UMPQUA OAK PARTNERSHIP

STRATEGIC ACTION PLAN

2026-2036

EXECUTIVE SUMMARY

The Umpqua Oak Partnership (UOP) Strategic Action Plan outlines a 10-year roadmap (2026-2036) to restore and protect oak and prairie ecosystems in the Umpqua Basin. Developed through a diverse coalition of tribal, federal, state, and local partners, the plan addresses key ecological threats and establishes a framework for long-term conservation.

The Need for Action

Oak ecosystems have declined to 10% of their historic range, with only 25% of Oregon's original oak habitat remaining. Threatened by conifer encroachment, invasive species, fire suppression, and development, these landscapes provide habitat for hundreds of species, support local economies, and hold deep cultural significance.

Strategic Approach

The plan prioritizes four oak habitat types—prairie, oak savanna, oak woodland, and mixed oak-conifer forest—and focuses on:

- Restoring and expanding oak habitat through forest thinning, fuels management, prescribed fire, understory restoration, and invasive species control.
- Supporting landowners with technical assistance and access to landowner incentive programs.
- Integrating Indigenous stewardship and ecological knowledge.
- Monitoring progress using key ecological indicators to adapt strategies over time.

Implementation & Sustainability

A progress monitoring framework ensures accountability and effectiveness, tracking key indicators such as acres treated, oak tree regeneration, understory plant diversity, and bird species populations. The success of this plan relies on stable, long-term funding. UOP will pursue grants, private investments, and incentive programs to support restoration efforts, outreach, and capacity building to ensure ongoing conservation impact.

Future

By aligning conservation, land management, and community engagement, UOP aims to revitalize oak ecosystems, support wildlife and working lands, and build a resilient future for the Umpqua Basin.

Pileated woodpecker on oak limb

Robin Loznak

ACKNOWLEDGMENTS

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We extend our deepest gratitude to the UOP Steering Committee, dedicated technical advisors, and partner organizations, including the U.S. Fish and Wildlife Service Partners for Fish and Wildlife Program, Cow Creek Band of Umpqua Tribe of Indians, BLM Roseburg District, Natural Resources Conservation Service, Oregon Department of Fish and Wildlife, Pacific Birds Habitat Joint Venture, Douglas Soil and Water Conservation District, the Partnership for the Umpqua Rivers, Yew Creek Land Alliance, and the Elkton Reserve Land Trust. We also acknowledge the many individuals and organizations whose expertise, time, and dedication have shaped this plan and its vision for a resilient future for oak ecosystems in the Umpqua Basin.

Special thanks to Klamath Bird Observatory for their contributions to the Monitoring Framework Plan and geospatial analysis, and to Pacific Birds Habitat Joint Venture for their leadership in supporting local partnerships across the Northwest and facilitating this plan effort.

Lead Authors and Reviewers:

Sara Evans-Peters, Eric Stauder, Eric Riley, Steve Denney, Ryan Terrill, Caitlyn Gillespie, Matthew Hunter, and Allison Manwaring.

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UMPQUA OAK PARTNERSHIP

COVER PHOTO:

Homestead barn with surrounding oak habitat converted to timber plantations

Eric Stauder

INTRODUCTION

Autumnal Oregon white oak leaf

Robin Loznak

BACKGROUND

This strategic action plan is intended to guide the work of the Umpqua Oak Partnership for the next 10 years (2026-2036) as UOP advances conservation actions, working lands programs, science, stewardship, and outreach related to the Umpqua River Basin's native oak ecosystems. The strategies and actions will be implemented by a broad partnership of local private landowners, federal, state, and local agencies, tribes, non-profit organizations, and the local community.

PLAN DEVELOPMENT

Core partners and external experts volunteered across multiple Working Groups to develop this shared strategy and commitment to advancing oak conservation in the Umpqua Basin. This plan was developed using methods adapted from Open Standards for the Practice of Conservation (CMP 2020). This process served as a collaborative framework to:

- Describe and map oak ecosystem targets (prairie, oak savanna, oak woodland, and oak conifer).
- Choose Key Ecological Attributes (KEAs) and indicators that further describe and measure the condition of our targets at both the landscape and local scales.
- Identify and rank the threats that stress and degrade aspects of the oak ecosystem targets.
- Develop and prioritize a combination of strategies that will be implemented to reduce the threats and improve the status of the targets.
- Develop a Theory of Change model to test our assumptions of how priority strategies reduce threats and change the status of oak habitat in the region.
- Develop a long-term monitoring plan with protocols using KEA's for assessing status and trends of oak habitat in the region.

CASE FOR CONSERVATION

Across the Pacific Northwest, oak and prairie communities historically occurred west of the Cascades from northern California to British Columbia, but can now only be found on approximately 10% of their historic range. In Oregon, an estimated 25% of historic oak habitat remains, and only 1% of native prairies (Prairie, Oaks and People 2024). The Umpqua Basin holds some of the most significant landscape-scale examples of Oregon white oak *(Quercus garryana)* and California black oak *(Quercus kelloggii)* forests, yet these habitats face mounting pressures from conifer encroachment, invasive species, fire exclusion, land conversion, and development.

Legacy oak suppressed by conifers

Eric Stauder

For centuries, the First Peoples of the Umpqua Basin, including the Cow Creek Band of Umpqua Tribe of Indians, have stewarded these landscapes through fire and other traditional practices. These open habitats have long supported a rich diversity of plant and animal life, many of which are now at risk due to habitat loss and fragmentation.

Over the past 160 years, oak and prairie habitats in the Umpqua Basin have declined from 80% to just 31% of the landscape, while conifer cover has expanded from 19% to 64% (land survey data from 1850 to 2010; TNC 2013). These ecosystems provide habitat for over 300 vertebrate species, serve as working lands for agriculture, ranching, and forestry, and shape the cultural and ecological identity of the region. Yet, they continue to disappear at an alarming rate. The Oregon Department of Fish and Wildlife's State Wildlife Action Plan identifies oak savannas, woodlands, and grasslands as some of the most imperiled habitats in the state. Large, open-structured oak trees—vital to wildlife—are particularly at risk, and their slow growth makes restoration a long-term challenge. Most remaining oak habitats exist on private lands, highlighting the need for collaborative, voluntary conservation efforts.

This Strategic Plan outlines key threats, management actions, and strategies to guide landowners and land managers in protecting and restoring oak and prairie ecosystems. By working together, we can sustain these landscapes for wildlife, communities, and future generations.

▲ **Conifer Encroachment at North Bank** *Eric Stauder*

▲ Oak restoration tour at Joe Hall Creek managed by the Cow Creek Band of Umpqua Tribe Indians *Eric Riley*

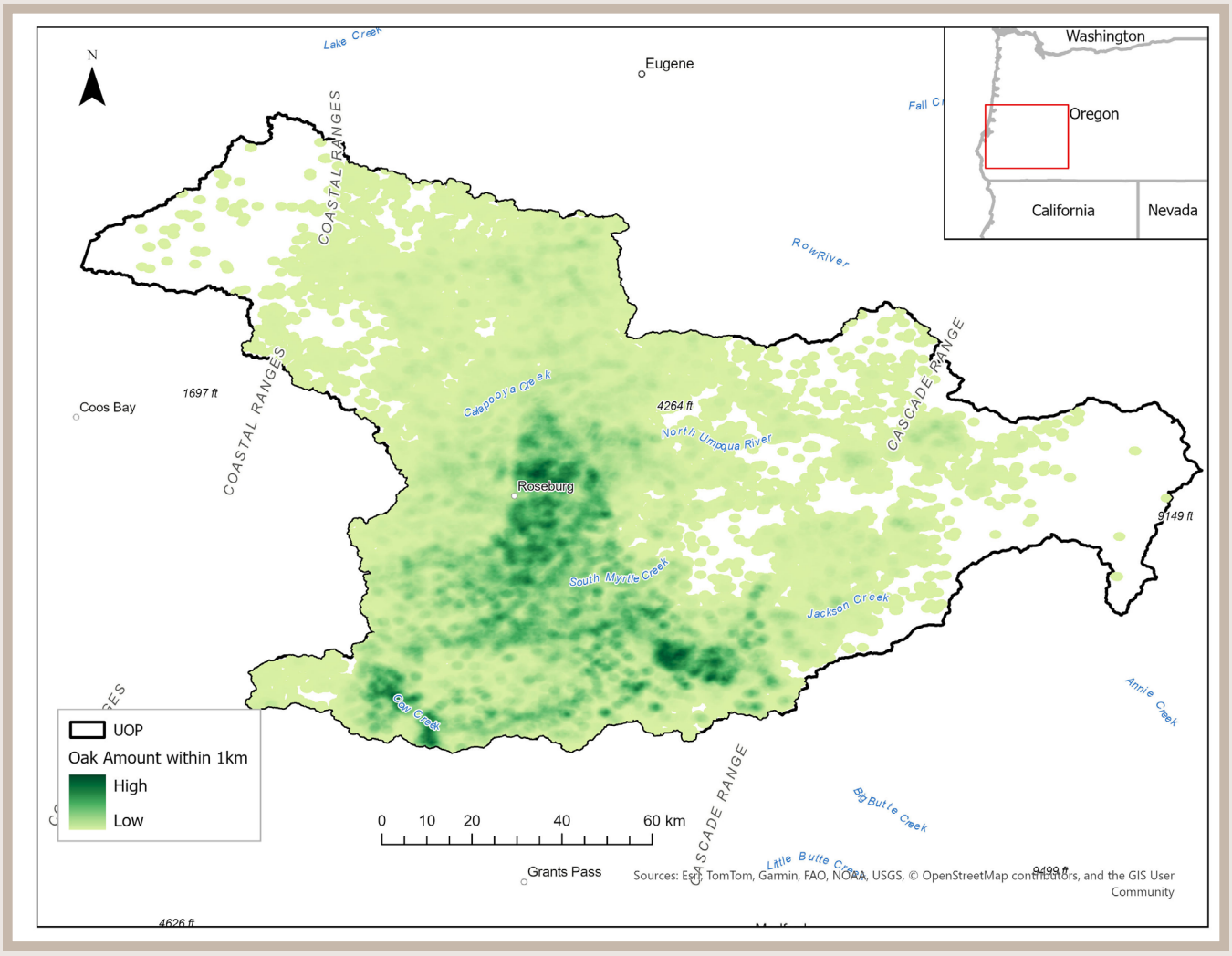


Figure 1. Extent of Oak Habitat in the Umpqua Oak Partnership Geography

ABOUT THE PARTNERSHIP

THE UMPQUA OAK PARTNERSHIP (UOP)

The Umpqua Oak Partnership is a collaborative, voluntary network of individuals and organizations committed to the conservation and restoration of oak and prairie habitats across public, private, and tribal lands in the Umpqua Basin. UOP brings together landowners, Tribal Nations, federal and state agencies, local governments, nonprofits, researchers, and community groups to align efforts, share knowledge, and collectively advance shared ecological and community goals. Through this Partnership, people involved benefit from coordinated planning, technical collaboration, pooled resources, and a unified voice for oak conservation.

STRUCTURE AND GOVERNANCE

UOP's structure is designed to foster collaboration and shared ownership of initiatives. It includes:

- **Steering Committee:** provides overall guidance and decision-making.
- **Coordinator:** a neutral facilitator who supports collaboration and communication across the partnership.
- **Core Partners:** actively involved organizations that implement projects and participate in Working Groups.
- **Working Groups:** focused subgroups advancing specific topics such as restoration, monitoring, outreach, and technical assistance.
- **Community Group:** an open forum for interested landowners, contractors, businesses, organizations, and community members.

▲ **DSWA Wildflower Tour in riparian oak woodland at Applegate Ranch** *Eric Stauder*

Memorandum of Understanding and Governance Charter

To support effective collaboration, the Umpqua Oak Partnership utilizes two complementary documents: a Memorandum of Understanding (MOU; Appendix 1) and a Governance Charter (Appendix 2).

- The MOU serves as a high-level agreement that outlines the shared purpose, intent to collaborate, and general commitments of participating organizations, signed by Core Partners. It is a non-binding document that expresses mutual support for the partnership and affirms each signatory's willingness to participate in voluntary, coordinated conservation efforts.
- The UOP Governance Charter provides more detailed guidance on how the partnership functions. It outlines the internal roles, responsibilities, and decision-making structure of the broader partnership, including its Steering Committee, Core Partners, Working Groups, and Community Group. The Charter helps ensure clarity and transparency in how the partnership operates over time.

Together, these documents establish both the shared foundation and the practical framework for collaboration and formalize a shared commitment to the mission and goals of UOP.

▼ **Denny Tour 2025 discussing restorative thinning approaches** *Eric Stauder*

***Wyethia angustifolia* in oak savanna habitat**

Eric Stauder

PARTNERSHIP ROLES AND EXPECTATIONS

The Umpqua Oak Partnership is structured to foster broad participation while maintaining an effective decision-making framework. Roles within the Partnership include the Steering Committee, Core Partners, and the Community Group (See Appendix 3, Umpqua Oak Partnership Core Partners and Roles). Each plays a distinct and complementary role in achieving the goals outlined in this Strategic Action Plan.

Steering Committee

The Steering Committee is the primary decision-making body of the Partnership and includes organizations that have demonstrated a long-term commitment to oak conservation in the Umpqua Basin. The Steering Committee oversees strategic direction and implementation of the Strategic Action Plan, approves major decisions such as work plans and funding applications submitted on behalf of the Partnership. The Steering Committee includes founding members who have demonstrated long-term commitment to UOP's vision and work. These organizations retain standing seats due to their formative roles, jurisdictional relevance, or consistent leadership in oak conservation. New members may be nominated and approved through a process described in the Partnership's Charter. Steering Committee members are expected to participate regularly in meetings, provide guidance on the implementation of the Strategic Action Plan, and contribute capacity, expertise, or resources to UOP initiatives.

Coordinator

The UOP Coordinator acts on behalf of the Partnership but does not direct its members, set policy, nor make unilateral decisions on behalf of the Partnership. Decision-making authority resides with the Steering Committee.

The Coordinator is a neutral facilitator who:

- Organizes meetings and events and facilitates discussion;
- Supports fundraising, grant writing, and coordination;
- Represents UOP in regional and statewide forums;
- Shares information between partners and external audiences;
- Brings added capacity across multiple organizations through direct landowner outreach;
- Helps build capacity and cohesion across organizations.

OSU Ext Service healthy forests field tour at Whistler's Bend Park

Alicia Christensen

Core Partners

Core Partners are actively engaged organizations that contribute to forest restoration, understory restoration, monitoring, prescribed fire, planning, technical assistance, land protection, or outreach. They may serve on the Steering Committee, lead or participate in Working Groups, collaborate on grant proposals, co-host events, and share technical expertise. Core Partners are not part of formal decision-making unless they also serve on the Steering Committee, but they are critical to the success of UOP's strategies and on-the-ground efforts.

Working Groups

Working Groups are formed by the Steering Committee and will serve to address the specific needs of the Partnership. As needed, individuals may be invited to participate to provide specific expertise. Final decision authority remains with the Steering Committee and Coordinator. Working Groups provide opportunities for individuals with strong knowledge or interests to be more closely involved with advancing UOP priorities and initiatives. Standing Working Groups may include a Projects Committee, Monitoring, Outreach and Events, and Technical Assistance. Ad Hoc Working Groups will form as needed. Coordination of these groups will be led by Core Partners, and information will be shared with the Partnership via quarterly meetings.

Community Group

The Community Group is an open and inclusive forum for all individuals and entities in Douglas County and the broader Umpqua Basin who are interested in oak and prairie habitat conservation. The Community Group is invited to participate in events, share feedback, and engage in outreach, education, and stewardship efforts. This Community Group helps foster community support for oak conservation and serves as a vital bridge between the Partnership and the broader public. This group may include landowners, residents, restoration and forestry contractors, private businesses, students, educators, conservation organizations, tribal members, cultural leaders, outdoor recreation groups, local governments, policy makers, and other state or federal agencies not listed as a Core Partner.

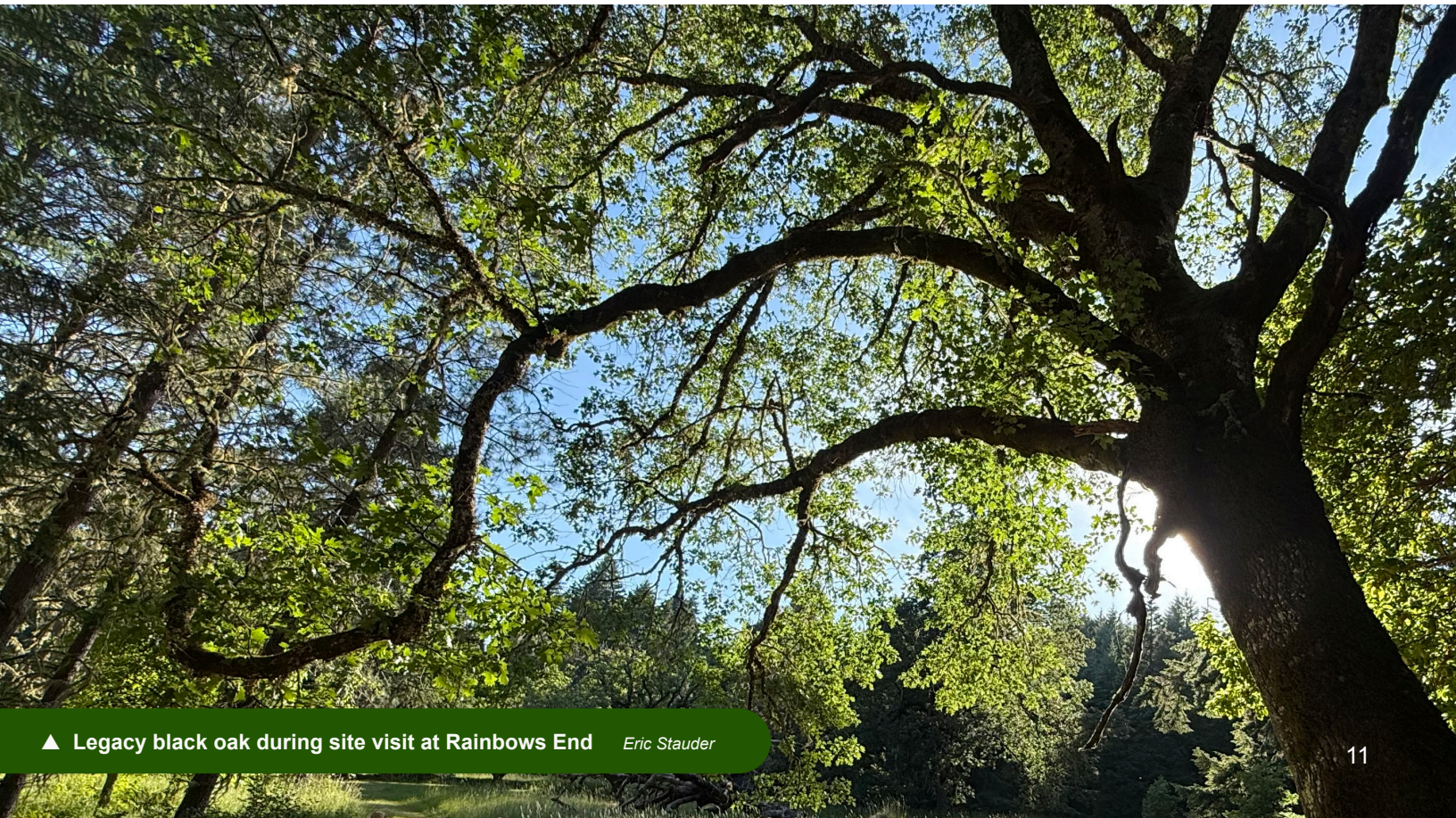
GEOGRAPHIC SCOPE AND TIMELINE

PLANNING HORIZON

This plan addresses actions partners will take over the next decade (2026-2036) to improve outcomes for Oregon white oak ecosystems in the Umpqua Basin. Some of those outcomes will be immediately measurable, and others may only be measurable over the next several decades. The plan will be reviewed and updated as needed every 5 years with the incorporation of the progress monitoring framework.

GEOGRAPHIC SCOPE

UOP's geographical scope generally follows Douglas County, OR, and incorporates the entire Umpqua River watershed. The Umpqua Basin covers approximately 3 million acres and stretches from the Cascades to the Pacific Ocean, making it the largest watershed draining into the Oregon Coast south of the Columbia River. Land in the basin is a checkerboard ownership pattern that is dominated by public, private, private industrial, and tribal ownership. The Umpqua National Forest creates the eastern border of the watershed and occupies approximately one-quarter of the basin. The interior valleys are predominantly privately owned, with the checkerboarded ownership making up the remainder of the watershed.



