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

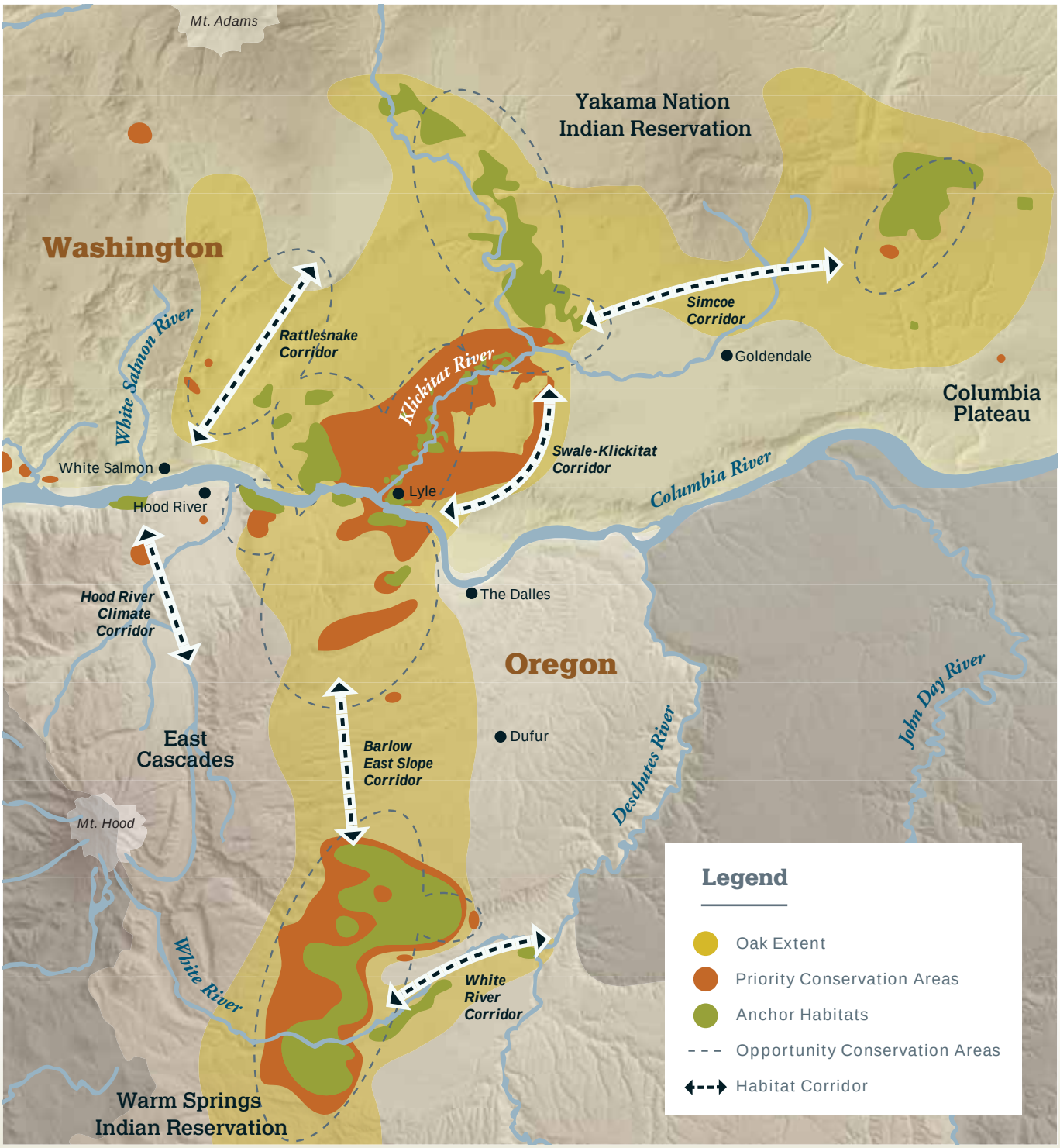
"I feel connected to ECOP through a shared community of oak enthusiasts. For years, I felt like a lone voice within my networks, advocating for oak habitat protection and enhancement. With the formation of the partnership, we can amplify each other's voices as we make a case for oaks in the East Cascades."

