Grant Application

Keely McIntyre

Email : kmcintyre@columbialandtrust.org
Application ID : A18MK56
Custom Ref. -

Application Start Date: 2021-11-05 16:11:02
Application Completed Date: 2021-11-05 20:27:30

1	Have you ever applied for an OWF grant before?	
	yes	
1.1	What was the name of the project?	
	East Cascades Oak Habitat - Monitoring Framework	
2	Have you ever been denied for an OWF grant before?	
	no	
3	Project Title	
	East Cascade Oak Habitat Monitoring Implementation	
4	Name of my Organization	
	East Cascades Oak Partnership	
5	If your organization is not a tax-exempt nonprofit, please list the name of your fiscal sponsor - If this does not apply to you, write N/A	
	Columbia Land Trust	
6	Project Manager Full Name	
	Lindsay Cornelius	
7	Project Manager Mailing Address - Please enter full address with city, state & zip	
	216 Cascade Ave., Ste B, Hood River, Oregon, 97031	

8	Project Manager Phone Number
	360-921-1073
9	Project Manager Email Address
	lindsayc@columbialandtrust.org
10	Please provide a brief biographical statement about yourself
	As a Natural Area Manager, Lindsay has stewarded Columbia Land Trust's conserved lands in the East Cascades for the past 17 years and has led planning processes for the same ecoregion during the last twelve. She has implemented oak woodland restoration, monitoring, and enhancement projects on nearly 1,000 acres in the Klickitat River watershed, and was the lead on a major, collaborative restoration project to remove 8 miles of paved road from the Klickitat River floodplain. Lindsay also led the strategic planning process for the East Cascades Oak Partnership from 2017-2020 and serves as Columbia Land Trust's primary staff for the partnership, for which the organization serves as fiscal and administrative sponsor. As the manager for ECOP, Lindsay facilitates partnership meetings and strategic planning, manages steering and technical committees, writes funding proposals, and coordinates partners at the state and local levels. She holds a B.S. in Environmental Science from Western Washington University.
11	Provide any social media handles you use - Enter social handles or URLs such as instagram, facebook, twitter, youtube, etc. so that we can use to cross promote on our channels - if you do not have any, please place N/A
	URL: https://www.columbialandtrust.org/our-work/east-cascades/east-cascades-oak-partnership/ Facebook: http://facebook.com/ColumbiaLT Twitter: http://twitter.com/@ColumbiaNature IG: http://instagram.com/columbialandtrust/ YouTube: https://www.youtube.com/channel/UCie00CEFdbTKPZ0i6WQuHzQ LinkedIn: https://www.linkedin.com/company/2299312/
12	Please indicate if you are currently following Oregon Wildlife Foundation on our social media channels
	- Facebook
13	Total estimated project cost
	33000
14	Funding that you are requesting from OWF - If you're request is for more than $5,000, please contact Tim Greseth - tim@myowf.org before submitting your application.
	8000
15	What type of project are your proposing?
	Other
16	Will your project address an Oregon Conservation Strategy habitat or species?
	yes

16.1	What habitat or species is addressed?
	Oak woodlands; Lewis's woodpecker; olive-sided flycatcher, COA 125 Wasco Oaks
17	Start date of project- Day/Month/Year
	03-01-2022
18	End date of project
	31-10-2022
19	Location of project
	Nearest town: Dufur, OR ; County: Wasco
20	Has a local, state or federal biologist reviewed this project?
	yes
20.1	What is their name and contact info?
	This project is part of a detailed strategic plan created by a partnership of agency staff and resource professionals across multiple agencies, tribes and non-profits. Our advisors, Jeremy Thompson, Chase Brown, and Hilary Doulos, at ODFW have been instrumental in the creation and implementation of that plan. They are actively engaged in this project, reviewing monitoring protocols and implementing them on the White River Wildlife Area. Phone: 541-298-8559 / Email: Hilary.doulos@usda.gov
21	Have you already or will you obtain necessary permits from all requisite agencies as applicable to proposed project?
	yes
22	What will the requested funds be used for?
	ECOP will develop field kits to help partners implement the monitoring protocol and will hire consultant(s) to help us install permanent plots on both public and private lands in the oak habitats west of Dufur (may include Forest Service Project areas, EQIP projects, and the White River Wildlife Area).
23	Provide a brief Project Summary
	This grant will advance important monitoring work in Oregon white oak priority habitats that have been underpresented in academic literature and management guidance resources. Hosting impressive biodiversity, including priority species Lewis's woodpecker, olive-sided flycatcher, California mountain kingsnake, and many first foods, understanding how these complex systems respond to disturbance is core to advancing meaningful conservation and restoration actions. With exponentially increasing fuels reduction and forest health funding directed to dry forest types and in light of intensifying fire behavior and climate change, we need these insights now more than ever. ECOP will use OWF funding to expand partner capacity for monitoring.

24	Upload pre-project pictures or a video - By submitting these photos or video I warrant that I am the legal owner of this media and grant the Foundation permission to reproduce, exhibit, or publish them for all general purposes in relation to Oregon Wildlife Foundation's work. If you have questions about photo or video submissions please refer to myowf.org/grants for guidance.

1 Document Uploaded

25	Fill out the budget

Project Revenue	Cash	In-Kind	Committed / Pending
Oregon Wildlife Foundation Request	8000		Pending
ODF Technical Assistance Grant	25000		Pending
REVENUE	33000.00	0.00	
		TOTAL PROJECT SUPPORT	33000.00
Project Expenses	Cash	In-Kind	Total
Contractors to install permanent monitoring plots	30000		30000.00
Mileage/travel	1000		1000.00
Equipment (2 laser rangefinders)	2000		2000.00
			0.00
			0.00
			0.00
			0.00
			0.00
			0.00
			0.00
			0.00
			0.00
			0.00
			0.00
		TOTAL PROJECT EXPENSES	33000.00
Balanced budget? This cell should read "0" ---->		NET	0.00

26 Upload your Project Narrative -
Please make sure your narrative is no more than 7 pages long, single spaced, 12 pt. font (Calibri preferred).

1 Document Uploaded

27 Upload letters of support

3 Documents Uploaded

28	I understand that I am required to submit a Project Completion Report, copies of any publications or social media posts crediting the Foundation's support, and post-project pictures at the completion of my project	
	yes	

East Cascades Oak Partnership

Proposal to Oregon Wildlife Foundation by Columbia Land Trust
November 5, 2021

Project Narrative

The East Cascades Oak Partnership (ECOP) formed in 2017 to coordinate, catalyze, and amplify the impact of conservation efforts in oak systems in the East Cascades ecoregion by partners and interested landowners. Our membership includes more than 160 people representing a variety of tribes, federal, state, and local agencies, land trusts, conservation districts, educational non-profits, small businesses, and private landowners. In 2020, ECOP completed an extensive planning process to focus our partners on oak conservation and restoration. The strategic plan summary is attached.

Our vision is that oak systems are abundant, diverse, and healthy, supporting rich biodiversity and human uses for generations to come. To work towards this vision, ECOP empowers people to make decisions and take actions that improve outcomes for Oregon white oak systems, which are a priority habitat in the Oregon Department of Fish and Wildlife's *Oregon Conservation Strategy* and which support Lewis's woodpecker and the olive-sided flycatcher in the Wasco Oaks Conservation Opportunity Area.

Project Need

From the beginning, ECOP has prioritized building a shared base of understanding among partners and stakeholders to catalyze learning about East Cascade oak systems, which have been largely ignored by academia. The USFS collated available research and case studies in 2014, offering management recommendations and identifying key knowledge gaps. The management recommendations, which are the only published recommendations specific to East Cascade oak systems, did not consider the diversity of oak system types in the East Cascades, which caused alarm among resource managers.