▲ **Legacy black oak during site visit at Rainbows End** *Eric Stauder*

OUR MISSION AND VISION

Oregon White Oak complex canopy architecture

Eric Stauder

UOP MISSION

The Umpqua Oak Partnership uses a collaborative approach to bring people and organizations together around oak habitat to increase their overall extent, diversity, and resiliency in the Umpqua Basin. We connect family farms and ranches and landowners interested in conservation to programs and funding, we facilitate information sharing, and we provide a forum to further oak initiatives in southwest Oregon.

UOP Objectives:

- Promote habitat restoration and conservation efforts toward long-term sustainability of oak habitats on both publicly and privately owned lands.
- Provide a forum for community engagement, including outreach and education.
- Encourage applied science, including monitoring and adaptive management strategies.

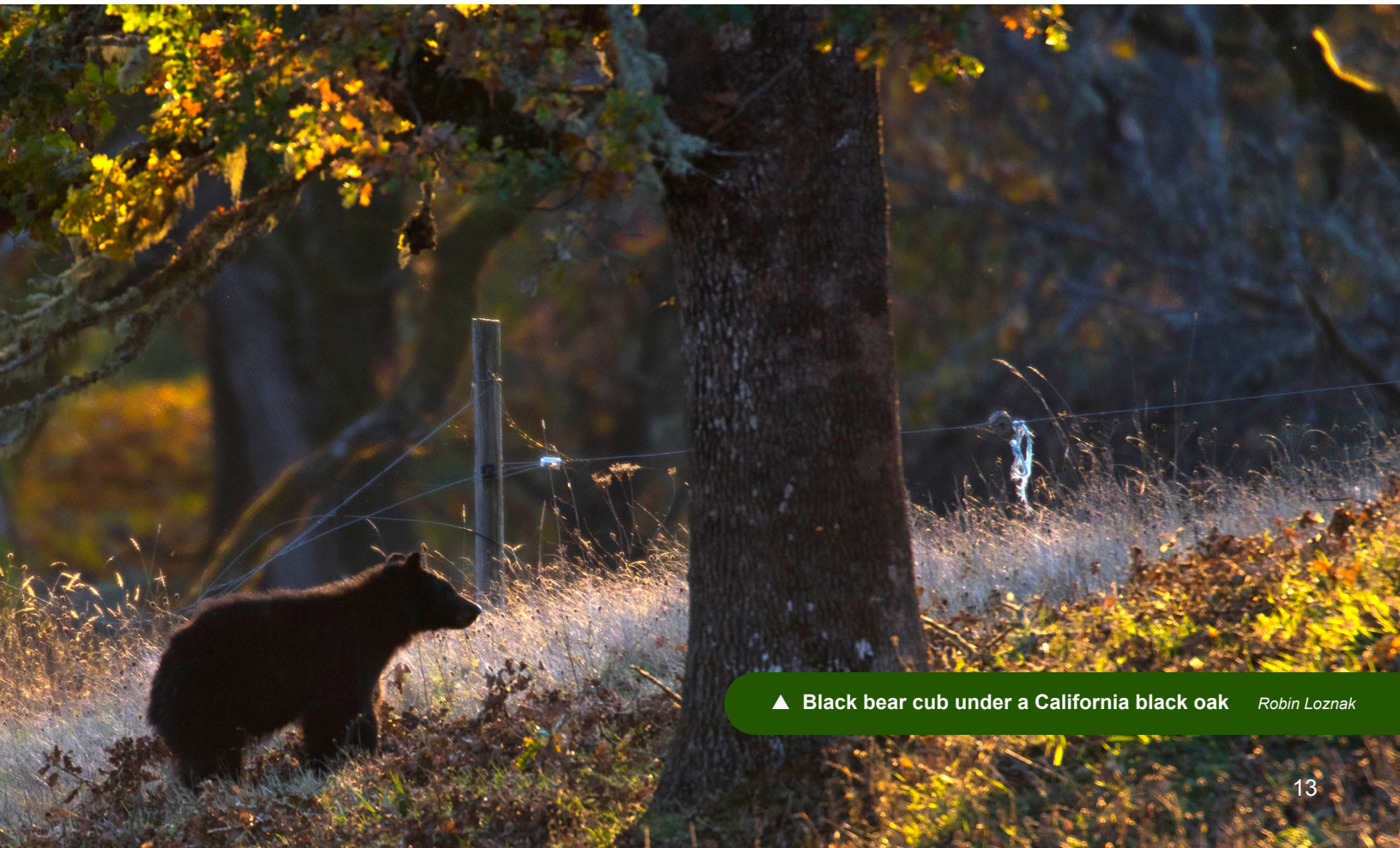
UOP VISION

UOP envisions a community that values its oak and prairie habitats and is committed to improving ecological processes throughout the Umpqua Basin and associated bioregions. This includes respecting historic ecological and cultural values, managing for healthy and diverse habitats that support abundant ecosystems and species, and conserving oak habitats while ensuring working lands are preserved and resilient for future generations. UOP is viewed as the "hub" for oak ecosystem restoration and conservation through the development of robust and effective partnerships.

ECOLOGICAL PRIORITIES AND GOALS

UOP PRIORITY HABITATS

In the Umpqua Basin, Oregon white oak is adaptable, abundant, and widely distributed across diverse topographic conditions, whereas California black oak is more specialized to dry foothills and lower mountains in the basin's southern region. This plan's ecological priorities, or target habitats, are prairie, oak savanna, oak woodland, and mixed oak-conifer as described below (KBO and LRP 2024, PNOA 2024; See Appendix 4, Oak Habitat Geospatial Mapping Methods). A table showing the amount of each habitat type by HUC10 watershed is available in Appendix 5 (Acres of Oak Vegetation by HUC10 Watershed).



▲ **Black bear cub under a California black oak** *Robin Loznak*

Prairie

Prairies are open native grasslands with little to no tree cover. Prairies will generally only persist when regular fire, flooding, or other disturbance prevents succession to woody vegetation.

- 0-5% total tree canopy cover
- <5% non-oak canopy cover
- <15% native shrub cover

Oak Savanna

Oak savannas are upland prairies and grasslands that contain highly scattered and widely spaced oak trees.

- 5-25% total tree canopy cover
- <5% non-oak canopy cover
- <15% native shrub cover

These sun-exposed habitats support diverse plant and animal species. Limited competition allows oaks to develop large, complex canopies. Historically maintained by fire and grazing, oak savannas are drought-resistant and primarily found in the basin's central valleys, with higher concentrations in the southern, drier portion of the county.

PHOTOS:

L: **Oak Prairie Habitat** *Eric Stauder*

R: **Oak Savanna Habitat** *Eric Stauder*

Next page:

L: **Oak woodland with understory brush removal at Braz property May 2024** *Alicia Christiansen*

R: **Mixed Oak-Conifer Forest at Heberling Ranch** *Eric Riley*

Oak Woodland

Oak woodlands refer to groves of oak trees growing closer together and can range from an open to relatively closed canopy dominated by oak, and often interspersed with conifers such as ponderosa pine and Douglas-fir. There is typically an open understory of shrubs, grasses, and herbaceous plants.

- 25 - 75% total tree canopy cover
- < 10% non-oak canopy cover, favoring native pine
- 10 - 30% native shrub cover in variably-sized patches

These habitats range from open woodlands (25-50% canopy) to closed woodlands (50-75% canopy), with subtypes including oak-pine, oak-hardwood, and oak-oak woodlands. Oak woodlands are also well distributed throughout the central valleys of the basin, with particularly heavy concentrations in the North Bank and Upper South Umpqua areas. Oak-pine habitats are distinguished by the codominance of oak and ponderosa pine.

Mixed Oak-Conifer Forest

Mixed oak-conifer forest habitats are characterized by a nearly closed canopy, dominated by oak and Douglas-fir. Oak trees in a dense oak forest compete for resources and are almost exclusively columnar in shape, with limited branching and crown foliage volume.

- >30% total tree canopy cover
- < 50% conifer tree cover, favoring med-large conifers (>15” dbh), preferably in pockets not crowding oaks
- 10 - 40% native shrub cover in variably-sized, dense patches

This oak ecosystem type occurs primarily in the foothill elevational transition into Douglas-fir forests, or where site-specific conditions (e.g., north aspects, moister soil types) are present at the interface of oak and conifer forests. Major concentrations occur in North Bank, Myrtle Creek West, and Upper South Umpqua.

Oak maze gall mushroom found growing on an Oregon White Oak

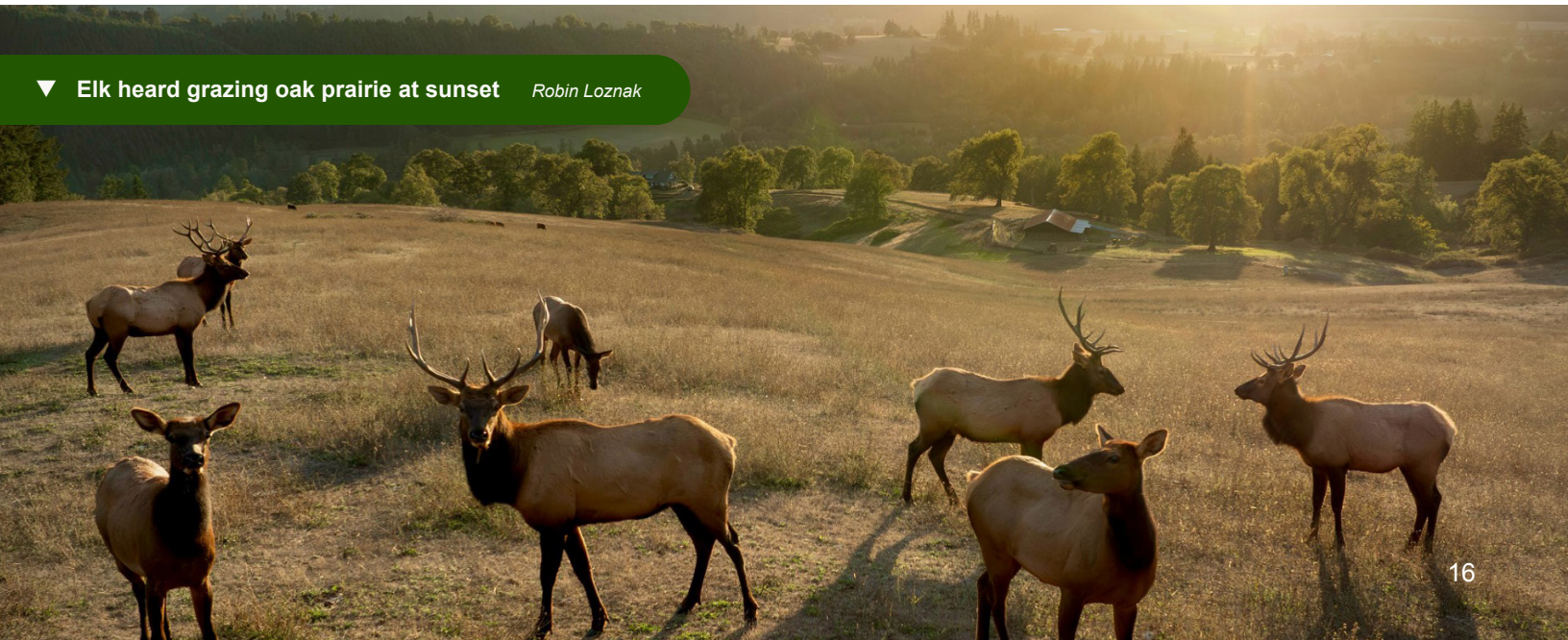
Eric Stauder

SPATIAL STRATEGY

To guide conservation efforts across the Umpqua Basin, the Umpqua Oak Partnership identified a set of Core Priority Areas, Anchor Habitats, and Opportunity Areas through a collaborative planning process. These geographies represent the highest potential for impactful oak habitat restoration, stewardship, and connectivity across public, private, and tribal lands. Figure 2 illustrates land ownership patterns across the Partnership geography, and Table 1 quantifies the extent of oak vegetation by ownership type—highlighting the significant role of private lands in sustaining and restoring oak habitats. See Appendix 4 for Geospatial Mapping Methods.

The delineation of Core Priority Areas, Anchor Habitats, and Opportunity Areas was designed to address key threats—such as conifer encroachment, development pressure, and altered fire regimes—across ownership boundaries. While these areas span federal, state, tribal, and local lands, a strong emphasis is placed on private lands, which collectively contain the majority of remaining oak habitats in the Umpqua region. Focusing on these working landscapes offers the greatest opportunity for broad-scale impact through voluntary stewardship, conservation incentives, and landowner engagement. At the same time, public and Tribal lands serve as vital ecological anchors that contribute to habitat continuity, support demonstration projects, and provide long-term conservation security.

The spatial strategy, including Core Priority Areas, Anchor Habitats, Opportunity Areas, and Integrative Cross-Habitat and Riparian Restoration were identified through a collaborative decision-making process involving landowners, tribes, agency partners, NGOs, and other stakeholders.



▼ **Elk heard grazing oak prairie at sunset** *Robin Loznak*

Table 1. Acres of Oak Vegetation by Land Ownership in the Umpqua Oak Partnership Geography

	Oak Savanna *(acres)*	Oak Woodland *(acres)*	Oak Conifer *(acres)*
Federal	2,190	4,609	10,443
State	49	110	219
Local	26	28	103
Private Industrial	8,060	9,626	16,433
Private	10,239	19,457	34,411
Tribal	384	329	470
Other	14	12	62
TOTAL	**20,962**	**34,171**	**62,141**

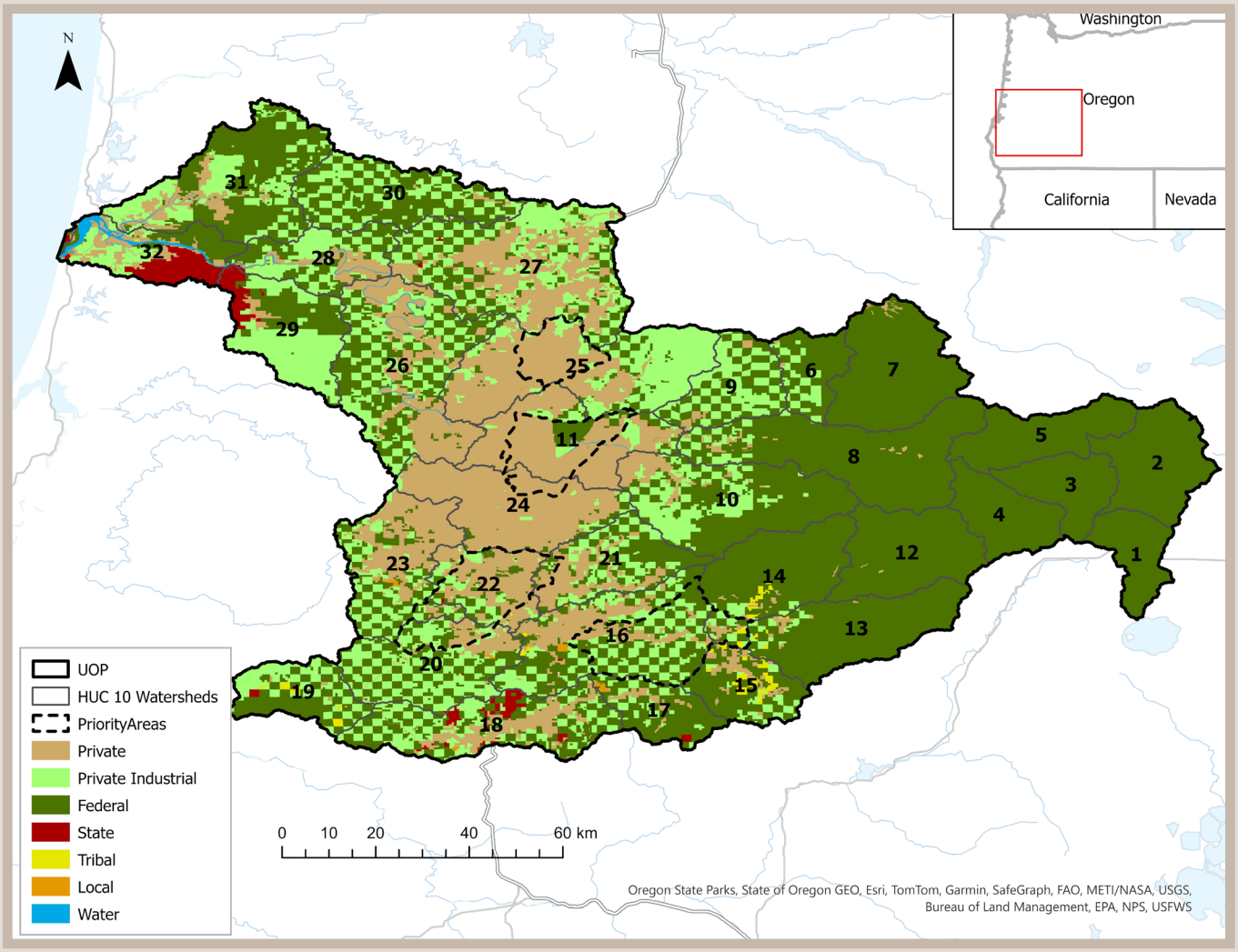


Figure 2. Land Ownership in the Umpqua Oak Partnership Geography

Core Priority Areas

Core Priority Areas (Figure 3) are defined as large, strategically located areas where oak conservation, restoration, and stewardship could have the greatest ecological impact. These four landscapes represent a diversity of oak habitat types across low, mid, and high elevations of the Umpqua Basin (Table 2; Figure 4; Appendix 6, Land Ownership by Core Priority Area) and are large enough to support viable populations of oak-dependent birds, wildlife, pollinators, and other species.

