trust Alliance accreditation standards. Our volunteers help us with all our operations, from contributing professional photographs to populating our databases. They're everywhere, championing our work and reminding us why we love what we do.

Tours

There's no better way to enjoy the outdoors than by taking a Columbia Land Trust tour, where one can experience natural lands off the beaten paths. Our tours offer opportunities to wonder, discover, and know nature under the guidance of expert conservationists and scientists, who live and breath the very nature of the Northwest.

The 2016 tour lineup featured some Land Trust classics while adding entirely new landscapes and topics. Tourgoers dove into the complex world of lichen and oak groves, stargazed in Trout Lake Valley, and trekked a dense forest in search of wildlife scat. Seventy-nine percent of tour registrants were first-time tourgoers. Fifty percent of registrants were engaging with the Land Trust for the first time.

Systems Development and Improvements

In 2016, staff worked with a database contractor to build a new and improved iteration of the LandsDB. Several user-group meetings were conducted to talk through needs and desires for functionality. This iteration of the LandsDB promises to be much more useful and flexible, as well as more affordable for other land trusts to implement. By the end of the year, existing data will be migrated and key staff will be testing the new LandsDB. Additional changes are planned for 2017 to enhance work flow, user interface, and functionality. Staff will also be presenting it at Land Camp as a step toward sharing this resource. Staff and the contractor will be offering the LandsDB to other land trusts to support their work.

Looking Forward

While we have had considerable success, the challenges in front of us all will require significantly expanded action. In 2017, Columbia Land Trust is embarking on a new Conservation Agenda to create shared commitment and action toward conserving land and solving these challenges. Our con-

servation agenda will be built on sound science and strong relationships.

Our scientists are working with partners throughout the region to identify the most important lands. These are the core lands, waters, and wildlife needed to help us solve our challenges in the decades ahead.

Our conservation agenda will identify which strategies will be most effective in implementing conservation through strong relationships. Columbia Land Trust has a solid track record of engaging people and partners, but there is much more that can be done. We are looking to models across the country, and to engaging people locally that have not yet been involved in conservation. The future looks bright here in the Northwest. Columbia Land Trust is embarking on a new Conservation Agenda to create shared commitment and action toward conserving land and solving challenges.



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The Columbia is a river like no other

We only get one shot at conserving it. With your support, we can ensure that the Northwest we love today endures through the ages.



Cover photo: stargazers at a tour in Trout Lake Valley, WA, © Brian Chambers Photography Back cover: close-up of lichen, © Doug Gorsline