ECOP recently completed a multi-year strategic planning process funded by the Oregon Watershed Enhancement Board. Two of our highest priority strategies include: 1) conserving and connecting the most intact, functional oak systems; and 2) developing and implementing best management practices specific to East Cascade oak systems. Both of these strategies depend on a deeper understanding of historic and current conditions, as well as potential range of variability in plant associations, structure, and function going forward. The latter depends also on understanding system response to disturbance. With tens of millions of dollars recently allocated by the Oregon legislature to address fuel loading and forest health in dry forest types across Oregon, it is critical we understand how such practices impact limited habitat features and ecological processes and provide guidance to landowners and managers going forward. We cannot provide meaningful guidance if we are not measuring change following such treatments, or the effects of the fires they are being treated to withstand.

OWF's 2020 support of ECOP provided critical matching funds to a grant from the Oregon Department of Forestry to initiate this work. As we have reported, the monitoring protocol, which measures change in oak systems following disturbance events like wildfire and mechanical thinning, is now complete and

partner training is underway. Renewed funding from OWF will allow ECOP to complete field kits that our partners can use to install plots, removing a barrier to broader implementation. It will also allow us to install additional plots in active project areas on the Mt. Hood National Forest to help national forest managers evaluate project effectiveness and make necessary adjustments to future treatments. Our tool includes metrics specific to oaks that are not captured by traditional forest plots. Data will also inform the adaptive management framework and guidance tools that ECOP will be developing over the next two years and will add more generally to the cache of data available to the partnership and academia.

We are currently preparing another grant submission to the Oregon Department of Forestry to continue this work at the request of our partner, Wasco County Forest Collaborative (please see the attached statement of support from last year). We will submit that proposal later this month. We are also developing a Focused Investment Partnership proposal to the Oregon Watershed Enhancement Board, due in January 2022, that would help us build long-term funding to support this effort. OWF can serve as an important bridge to help us sustain this effort until we have secured longer-term funding.

OWF's continued investment will take us another step closer to a deeper understanding of under-studied oak systems, to being able to identify intact oak systems under threat of development for conservation and ecological stewardship, and to the ultimate protection and enhancement of thousands of acres of priority habitat in Oregon.

Project Summary

OWF funding would expand partner capacity to deploy the disturbance event monitoring protocols over the next year (2022) by completing three field kits for use by ECOP partners, and by deploying consultants to collect data in priority project areas.

Deliverables

During the grant period we propose to:

1. Purchase laser rangefinders and other supplies to complete three monitoring kits for shared use by ECOP partners. The kits will remove barriers to implementation and allow for more efficient data collection by a wider variety of land managers. Kits will provide all the necessary tools and supplies to install plots, including laser rangefinders, which dramatically improve efficiency (they eliminate the need to run tape to every tree) and accuracy (they eliminate the need for field calculations) of data collection.

2. Install permanent plots in priority project areas to measure the response of oak habitats to a range of disturbance events such as wild and prescribed fire, grazing and forest management practices, including the effects of fuels management in oak habitats. Baseline data will be recorded and stored by Columbia Land Trust.

3. Ensure monitoring tools and resulting data are available to ECOP partners and academia. Data is collected in Survey 123, a GIS application software available on most smartphones. Columbia Land Trust will manage the data and make it available to partners upon request, with approval by the ECOP Steering Committee. We will develop a data handling policy and will be sensitive to private landowner information as well as information about resources on tribal lands.

Budget

See attached. The budget for plot installation is scalable.

Timeline

Work will commence immediately and conclude by October 2022 following the approximate timeline:

January – March 2022:	Select and train contractors on the oak monitoring protocol; purchase supplies and equipment
January – March 2022:	Polish Survey 123 and data management processes based on 2021 field testing; draft data handling policy
March – June 2022:	Train partners, deploy monitoring kits
April – July 2022:	Plot installation

Qualifications and Resources

East Cascades Oak Partnership manager, Lindsay Cornelius, has been working in the oak landscape for 17 years as stewardship staff for Columbia Land Trust. She has overseen oak restoration efforts and effectiveness monitoring and mentored graduate students in Land Trust-sponsored research projects. As the manager for the East Cascades Oak Partnership, Lindsay facilitates partnership meetings and strategic planning, manages ECOP steering and technical committees, writes funding proposals, and coordinates partners at the state and local levels.

East Cascades Oak Partnership Coordinator, Mary Bushman, is a botanist and ecologist with extensive knowledge of oak and wetland systems, monitoring approaches, and experimental design. Mary worked for City of Portland's Bureau of Environmental Services before retiring to the Columbia River gorge. She works part time supporting ECOP planning and implementation work, coordinating meetings, writing grants, and supervising the implementation of ECOP-sponsored projects. In her spare time, she implements restoration and monitoring projects on her own oak woodland near Mosier, Oregon.

In addition to Columbia Land Trust's ECOP-dedicated staff, ECOP has active and engaged steering and technical committees that provide feedback and advance projects. Our partners, Oregon Department of Fish and Wildlife, Oregon Department of Forestry, US Forest Service (Mt. Hood district and the scenic area district) are all actively engaging in our partnership and providing support for the monitoring program that ECOP is building.

Project Outcomes

Despite the challenges from the changing climate and increased development pressure, much of the East Cascades oak landscape has yet to be fragmented. There continues to be great potential for landscape-scale conservation and management across public and private lands. This project will help partners understand how natural disturbance events and management interventions impact oak systems, building a data set that will help us responsibly and effectively steward and protect these critically important priority habitats.

EAST CASCADES OAK PARTNERSHIP

Strategic Action Plan Summary

2020–2030

Who We Are

We're glad you're here.

The East Cascades Oak Partnership, or ECOP for short, is made up of dozens of people and allied organizations who know and care deeply about the region—not only it's social and economic wellbeing, but the wellbeing of hundreds of species of plants and animals we share our home with.

Collectively, we recognize the importance of Oregon white oak systems to our quality of life and the species who inhabit these systems. This is why we've banded together, relying on more than 3,500 hours of pooled knowledge, resources, and well-vetted conservation strategies to help protect our region's prized Oregon white oaks and their surrounding habitats.

Over 25 partner organizations make up ECOP, including state and federal public agencies, tribes, nonprofits, watershed councils, conservation districts, small businesses, private landowners, and interested citizens. For a full list of partners, please see www.columbialandtrust.org/ECOP .