- Oakland
- Myrtle Creek
- North Umpqua
- Upper South Umpqua

Table 2. Acres of Oak Vegetation by Priority Area in the Umpqua Oak Partnership Geography

	Savanna *(acres)*	**Woodland** *(acres)*	**Conifer** *(acres)*
Upper South Umpqua	2,018	3,701	4,814
Oakland	443	62	503
North Bank	1,391	4,340	5,402
Myrtle Creek West	1,372	3,836	7,053

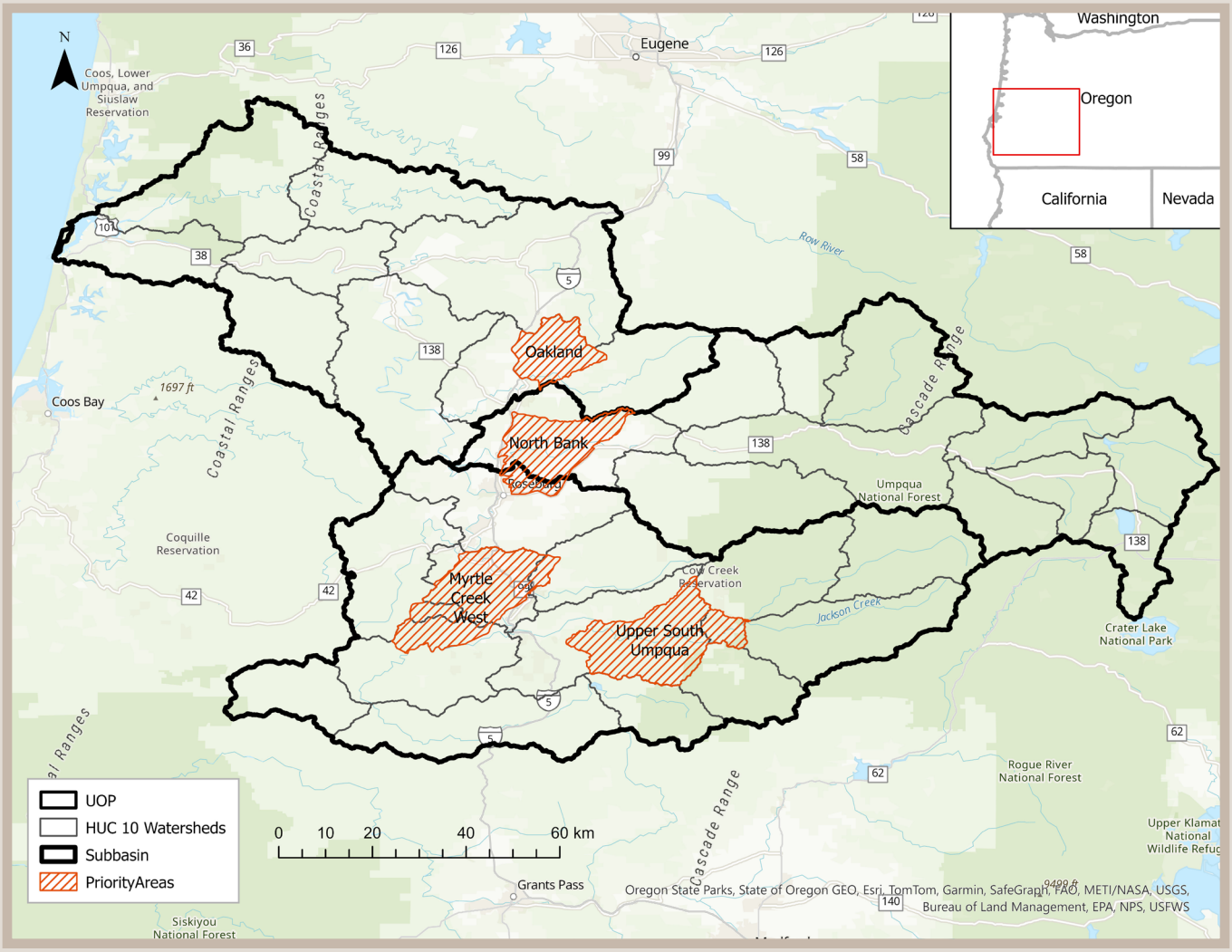
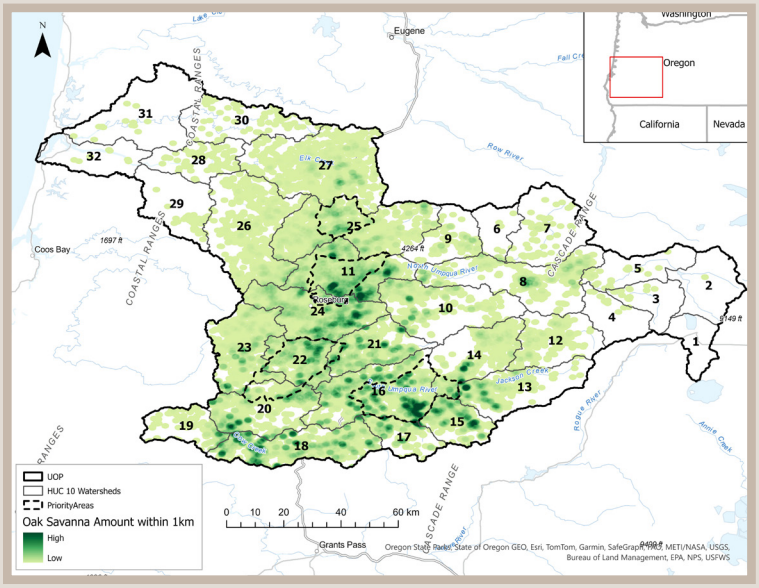
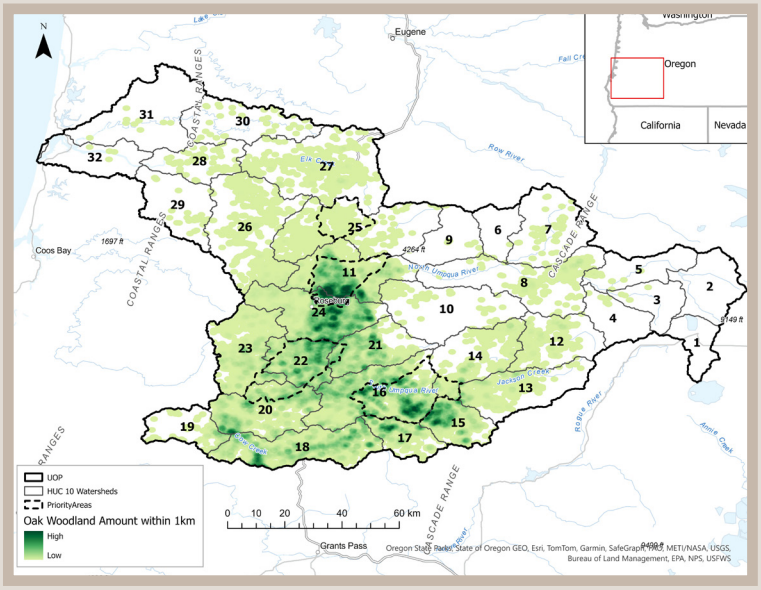
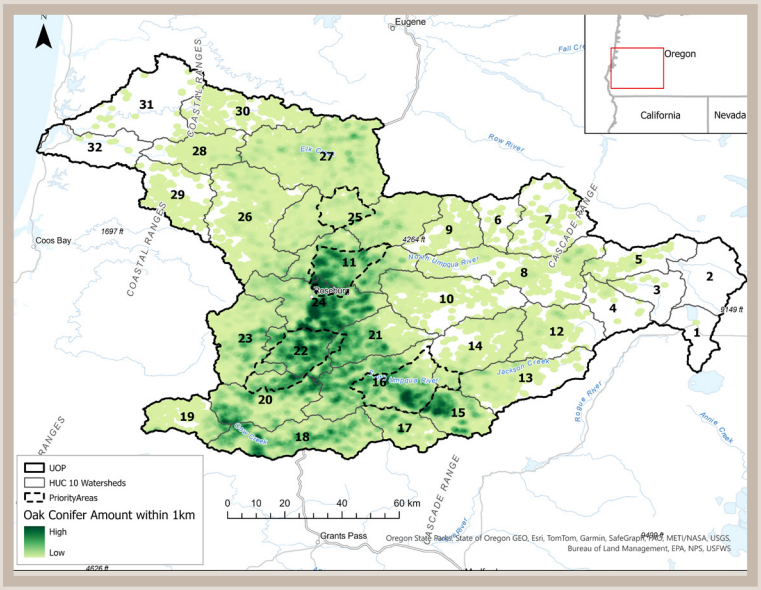


Figure 3. Umpqua Oak Partnership Core Priority Areas

The amount of oak savanna, oak woodland, and mixed-oak conifer habitat within a 1km radius inside the UOP geography.







Anchor Habitats

Within each Core Priority Area, one or more Anchor Habitats have been identified. These are keystone landscapes that serve as strongholds for oak ecosystems due to their high ecological integrity and oak habitat diversity, strategic location for landscape connectivity, and potential to serve as demonstration areas for effective restoration across landownerships.

Anchor Habitats are focal points for partnership-driven conservation and are positioned to catalyze larger landscape-scale outcomes:

- Oakland: *Mildred Kanipe Park* (Public – Douglas County)
- North Umpqua: *North Bank Habitat Management Area* (Public – BLM)
- Myrtle Creek: *Brockway to Boomer Hill corridor* (Private ranches and forests)
- Upper South Umpqua: *Days Creek–Tiller–Drew landscape* (Cow Creek Tribal land and private ranches)

Opportunity Areas

In addition to Core Priority Areas, several Opportunity Areas were identified. These landscapes contain significant existing oak habitat and offer a high likelihood of voluntary landowner participation, making them ripe for targeted outreach and incentive-based conservation:

- Drain–Elkton–Yoncalla area
- Umpqua–Melrose–Lookingglass area
- Deadman Creek–Elk Creek area
- Camas Valley–Tenmile–Olalla area
- Round Prairie–Dixonville–Peel area

Figure 4. Amount of oak savanna, oak woodland, and mixed-oak conifer habitat within a 1km radius inside the UOP geography. Due to a lack of data, no map was produced for prairie habitats.

INTEGRATIVE CROSS-HABITAT AND RIPARIAN RESTORATION

While UOP's spatial priorities focus on oak and prairie ecosystems, the Umpqua landscape functions as an interconnected mosaic where water, vegetation, and wildlife move freely across habitat boundaries. Riparian zones, floodplains, wetlands, and upland oak systems are interdependent—providing corridors, sustaining water quality, and supporting diverse species.

Integrating riparian and cross-habitat restoration within and adjacent to oak landscapes strengthens ecological connectivity, resilience to drought and wildfire, and links oak conservation with watershed health, salmon recovery, and climate adaptation.

A network of interconnected areas will facilitate wildlife movement between Core Priority Areas, Anchor Habitats, and Opportunity Areas—supporting species migration and long-term adaptation to climate change. The Oregon Department of Fish and Wildlife's Priority Wildlife Connectivity Areas will guide this work to ensure alignment with statewide connectivity goals.

Where feasible, the Partnership will prioritize projects that:

- Strengthen connectivity between oak uplands and riparian corridors;
- Restore native vegetation and hydrologic processes in transition zones;
- Incorporate climate-adaptive design;
- Leverage voluntary programs that integrate oak, riparian, and connectivity outcomes.

Recognizing water as a unifying element across all habitats, the Partnership promotes restoration that enhances terrestrial and aquatic systems—building a resilient, connected Umpqua landscape for birds, fish, wildlife, and people.

▲ **Fawn sheltering in riparian oak habitat with Scotch broom treatments** *Eric Stauder*

Barn owl perched on an oak limb

Robin Loznak

CONSERVATION GOALS

This strategic plan draws from and contributes to broader regional efforts, including the Klamath Siskiyou Oak Network's (KSON) Strategic Action Plan (Alexander et al. 2020). Like KSON, the Umpqua Oak Partnership has identified priority oak habitat types—including prairie, oak savanna, oak woodland, and mixed oak-conifer forests—and is using a shared framework to guide conservation and restoration actions.

Our approach to developing goals and objectives builds on a Habitat Viability Assessment (Appendix 7, Table 6), which includes:

1. Defining KEAs to describe both current and desired conditions for each habitat type;
2. Identifying indicators to measure those conditions;
3. Establishing benchmarks for what constitutes "Good" condition;
4. Assessing each habitat's current and desired future condition using a qualitative ranking of Poor, Fair, or Good.

The objectives in this plan were developed based on approaches used in the development of the Klamath Siskiyou Oak Network's Strategic Action Plan (Alexander et al. 2020). Social goals were calculated based on aggregate capacity, past collective restoration outputs, landowner interest, and programmatic commitments of participating agencies and organizations. Together, the goals and objectives below form a flexible framework that guides collaborative action and aligns with regional efforts and goals for oak conservation in southern Oregon and beyond.

▲ **Forested landscape of mixed-conifer and oak trees at Northbank Habitat Management Area** *Maggie Begoun*

Ecological Goal and Objectives

By 2050, restore, maintain, and protect a resilient and interconnected network of oak and prairie habitats across the Umpqua Basin that supports native biodiversity, enhances fire-adapted ecosystems, sustains ecocultural values, and contributes to long-term climate resilience.

Objectives

Maintain and increase the amount of habitat

- Increase the amount of oak conifer by 4,350 acres (7%); increase the amount of prairie; and maintain the current amount of oak savanna and oak woodlands.

Improve the condition of plant communities

- Maintain or improve the condition of oak savanna and woodlands so that at least 5,240 acres of oak savanna and 8,543 acres of oak woodlands support >25% cover of high-diversity native understory.
- Maintain or improve the condition of oak woodland and oak conifer habitat, so that at least 17,086 acres of oak woodland and 31,071 acres of oak-conifer habitat support abundant younger age-class oaks, retain at least 90% of legacy oaks, and ensure accessible, high-quality acorn crops.

Reduce woody fuel loads and reintroduce low-severity surface fires

- Maintain or improve the condition of oak woodland and oak conifer habitat, so that at least 17,086 acres of oak woodland and 31,071 acres of oak conifer are characterized by a low load surface behavior model.
- Increase the amount of oak habitat burned within the last 36 years (Fire Regime Class 1), so that at least 5,241 acres of oak savanna, 8,543 acres of oak woodland, and 15,535 acres of oak-conifer fall within Fire Regime Class 1.

Improve habitat conditions to increase focal bird species diversity

- Maintain or improve the condition of oak habitat so that more acres of prairie, 10,481 acres of oak savanna, 17,086 acres of oak woodland, and 31,071 acres of oak-conifer have >75% of focal bird species present.

See Appendix 7 and Table 6 for more information.

Blacktail deer browsing oak leaves

Robin Loznak

UNPP Native Seed Collection at Yew Creek Land Alliance

Eric Stauder

Social and Capacity Goal and Objectives

By 2036, strengthen cross-boundary coordination and local capacity to deliver oak and prairie conservation by investing in long-term partnership infrastructure, engaging landowners and communities in voluntary stewardship, expanding public support, honoring Indigenous knowledge, and increasing workforce, technical, and financial assistance across public, private, and tribal lands.

Objectives

- By 2030, strengthen regional implementation capacity across three core focus areas essential to more effective oak restoration: labor and workforce development (e.g., Conservation Corps), native plant material supply chains (e.g., Umpqua Native Plant Partnership), and ecological monitoring.
- By 2030, secure full funding for a dedicated UOP Coordinator to lead collaborative planning and scale cross-jurisdictional oak conservation across the basin
- By 2036, enroll at least 510 private landowners in conservation programs within priority areas to expand oak stewardship on private lands.
- By 2036, permanently protect 2,000 acres of oak and prairie habitat through conservation easements, fee title acquisition, and other voluntary land protection tools.
- By 2036, provide outreach, education, and support to at least 2,000 landowners and land managers in priority areas to enable voluntary and effective oak habitat management across public, private, and tribal lands through UOP events such as workshops, site tours and visits, demonstration field days, landowner direct contacts, and other landowner engagement efforts.

▲ **Community Cultural Burn at Glide Elementary School with ceremony led by Jesse Jackson** *News Review*

CONSERVATION CONTEXT

BIOPHYSICAL

The Umpqua Basin is a geologically complex and ecologically diverse region, shaped by the intersection of four major ecoregions: the West Cascades, the Klamath Mountains, the Willamette Valley, and the Coast Range. This unique convergence has resulted in a landscape of rolling hills, interconnected valleys, and mountain ridges, earning Douglas County the nickname “the hundred valleys of the Umpqua.” The region is defined by a rich mosaic of forests, grasslands, and riparian ecosystems, with the Umpqua River and its tributaries serving as vital ecological corridors.

The basin supports a range of terrestrial ecosystems, from lowland oak savannas and woodlands to conifer-dominated forests and high-elevation alpine meadows. Oak ecosystems—historically maintained by frequent, low-intensity fires—exist alongside extensive forests of Douglas-fir, ponderosa pine, incense cedar, and hardwood species such as Pacific madrone and bigleaf maple. Grassland habitats, including upland prairies, montane grasslands, and coastal bluffs, add to the region’s ecological diversity. These landscapes support a wide array of plant and animal species, many of which are endemic or dependent on fire-adapted habitats.

Fire has historically played a crucial role in shaping the Umpqua Basin’s forests and grasslands, with Indigenous land stewardship practices, particularly the use of cultural burning, maintaining open oak habitats, and promoting biodiversity. However, fire suppression policies and land-use changes have led to conifer encroachment, increased fuel loads, and a shift toward high-intensity wildfires with severe ecological consequences. Invasive species such as Himalayan blackberry, Scotch broom, and English hawthorn further threaten native plant communities, outcompeting native vegetation and altering habitat structure.

Despite these challenges, the Umpqua Basin remains home to some of the largest remaining expanses of Oregon white oak and California black oak habitats in the Pacific Northwest. These ecosystems are not only ecologically significant but are also deeply tied to the cultural heritage of the region’s Indigenous communities.

▼ **Prescribed burn in oak savanna** *Eric Riley*

Vegetation Condition

We used data from Haugo et al. (2015), which provides a comprehensive assessment of forest restoration needs. This dataset accounts for both ecological departure and successional restoration needs, integrating information on current and historical vegetation conditions and fire regimes. Ecological departure refers to the extent to which current forest conditions deviate from their historical range of variability (HRV). This concept assesses changes in forest structure and composition by comparing present-day conditions to historical reference conditions, which are characterized by the natural patterns of vegetation and fire regimes prior to significant human influence. By quantifying these deviations, ecological departure serves as a metric to identify areas where restoration efforts are needed. The resulting maps highlight the percentage of forested acres needing restoration, offering a more holistic view of forest health and management priorities (See Appendix 4, Geospatial Mapping Methods).

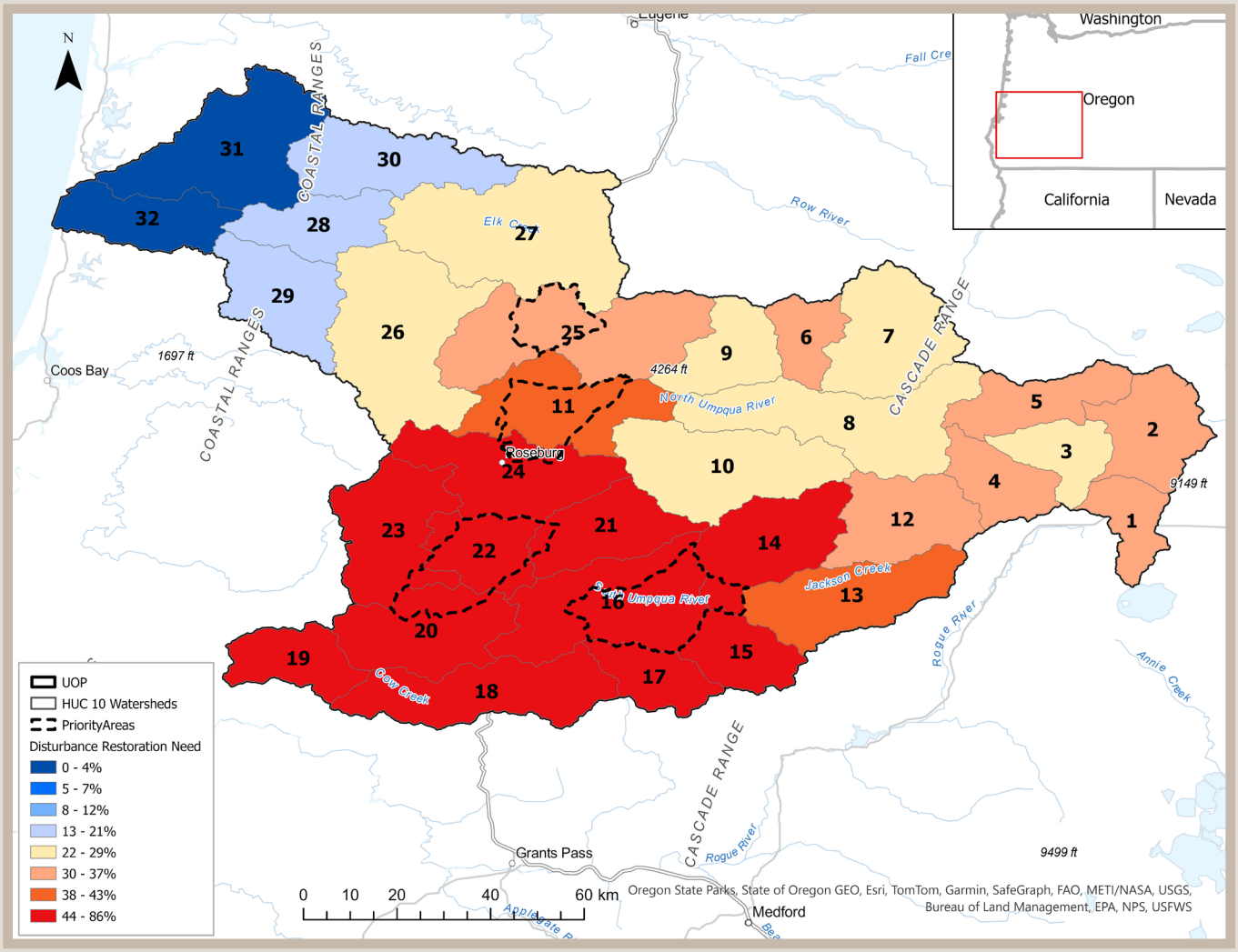


Figure 4. Vegetation condition (summarized by watershed) representing disturbance restoration need within the Umpqua Oak Partnership geography (Haugo et. al, 2015).

Kincaid's Lupine in oak savanna habitat

Eric Stauder

UOP PRIORITY SPECIES

The Umpqua Oak Partnership has identified 40 rare and/or declining oak and prairie dependent Priority Species, 3 of which are extirpated from the Umpqua Basin and 4 of which are presumed present but unconfirmed (Table 3). Priority species are often not the best indicators for monitoring because they are inherently declining. See UOP Monitoring Strategy for Focal Monitoring Species and Sampling Design Protocols.