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

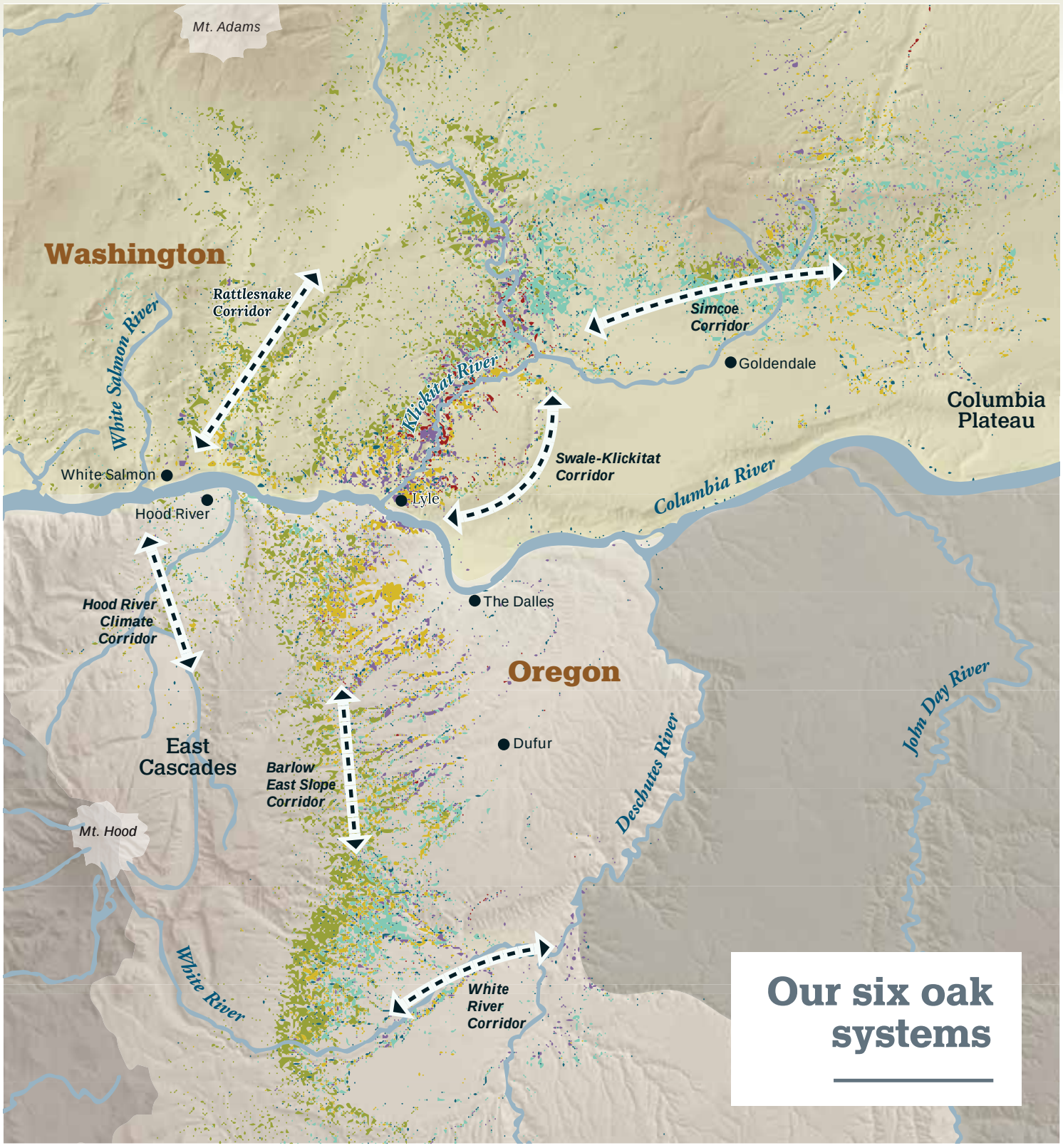
When you head out into oak country, you'll notice the oaks don't look the same. Some stand alone in rolling grasslands; others grow huddled together, a dense forest; still others grow alongside ponderosa pine and Douglas-fir.