ECOP MEMBER INSIGHTS

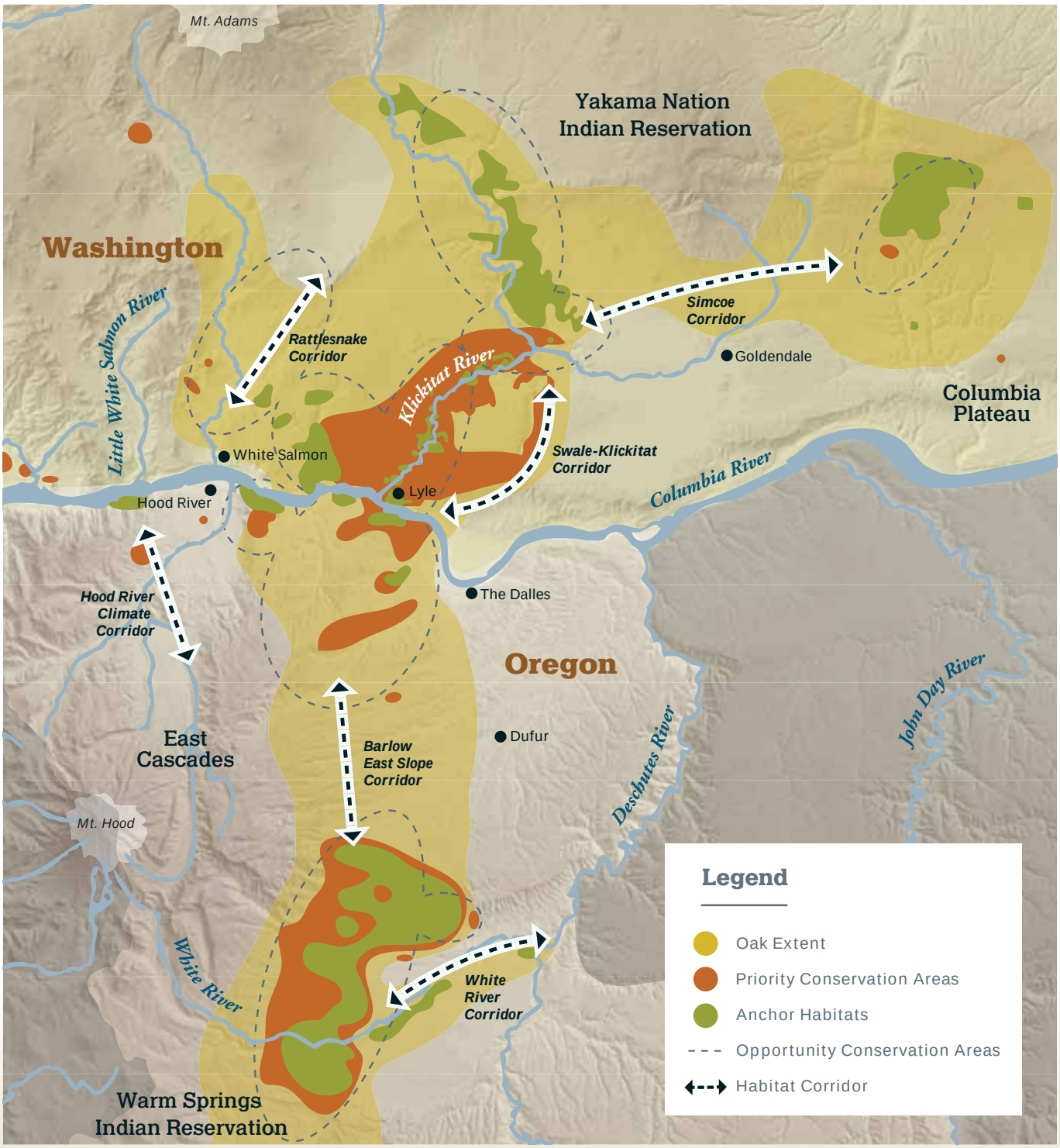
"I feel connected to ECOP through a shared community of oak enthusiasts. For years, I felt like a lone voice within my networks, advocating for oak habitat protection and enhancement. With the formation of the partnership, we can amplify each other's voices as we make a case for oaks in the East Cascades."

Jeremy Thompson, District Wildlife Biologist, Oregon Department of Fish & Wildlife

Woodpecker photo on cover by John Davis. Deer photo by Brian Chambers.

OUR REGION

We serve people interacting with oak systems in an area roughly bound by the Yakama Nation Indian Reservation to the north, the Warm Springs Indian Reservation to the south, the Cascade Mountains to the west, and the shrub steppe of the Columbia Plateau to the east.



ECOP MEMBER INSIGHTS

"The East Cascades Oak Partnership sits in the center of this magical Venn diagram of science, community, passion, and drive. I'm amazed at how much effort has gone into understanding so *many* perspectives on the issues, and the care that's being taken to account for the broad swath of needs and goals."

Michelle Sager, Conservation + Volunteer Coordinator Ekone Ranch

Oaks provide cavities, acorns, and cover for a host of wildlife, including these western gray squirrel kits.

Photo by Theo Anderson.

OUR MISSION

What we stand for

Oaks. They can stand alone, massive on a native bunchgrass savanna or as shrubs, one of thousands huddled together. They support hundreds of species with their acorn crops, fungal, and plant associations. Their natural fire resistance can be a buffer against catastrophic wildfire and if intense heat does damage their crowns, they often re-sprout shortly after.

Oaks provide the resources of both a living and dead tree

White oak woodlands have been identified as one of 11 habitats of conservation concern in Oregon.[1] Similarly, the Washington State Department of Fish and Wildlife highlighted oaks in its' 2020 Washington State Priority Habitat and Species List.[2] Yet outside of the Columbia River Gorge Natural Scenic area, oaks are largely unprotected from development, can be overgrazed by domestic livestock, and are dramatically altered by fire suppression; frequently dying in the shade of mature Douglas-fir trees that would have perished in fires as saplings.

While the importance of conserving and stewarding oak systems is known, strategy and resources have often been the missing piece—until now. Since 2017, ECOP partners and volunteers have collected stakeholder input and carefully reviewed research; a wealth of information and expertise now reflected in our strategies. We're informed by sound science, stakeholder experiences, and traditional ecological knowledge; a culture of learning and adaptation. And collectively, we work to empower people to take action. We're open to any interested individual, business, agency, or nation that embraces our Declaration of Cooperation, found here.

In the coming pages, we outline the steps each of us can take, now through 2030, to protect and steward this iconic landscape.

THE LANDSCAPE

There's nowhere quite like the East Cascades

The land

From the forested slopes of the Cascade Mountains to the arid shrub steppe of the Columbia Plateau, the East Cascades is a true transition zone. It unspools from 10,000 feet to 100 feet over a short, linear distance. Behind every fold in this landscape is a unique microclimate, with an array of species that make up the two leading characteristics of the East Cascades: biodiversity and climate resilience.

And its people.

The East Cascades are home to a distinct human-centered ecology; from Native Tribes to ranchers, orchardists, timberland owners, rural, and urban residents. People here

1: Oregon Conservation Strategy, 2016.
2: Washington State Priority Habitat and Species List, 2020.

Plants like biscuitroot, shown here, camas, deer, and acorns are examples of First Foods associated with oak landscapes. ECOP will explore how we can improve safe access to First Foods on ceded and private lands with our tribal partners.

Photo by Doug Gorsline.

have been an active part of maintaining oak habitat for millennia. Home to the Kittitas (Upper Yakama), Klickitat, Wasco, Wishram, and Tenino peoples, plants and wildlife associated with Oregon white oaks have long been a source of foods and medicines for tribal wellbeing.[3]

Land use policy implemented by the US and state governments after the Treaties of 1855 drove an upward tick in European-American migration, spiking dramatically when gold was discovered. The Dalles quickly became a hub for mining camps, creating a demand for meat and giving rise to a stock industry. As fertile grasslands were converted to wheat farms and orchards, grazing practices were driven into the foothills - and into the oak woodlands.

The burgeoning transportation industry—specifically, steamships—also found a home. Oregon white oaks were one of the primary fuels for the three steamships making multiple trips per day. As emerging rail- and road systems allowed for expanded transport of forest products, conifers were favored over oak; with management and even policy efforts to replace oak with pine and fir.

The timber and grazing industries have endured since this era and today are accompanied by tourism and fruit production as primary economic drivers in the region. This steady growth has necessitated fire suppression efforts that, ironically, have led to a higher risk of catastrophic fire and habitat loss.

OREGON WHITE OAK SYSTEMS

The East Cascade oak landscape transitions from low to high, wet to dry, providing diverse homes to plants and animals.