Definition of UOP Priority Species

UOP Priority Species are those that depend on oak and prairie habitats and meet one or more of the following criteria:

- **Regulatory Status:** Listed as *Threatened, Endangered, or Proposed* under the federal Endangered Species Act (ESA) by the U.S. Fish and Wildlife Service, or under similar designations by Oregon state agencies.
- **Plant Rarity and Endemism:** Additional plant species are included if they are known to be declining, rare, or endemic, based on expert opinion.
- **Bird Conservation Priority:** Bird species are included if they:
  - Have been documented breeding in the Umpqua Basin; **and**
  - Are recognized as conservation priorities by one or more of the following:
    - Oregon Department of Fish and Wildlife *(Sensitive Species or Species of Greatest Conservation Need)*,
    - Partners in Flight *(Landbird Conservation Plan for Prairie, Oak, and Riparian Habitats)* or
    - Partners in Flight Western Forest Initiative *(Northern Pacific Rainforest Bird Conservation Region Priority Birds)*, as identified through the Avian Conservation Assessment Database.
    - Oregon's State Wildlife Action Plan: Listed as a Species of Greatest Conservation Need (SGCN) in Oregon Department of Fish and Wildlife's 2026 State Wildlife Action Plan.

Table 3. Umpqua Basin Oak and Prairie Dependent Priority Species.

KEY: Regulatory: E = Endangered, T = Threatened, C = Candidate, P = Proposed, SOC = Species of Concern, SGCN = Species of Greatest Conservation Need, S = Sensitive; Occurrence: EX = Extirpated, O = Occurs, PP = Presumed Present

	Species			Regulatory Status	
	Common	**Scientific**	**Occurrence**	**Federal**	**State**
	Mammals				
●	Western Gray Squirrel	*Sciurus griseus*	O		S, SGCN
	Birds				
	Ash-throated Flycatcher	*Myiarchus cinerascens*	O		
	Black-throated Gray Warbler	*Setophaga nigrescens*	O		
	Cassin's Vireo	*Vireo cassinii*	O		
●	Chipping Sparrow	*Spizella passerina*	O		S, SGCN
●	Common Nighthawk	*Chordeiles minor*	O		S, SGCN
●	Golden Eagle	*Aquila chrysaetos*	O		S, SGCN
●	Grasshopper Sparrow	*Ammodramus savannarum*	O		S, SGCN
	Lark Sparrow	*Chondestes grammacus*	EX		
●	Lewis's Woodpecker	*Melanerpes lewis*	EX	SOC	S, SGCN
●	Vesper Sparrow (affinis)	*Pooecetes gramineus affinis*	O	PT, SOC	S, SGCN
	Purple Finch	*Haemorhous purpureus*	O		
●	Streaked Horned Lark	*Eremophila alpestris strigata*	EX	T	T, SGCN
●	Western Bluebird	*Sialia mexicana*	O		S, SGCN
●	Western Meadowlark	*Sturnella neglecta*	O		S, SGCN
	Western Screech Owl	*Megascops kennicottii*	O		
	Western Wood-Pewee	*Contopus sordidulus*	O		
●	White-breasted Nuthatch	*Sitta carolinensis aculeata*	O		S, SGCN
	White-tailed Kite	*Elanus leucurus*	O		

	Species			Regulatory Status	
	Common	**Scientific**	**Occurrence**	**Federal**	**State**
	Herptiles				
●	Western Pond Turtle	*Emys marmorata*	O	SOC, PT	S, SGCN
●	California Mountain Kingsnake	*Lampropeltis zonata*	O	SOC	S, SGCN
	Butterflies				
●	Taylors Checkerspot	*Euphydryas editha taylor*	PP	E	SGCN
	Plants				
●	Cox's Mariposa Lily	*Calochortus coxii*	O	SOC	E
	Cusick's Checkermallow	*Sidalcea cusickii*	O		
	Firecracker Lily	*Dichelostemma ida-maia*	O		
	Foothill Poppy	*Eschscholzia caespitosa*	O		
	Fragrant Popcornflower	*Plagiobothrys figuratus*	O		C
●	Golden Paintbrush	*Castilleja levisecta*	PP		E
●	Hitchcock’s Blue-eyed Grass	*Sisyrinchium hitchcockii*	O	SOC	E, SGCN
●	Kincaid's Lupine	*Lupinus oreganus*	O	T	T, SGCN
	Koehler's Rockcress	*Arabis koehleri*	O		
●	Nelson's Checkermallow	*Sidalcea nelsoniana*	PP		T, SGCN
●	Redroot Yampah	*Perideridia erythrorhiza*	O		E
	Rogue River Milkvetch	*Astragalus accidens var. accidens*	O		
●	Rough Popcorn Flower	*Plagiobothrys hirtus*	O	E	E, SGCN
	Shaggey Horkelia	*Horkelia congesta ssp. congesta*	O		C
●	Thompson's Mistmaiden	*Romanzoffia thompsonii*	O	SOC	E
●	Umpqua Mariposa Lily	*Calochortus umpquaensis*	O		E, SGCN
●	White Meconella	*Meconella oregana*	O	SOC	T
●	Willamette Daisy	*Erigeron decumbens*	PP	E	E, SGCN

SOCIAL CONTEXT

The Umpqua Basin is characterized by diverse land ownership, including federal, tribal, private, and industrial holdings, each with distinct land use priorities. The U.S. Forest Service (USFS) and Bureau of Land Management (BLM) oversee significant public lands, while private ownership includes large timber corporations, small family-owned forests, and agricultural lands (ODF, 2020). The Cow Creek Band of Umpqua Tribe of Indians manages land that holds cultural and ecological significance, incorporating traditional land stewardship practices to maintain the health of oak ecosystems (Cow Creek Band of Umpqua Tribe of Indians, 2021).

Historically, land use in the Umpqua Basin has been shaped by the timber industry, agriculture, and ranching. The timber industry remains a primary economic driver, with active logging and forest management on both public and private lands (ODF, 2020). However, shifts in state and federal timber policies have contributed to economic instability in many rural timber-driven communities (Kline et al., 2017). Agriculture, including vineyards, cattle grazing, and crop production, remains prominent.

The county's human communities include both urban and rural populations, with Roseburg serving as the primary urban center. Many rural residents maintain strong connections to the land, relying on natural resources for their livelihoods, recreation, and subsistence (Harris & Nelson, 2019). The Cow Creek Band of Umpqua Tribe of Indians, with deep ancestral ties to the region, continues to engage in land stewardship, advocating for the integration of Traditional Ecological Knowledge (TEK) into conservation practices (Cow Creek Band of Umpqua Tribe of Indians, 2021). The recognition of tribal sovereignty and treaty rights is essential for collaborative efforts in oak habitat conservation (Peacock & Turner, 2000).

Kincaid Lupine restoration plot on Denny Tour 2025

Eric Stauder

Key stakeholders in the implementation of this plan include timber companies, ranchers, private landowners, conservation groups, government agencies, and recreational users. Balancing ecological restoration with economic and cultural interests is critical. Strategies such as incentives for private landowners to restore oak habitat, collaborative fire management practices, and sustainable forestry initiatives can help align conservation goals with local economic needs (Vesely & Rosenberg, 2010; Kline et al., 2017). Public education and engagement will also be essential in fostering support for oak conservation.

As the Umpqua Basin looks toward the future, challenges such as climate change, shifting economic conditions, and land-use pressures will shape the success of conservation initiatives. By integrating scientific research, policy support, and local and tribal knowledge, this plan can help maintain the cultural, economic, and ecological values that define the region's oak landscapes.

HISTORICAL

Oak ecosystems have played an integral role in the ecological and cultural landscapes of the Umpqua Basin for thousands of years. Beyond their ecological function, oaks have held deep significance in human history, symbolizing strength, endurance, wisdom, and sacredness across many cultures worldwide. In the Pacific Northwest, Indigenous peoples have long relied on oaks for sustenance, tools, and spiritual practices, shaping the landscape through traditional management techniques such as controlled burning. The intentional use of fire maintained open oak habitats, enhanced the production of food plants, and supported diverse wildlife populations, ensuring the resilience of these ecosystems.

For over ten thousand years, the interaction of geology, climate, and Indigenous resource management practices has profoundly influenced the Umpqua Basin's ecology. The region's oak woodlands and savannas, which now comprise the largest remaining oak-related habitats in Oregon, were actively managed by Indigenous communities, including the Cow Creek Band of Umpqua Tribe of Indians and other tribes of southwestern Oregon. Anthropologists and early explorers, such as David Douglas, documented the widespread use of fire as a tool for maintaining these landscapes, promoting acorn production, improving forage for deer and elk, clearing travel routes, and encouraging the growth of shrubs used for tools and basketry (Lewis, 1990; Blackburn & Anderson, 1993; Anderson, 1993). These practices created a mosaic of oak savannas, prairies, and woodlands that sustained both biodiversity and human livelihoods.

The Umpqua Basin was home to five distinct Indigenous tribes: the Umpqua, Cow Creek Band of Umpqua, Lower Umpqua, Yoncalla (Calapooia), and Southern Molalla. Archaeological evidence indicates that the basin was inhabited prior to the eruption of Mount Mazama approximately 7,700 years ago.

Early Indigenous communities depended on the region's abundant natural resources, utilizing fire to facilitate the harvest of tarweed seeds, enhance berry and browse production, and manage game populations (Beckham, 1986; Beckham & Shaffer, 1991). Additionally, they employed weirs and spears to harvest salmon and other fish and gathered a variety of seeds, berries, and roots from the landscape.

However, in the last two centuries, oak habitat in the US has declined by approximately 97% due to fire suppression, land conversion for agriculture and urban development, and the expansion of conifer forests into historically oak-dominated areas (Tallamy, 2021). This dramatic loss coincided with the disruption of Indigenous land management practices and the imposition of fire suppression policies by European settlers. The ranges of Oregon white oak and California black oak were likely extended through Indigenous burning, particularly in archaeological sites, upland flats, and ridgeline corridors (Carloni, 2005). With the cessation of these practices, oak ecosystems in marginal sites within mixed conifer forests have become increasingly vulnerable to encroachment by Douglas-fir, white fir, and hemlock (Franklin & Dyrness, 1988).

Despite these challenges, awareness of oak conservation has grown alongside the resurgence of Indigenous sovereignty and Traditional Ecological Knowledge. Protecting and restoring these habitats requires a collaborative approach that integrates science-based management with Indigenous stewardship practices. Restoring fire as a natural and cultural process is essential for maintaining the resilience of oak landscapes and ensuring their continued ecological and cultural significance for future generations. By recognizing and supporting the role of Tribal Nations in habitat restoration efforts, conservation initiatives can build upon millennia of proven land management techniques, securing the future of these vital ecosystems.

Douglas-fir mortality from prolonged drought in lower elevation oak habitat

Eric Stauder

CLIMATE IMPACTS

While the Umpqua Basin is known for its conifer forests—particularly Douglas-fir *(Pseudotsuga menziesii)*—climate change is reshaping ecosystem dynamics. Rising temperatures, reduced snowpack, and shifting precipitation patterns are leading to more frequent drought conditions, diminished summer streamflows, and increased fire risk. These impacts are already being observed across the region, and they are expected to intensify over the coming decades.

Climate-Driven Tree Mortality and Fire Risk

Douglas-fir, a hallmark of Pacific Northwest forests, is particularly vulnerable to prolonged drought at lower elevations. Research across southwestern Oregon and the Umpqua Basin shows elevated mortality in Douglas-fir populations where shallow soils, hotter temperatures, and extended dry seasons prevent adequate water uptake (Kral et al., 2023; Restaino et al., 2019). As these trees die, they contribute to rising fuel loads, particularly fine and ladder fuels, which can accelerate the spread and intensity of wildfire events. The resulting feedback loop—more dead biomass, hotter fires, and further stress on surviving trees—threatens to transform mixed-conifer forests in the foothills and valleys into fire-prone shrublands or degraded systems (Berner et al., 2021).

In contrast, Oregon white oak is more drought-adapted and fire-resilient, which positions it as a key species for climate-adaptive restoration. The selective mortality of conifers in oak transition zones may, over time, facilitate oak regeneration—if management actions such as prescribed fire and conifer removal are applied strategically.

Oak Habitats Under Climate Threat

Oregon white oak ecosystems, already reduced from their historical extent, are increasingly affected by climate stressors:

- **Drought and heat intensification:** Warmer, drier summers amplify drought stress, reduce seedling survival, and increase susceptibility to insect pests and disease (Devine et al., 2012).
- **Fire regime shifts:** Without periodic low-severity fires, conifers invade oak savannas and woodlands, leading to loss of open-canopy habitat structure. Conversely, high-severity wildfires can kill mature oaks if fire return intervals are too long (Kalin et al., 2021).
- **Restoration opportunity:** Following events like the Jack Fire, coordinated efforts have planted genetically diverse oak seedlings to promote post-fire restoration in transitional forest/oak zones.

Smoke clouds from the catastrophic Archie Creek Fire looming above a legacy Oregon White Oak

Eric Stauder

Wildlife Impacts

Shifting habitat structure and food resources affect wildlife that depend on oaks. Acorn production, essential for species like the acorn woodpecker and western gray squirrel, is sensitive to climatic variability. Altered seasonal cues may also misalign breeding and food availability for species like the Oregon vesper sparrow (Koenig & Knops, 2000; Parmesan, 2006).

Climate-Adaptive Conservation Approaches

To address these complex, climate-induced pressures, oak conservation strategies in the Umpqua Basin must integrate:

- **Forest thinning and fuels reduction**, especially in conifer-dominated stands at lower elevations, to reduce fire risk and encourage oak persistence.
- **Prescribed burns and cultural fire** to restore historic fire regimes and support oak regeneration.
- **Drought-resilient native understory planting** to buffer against long-term climatic shifts and enable ecological transitions in vulnerable zones.

▼ **UPBA Demo Burn near Rice Hill in Douglas County, OR** *Ben Erickson*

THEORY OF CHANGE

THEORY OF CHANGE FRAMEWORK

The Partnership used the Theory of Change framework to identify pathways for improving how oak habitats are prioritized, managed, and perceived in the Umpqua Basin. This process used methods adapted from the Open Standards for the Practice of Conservation to define desired outcomes and strategies to address the highest-rated threats to oak habitats. Threats were rated using the Miradi project management software. UOP uses 'threat' to describe 'limiting factors' that are identified and prioritized on the local, state, and regional scales. The following sections outline key threats, desired conservation outcomes, and corresponding strategies based on strategic thinking from the development of the Theory of Change. Strategies were grouped into Enabling Strategies, Implementation Strategies, and Threat-Specific Strategies.

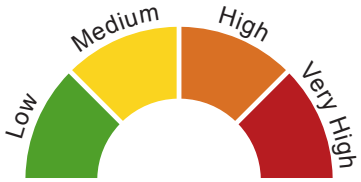
THREATS TO UMPQUA BASIN OAK HABITAT

Threats were identified and rated based on scope, severity, and irreversibility in the Umpqua Basin (Table 4). For this analysis, threats were defined as ongoing human-induced actions that directly degrade a system or habitat. Historical threats were not considered because there are no direct, contemporary interventions to address historically lost habitats. Responses were tabulated and scored using Miradi Adaptive Management software.

▼ **Himilayan blackberry degrading oak habitat and increasing wildfire risk** *Eric Riley*

Table 4. Highly Rated Threats to Oak and Prairie Habitat in the Umpqua Basin.

**See Appendix 8 for UOP Threat Assessment*



	Prairie	Oak Savanna	Oak Woodland	Mixed Oak-Conifer
Conversion to Intensive Agriculture	High	High	High	High
Non-native and Invasive Plant Species	High	High	High	High
Conifer and Woody Encroachment	Medium	Medium	High	High
Conversion to Industrial Timber	Low	Medium	High	High
Fire Exclusion	Low	Low	High	Very High

Conversion to Intensive Agriculture and Industrial Timber

The conversion of oak habitats to intensive agriculture, especially livestock pasture, vineyards, orchards, and Christmas tree farms, and commercial timber production has been a persistent threat in the Pacific Northwest. While the scale of this conversion has varied over time, it remains a significant concern in the Umpqua Basin.

Non-Native and Invasive Plant Species

The Umpqua Basin contains numerous non-native and invasive plant species that threaten oak habitats by competing with native understory plants and increasing wildfire risks. Invasive species often spread aggressively, displacing native vegetation and altering ecosystem functions.

Conifer and Woody Encroachment

Encroachment by both native and non-native species threatens oak and prairie habitats in the Umpqua. This occurs when species such as Douglas-fir, incense cedar, madrone, and English hawthorn outcompete oak trees, reducing the extent of prairies, oak savannas, and woodlands.

Fire Exclusion

For over a century, fire suppression has altered the landscape, leading to excessive fuel loads and increased risk of catastrophic wildfires. The absence of fire has also disrupted traditional Indigenous burning practices and the ecological processes that sustain oak habitats.

Rural Residential and Urban Development

Urban expansion and rural residential development pose direct threats to oak habitats in the Umpqua Basin. Key concerns include expansion of urban growth boundaries, land partitioning, zoning changes, and infrastructure development (housing, land use reclassification, and development of agricultural lands), all of which contribute to habitat fragmentation and loss.

STRATEGIES

The Umpqua Oak Partnership's conservation strategies are organized into three distinct but interconnected categories, each serving a different role in achieving long-term habitat goals. Together, these three strategic tiers provide a comprehensive and adaptive framework to guide UOP's collaborative restoration efforts across the landscape.

- **Core Enabling Strategies** focus on building the foundational systems—such as workforce development, community engagement, policy support, funding access, and native plant infrastructure—that make effective oak conservation possible across public, private, and tribal lands. These strategies address the root causes of habitat degradation by shifting the social, institutional, and technical conditions that shape land management decisions.
- **Core Implementation Strategies** represent the direct, on-the-ground ecological actions used to restore and manage oak habitats, including forest thinning, ecocultural stewardship, understory restoration, and land protection. These are the practices applied in the field to drive measurable ecological change.
- **Threat-Specific Strategies** are targeted responses tailored to address the highest-rated threats identified through the Theory of Change process. Developed through Working Groups, these strategies provide more detailed and context-specific actions that supplement the broader enabling and implementation efforts.

ODFW educational walk with 6th-grade students in oak habitat for National Forest Foundation

News Review

These strategies were developed through a series of intensive, collaborative work sessions with core UOP partners, using the Open Standards for the Practice of Conservation and Miradi software to guide structured decision-making. The full breadth of strategies and associated actions—capturing the nuance and creativity of the working groups—is included in Appendix 9 as a record of that collaborative planning process. The strategies featured in the main body of this plan represent a refined summary of the highest-priority approaches identified by UOP Core Partners. Several strategies are still in development or awaiting resources to advance. For details on which partners are leading, supporting, or enabling implementation of each strategy, see Appendix 3, UOP Core Partners and Organizational Expertise. Together, this framework reflects the collective knowledge, priorities, and long-term commitments of the partnership to restore and steward oak ecosystems across the Umpqua Basin.

Oaks in fall at Dear Ranch

Alicia Christiansen

CORE ENABLING STRATEGIES

Core Enabling Strategies are cross-cutting, capacity-building actions that strengthen the systems and relationships needed to achieve oak conservation outcomes across landscapes and land ownerships.

These strategies focus on shifting the underlying social, technical, institutional, and ecological systems that drive land management decisions. They represent levers, such as community support, policy frameworks, traditional knowledge, workforce capacity, and funding access, that create the environment in which meaningful and sustained conservation action is possible. These strategies address the root causes of habitat loss and fragmentation while building the tools, trust, and infrastructure required for long-term stewardship.

Support Oak-Friendly Policies and Incentives

Advance regulatory and voluntary frameworks that encourage oak conservation on private and public lands.

- Promote tax incentives and other voluntary programs such as ODFW's Wildlife Habitat Conservation and Management Program and the Oak Accord
- Integrate oak retention and protection into local land use planning, zoning, and permitting
- Elevate oak conservation in regional agency priorities and funding programs

Advance Working Lands Conservation and Land Protection

Expand voluntary, durable options that enable landowners to conserve and steward oak habitats as part of economically viable landscapes.

- Collaborate across partners to maximize landowner outreach and promote the full range of available programs and resources
- Collaborate with land trusts to secure conservation easements and acquisitions
- Promote the economic and ecological benefits of oak stewardship as a viable alternative to development
- Collaborate with agency and university partners to promote landowner enrollment in conservation programs

▲ **Oregon white oak saplings for the Oak Flats Restoration Project** *Eric Stauder*

Increase Public Outreach and Education

Engage landowners, communities, and decision-makers with knowledge and opportunities to support oak conservation.

- Provide trusted information through technical guides, brochures, and media outreach
- Host field tours, demonstration sites, and community events to promote hands-on learning
- Collaborate with OSU Extension, local organizations, and tribes to reach diverse audiences
- Target community engagement in priority areas to catalyze action where it matters most

Raven Brothers restoration crew at Denney property

Eric Stauder

Provide Technical Assistance and Resources

Equip landowners and practitioners with the tools, guidance, and support to manage oak habitats effectively.