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

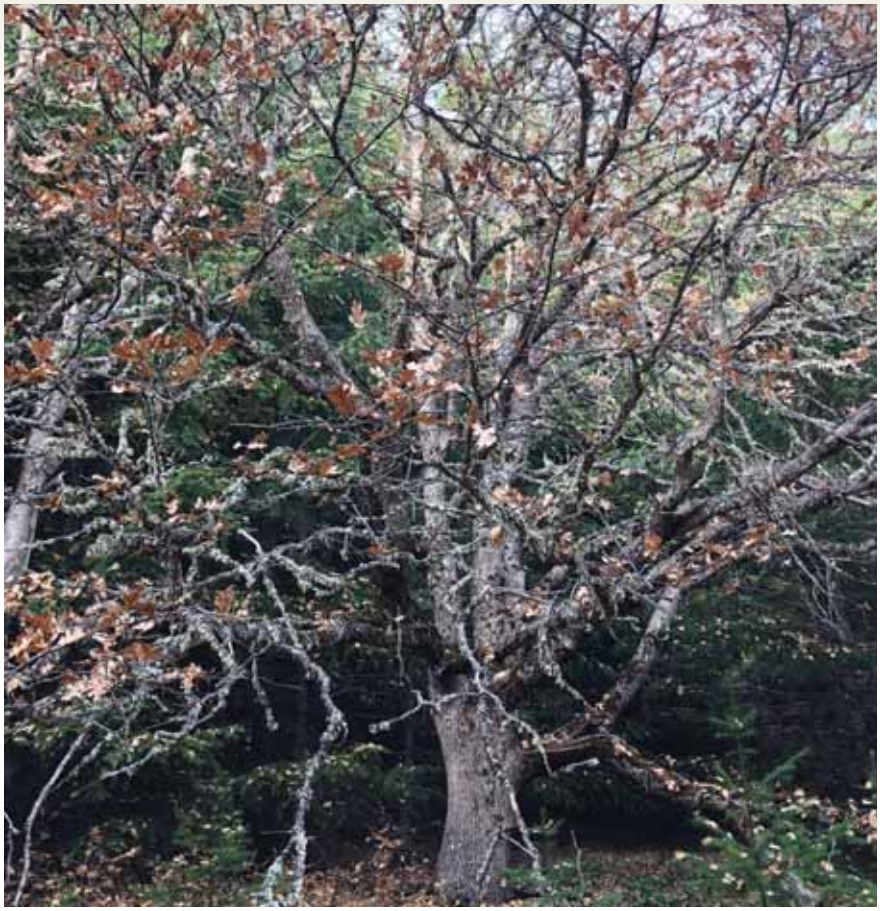
People who live, work, and play in the East Cascades have strong relationships with nature. Many of our landowner partners have shared their willingness to change course to benefit the land, if they're made aware of those values before they've invested resources in a development plan, and if they receive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

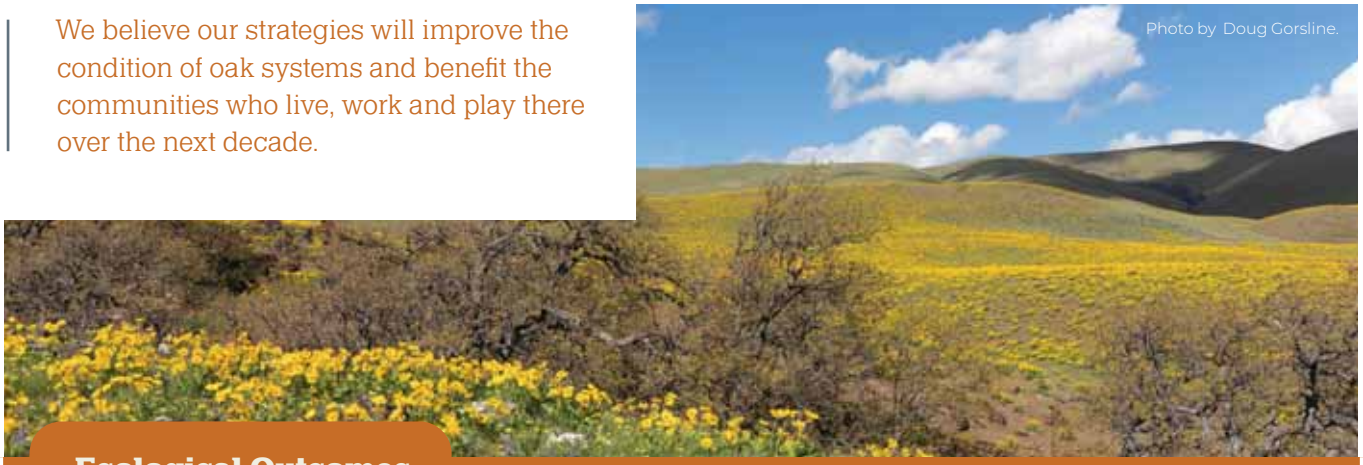


Photo by Doug Gorsline.

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.