Our six oak systems

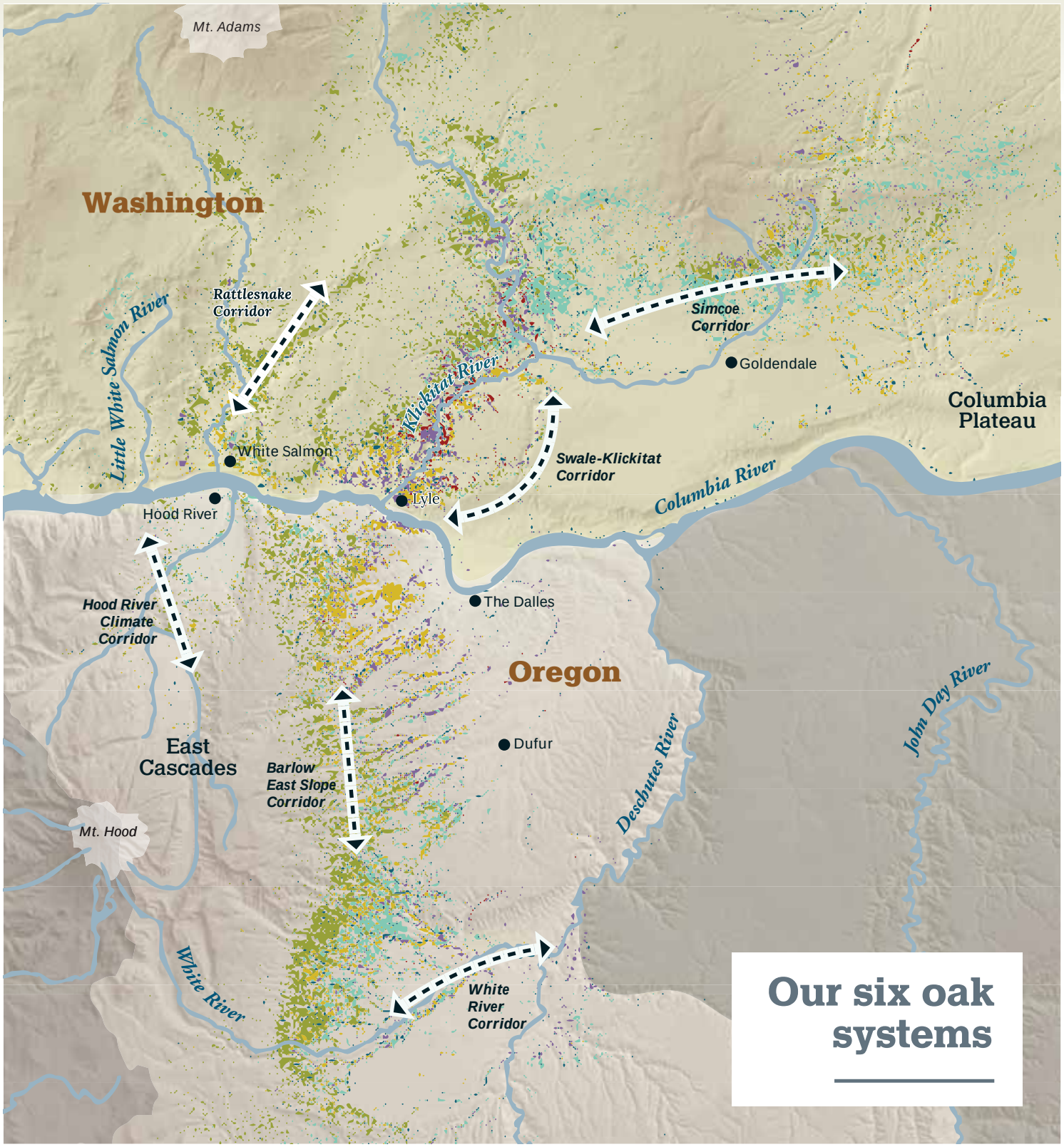
When you head out into oak country, you'll notice the oaks don't look the same. Some stand alone in rolling grasslands; others grow huddled together, a dense forest; still others grow alongside ponderosa pine and Douglas-fir.

Meanwhile, different plants occupy the varied understories of these systems, depending on the soil type, sun exposure, and available moisture. This, too, drives what types of birds, animals, and insects are drawn to forage and reproduce there.

The diversity of oak systems is integral to the biodiversity and climate resilience of the Pacific Northwest. Classifying, or describing shared attributes of these oak systems, helps us adopt a common language to talk about our interactions in a complex landscape, while mapping helps us understand where oak systems are and how they're connected.

Using the best available data, we mapped six different oak system types and developed a prioritization model to predict where the largest and most climate-resilient patches of oak, with high levels of system and species diversity, might occur. The resulting map tells us where we might first evaluate oak systems in the field for potential conservation partnerships.

3: Babalis, Timothy. Landscape History of Oregon White Oak Woodland East of the Cascades. 2019. Page 6.



Legend

- Open Oak Woodland + Savanna
- Closed Oak Woodland
- Oak Forest
- Mixed Oak-Conifer Forest + Woodland
- Riparian Oak
- Forests with Oak
- Habitat Corridor

This map showcases the sweeping reach and diversity of oak systems across ECOP's region. The wildly variable nature of the region and its resulting biodiversity—as well as projected climate resilience—impart a significant conservation importance. Unlike more populated parts of the Pacific Northwest where oaks are vastly diminished, there's still so much connected habitat left to protect.

Our six oak systems

Open Oak Woodland + Savanna

Varies from grasslands with scattered oaks to more woodland-like stands. At low elevations, they occur on a variety of sites, while typically restricted to very dry sites at mid- and higher-elevations, like balds, steep slopes, and shallow soils.

Closed Oak Woodland

Characterized by a relatively closed canopy. At low elevations, they appear on wetter sites; at mid- and higher elevations, they're generally restricted to dry and very dry sites.

Oak Forest

Characterized by a nearly closed canopy, high-levels of competition lead to inverted-vase and columnar-shaped tree crowns with limited branching and foliar volume. Sub-canopy on dry sites is devoid of woody vegetation; on wetter sites, they can be densely vegetated.

Mixed Oak-Conifer Forest + Woodland

On dry sites, more open woodland savanna with pine. On wetter sites, more closed woodlands with fir and pine. Both habitats occur in transition zones or on north-facing slopes and terraces. Found in wetter sites at low elevations, while restricted to dry/very dry sites at mid- and higher-elevations.

Riparian Oak

Mixed stands of oak and various hardwoods found in ravines and creeks at lower elevations. They often grow straight and tall, with larger diameters, than similar oak stands on dry soils.

Forests With Oak

Mixed conifer stands with oak components in the understory, or on bands of shallow soils and balds.

HOW WE IMPROVE OUTCOMES

A balancing act between the land and its people

Culture and identity shape our individual interactions with nature and with each other. While ECOP partners share a common interest in oak, it's our different cultural and lived experiences that deepen our collective understanding of this landscape.

After hearing from more than 50 speakers and conducting extensive stakeholder interviews, we've identified six primary ways people interact in Oregon white oak systems that either diminish or enhance system integrity. We then assigned an impact score to help us respond strategically to conservation challenges and opportunities in the oak landscape.

The six primary ways people interact with Oregon white oaks:

1.
Rural Residential Development

2.
Fire Suppression and Fir Encroachment

3.
Grazing

4.
Orchards and Vineyards

5.
Recreation

6.
Ecological Stewardship and First Foods

Bluebird photo by Linda Steider.

Photo by Brian Chambers.

1. Rural Residential Development

Impact on Oak Systems

Low — High

Strategy Details

Strategy 1

Protect sensitive and uniquely intact oak systems from development and uphold connectivity using incentive-based land protection tools.