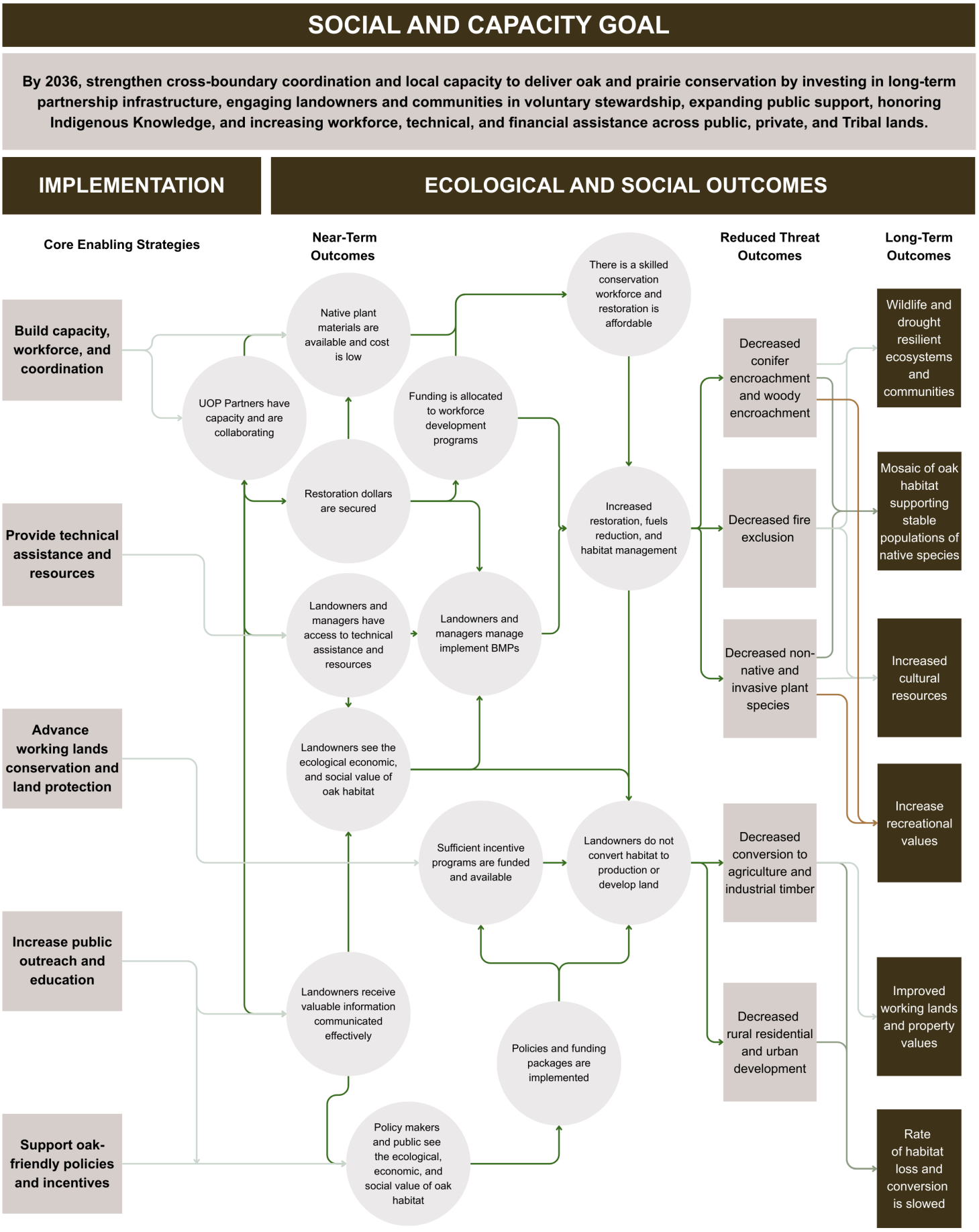
- Offer ongoing training and professional development opportunities for local landowners, conservation specialists, foresters, fire practitioners, and on-the-ground staff
- Simplify and distribute habitat management plans tailored to landowner resource needs
- Share decision-making support tools and science-based recommendations
- Keep partners updated on funding opportunities, best management practices (BMPs), and policy changes

Build Capacity, Workforce, and Coordination

Develop the infrastructure, partnerships, and workforce needed to scale oak conservation.

- Coordinate across agencies, tribes, NGOs, and communities to align strategies and share resources (e.g., maintain coordination of UOP to promote collaboration and synchronized efforts)
- Strengthen partnerships with seed producers, nurseries, and native plant initiatives to cultivate a locally-adapted and equitable restoration supply chain (e.g., Umpqua Native Plant Partnership)
- Invest in workforce development through programs like Oregon Conservation Corps and Northwest Youth Corps, with a focus on fuels reduction, ecological restoration, positive youth development, and career pathways exposure, with priority support for underserved communities.

Figure 6. Umpqua Oak Partnership Social and Capacity Theory of Change



Endangered Rough popcornflower at North Bank Habitat Management Area

Eric Stauder

CORE IMPLEMENTATION STRATEGIES

The following implementation strategies represent the on-the-ground actions essential for restoring, managing, and protecting oak habitats across the landscape. Unlike enabling conditions, which create the foundation for success, these strategies are the direct ecological interventions used to address specific conservation needs. They include habitat restoration techniques, culturally informed stewardship practices, and land protection tools that together advance both ecological function and cultural values. These strategies are designed to be adaptable across site conditions and landownerships, and are most effective when applied in coordination with broader outreach, policy, and partnership efforts outlined in the core strategies.

Forest Restoration

Forest restoration, typically forest thinning, involves the selective removal of trees, particularly fast-growing conifers like Douglas-fir, to reduce canopy density. This practice enhances sunlight penetration, promotes the growth of native oaks, and reduces competition for resources. Thinning also decreases fuel loads, thereby mitigating wildfire risks and supporting the health of oak ecosystems.

Ecocultural Stewardship

Ecocultural stewardship integrates Indigenous Traditional Ecological Knowledge (TEK) with ecological practices to manage and restore oak habitats. This approach includes prescribed burning and other land management techniques, such as mowing, prescribed grazing, mechanical, and chemical treatment.

Understory Restoration

Understory restoration focuses on reestablishing native grasses, wildflowers, and shrubs beneath the oak canopy and removal of invasive and non-native vegetation. This practice enhances biodiversity, supports pollinators, improves habitat quality for various wildlife species, and facilitates beneficial fire regimes. Collaborative efforts among landowners, conservationists, and tribal partners are essential for successful understory restoration.

Ensure Recruitment and Legacy Oaks

Ensuring recruitment and legacy oaks involves protecting mature oak trees and facilitating the growth of young oaks to sustain the population over time. This practice includes removing competing vegetation, protecting saplings from herbivory, and preserving large, old oaks that provide critical habitat features.

Manage for Habitat Features for Wildlife

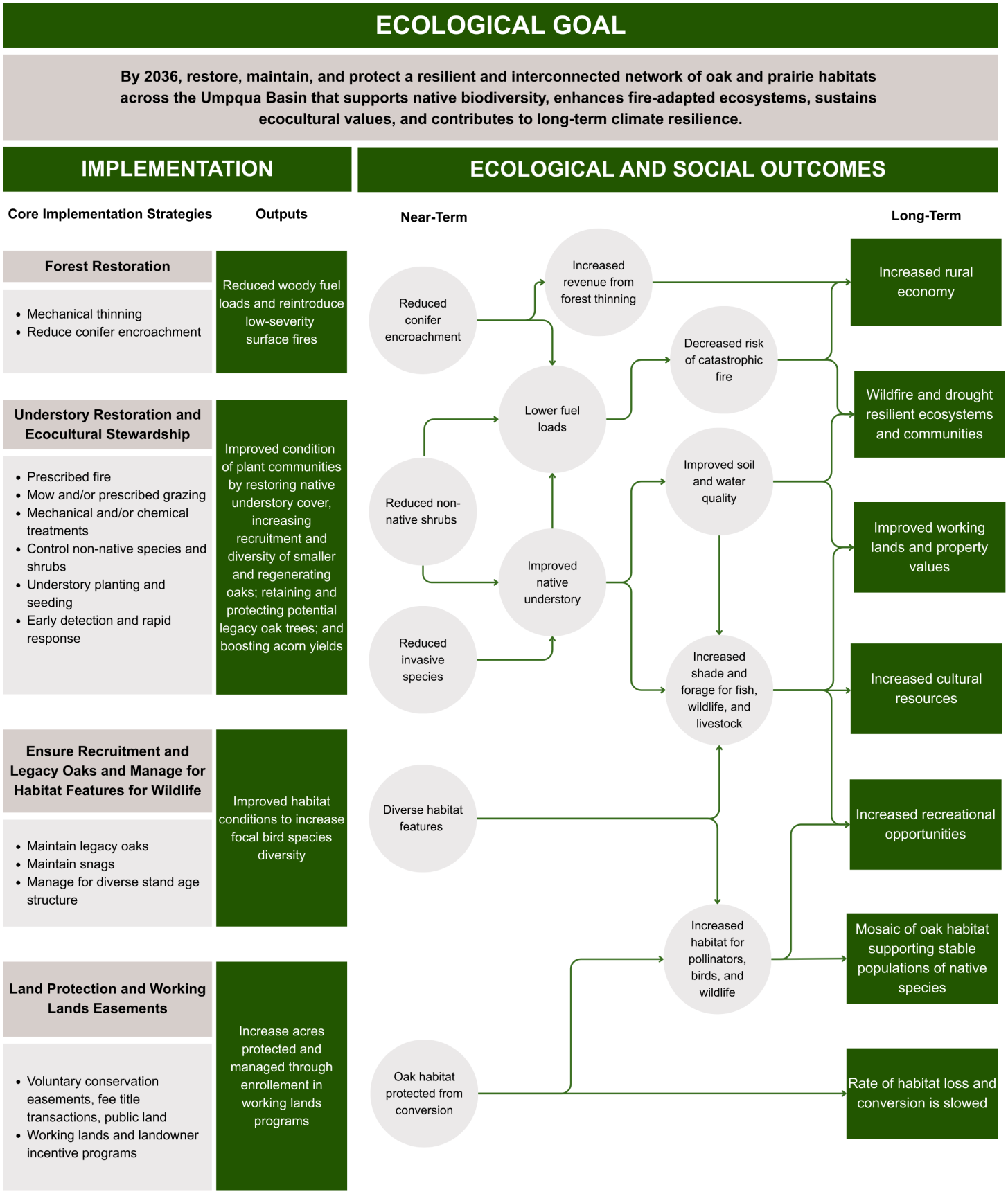
Managing for habitat features involves maintaining and enhancing structural elements like snags, downed logs, legacy oaks, and diverse vegetation layers within oak habitats. These features provide essential resources for birds, mammals, amphibians, and insects, supporting a rich and diverse wildlife community.

Land Protection

Land protection encompasses strategies such as conservation easements, land acquisitions, and policy development to safeguard oak habitats from development and degradation. Collaborative efforts among landowners, conservation organizations, and tribal entities are crucial to ensure the intergenerational stewardship and preservation of these ecosystems.

▼ **MWM Oak Day 2019** *Alicia Christiansen*

Figure 7. Umpqua Oak Partnership Ecological Theory of Change



THREAT-SPECIFIC STRATEGIES

The following table outlines threat-specific strategies not fully captured in the Core Enabling and Implementation Strategies. Appendix 9 includes the complete set of strategies and actions developed through the working groups, capturing the depth, detail, and collaborative thinking that emerged during the planning process. For information on which partners are leading, contributing to, or supporting implementation, see Appendix 3 UOP Core Partners and Areas of Expertise.

▼ **Oregon Conservation Corps Fuels Reduction Crew Workforce Development** *Ben Erickson*

Table 5. High Priority Threat-Specific Strategies

Threat	Desired Outcome	Enabling Conditions	Threat-Specific Strategies
Fire Exclusion	Prescribed fire is used and socially accepted as a tool for managing oak habitats relative to site-specific fire regimes.	Recognition and support of prescribed fire as a viable tool; tribal engagement; trained and available workforce; landowner liability awareness; local permitting and adherence to fire precaution levels	▶ Apply prescribed fire to reduce fuel loads, curtail conifer encroachment, and maintain an open oak understory habitat structure ▶ Engage tribes and cultural fire practitioners ▶ Provide outreach, education, and technical assistance for careful burn planning and safe implementation ▶ Continue burn-to-learn opportunities and support the development of the Umpqua Prescribed Burn Association ▶ Post-burn seeding of native grasses and forbs to restore understory communities and mitigate non-native and invasive species.
Conifer and Native Species Encroachment	Encroachment is reduced through active management and maintenance of open oak habitat structure.	Landowner awareness; technical and financial assistance; skilled restoration crews; co-planning with wildfire defensible space programs, Firewise USA practices, and rural neighborhood cooperatives	▶ Remove encroaching conifers and competing vegetation for oak retention and regeneration of diverse age classes ▶ Use mechanical and chemical treatments where needed to create and maintain open oak canopy and understory conditions ▶ Maintain savanna and woodland structure through follow-up management that reclaims and/or maintains natural openings and edges ▶ Retain specific native conifers with unique wildlife benefits (e.g., large snags with acorn granaries and cavities) and/or fire-adaptive traits (e.g., ponderosa pine)
Non-Native and Invasive Plant Species	Understory communities are restored with native plant species.	Local Native Plant Material (NPM) availability and affordability; Restoration workforce; Incentive programs; Early Detection and Rapid Response trainings, public awareness, and citizen science	▶ Remove invasive plants (e.g., hawthorn, blackberry, Scotch Broom, Canada thistle) ▶ Inspect and clean machinery (e.g., logging equipment) before entering restoration sites ▶ Re-seed and replant with native understory species, prioritizing areas with disturbed ground and exposed mineral soil (e.g., burn piles, machinery tracks, and skid roads) ▶ Provide incentives and support for invasive species identification, integrated management, and prevention efforts ▶ Support the development of DSWCD's Cooperative Weeds Management Areas

Threat	Desired Outcome	Enabling Conditions	Threat-Specific Strategies
Rural Residential and Urban Development	Oak habitats are integrated into local planning and protected through development policies.	Conservation incentives; Outreach and technical assistance to developers and real estate agents; Supportive zoning and land use planning	▶ Develop and promote conservation easements and land protection ▶ Work with planners to include oak habitat in growth boundaries and zoning ▶ Promote oak-compatible development practices ▶ Offer incentives to developers and landowners for habitat retention
Conversion to Agriculture or Timber	Oak habitats are retained and managed instead of being converted to other uses.	Conservation incentives; outreach to high-risk parcels and landowners; willing landowners and companies.	▶ Develop and promote conservation easements and land protection ▶ Support working lands approaches compatible with oak conservation ▶ Target outreach to parcels under conversion pressure
Lack of Oak Recruitment and Legacy Tree Protection	Young oaks are recruited, and legacy oaks are retained across the landscape.	Grazing management; outreach to landowners; technical and financial assistance; awareness of legacy trees' ecological and cultural values; experienced contractors and restoration crews to prescribe and implement treatments	▶ Prioritize removing overtopping conifers and focused thinning within two times the dripline of legacy trees (e.g., radial thinning) ▶ Protect seedlings and saplings from grazing and browsing. ▶ Thin competing vegetation around young trees and install protective caging to deter herbivory when feasible to do so ▶ Identify, map, and inventory legacy trees for protection in restoration plans and land use planning ▶ Prioritize conservation and restoration sites adjacent to quality oak patches to promote greater recruitment and habitat connectivity ▶ Take care to minimize damage to oak saplings and legacy trees when felling and yarding competing conifers (e.g., girdle trees when damage is unavoidable)

PROGRESS MONITORING FRAMEWORK

BLM installing monitoring photo points in burn units at Northbank Habitat Management Area

Eric Stauder

THE FRAMEWORK

The Progress Monitoring Framework provides a transparent, adaptive approach to tracking conservation implementation and ecological outcomes. It highlights a subset of Key Ecological Attributes (KEAs) from the Ecological Theory of Change (Figure 7) to assess progress toward UOP objectives and goals (Table 6, Appendix 7). This framework is aligned with the Klamath-Siskiyou Oak Network's (KSON) 2023 Ecological Monitoring Plan, leveraging shared geography, habitats, and partnerships. The UOP Monitoring Plan is a living document available on the UOP website. It is updated regularly to incorporate new data, emerging science, and lessons learned.

The monitoring plan is designed to collaboratively acquire, manage, analyze, and share data needed to evaluate restoration effectiveness and inform adaptive management. Monitoring results will support future investment decisions, guide project planning, and foster engagement with the broader scientific and conservation communities.

This monitoring plan has three objectives:

1. Track spatial extent of treatments and project implementation.
2. Measure ecological responses to restoration using KEAs.
3. Assess landscape-scale outcomes to evaluate progress toward long-term conservation goals.

White-breasted nuthatch foraging insects on oak snag

Matt Hunter

Redtail hawk perched on oak limb

Robin Loznak

KEY ECOLOGICAL ATTRIBUTES (KEAS)

KEAs serve as indicators of ecological condition and treatment effectiveness. The partnership identified eight KEAs and associated indicators to evaluate oak habitat condition at multiple scales. Table 6 summarizes each KEA, along with indicators, metrics, and measurement scales. These indicators will be used to assess immediate ecological responses to restoration as well as conservation progress over the next 25 years, including outcomes such as increased acreage of target habitats, improved structural conditions, and enhanced biodiversity. Sampling design, methodologies, and data quality controls are detailed in the UOP Monitoring Plan.

MONITORING SCALES

Monitoring occurs at three nested spatial scales to evaluate restoration outcomes across the landscape:

- **Stand scale (10s of acres):** Uniform vegetation receiving treatments.
- **Project scale (typically >10,000 acres):** Includes both treated and untreated areas.
- **Landscape scale:** Regional perspective that considers forest variation and fire flow dynamics.

Field data and spatial analysis are used to assess ecological change from current to desired conditions across these scales.

Table 6. Monitoring Plan Framework for the Umpqua Oak Partnership. Metrics are applied to evaluate the effectiveness of restoration treatments and measure progress toward desired ecological conditions over time.

Output	25-Year Objective	KEA	Indicator	Metric (scale)
Expanded extent and improved continuity of priority habitat types across the landscape	Increase the amount of oak conifer by 4,350 acres (7%); increase the amount of prairie; and maintain the current amount of oak savanna and oak woodlands.	Amount on landscape (size)	Total area by subbasin	Acreage of each target habitat (landscape)
Improved condition of plant communities by restoring native understory cover, increasing recruitment and diversity of smaller and regenerating oaks, retaining and protecting potential legacy trees, and boosting acorn yield	Maintain or improve the condition of oak savanna and woodlands so that at least 5,240 acres of oak savanna and 8,543 acres of oak woodlands support >25% cover of high-diversity native understory	Plant community (condition)	>25% native understory cover with high structural and compositional diversity, adequate structural conditions for the persistence of rare species, and minimal cover of state or federally-listed noxious weeds	Diversity, composition, and structure of understory plant communities; extent and abundance of rare species populations; extent and abundance of noxious weed populations (stand)
	Maintain or improve the condition of oak woodland and oak conifer habitat, so that at least 17,086 acres of oak woodland and 31,071 acres of oak-conifer habitat support abundant younger age-class oaks, retain at least 90% of legacy oaks, and ensure accessible, high-quality acorn crops.	Young oak trees (condition)	Abundant younger age class oaks	Relative abundance of current to modeled age structure based on size (stand)
		Legacy oak trees (condition)	Abundant and high-quality acorn crops	Acorn crop abundance and viability (stand)
		Acorn crop (condition)	Non-encroachment of 90% of existing and potential legacy oaks	Percent or categorical: encroached, overtopped, or pierced oaks (stand)
Reduced woody fuel load and reintroduced low-severity fire	Maintain or improve the condition of oak woodland and oak conifer habitat, so that at least 17,086 acres of oak woodland and 31,071 acres of oak conifer are characterized by a low load surface behavior model.	Fuel load (condition)	Low load surface fire behavior model (based on flame length, radial spread, suppression difficulty	Surface Fire Behavior Fuel model; Canopy base height and canopy closure (field metrics) (stand)

Output	25-Year Objective	KEA	Indicator	Metric (scale)
Reduced woody fuel load and reintroduced low-severity fire	Increase the amount of oak habitat burned within the last 36 years (Fire Regime Class 1), so that at least 5,241 acres of oak savanna, 8,543 acres of oak woodland, and 15,535 acres of oak-conifer fall within Fire Regime Class 1.	Fire regime (condition)	Proportion of landscape (e.g., subbasin (HUC6)) oak targets within fire frequency interval (existing) and severity (actual and predicted), relative to desired KEA fire regime condition for oak targets	Time since disturbance and/or fire; severity of past disturbance and proportions of severity classes (landscape)
Improved habitat conditions to increase focal bird species populations and diversity	Maintain or improve the condition of oak habitat so that more acres of prairie, 10,481 acres of oak savanna, 17,086 acres of oak woodland, and 31,071 acres of oak-conifer have >75% of focal bird species present.	Breeding birds (condition)	>75% of focal bird species present	Presence and abundance of focal species; avian community composition (stand)
Increased acres permanently protected from conversion	By 2036, permanently protect 2,000 acres of oak and prairie habitat through conservation easements, fee title acquisition, and other voluntary land protection tools.	Amount on landscape (size)	Total area by subbasin	Acreage in permanent protection (landscape)
Increased number of landowners managing for oak habitat	By 2036, enroll at least 510 private landowners in conservation programs within priority areas to expand oak stewardship on private lands.	Amount on landscape (amount)	Number of landowners enrolled in NRCS, ODFW, OSU, SWCD, and other programs.	Number of landowners (landscape)

ADAPTIVE MANAGEMENT

Monitoring survivorship of oak sapling plantings at Oak Flats

Eric Stauder

EVALUATION FRAMEWORK

The effectiveness of this Strategic Action Plan will be assessed through the monitoring framework outlined in the UOP Monitoring Plan, which is closely aligned with the Klamath Siskiyou Oak Network's 2023 Ecological Monitoring Plan. This alignment ensures consistency in methods and metrics across shared oak habitats and supports regional learning and collaboration. All funding secured through UOP will include reporting requirements aligned with the Monitoring Plan, ensuring that tracking, evaluation, and adaptive learning are built into all restoration activities.