Strategy 2

Establish and distribute Best Management Practices to support positive outcomes for both oak systems and private landowner management.

Strategy 3

Build incentive programs and expand outreach to rural residential landowners in core conservation areas, connectivity corridors, and buffer zones.

Strategy 4

Advocate for inclusion of oak protection and stewardship in federal, tribal, state, county, and city planning policy and permitting processes.

The conversion of lands to rural residential use is irreversible—construction of homes and their associated infrastructure means displacement or removal of plants and wildlife and fragmented landscapes. In the ECOP service area, residential use is concentrated at lower elevations, where oak systems also occur. This, in turn, necessitates fire suppression. The cumulative impacts of this can degrade oak systems and lead to:

- Loss of habitat.
- Proliferation of invasive species, loss of native plants, and pollinator diversity.
- Fuel loading and altered fire intensity and behavior.
- Wildlife displacement and disturbance.
- Alteration of soils and water regimes.

Conservation opportunities

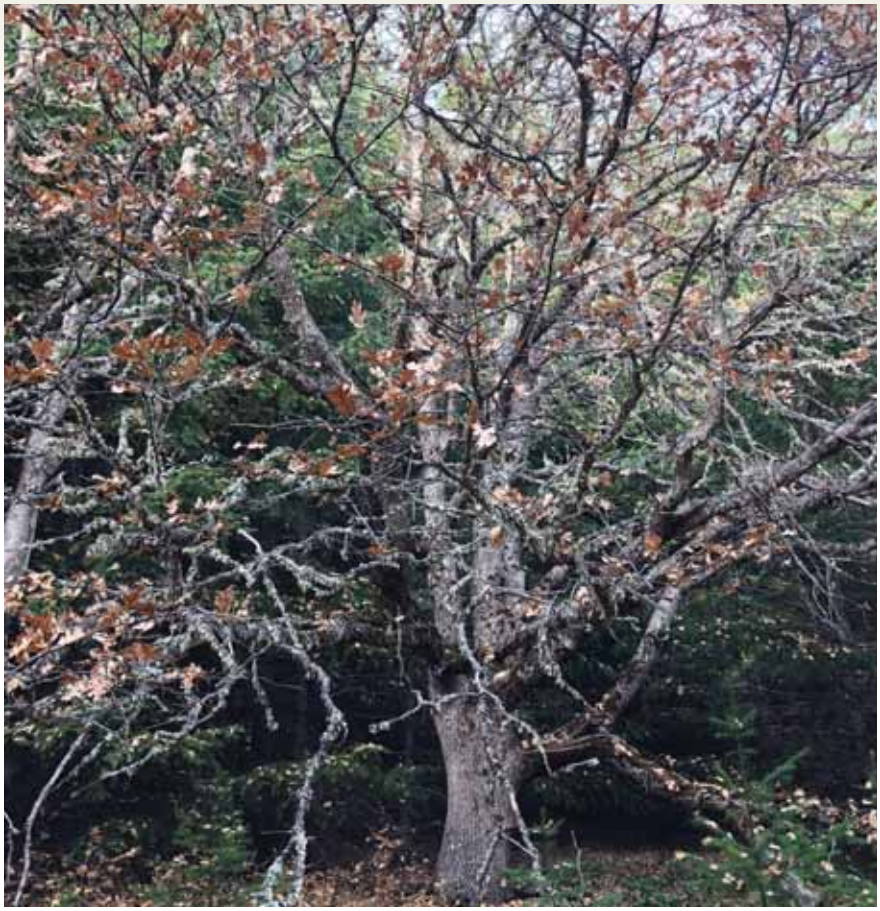
People who live, work, and play in the East Cascades have strong relationships with nature. Many of our landowner partners have shared their willingness to change course to benefit the land, if they're made aware of those values before they've invested resources in a development plan, and if they receive support in enacting relief measures.

Rural landowners and the general public are likely to support non-regulatory land protection strategies, like planning processes, pre-building, or harvest consultations with resource experts. This also holds true for incentive management programs that work to limit habitat loss and improve oak system outcomes around people's homes and property.

▶ Strategy in Action

ECOP is developing funding proposals to help partners protect thousands of acres of critical habitat and corridors in priority areas. We're also securing funding to help develop Best Management Practices with stakeholders and partners. The process will be adaptive, building off of what we know with what we learn together.

Photo by Doug Gorsline.



2. Fire Suppression and Fir Encroachment

Impact on Oak Systems

Low — High

DID YOU KNOW?

The Oregon white oak is the most fire-adapted and fire-resistant tree in the East Cascades, only contributing to catastrophic fire behavior in the most extreme conditions.

The East Cascades region is dry, windy, and hot in the summer, with frequent wildfires ignited by lightning and humans. Fire suppression efforts to protect infrastructure and timber investments began over a century ago, leading to higher tree and shrub densities, accumulation of fuels on the forest floor, proliferation of fire-sensitive vegetation, and an elevated risk of catastrophic fire. In the absence of natural fires, tree composition in wetter areas shift toward Douglas-fir and other conifers. And without any intervention, these conifers grow tall enough to shade out oaks, causing mortality. Because this process takes decades to play out, many landowners don't realize it's happening, and passive management becomes a significant threat.

In regions where fir and pine grow with oak, there's a preference to select the former to maximize timber production. Oaks are often removed in favor of more commercially valuable conifers. Conifers can tangle and grow contorted when growing in oak stands, creating defects in marketable wood, and the shade from oak crowns can slow conifer growth. The strong branches of oaks can hang up falling conifers, creating dangerous conditions for loggers and equipment wear and tear. This contributes to the perception that oaks are weedy, undesirable trees. Decades of this behavior—removing oak in favor of conifer—has resulted in the loss of wetter oak woodlands with replacement by fire-sensitive conifers. And as climate change brings increased drought, many of these forests are now facing increased risk of insect damage, disease, and intensified wildfires.

Strategy Details

Strategy 1

Create and distribute Best Management Practices and fill crucial knowledge gaps to improve oak release and fire management outcomes.

Strategy 2

Advocate for oak systems experiencing fir encroachment in fuel reduction programs and expand funding and capacity to implement release.

Strategy 3

Design and put into action a prescribed fire program that builds regional capacity and competency and removes barriers to implementation.

Strategy 4

Protect high priority oak systems experiencing encroachment to promote release and ensure conservation management.

Conservation opportunities

Currently, 60 percent of the East Cascades oak landscape is at risk for conifer encroachment, and 42 percent of those acres occur on private lands. Through joint planning processes, we've learned that many forest landowners would take action to protect oaks from fir encroachment if they had more information about the problem; particularly as removed firs can be sold to help pay for the work. Oak systems previously converted to fir may be easy targets for restoration through fir removal and oak planting. Finally, opportunities to acquire intact oak systems on marginally profitable forest lands show promise for partnership with large forest landowners.

Fire is increasingly in the spotlight—and people living in fire-prone landscapes are paying attention. People are highly motivated to promote defensible space. Oregon's recent SB 1536 would dedicate 25 million dollars to wildfire mitigation in fire-prone geographies, while Washington's Forest Health program dedicates 58 million dollars to forest health and fire preparedness in high-priority regions over the next biennium. Each of these initiatives substantially overlap with our own priorities.

▶ Strategy in Action

In Wasco County, USFS and NRCS are investing more than four million dollars, in partnership with ODF and ODFW, to mitigate wildfire threats to rural communities by restoring forest health on public and private lands.

Photo of fire resilience worker by Paloma Ayala.

overgrazed savanna

intact native savanna

3. Grazing

Impact on Oak Systems

Low — High

Strategy Details

Strategy 1

Prevent expansion of grazing into sensitive or uniquely intact native oak systems using land protection tools.

Strategy 2

Establish, disseminate, and incentivize Best Management Practices to support positive outcomes for both ranching and oak systems.

Strategy 3

Advocate for oak-friendly, socially-responsible grazing practices on public land.

Strategy 4

Protect large working lands from subdivision development in priority areas, buffers, and connectivity corridors.

When more fertile soils of grasslands were developed for agriculture in the 1900s, grazing was pushed to higher elevations in the understory of oak woodlands, where native plants not adapted to spring cropping by livestock were stressed and ultimately depressed.

Invasive, weedy grasses proliferated, offering poorer forage for livestock and growing in dense mats that altered fire behavior. Native perennial bunch grasses grow deeper and bulkier roots with each season, storing carbon underground. They naturally maintain space between plants that support diverse flowering plants—important First Foods, medicines, and pollinator habitat—and help safeguard against more intense fire behavior.

Conservation opportunities

Raising livestock is a signature part of the East Cascades economy and rural life. Grazing has helped secure large landscapes against development and can be used as a management tool to promote specific outcomes in the oak understory.

Oak systems with native, undisturbed understory plant communities are limited in the ECOP region. This means they must be prioritized for conservation. Where working lands occur within priority conservation areas, grazing practices can be carefully adapted to benefit both livestock and oaks.

▶ Strategy in Action

ECOP and WA DNR Natural Heritage Program are developing an ecological integrity assessment tool to help partners assess the current conditions of oak systems, choose appropriate conservation strategies, and prioritize projects for implementation.

Photo by Robin Dobson.

4. Orchards and Vineyards

Impact on Oak Systems

Low — High

Strategy Details

Strategy 1

Prevent expansion of orchards and vineyards into uniquely intact oak systems using land protection tools.

Strategy 2

Develop and distribute agricultural Best Management Practice guides.

Strategy 3

Develop and enact incentive programs supporting the protection and stewardship of oak systems in and around orchards and vineyards.

Strategy 4

Strengthen policies and planning to decrease conversion and protect large working lands.

Strategy 5

Support research and provide technical assistance, based on the research.

As it is in other regions of Oregon, wine grapes and fruit orchards thrive in the same spaces and soil types as Oregon white oaks. Vineyards and orchards are profitable and popular, with anticipated increases in demand that will exacerbate the current risk.

Beyond the shifts that happen when making room for crops and infrastructure, stress to oak systems occurs through the spread of invasive species, noise disturbance, and changes to air and water quality. Exhausted land often requires the use of herbicides, pesticides, and fertilizers; prompting changes to the soil and negatively impacting nearby oak systems. Transportation of animals and materials, like nursery plants, increases the possibility of introducing insect pests and plant diseases. Emerging pathogens and fungi may damage or even kill oaks or their associated species. While native species do adapt, they can be hindered by the pace and scale of changes.

Conservation opportunities

Fortunately, farmers are astutely aware of plant and soil responses to farming practices. It stands to reason they'll be motivated to understand approaches that are beneficial for both profits and ecological outcomes. Production of food doesn't need to be mutually exclusive with habitat.

Row crops, like grapes and fruit trees, can accommodate native oak-associated plant species between rows and in the understory. What's more, programs to motivate growers to adopt their growing practices are already in place—and we see no reason we can't replicate their success.

▶ Strategy in Action

ECOP is collaborating with other oak partnerships across Oregon to develop messaging and evaluate the expansion of programs, like the Willamette Valley's Oak Accord, to other regions of Oregon.

Photo by Andrea Berkley.

5. Recreation

Impact on Oak Systems

Low — High

Strategy Details

Strategy 1

Identify and implement practices to support the endurance of sensitive resources in recreation areas and prevent expanded recreation in these same areas.

Strategy 2

Create an outreach campaign to increase understanding of oak systems for recreationists and land managers.

Strategy 3

Ensure planning and recreation industry entities have access to information about the impact of recreation on oak systems.

Strategy 4

Explore opportunities to target local governments on special tax use classifications and landowner incentives to keep land in a natural resource classification.

Strategy 5

Develop a shared enforcement and restoration strategy with landowners struggling with overwhelmed recreation sites.

People love to play. It's an important part of our culture, health and identity; it's how we learn and relate. In the East Cascades, entire industries and economies are built around the outdoors: wind and snow sports, boating, biking, hiking, fishing, hunting, off-roading, horseback riding, and birding are all popular.

Roads and trails attract, concentrate, and disseminate people. As people and their pets move between destinations, they carry seeds, spores, and other pests with them. Foot traffic can contribute to erosion and sedimentation into streams. Recreational users may resist temporary or seasonal closures for management or fire, even if these are natural processes. In turn, this can delay or even prevent ecologically-sound land management.

Conservation opportunities

It's not unusual to see people's interest in outdoor activities translate to caring about the places in which they play. People value access to nature and are invested in experiences, which can motivate them to take action through volunteering or financial support.

We can design trails to strategically limit the impact in sensitive environments, and visitors may be willing to use wash stations or brushes to soften the impacts of their movements. While dog owners need off-leash areas to exercise their pets, they appreciate a wider variety of trails and natural areas, which can mean a greater willingness to observe leash rules.

Hunters have historically supported conservation of game species, their habitat, and access programs through the sale of licenses and equipment. But with the number of hunters in decline, funding is limited. Advocating for new funding sources—like a dedicated sales tax on outdoor gear—would help agencies struggling to manage the demand for recreation on important, sensitive resources.

▶ Strategy in Action

ECOP has secured funding to develop outreach tools for partners to use when participating in public processes for policy and management decisions impacting oak systems.

Photo by Paloma Ayala.

6. Ecological Stewardship

Impact on Oak Systems

No Score Assigned

Strategy Details

Strategy 1

Protect the most intact, functional oak systems and climate adaption corridors and manage for ecological stewardship.

Strategy 2

Develop projects on strong research, monitoring, and adaptive management framework.

Strategy 3

Increase capacity and efficiency for stewardship activities.

Strategy 4

Build and maintain a culture of learning and responsiveness among ECOP partners.

Ecological stewardship is practiced by people whose main goal is to improve ecological outcomes in priority habitats, for First Foods, or for target species. It's their job to make choices that impact ecological integrity, habitat restoration, weed control, managing public access, burning and fire suppression, and more.

However, management can occasionally seek to influence outcomes for one system or species while compromising another, and some methods have unintended consequences. People can sometimes make decisions without adequate information. We intimately understand how every management action can impart a cascade of effects on system function and integrity.

Conservation opportunities

Management decisions matter—practitioners want to do right by the systems and resources they manage. Managers throughout the East Cascades can learn from anecdotal observation, community science, and elders in tribal and non-tribal communities. As our decisions are shaped by our cultural values and knowledge, we can work to build a framework that relies on our wealth of local knowledge and motivation to learn; one that builds capacity and interest among partners to address key uncertainties, and change the way we think about land.

▶ Strategy in Action

With funding from the Oregon Department of Forestry, partners are building monitoring protocols to help us understand how oak systems are impacted by wildfire, prescribed fire, fuels reduction, and thinning practices.

Butterfly photo by Doug Gorsline.

Theory of Change

Our theory of change describes how we can enhance the oak landscape by adjusting the behaviors of the people who live, work, and play there. Using spatial information and stakeholder interviews, we identified opportunities to influence the most impactful behaviors, and built our strategies around those opportunities. Partners spent more than 3,500 hours over three years in the planning process. Detailed content can be found in the full strategic plan document on ECOP's webpage.