Key Ecological Attributes (KEAs) will be used to evaluate ecological change at both site and landscape scales. Monitoring at the site level will be voluntary and partner-led, encouraging contributions from those implementing on-the-ground projects. When conducted, site-level monitoring provides valuable data on treatment effectiveness and informs adaptive management. When projects are evaluated, results will help assess whether management objectives were achieved and identify improvements for future efforts. Findings will be shared with the full partnership through regular meetings and made available on the UOP website to promote transparency, accountability, and continuous learning.

LANDSCAPE ALIGNMENT AND ADAPTIVE MANAGEMENT

Landscape-scale objectives in this Plan are intentionally aligned with those of the Klamath Siskiyou Oak Network to ensure consistency in conservation priorities, metrics, and outcomes across shared geography. By using common geospatial datasets and methods, both partnerships can efficiently track large-scale changes in oak habitat extent, condition, and connectivity over time. This approach enables simple, repeatable mapping exercises that visualize progress, identify emerging opportunities or gaps, and support regional coordination. It also allows partners to evaluate the cumulative impact of individual projects within a broader ecological context.

The UOP Monitoring Plan is designed to support adaptive management by integrating ecological data into implementation reviews and informing refinements to Core Implementation Strategies. The UOP Coordinator will develop and maintain a standardized tracking system to document project accomplishments in relation to KEA metrics, desired outcomes, and threat reduction goals.

UOP STRATEGIC PLAN REVIEW

In collaboration with the Steering Committee, the UOP Coordinator will lead a comprehensive review of the Plan every five years. This review will assess priority geographies, KEA indicators, desired outcomes, and the effectiveness of monitoring activities to determine whether updates to the plan are needed.

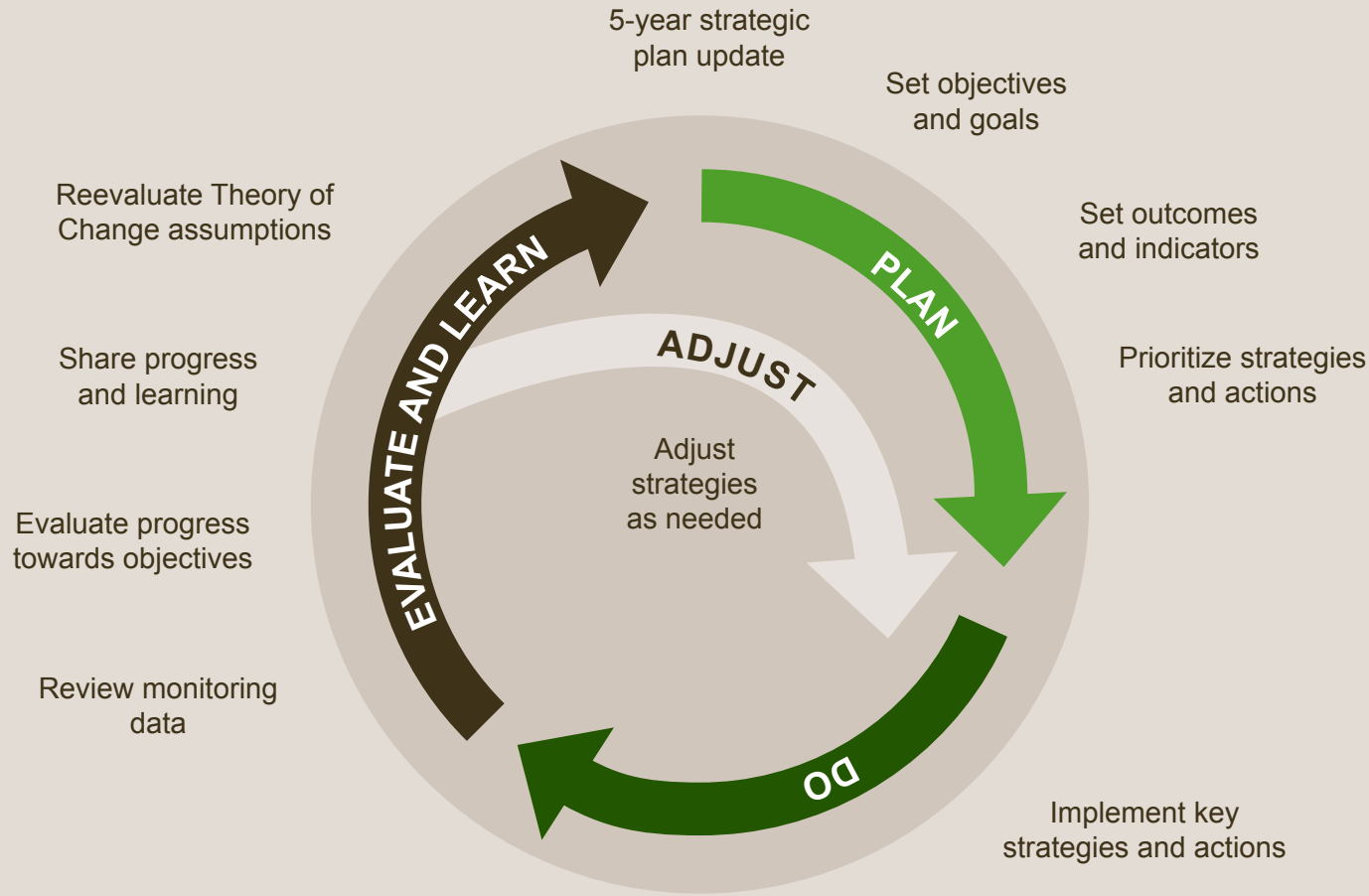


Figure 8. Umpqua Oak Partnership Adaptive Management Plan

SUSTAINING MOMENTUM

Acorns sprouting

Eric Stauder

SUSTAINING MOMENTUM

To ensure the Umpqua Oak Partnership maintains the capacity and momentum necessary to implement this Strategic Action Plan (SAP) over its defined timeframe, achieving its ecological goals and vision, the partnership has developed sustainability needs. The long-term success of the partnership relies on sustained funding, strong governance, and effective tracking of progress toward conservation outcomes. The following strategies will be employed to sustain the partnership's capacity:

MAINTAINING COORDINATOR POSITION

A key funding priority will be securing resources to support a dedicated partnership coordinator. This role is essential for maintaining continuity, facilitating collaboration among partners, and ensuring the effective implementation of the SAP. Without sustained funding for this position, the partnership's ability to coordinate efforts, engage stakeholders, and track progress would be significantly diminished.

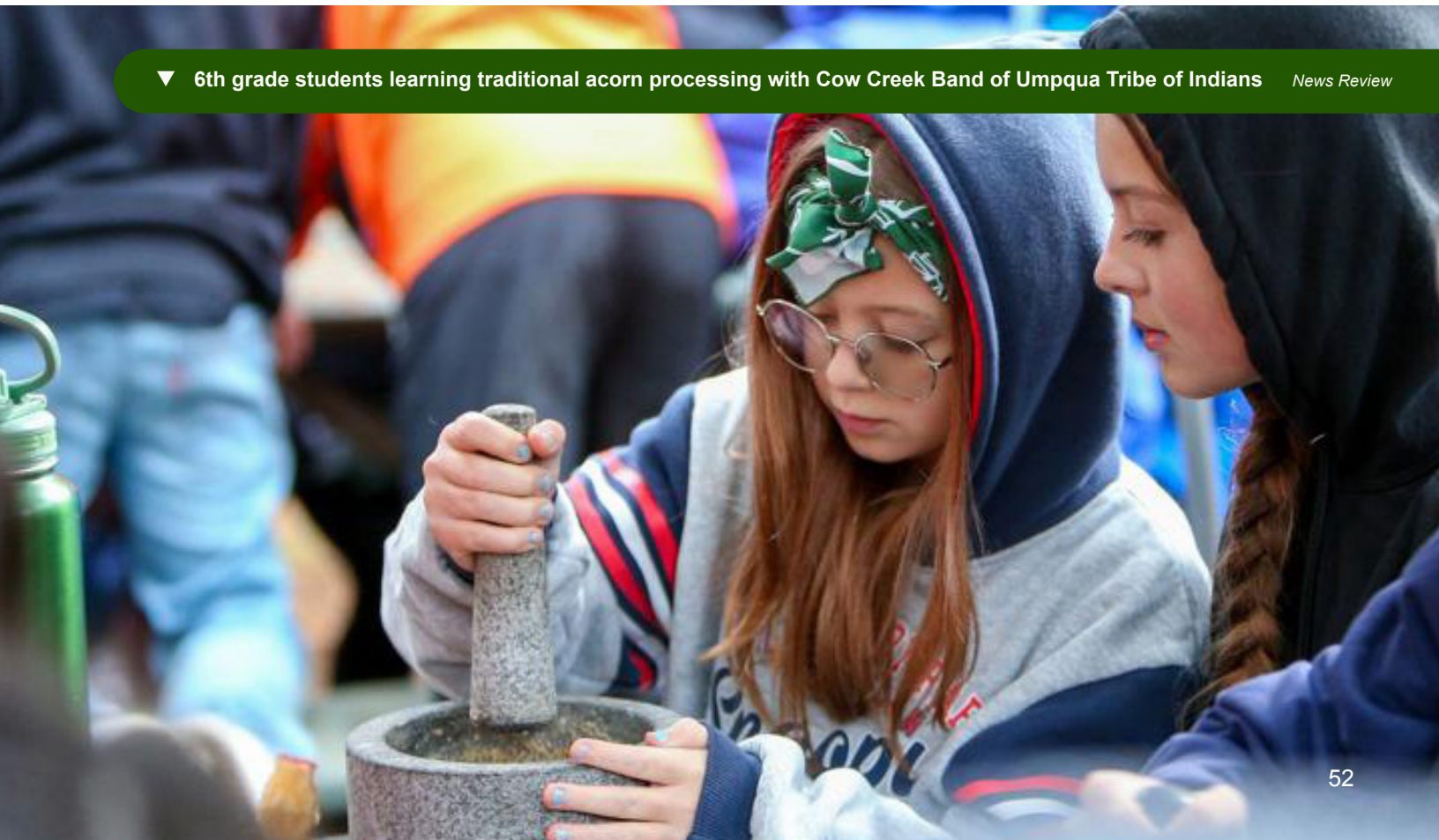
Epiphytic fungi growing on bark of Oregon white oak

Eric Stauder

SECURING SUFFICIENT FUNDING

To implement the necessary conservation actions, the partnership will develop and maintain a diverse funding portfolio that includes:

- **Public and Private Grants:** Actively pursue federal, state, and local conservation grants, as well as funding from private foundations and philanthropic organizations.
- **Agency and Partner Contributions:** Leverage in-kind support and financial contributions from federal, state, tribal, and non-governmental partners.
- **Landowner and Community Investment:** Explore opportunities for cost-share programs, tax incentives, and voluntary conservation agreements that encourage private landowner participation.
- **Sustainable Revenue Sources:** Investigate mechanisms such as conservation banking, ecosystem service markets, and innovative financing tools that can provide long-term financial stability.
- **Dedicated Funding Coordination:** Establish a funding subcommittee within the partnership to oversee grant applications and financial sustainability planning.



▼ **6th grade students learning traditional acorn processing with Cow Creek Band of Umpqua Tribe of Indians** *News Review*

▲ **Oct 2024 Twilight Walk in the Woods Tour in Oakland looking at oak stand with cattle grazing under** *Alicia Christiansen*

MAINTAINING PARTNERSHIP STRUCTURE AND EFFECTIVENESS

To ensure the partnership remains committed, focused, and effective in collaboration, the following approaches will be implemented:

- **Governance and Coordination:** Maintain a structured governance model with clearly defined roles, responsibilities, and decision-making processes among partners.
- **Dedicated Staffing and Leadership:** Support a partnership coordinator or similar role to provide continuity in leadership, facilitate collaboration, and oversee SAP implementation.
- **Regular Communication and Engagement:** Host periodic meetings, workshops, and annual summits to strengthen relationships, share progress, and align efforts.
- **Capacity Building and Knowledge Sharing:** Offer training, knowledge exchanges, and technical assistance to support partners and stakeholders in effective conservation practices.
- **Adaptive Management Approach:** Foster a culture of learning and flexibility, allowing the partnership to refine strategies and actions based on new science, data, and feedback.

Woodpecker granaries

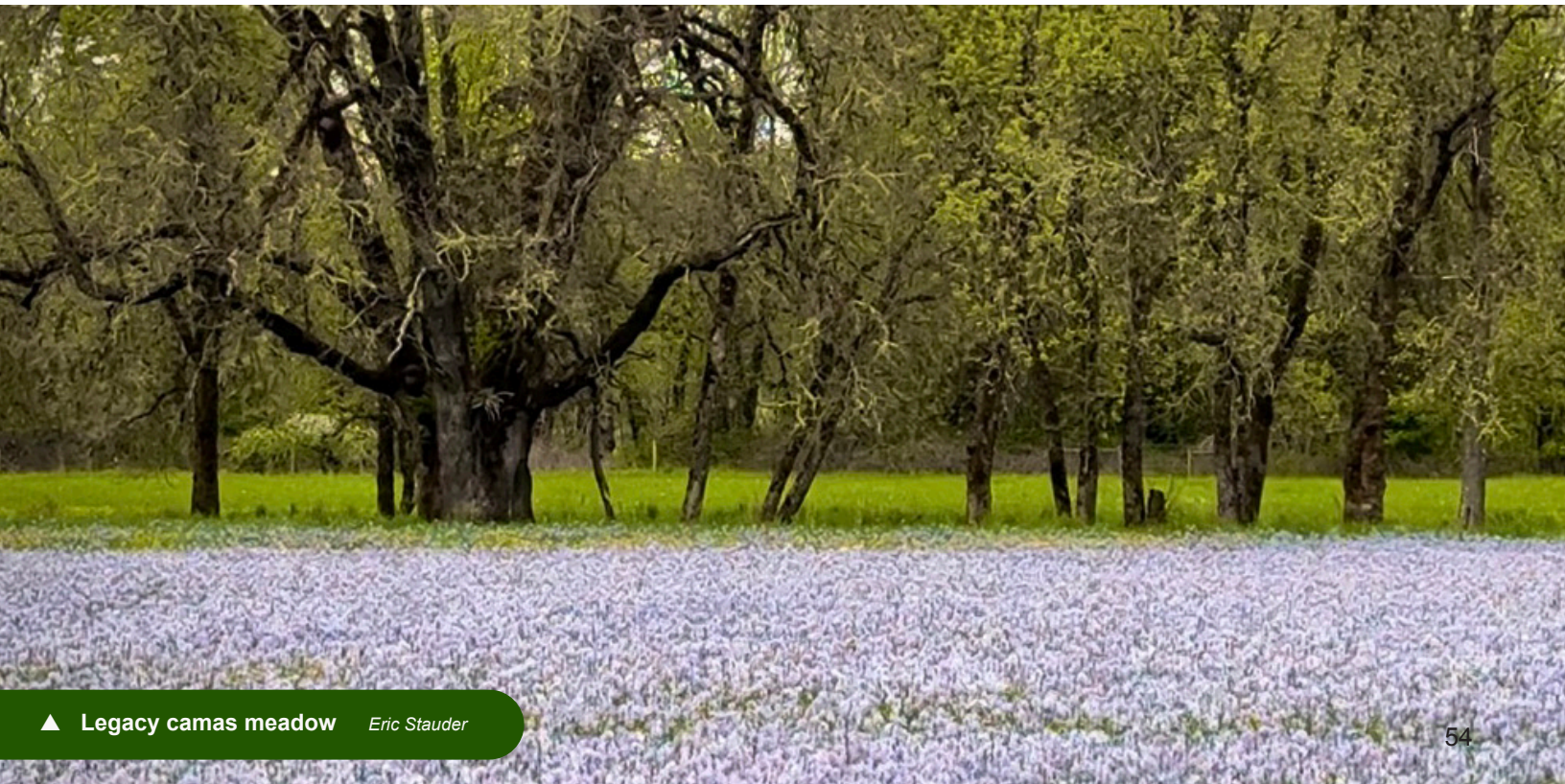
Eric Stauder

SUSTAINING CAPACITY FOR TRACKING PROGRESS

To effectively measure and communicate progress toward ecological goals, the partnership will need to implement the UOP Monitoring Plan:

- **Institutionalize Data Collection:** Work with UOP partnerships to implement consistent methodologies for tracking ecological outcomes outlined in the UOP Monitoring Plan.
- **Create a shared data repository** accessible to all partners to facilitate transparency, reporting, and adaptive management.
- **Periodic Assessments and Reporting:** Conduct regular progress reviews and publish updates on achievements, lessons learned, and necessary adjustments.
- **Community and Stakeholder Involvement:** Engage local communities, landowners, and conservation professionals in monitoring efforts to ensure broad participation and support.
- **Integration with Regional and National Initiatives:** Align tracking efforts with broader conservation programs to leverage additional resources and insights.

By securing sustainable funding, maintaining a strong partnership structure, and ensuring effective progress tracking, the Umpqua Oak Partnership will be well-positioned to achieve its long-term ecological vision and conservation goals.



▲ **Legacy camas meadow** *Eric Stauder*

LITERATURE CITED

- Alexander, JD, Gillespie CR, Evans-Peters S, Brown B. 2020. Klamath Siskiyou Oak Network strategic conservation action plan version 1.0. Klamath Siskiyou Oak Network and Klamath Bird Observatory. Ashland, OR.
- Alexander JD, Stephens JL, Veloz S, Salas L, Rousseau JS, Ralph CJ, Sarr DA. 2017. Using regional bird density distribution models to evaluate protected area networks and inform conservation planning. Ecosphere 8:e01799.
- Anderson, M. K. (1993). Indian fire-based management in the oak woodlands of California: A case study. In T. C. Blackburn & K. Anderson (Eds.), Before the wilderness: Environmental management by Native Californians (pp. 155-174). Ballena Press
- Beckham, S. D. (1986). Ancient land, ancient people: Archaeology of the Umpqua Basin. Coos County Historical Society.
- Beckham, S. D., & Shaffer, S. (1991). Water, land, and life: The history and ecology of the Umpqua Basin. Oregon Historical Society Press.
- Blackburn, T. C., & Anderson, K. (Eds.). (1993). Before the wilderness: Environmental management by Native Californians. Ballena Press.
- Boyd, R. (1999). Indians, fire, and the land in the Pacific Northwest. Oregon State University Press.
- Carloni, K. (2005). Indigenous management and the role of fire in oak ecosystem distribution. [Unpublished manuscript].
- The Conservation Angler. (2023). Rock Creek Climate Resiliency Completion Report. https://coinformedangler.org/wp-content/uploads/2023/03/21-021-rock-creek-climate-resiliency-completion-report.pdf
- Cow Creek Band of Umpqua Tribe of Indians. (2021). Natural resources and conservation efforts. Retrieved from [Cow Creek Band of Umpqua Tribe of Indians website]
- Devine, W. D., Harrington, C. A., & Peter, D. H. (2012). Oak woodland restoration: Understory response to removal of encroaching conifers. Northwest Science, 86(2), 150–161.
- Devine, W. D., Harrington, C. A., & Leonard, L. P. (2012). Oregon white oak growth following release from overtopping conifers. Northwest Science, 86(1), 12–22. https://doi.org/10.3955/046.086.0103
- Douglas, D. (1825). Journal of David Douglas, botanist and explorer, 1823-1827. W. Wesley & Son.
- EPA. (2025). Temperature Total Maximum Daily Loads (TMDLs) for the Umpqua River Basin (Final Report). U.S. Environmental Protection Agency, Region 10. https://www.epa.gov/system/files/documents/2025-06/umpqua-temperature-tmdls-final-2025.pdf
- Evans-Peters, S., N. Maness, J. Stephens, L. Cornelius, E. Kim, B. Taylor, B. Altman, N. Myers, T. Kaye, and R. Terrill. (2024). Prairie, Oaks, and People - An Investment Strategy. Produced for Pacific Northwest Oak Alliance. Salem, Oregon.
- Extension Service, Oregon State University. (2021). Not All Flames Are the Same: Understanding Fire and Fuel in Southwest Oregon Forests (EM 9462). https://extension.oregonstate.edu/catalog/em-9462-not-all-flames-same-southwest-oregon
- Franklin, J. F., & Dyrness, C. T. (1988). Natural vegetation of Oregon and Washington. Oregon State University Press.