Goals

The oak landscape is intact and connected

The oak landscape is resilient to climate change and disturbance

Biodiversity persists

Reciprocity is central to human behavior in the oak landscape

Needs of historically marginalized communities are responded to

Strategies

PROTECT

Identify, protect and restore priority oak systems and bring into ecological stewardship

LEARN

Develop and implement adaptive best management practices, informed by traditional ecological knowledge, monitoring, peer-to-peer learning pathways, and research

RESTORE

Improve fire resilience of the oak landscape

CATALYZE

Increase capacity and efficiency of oak system stewardship

ADAPT

Build and maintain a culture of learning, reciprocity, and adaptation among partners and the public

INFLUENCE_

Conduct outreach to planners, agencies, and the public to focus resources and shape policy in the oak landscape

CONSERVE

Prevent fragmentation and conversion of large working lands to development or higher intensity agriculture

Theory of Change Continued

We believe our strategies will improve the condition of oak systems and benefit the communities who live, work and play there over the next decade.

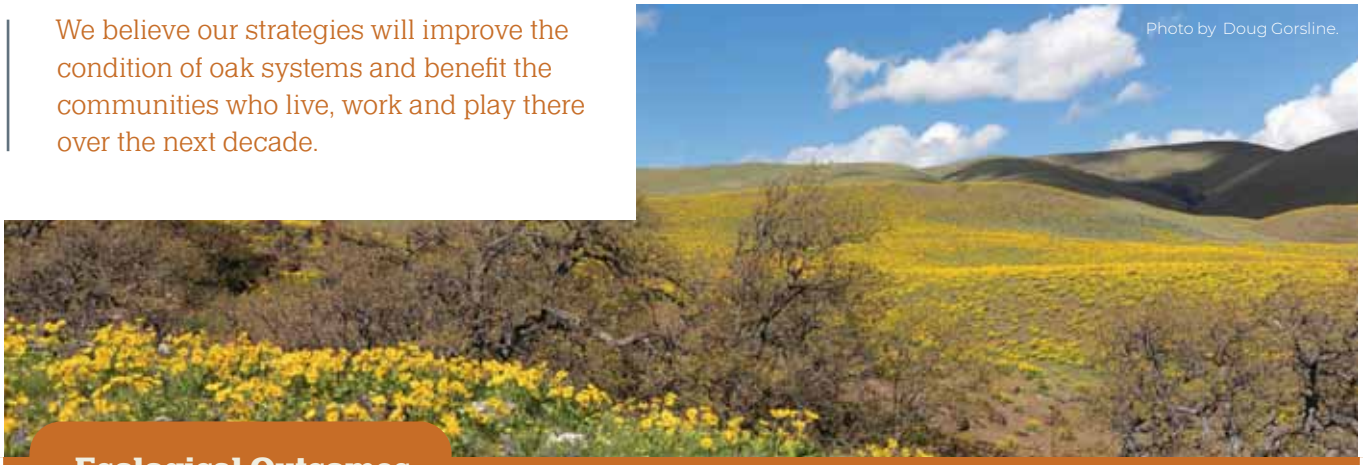


Photo by Doug Gorsline.

Ecological Outcomes

Oak system diversity and extent persists	The oak landscape is resilient to climate change	Oak systems are resilient to disturbance events
Mature oak habitat features are retained & recruited	Diverse native oak associated species & pollinators persist	Human interactions in the oak landscape are reciprocal



Community Outcomes

Crops, forests, and homes are protected from wildfire	Local communities are fluent in oak system ecology	Health & economic impacts from smoke are reduced
Forage for domestic livestock is improved	Eco-recreational tourism economy is supported	Safe access to First Foods is widely available
Natural resource jobs are core to local economy	Agricultural crops are pollinated and resist pests	Conservation advances needs of diverse communities

MONITORING OUR PROGRESS

Measuring our progress and our success

Since ECOP was established, we've been building our foundation on "learning first." Our core commitment is creating a shared base of understanding about Oregon white oak systems and all of the people interacting with them, from the ground up.

Measures will be both quantitative and qualitative, and our metrics will be adapted as we learn more through monitoring, research, and community learning. As we put our strategies into action, we'll see outcomes that are immediately measurable, while others may take decades to detect. Oaks, after all, are very slow growing! Regardless of the timeframe, each strategy will reflect the priority of not only accomplishing measurable results on the ground, but successfully influencing hearts and minds long-term.

ECOP MEMBER INSIGHTS

"This partnership has, over the past four years, dramatically increased our collective understanding of Oregon white oak habitats. While we've known for years these habitats are among the most important pieces of our landscape, we haven't, until now, had a sufficient understanding of how to protect and steward them."

Brad Nye, Conservation Director Deschutes Land Trust

IN CONCLUSION

This is only the beginning.

We're buoyed by the future of ECOP, our relationships with each of our partners, and our indispensable work improving the future for Oregon white oaks, their cohabitants, and human stewards. We believe future generations of people, plants, and animals will value these places as we do and, by acting as a partnership, we seek to convey to those generations a healthy and thriving landscape.

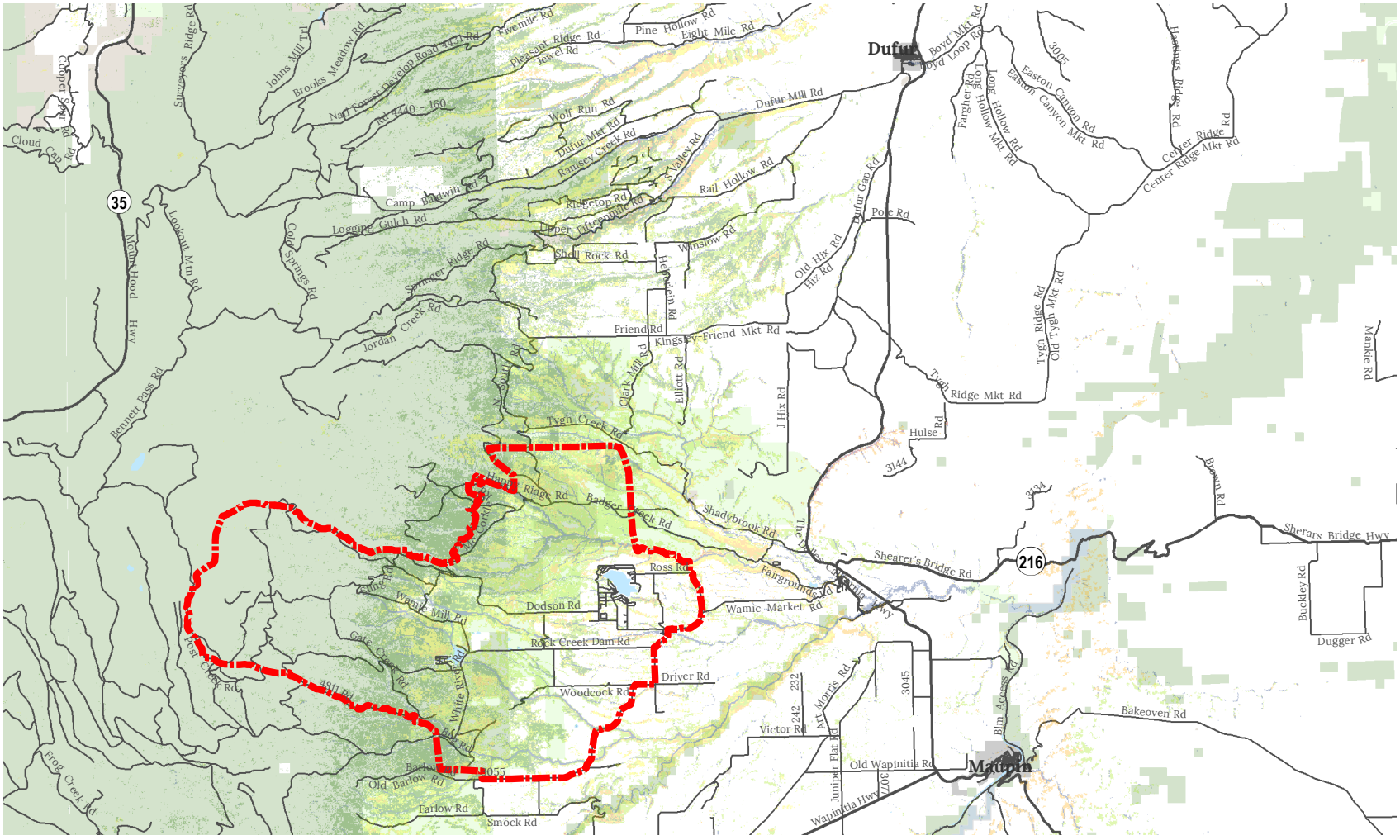
For more information on how you can play a part, visit www.columbialandtrust.org/ECOP or contact us at oaks@columbialandtrust.org.