- Gillespie CR, Stephens JL, Halstead KE, Alexander JD. 2017. Amount of chaparral habitat at the landscape scale influences site level occupancy for three chaparral-associated bird species. KBO-2017-0003. Klamath Bird Observatory, Ashland, OR.
- Hagar, J. C., & Stern, M. A. (2001). Avifauna in oak woodlands of the Willamette Valley, Oregon: Habitat associations and management concerns. Northwest Science, 75(2), 89–97.
- Hagar, J. C., & Stern, M. A. (2001). Avifauna in oak woodlands of the Pacific Northwest. In Standiford, R. B., McCreary, D., & Purcell, K. L. (Eds.), Proceedings of the Fifth Symposium on Oak Woodlands: Oaks in California's Changing Landscape (pp. 33–42). USDA Forest Service PSW-GTR-184.
- Hannah, L., Roehrdanz, P. R., Ikegami, M., Shepard, A. V., Shaw, M. R., Tabor, G., ... Hijmans, R. J. (2020). The impacts of climate change on biodiversity and ecosystem services in the Pacific Northwest. Biological Conservation, 245, 108544.
- Hannah, L., Roehrdanz, P. R., Ikegami, M., Shepard, A. V., Shaw, M. R., Tabor, G., ... & Hijmans, R. J. (2020). Climate change, biodiversity, and the role of protected areas: Adaptation potential in a temperate region. Bioscience, 70(2), 112–121. https://doi.org/10.1093/biosci/biz153
- Harris, C., & Nelson, M. (2019). The land and its people: Human-environment interactions in the Pacific Northwest.Oregon State University Press.
- Haugo R, Zanger C, DeMeo T, Ringo C, Shlisky A, Blankenship K, Simpson M, Mellen-McLean K, Kertis J, Stern M. 2015. A new approach to evaluate forest structure restoration needs across Oregon and Washington, USA. Forest Ecology and Management 335:37–50.
- Kalin, M. T., Franklin, J. F., & Johnson, K. N. (2021). Fire, climate change, and the future of Oregon white oak ecosystems. Fire Ecology, 17(1), 1–15.
- Kalin, M. C., Spies, T. A., & Puettmann, K. J. (2021). Fire exclusion and conifer encroachment transform historical oak savanna and woodland landscapes. Ecological Applications, 31(3), e02282. https://doi.org/10.1002/eap.2282
- Kline, J. D., Mazzotta, M. J., Spies, T. A., & Harmon, M. E. (2017). Evaluating carbon storage, timber harvest, and habitat possibilities for U.S. federal forests. Forest Ecology and Management, 384, 27–40.
- Koenig, W. D., & Knops, J. M. H. (2000). Patterns of annual seed production by northern hemisphere trees: A global perspective. The American Naturalist, 155(1), 59–69.
- Koenig, W. D., & Knops, J. M. H. (2000). Patterns of annual seed production by northern hemisphere trees: A global perspective. The American Naturalist, 155(1), 59–69. https://doi.org/10.1086/303302
- Lewis, H. T. (1990). Reconstructing patterns of Indian burning in California: Implications for wildlife habitat management. In J. Verner, M. L. Morrison, & C. J. Ralph (Eds.), Wildlife 2000: Modeling habitat relationships of terrestrial vertebrates (pp. 343-368). University of Wisconsin Press.
- Lewis, H. T. (1993). Patterns of Indian burning in California: Ecology and ethnohistory. Ballena Press.
- Lewis, H. T. (1999). Fire in the environment: Anthropogenic fire in North America. In R. Boyd (Ed.), Indians, fire, and the land in the Pacific Northwest (pp. 195-214). Oregon State University Press.
- The Nature Conservancy & Krueger, J. 2013. Umpqua Prairie and Oak Partnership Conservation Strategy.

- Oregon Biodiversity Information Center (ORBIC). (2016). Oregon conservation strategy: Oak woodland and prairie habitat. Portland State University.
- Oregon Department of Forestry (ODF). (2020). Forest facts and figures: Douglas County. Retrieved from [ODF website]
- Pacific Birds Habitat Joint Venture. (2024). Revitalizing Oak Landscapes through Prescribed Fire and Collaboration. https://pacificbirds.org/2024/09/revitalizing-oak-landscapes/
- Parmesan, C. (2006). Ecological and evolutionary responses to recent climate change. Annual Review of Ecology, Evolution, and Systematics, 37, 637–669.
- Parmesan, C. (2006). Ecological and evolutionary responses to recent climate change. Annual Review of Ecology, Evolution, and Systematics, 37, 637–669. https://doi.org/10.1146/annurev.ecolsys.37.091305.110100
- Peacock, S., & Turner, N. (2000). Just like a garden: Traditional ecological knowledge and restoration ecology. Restoration Ecology, 8(4), 331-343.
- Spies, T. A., White, E. M., Kline, J. D., Fischer, A. P., Ager, A. A., Bailey, J. D., ... Barros, A. M. G. (2018). Examining fire-prone forest landscapes as coupled human and natural systems. Ecology and Society, 23(4), 9.
- Spies, T. A., White, E. M., Kline, J. D., Fischer, A. P., Ager, A. A., Bailey, J., ... & Jacobs, D. (2018). Examining fire-prone forest landscapes as coupled human and natural systems. Ecology and Society, 23(3), 9. https://doi.org/10.5751/ES-10381-230309
- Tallamy, D. W. (2021). The nature of oaks: The rich ecology of our most essential native trees. Timber Press.
- Umpqua Oak Partnership (UOP). (2025). Umpqua Oak Partnership ecological monitoring plan v1.0. (Rep. No. KBO-2024-0003). Klamath Bird Observatory.
- Umpqua Soil & Water Conservation District. (2024). Meeting Packet: November 14, 2024 Board Meeting. https://www.umpquasoilandwater.com/files/595825040/11-14-2024%2BUmpqua%2BSWCD%2BMeeting%2BMaterials%2BPacket.pdf
- USDA Forest Service. (n.d.). FEIS species review: Quercus garryana (Oregon white oak). Fire Effects Information System. https://www.fs.usda.gov/database/feis/plants/tree/quegar/all.html
- Veloz S, Salas L, Altman B, Alexander JD, Jongsomjit D, Elliot N, Ballard G. 2013. Current and future distribution and abundance of north Pacific birds in the context of climate change: Final report to the North Pacific Landscape Conservation Cooperative (Agreement number 13170BG101). KBO-2013-0017. PRBO Conservation Science, Petaluma, CA. Available from https://data.pointblue.org/apps/nplcc/wp-content/uploads/VelozEtAl_NPLCC_FinalReport.pdf.
- Veloz S, Salas L, Altman B, Alexander JD, Jongsomjit D, Elliott N, Ballard G. 2015. Improving effectiveness of systematic conservation planning with density data. Conservation Biology 29:1217–1227.
- Vesely, D., & Rosenberg, D. (2010). Conservation strategy for landbirds in coniferous forests of Oregon and Washington.Oregon-Washington Partners in Flight.
- Vesely, D. G., & Rosenberg, D. K. (2010). Wildlife conservation in the Willamette Valley's oak woodlands: A landscape Perspective. Oregon Wildlife Institute.


UMPQUA
OAK PARTNERSHIP

APPENDIX 1

UMPQUA OAK PARTNERSHIP
MEMORANDUM OF UNDERSTANDING

MEMORANDUM OF UNDERSTANDING BETWEEN:

SIGNATORIES TO BE ADDED WHEN SIGNED
CONCERNING
UMPQUA OAK PARTNERSHIP ("UOP")

I. SUMMARY

This Memorandum of Understanding (MOU) affirms a shared commitment among participating organizations ("Partners") to voluntarily collaborate on the conservation and restoration of oak and prairie habitats across the Umpqua Basin. These habitats—among the most ecologically and culturally significant in the Pacific Northwest—are increasingly threatened by conifer encroachment, invasive species, fire exclusion, land conversion, and fragmentation. They also support biodiversity, Tribal lifeways, rural economies, and community resilience.

The Umpqua Oak Partnership (UOP) provides a collaborative forum to bring together Tribal Nations, public agencies, landowners, nonprofits, researchers, and other community partners. Through voluntary, cross-boundary coordination, partners advance shared ecological, working lands, and community goals.

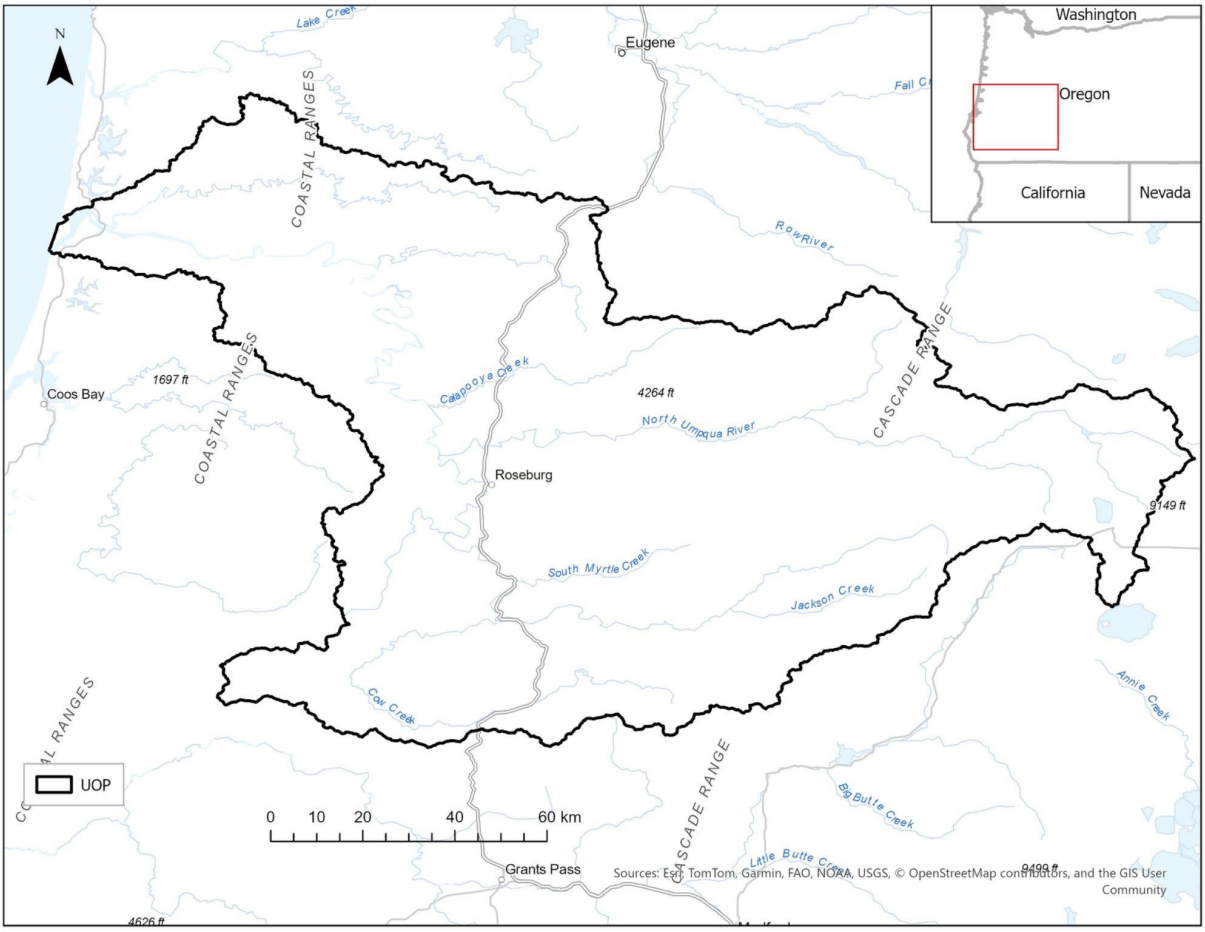
The purpose of this MOU is to:

- Promote coordination of conservation and stewardship activities across jurisdictions;
- Support information sharing, outreach, and engagement with local communities and landowners; and
- Encourage science-based, adaptive approaches to land and habitat management.

This MOU is non-binding and does not create legal or financial obligations. It is intended solely to guide voluntary cooperation among agencies, organizations, and other organizations. Participation in specific initiatives (e.g., Steering Committee, working groups, outreach efforts) is flexible and may vary by partner interest and capacity.

This MOU is complemented by the Umpqua Oak Partnership Governance Charter, which outlines coordination roles and decision-making processes, and by the Umpqua Oak Partnership Strategic Action Plan, which guides collective priorities and on-the-ground actions. While signatories are not required to formally adopt these companion documents, they are welcome to engage with them as appropriate.

Figure 1. Service area of the Umpqua Oak Partnership, as shown in the black outline.



MOU signatories include the following:

Cow Creek Band of Umpqua Tribe of Indians (CCBUTI): The Cow Creek Band of Umpqua Tribe of Indians upholds Tribal Government, protects and preserves Tribal sovereignty, history, culture and the general welfare of the Tribal membership, and serves to provide for the long-term economic needs of the Tribe and its members through the economic development of Tribal lands. The Tribe encourages and promotes a strong work ethic and personal independence for Tribal members, while strongly upholding the "government to government" relationship with local, State, and Federal governments. The Tribe constantly strives to maintain and develop strong cooperative relationships that benefit the Tribe and local community.

Pacific Birds Habitat Joint Venture (Pacific Birds): Pacific Birds is part of the Migratory Bird Joint Venture network that works in the U.S., Canada, and Mexico for the benefit of birds, communities, and people. The mission of Pacific Birds is to create the ideal environment for bird habitat conservation. To achieve our mission, we help partners identify, prioritize, and implement shared conservation actions that benefit birds and the habitats they need. Pacific Birds oak and prairie priority spans Washington, Oregon, and northern California with an emphasis on cultivation and support of partnerships at multiple scales, advancing conservation-friendly policies, increasing private land conservation incentives, and increasing funding and capacity for protection and restoration of oak and prairie across the Pacific Northwest.

U.S. Department of Interior – United States Fish and Wildlife Service (USFWS): The US Fish and Wildlife Service works with others to conserve, protect, and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people. This statement acknowledges that working cooperatively with partner organizations, private landowners, and local communities is the best way to approach long-term conservation of native ecosystems. The USFWS has several programs designed to provide technical assistance, coordination, and cost-share funding for conservation projects.

U.S. Department of Interior – Bureau of Land Management (BLM): The Bureau of Land Management's mission is to sustain the health, diversity, and productivity of publicly owned lands (those lands under BLM management jurisdiction) for the use and enjoyment of present and future generations. BLM administers more public land – over 245 million surface acres – than any other Federal agency in the United States and across 12 Western states, including Alaska.

U.S. Department of Agriculture – Natural Resources Conservation Service (NRCS): The Natural Resources Conservation Service, an agency of the U.S. Department of Agriculture, works hand-in-hand with people and organizations, conservation districts, and other agencies to conserve natural resources primarily on private lands. The mission of NRCS is to provide leadership in a partnership effort to help people conserve, improve, and sustain our natural resources and environment. NRCS has several cost-share programs designed to provide technical assistance, coordination, and funding for conservation projects.

U.S. Department of Agriculture – U.S. Forest Service (USFS): The mission of the US Forest Service is to sustain the health, diversity, and productivity of the Nation's forests and grasslands (those lands under USFS management jurisdiction) to meet the needs of present and future generations.

Oregon State University Extension Service (OSU): The Oregon State University Extension Service provides researched-based knowledge and education that strengthens local economies, sustains natural resources, and promotes healthy communities, families, and individuals. In the Douglas County area, Extension serves their clientele with programs in 4-H, Nutrition Education, food safety and preservation with our Master Food Preservers, Livestock & Forage, Horticulture, Master Gardeners, Forestry and Natural Resources, Small Farms, and Food Systems. In these programs, they offer a wealth of non-formal community educational programs and information services.

Oregon Department of Forestry (ODF): The Oregon Department of Forestry's mission is to serve the people of Oregon by protecting, managing, and promoting stewardship of Oregon's forests to enhance environmental, economic, and community sustainability.
Oregon Department of Fish and Wildlife (ODFW): The Oregon Department of Fish and Wildlife's mission is to protect and enhance Oregon's fish and wildlife and their habitats for use and enjoyment by present and future generations.

Douglas Soil and Water Conservation District (DSWCD): Douglas Soil and Water works to advance conservation, restoration, and management of the land and its natural resources by providing technical, financial, and educational resources to local natural resource managers (ranchers, farmers, industrial timber owners, small acreage landowners, rural residents, public land managers) within the district boundaries in Douglas County.

Umpqua Soil and Water Conservation District (USWCD): The USWCD has been fostering cooperation for stewardship of natural resources in the Lower Umpqua River Basin since 1953. Umpqua SWCD is a non-regulatory public service agency dedicated to providing natural resource assistance for private landowners and managers in Northwestern Douglas County. Our Mission is to provide assistance to any individual, group, or agency in applying natural resource conservation practices for the wise use of their natural resources.

Douglas Forest Protective Association (DFPA): The Douglas Forest Protective Association (DFPA) is a non-profit organization dedicated to wildland fire protection in Douglas County, Oregon. Through statutory authority and contract, DFPA has wildland fire protection responsibilities on 1.6 million acres of classified timber and grazing lands in the Douglas District. DFPA is part of Oregon's complete and coordinated fire protection system and directly partners with the Oregon Department of Forestry (ODF). The mission of the Douglas Forest Protective Association is to provide the highest level of service to safeguard life, resources, and property from wildland fire through practical prevention and aggressive fire suppression.

Oregon Small Woodlands Association – Douglas County Chapter (DSWA): The Oregon Small Woodlands Association is an effective voice in addressing statewide issues that are critical to family forestland owners by: Educating and informing the owners of forest tracts and the public regarding family forest management issues; Providing a medium for the exchange of ideas about family forestland by landowners, public, agencies, consultants, and timber industry personnel; Serving as a forum to make recommendations for investigating and solving problems, and for improving forest management, harvesting, and marketing; And representing the owners of family forestlands to the general public and before legislative bodies and regulatory agencies.

South Umpqua Rural Community Partnership (SURCP): The South Umpqua Rural Community Partnership's mission is to protect, restore, and maintain their communities in the context of a healthy environment through good stewardship practices and collaborative interaction.

Yew Creek Land Alliance, Incorporated: The Yew Creek Land Alliance's mission is to conserve and restore historic habitats and native biodiversity while generating high-quality goods and ecological services from Alliance lands. These activities will create unique opportunities for research, training, education, and recreation for Parties of all ages.

Elkton Reserve Land Trust: Elkton Reserve's mission is to provide for the enduring care, preservation, and improvement of the natural resources represented in the Elkton Reserve including: creating and supporting habitat for endangered species listed under The Endangered Species Act of 1973: providing a protected refuge for indigenous plant and animal species; supporting natural plant and animal diversity in order to maximize the ecological richness and robustness of the Reserve; maintaining sustainable timber harvesting activities and practices in concert with those promoted or required by the Natural Resources Conservation Service Healthy Reserve Program and the Forest Stewardship Council.