Lizard photo by Brian Chambers.

EAST CASCADES OAK PARTNERSHIP

Thank you

Funding for the development of a strategic action plan was generously provided by the Oregon Watershed Enhancement Board, the Land Trust Alliance, Pacific Birds, Columbia Land Trust, the Cornell Lab of Ornithology, and the L.P. Brown Foundation.



East Cascades Oak Partnership
Wasco Forest Collaborative
Monitoring Study Area

Monitoring Project Study Area

Local Roads

- Local Roads
- Interstates
- Highways

0 1.75 3.5 7 10.5 14 Miles

NORTH

Map Date: 8/6/2020
Maps By Columbia Land Trust
Data Sources: USGS, TIGER, ESRI, GNN, ODF, DNR, TNC
Document Name: Joint Chiefs Study Area Map

Phil Chang
Federal Forest Restoration Program Lead
Oregon Department of Forestry

Re: Barlow Oak Treatment Monitoring

November 13, 2019

Dear Mr. Chang,

Please accept this letter of support on behalf of the Wasco County Forest Collaborative. The Barlow Oak Treatment Monitoring proposal is an exciting opportunity to invest in on the ground monitoring that will inform future forest restoration projects and foster stronger collaborative partnerships. Wasco County Forest Collaborative members have endorsed the proposal and provided consensus support for the work.

The Barlow Oak Treatment Monitoring proposal builds on a strong history of collaboration. The Wasco County Forest Collaborative, an appointed body of diverse members, worked for four years with the Mount Hood National Forest to design the Rocky Restoration Project. In parallel, agency partners from Natural Resource Conservation Service (NRCS), USDA Forest Service, Oregon Department of Fish and Wildlife, Oregon Department of Forestry, Wasco County Soil and Water Conservation District, and private landowners worked together to identify strategic adjacent lands that would help the community improve landscape and community resiliency. More recently, the collaborative has partnered with East Cascades Oak Partnership and Columbia Land Trust to monitor the implementation of our oak restoration and fuels reduction work.

The project is an "all-lands" project that includes the Rocky Restoration Project on National Forest System lands, Oregon Department of Fish and Wildlife White River Wildlife Refuge, and private forestlands in the Pine Hollow Wildland Urban Interface (WUI). Cross-boundary treatments are essential to the success of this effort given the checkboard nature of many of the federal, state, and private forestlands in the area. The Rocky Restoration Project will utilize the first Good Neighbor Authority (GNA) agreement on the Barlow Ranger District and will leverage state forestry and NRCS resources to complete work across federal, state, and private lands. Monitoring work will also be conducted on different ownerships to help understand how different management regimes influence oak restoration outcomes.

The oak treatments being proposed for implementation and monitoring have been identified as high priority in the Wasco County Community Wildfire Protection Plan (CWPP), Oregon Department of Forestry Landscape Scale Oak Habitat Restoration Initiative, NRCS East Cascades Forest Health Conservation Implementation Strategy (CIS), and the East Cascades Oak Woodland Conservation Opportunity Area as identified by the Oregon Conservation Strategy by the Oregon Department of Fish and Wildlife. Each of these partner organizations and plans recognize the value of monitoring, yet partner agencies consistently lack the capacity to conduct monitoring work.

Support from Oregon Department of Forestry Federal Forest Restoration Program will be critical to establishing the framework, protocols, and baseline monitoring information.

Wildfire risk reduction is a high priority across the West, and particularly in Wasco County, an often-overlooked part of the Mount Hood National Forest. Wasco County has experienced large wildfires in recent years that have threated high value natural resource assets and communities. In 2018 the Substation Fire burned more than 78,000 acres and in the same year the Box Car Fire burned more than 100,000 acres, both entirely within Wasco County. The Rocky Restoration Project encompasses the majority of the historic Rocky Burn, a wildfire that burned much of the project area in 1973.

Immediate action is needed to ensure that future wildfires will not adversely impact the unique Oregon white oak habitat and human communities in the project area, and monitoring will play a critical role in understanding the impacts of proposed treatments in meeting stakeholder interests and ecological restoration goals. Forest restoration and wildfire risk reduction treatments are intended to achieve multiple resource objectives through this project including improved wildlife habitat, restoration of natural process and functions, protection of soil resources, and production of timber and local biomass to forest products businesses.

Thank you for your thoughtful consideration of this important request. Please let me know if you have any questions or need any additional information.

Sincerely,

Andrew Spaeth
Coordinator
Wasco County Forest Collaborative
Wascoforest@gmail.com
541.288.4107 (cell)

USDA United States Department of Agriculture | Forest Service | Mt. Hood National Forest

Barlow Ranger District
780 NE Court Street
Dufur, OR 97021
541-467-2291
Fax: 541-467-2271

File Code: 2020
Date: November 8, 2019

Oregon Federal Forest Restoration Program Grant Committee

To Whom It May Concern;

Please accept this letter of support on behalf of the Mt. Hood National Forest, Barlow Ranger District. The Federal Forest Restoration Proposal for Oak Treatment Monitoring on the District is an exciting opportunity to accelerate oak treatment on more than 4,000 acres of current Planning Areas. The proposal area includes the Rocky Restoration Project, Grasshopper and South Penn on National Forest System lands.

The Forest Service has been engaged with the Eastern Cascades Oak Partnership (ECOP) since its inception to understand how best to manage oak on the District. ECOP proposes to be the technical service provider and technical committee partnering with Portland State University graduate students, local partners, and contractors to develop and test standardized monitoring protocols for a variety of disturbances, including after wildfire, pre and post prescribed fire and oak release from conifer, fuels reduction, and oak thinning. Testing these monitoring protocols on National Forest lands scheduled for treatment over the next three years will establish a baseline data set that can be used to inform site-specific management choices and implement effectiveness monitoring when work is complete. In addition, these protocols can be deployed across public and private lands managed by other ECOP partners, furthering a critical strategic objective for the partnership and building a much broader and stronger data set from which to work.

Monitoring plots and creation of best management practices (BMPs) in Oak Woodlands is a great need for the Forest Service, since silvicultural treatments will be prescribed in the next year. Working collaboratively with technical service providers will inform local development of BMPs and allow for more efficient collaboration when talking about oak woodlands in the future.

Please let me know if you have any questions or would like more information.

Sincerely,

KAMERON C. SAM
District Ranger

cc: Mt. Hood NR Staff