Partnership for the Umpqua Rivers: Through collaboration with diverse participants, the Partnership for the Umpqua Rivers maintains and improves water quality and fish populations from source to sea in the streams of the Umpqua. They educate people about the value of healthy streams: we work with willing landowners to improve stream conditions; we monitor the health of the streams and their fish populations. Through these actions, the Partnership contributes to the ecological and economic well-being of the basin.

II. AUTHORITIES

Listed below are regulations, policies, and legal citations for entering into this MOU:

A. Section 307(b) of the Federal Land Policy and Management Act of 1976, 43 U.S.C. 1737(b), authorizes the Secretary, subject to the provisions of applicable law, to enter into contracts and cooperative agreements involving the management, protection, development, and sale of public lands.

B. The Endangered Species Act of 1973 (16 U.S.C. §§ 1531-1544)

C. Fish and Wildlife Act of 1956 (16 U.S.C. 742 et seq.)

D. Fish and Wildlife Conservation Act of 1980 (16 U.S.C. 2901-2911)

E. Fish and Wildlife Coordination Act (16 U.S.C. 661-667)

F. Partners for Fish and Wildlife Act of 2006 (16 USC 3771)

G. Executive Order 13352 of August 26, 2004, Facilitation of Cooperative Conservation

H. Conservation Technical Assistance Program, 16 U.S.C. 590a-f, 590q, 7 C.F.R. 610 (CFDA 10.902)

I. Executive Order 13175 (Consultation with Indian Tribes)

J. State of Oregon:

   a. Oregon Revised Statutes 196.600-196.990

   b. Oregon Administrative Rules 141-85.

   c. State Laws and Executive Orders related to Indian Tribes- Executive Order No. 96-30 State Tribal Government to Government Relations

III. PROCEDURE

A. All Parties shall designate a representative (on the signature page) to serve on the Steering Committee and agree to follow the non-binding UOP Charter.

B. Participation in specific committees or activities is voluntary and may be tailored to each signatory's capacity, role, or interest.

C. Parties shall collaborate to:

   a. Fulfill the UOP mission: *The Umpqua Oak Partnership uses a collaborative landscape level approach to bring people and organizations together around oaks to increase their overall extent, diversity, and resiliency in the Umpqua Basin. We connect family farms and ranches to programs and funding, facilitate information sharing, and provide a forum to further oak initiatives in southwest Oregon.*

   b. Secure support for oak vegetation management activities.

   c. Share information about oak habitat management objectives and strategies.

   d. When feasible, engage in education and outreach activities.

   e. Support science and research regarding oak habitat within the region.

   f. Form partnerships with other organizations that share UOP's interest in conservation and restoration of oak habitats.

D. Parties and their respective agencies and offices will handle their own activities and utilize their own resources, including the expenditure of their own funds, in pursuing these objectives. Each party will carry out its separate activities in a coordinated and mutually beneficial manner.

IV. ADMINISTRATION

A. RECORDS MANAGEMENT: Pacific Birds will keep all data/records produced as part of this MOU. All records (in all media, paper and electronic) created or produced in part or in whole are to be maintained for the duration of the agreement, made available upon request, and upon termination of the agreement copies will be turned over to all Parties joined in this MOU. The Parties to this MOU shall not use, sell, or disseminate data/records without permission of affected parties in this MOU.

B. PUBLIC RECORDS: Any information furnished to any Party is subject to the Freedom of Information Act (5 U.S.C. 552) and state public records laws.

C. CONFIDENTIAL INFORMATION: No Party will disclose confidential or proprietary information received as a result of this MOU except pursuant to an agreement duly executed by the affected Parties.

D. This MOU is not intended to, and does not create, any right, benefit, or trust responsibility, substantive or procedural, enforceable at law or equity, by any Party against the United States, its agencies, its officers, or any person.

E. MODIFICATION: Modifications within the scope of this MOU shall be made by mutual consent of the Parties, by the issuance of a written modification, signed and dated by each Party, prior to any changes being performed. Requests for modification should be made, in writing, at least 30 days prior to implementation of the requested change, and are subject to written approval by each Party.

F. NON-FUND OBLIGATING DOCUMENT: This MOU is neither a fiscal or a funds obligation document. Any endeavor to transfer anything of value involving reimbursement or contribution of funds between the Parties will be handled in accordance with applicable laws, regulations, and procedures including those for Government procurement and printing. Such endeavors will be outlined in separate MOUs or agreements that shall be made in writing by representatives of the Parties and shall be independently authorized by appropriate statutory authority. This MOU does not provide such authority. Specifically, this MOU does not establish authority for noncompetitive award to the cooperator of any contract or other MOU.

G. TERMINATION: Any Party may terminate the MOU in whole, or in part, with a 60-day written notice before the date of expiration (see also Section VI. Commencement/Expiration date). Nothing in this MOU shall obligate any Party to obligate or transfer any funds. Specific work projects or activities that involve the transfer of funds, services, or property among the various agencies and offices of the Parties will require the execution of a separate MOU or agreement and be contingent upon the availability of appropriated funds. Such activities must be independently authorized by appropriate statutory authority.

V. COMMENCEMENT/EXPIRATION DATE

This MOU is executed as of the date of last signature and is effective for five (5) years at which time it will expire unless extended. Any partner may withdraw from this MOU at any time with written notice to the Coordinator. Such withdrawal does not affect prior collaborative efforts or informal participation in UOP activities.

VI. SIGNATURES

By signature below, each Party certifies that the individuals listed in this document as representatives of the individual parties are authorized to act in their respective areas for matters related to this MOU.

IN WITNESS WHEREOF, the parties hereto have executed this MOU as of the last date written below. The Parties, by execution of this MOU, hereby acknowledge that their signing representatives have read this MOU, understand it, have authority to enter into it, and agree to support the goals of the Umpqua Oak Partnership. Signature pages below:

APPENDIX 2

UMPQUA OAK PARTNERSHIP GOVERNANCE CHARTER

Umpqua Oak Partnership Governance Charter

July 2025

PURPOSE

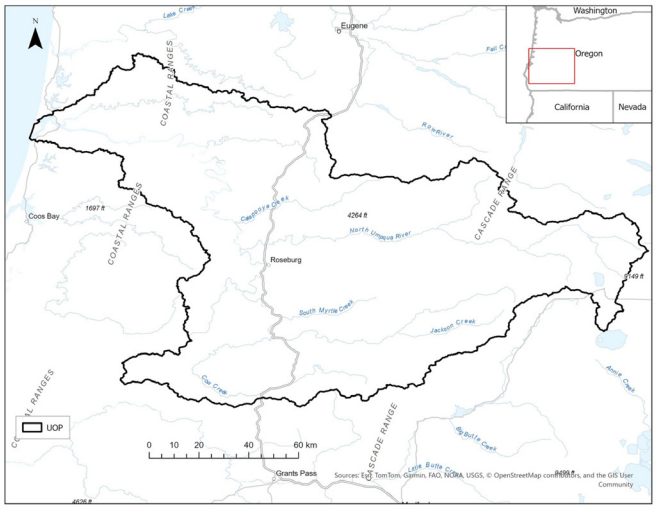
This Charter establishes the internal governance framework of the Umpqua Oak Partnership (UOP). It outlines the roles, decision-making structure, and operating principles that guide collaboration among Core Partners, Steering Committee members, Working Groups, and the broader Community Group.

This document complements the UOP Memorandum of Understanding (MOU), which formalizes commitment among a subset of partners. While the MOU provides institutional recognition, the Charter offers operational guidance to support transparent, inclusive, and voluntary coordination.

BACKGROUND

The Umpqua Basin holds some of the most significant landscape-scale examples of oak forests in the Pacific Northwest, yet these habitats face mounting pressures from conifer encroachment, invasive species, fire exclusion, land conversion, and development. These ecosystems provide habitat for many species and serve as working lands for agriculture, ranching, and forestry, and shape the cultural and ecological identity of the region.

The Umpqua Oak Partnership is a collaborative, voluntary network of individuals and organizations working to conserve and restore oak and prairie habitats across public, private, and tribal lands in the Umpqua Basin. Partners include landowners, Tribal Nations, agencies, nonprofits, researchers, local government, and community groups, contributing resources and expertise to advance shared ecological and community goals. The UOP Strategic Action Plan (2025) provides overall guidance for the work of the Partnership.



PRINCIPLES FOR WORKING TOGETHER

The Umpqua Oak Partnership operates as a collaborative. The Coordinator often serves as the facilitator for meetings, however, an independent facilitator will be used as needed. Partners agree to the following operating principles:

- To foster mutual respect and trust
- Promote open communication and shared learning
- Collaborate toward shared goals while honoring diverse missions, mandates, and cultures
- Respect the Tribal sovereignty and knowledge
- Recognize and support voluntary participation across all partner types

PARTNERSHIP STRUCTURE

The Partnership's organizational structure includes the following roles:

Coordinator

The Coordinator acts on behalf of the Partnership but does not direct its members, set policy, nor make unilateral decisions on behalf of the Partnership. The Coordinator position is currently held by Pacific Birds Habitat Joint Venture until the Steering Committee decides to rotate the position.

The Coordinator is a neutral facilitator who

- Organizes meetings and events and facilitates discussion
- Supports fundraising, grant writing, and coordination
- Represents UOP in regional and statewide forums
- Shares information between partners and external audiences
- Brings added capacity across multiple organizations through direct landowner outreach
- Helps build capacity and cohesion across organizations

Core Partners

Core Partners actively contribute to planning, implementation, technical assistance, or outreach. They may serve on Working Groups, collaborate on grants, and lead events. Core Partners can participate in Steering Committee meetings, but do not vote unless serving as Steering Committee members.

- **Core Partner Expectations**

  Core Partners are expected to share expertise and information, build mutually beneficial relationships with other partners, and participate in UOP Working Groups, events, and/or advance collaborative implementation or outreach activities.

Steering Committee

The Steering Committee is the primary decision-making body of the Partnership and includes organizations with a long-term commitment to UOP's vision. The Steering Committee oversees strategic direction and implementation of the Strategic Action Plan, approves major decisions such as work plans, adding or removing members of the Steering Committee, hiring/appointing a Coordinator, Strategic Action Plan revisions, public statements, and funding applications submitted on behalf of the Partnership.

- **Steering Committee Expectations**

  Steering Committee members are expected to participate regularly in meetings and participate in planning, provide guidance on implementation of the Strategic Action Plan, and contribute capacity, expertise, or resources to UOP initiatives, collaborate on communication, outreach, and funding opportunities, and honor the MOU's commitments.

- **Membership**

  Each Steering Committee entity has one vote. Membership includes one representative per MOU signatory. Membership is reviewed every 2–3 years. New members may be nominated and must be approved by the Committee.

Working Groups

Working Groups, formed by the Steering Committee, address specific needs such as project delivery, monitoring, technical assistance, and outreach. Standing or ad hoc groups may include external experts. Final decisions rest with the Steering Committee. Coordination of these groups will be led by Core Partners, and information will be shared with the Partnership via quarterly and annual meetings.

Community Group

The Community Group is an open and inclusive forum for all individuals and entities in Douglas County and the broader Umpqua Basin who are interested in oak and prairie habitat conservation. The Community Group is invited to participate in events, share feedback, and engage in outreach, education, and stewardship efforts. This Community Group helps foster community support for oak conservation and serves as a vital bridge between the Partnership and the broader public. This group may include landowners, residents, restoration and forestry contractors, private businesses, students, educators, conservation organizations, Tribal members, cultural leaders, outdoor recreation groups, local governments, policy makers, and other state or federal agencies not listed as a Core Partner.

Meetings

The Steering Committee will meet annually to set direction and review progress. Additional meetings will be convened on an as-needed basis. Partnership-wide meetings/tours will be held at least annually.

DECISION MAKING

The Steering Committee strives for consensus. If consensus is not possible, decisions may be made by supermajority vote.

- Quorum: 50% + 1 of Steering Committee entities
- Supermajority: Two-thirds of voting members present
- Each Steering Committee entity has one vote
- Votes may be submitted by email if absent
- Conflicts of interest must be disclosed
- Outcomes and dissenting opinions are documented

NON-BINDING AGREEMENT

This agreement is not legally binding and does not create enforceable obligations. It is intended to provide a framework for voluntary collaboration and mutual support. Any financial transactions or formal commitments must be documented through separate agreements.

APPENDIX 3

UMPQUA OAK PARTNERSHIP CORE PARTNERS AND AREAS OF EXPERTISE

The Umpqua Oak Partnership is structured to foster broad participation while maintaining an effective decision-making framework. Roles within the Partnership include the Steering Committee, Core Partners, and the Community Group. Each plays a distinct and complementary role in achieving the goals outlined in this Strategic Action Plan. The Steering Committee is the primary decision-making body of the Partnership and are indicated by an *.

	Organizational Expertise								
Core Partner	*Forest Restoration*	*Understory Restoration*	*Prescribed Fire*	*Workforce Development*	*Monitoring*	*Technical Assistance*	*Land Protection*	*Outreach / Information*	*Policy*
Bureau of Land Management (BLM)	x	x	x	x	x	x		x	
Cow Creek Band of Umpqua Tribe of Indians (CCBUTI)*	x	x	x	x	x	x	x	x	x
Douglas County Weeds Advisory Board (DCWAB)								x	
Douglas Forest Protective Association (DFPA)*	x								
Douglas Soil and Water Conservation District (DSWCD)*	x	x		x	x	x		x	
Elkton Reserve Land Trust*	x	x	x	x			x	x	
Institute for Applied Ecology (IAE)		x			x		x	x	
Klamath Bird Observatory (KBO)					x	x		x	
National Forest Foundation (NFF)	x	x						x	
Natural Resources Conservation Service (NRCS)*	x	x				x	x	x	

Core Partner	Organizational Expertise								
	Forest Restoration	*Understory Restoration*	*Prescribed Fire*	*Workforce Development*	*Monitoring*	*Technical Assistance*	*Land Protection*	*Outreach / Information*	*Policy*
Oregon Agricultural Trust (OAT)							x	x	x
Oregon Conservation Corps of the Umpqua Valley (OCCUV)	x	x		x	x			x	
Oregon Department of Fish and Wildlife (ODFW)*	x	x			x	x	x	x	x
Oregon Department of Forestry (ODF)*	x		x			x		x	x
Oregon Small Woodlands Association – Douglas County Chapter (DSWA)*	x	x						x	x
Oregon State University Extension Service (OSU)*	x	x				x		x	
Native Plant Society of Oregon - Umpqua Valley Chapter (NPSO)								x	
Pacific Birds Habitat Joint Venture (Pacific Birds)*								x	x
Partnership for the Umpqua Rivers (PUR)*					x	x		x	
Raven's Brothers Forestry	x	x		x				x	
South Umpqua Rural Community Partnership (SURCP)*	x	x			x	x		x	
Umpqua Native Plant Partnership (UNPP)		x			x	x		x	
Umpqua Soil and Water Conservation District (USWCD)*						x		x	
Umpqua Watersheds, Incorporated								x	
US Fish and Wildlife Service, Partners for Fish and Wildlife (USFWS)*	x	x	x		x	x	x	x	
US Forest Service (USFS)*	x	x			x	x		x	
Yew Creek Land Alliance, Incorporated*	x	x				x	x	x	

APPENDIX 4

OAK HABITAT GEOSPATIAL MAPPING METHODS

Data Sources

To map each of the four Oak Habitat Targets defined in our Strategic Action Plan (see above), we used GNN structure (species-size) raster data layers from the Oregon State University Landscape Ecology, Modeling, Mapping, and Analysis project (LEMMA). GNN structure maps provide a modeled 30-m resolution grid of forest vegetation structure developed from a Greatest Nearest Neighbor analysis utilizing satellite imagery and regional plot samples to model vegetation structure across Washington, Oregon, and California. GNN models apply primarily to forested land because a consistent regional plot sample of nonforest areas is unavailable.

Oak Target Rule Set

We applied a rule set to classify pixels into oak habitat types using the GNN structure dataset. First, we selected pixels with dominant forest types containing Quercus species (excluding TanOak and Live Oak). We used canopy cover classes (COVCL) and hardwood/conifer cover variables (CANCOV_HDW, CANCOV_CON) to distinguish oak types, including Oak Conifer. To capture non-dominant oak presence, we also identified pixels with basal area >0 for oak species (e.g., QUGA4_BA, QUKE_BA). Using this rule set, we classified pixels as Oak Savanna, Oak Woodland, Oak Conifer, or non-target types. Pixels with ≥20% shrub cover (from LANDFIRE EVC) within the Oak Savanna/Chaparral category were designated as Oak Chaparral; others remained Oak Savanna.

Mapping and Analysis

We merged GNN and LANDFIRE rasters in ArcGIS Pro using the Combine function, applied classification rules in R, and reclassified pixels by habitat type. We calculated target habitat area using the Tabulate Area tool by HUC 10 watershed and within the four UOP priority areas: Upper South Umpqua, Oakland, North Bank, and Myrtle Creek West. Oak Chaparral was excluded from UOP outputs.

Connectivity and Species Maps

To assess connectivity, we created “heat maps” using a 1km focal statistics (moving window) analysis of binary presence maps for each oak target. Additionally, we used stacked bird species distribution models from the Klamath Ecoregion to map oak bird habitat, serving as a proxy for oak vegetation in key areas (Gillespie et al. 2017; Halstead et al. 2019).

Land ownership

Land ownership data from the layers “Ownership and Land Management” and “Private Industrial Ownership” was retrieved for Oregon from the Oregon Department of Forestry available in ArcGIS online (2024). Land ownership was summarized into 5 major categories: Federal, State, Local, Tribal, Private Industrial, and Private. We used the Tabulate Area tool in Spatial Analysis for ArcGIS Pro to calculate the amount of each target within each land ownership category.

Vegetation Condition

We downloaded data from analyses in Haugo et al. (2015). (https://ecoshare.info/products/r6-analysis/data/). This dataset was a product of an analysis that considered a comprehensive approach to forest restoration need, including both departure and successional restoration need. The results include a map of restoration need, as a percentage of forested acres, from eastern Washington to southwest Oregon. The vegetation condition data mapped using this dataset represent more comprehensive understanding of forest restoration need that considers current and historical vegetation conditions as well as fire regime.

APPENDIX 5

ACRES OF OAK VEGETATION BY HUC10 WATERSHED

Map Number	HUC10	Name	Oak Savanna	Oak Woodland	Oak Conifer
1	1710030101	Diamond Lake	0.00	0.00	0.22
2	1710030102	Headwaters North Umpqua River	0.44	0.44	0.00
3	1710030103	Clearwater River	5.56	5.56	11.12
4	1710030104	Fish Creek	3.78	3.78	43.14
5	1710030105	Upper North Umpqua River	18.24	18.24	114.76
6	1710030106	Canton Creek	21.13	21.13	20.91
7	1710030107	Steamboat Creek	30.25	30.25	39.36
8	1710030108	Middle North Umpqua River	552.65	552.65	447.46
9	1710030109	Rock Creek	120.54	120.54	111.20
10	1710030110	Little River	549.98	549.98	592.01
11	1710030111	Lower North Umpqua River	2471.03	2471.03	5995.76
12	1710030201	Headwaters South Umpqua River	141.22	141.22	327.81
13	1710030202	Jackson Creek	671.19	671.19	629.15
14	1710030203	Dumont Creek-South Umpqua River	675.86	675.86	574.44
15	1710030204	Elk Creek	878.01	2058.71	2931.83
16	1710030205	Days Creek-South Umpqua River	2975.64	5821.18	8994.08
17	1710030206	Upper Cow Creek	562.88	1125.09	1162.23
18	1710030207	Middle Cow Creek	2207.27	3491.37	5698.64
19	1710030208	West Fork Cow Creek	192.37	200.16	696.09
20	1710030209	Lower Cow Creek	1191.59	2548.20	5503.37
21	1710030210	Myrtle Creek	1184.47	2149.22	3800.72
22	1710030211	Clark Branch-South Umpqua River	1192.70	3317.46	5998.87
23	1710030212	Olalla Creek-Lookingglass Creek	793.28	1141.55	2749.69
24	1710030213	Deer Creek-South Umpqua River	2229.50	5988.19	9167.99
25	1710030301	Calapooya Creek	1145.11	193.04	2044.70
26	1710030302	Upper Umpqua River	421.88	284.89	1315.91
27	1710030303	Elk Creek	588.01	205.05	2383.85
28	1710030304	Middle Umpqua River	20.46	15.12	217.28
29	1710030305	Mill Creek	12.90	8.67	89.18
30	1710030306	Upper Smith River	21.35	10.45	114.98
31	1710030307	Lower Smith River	3.78	2.00	8.90
32	1710030308	Lower Umpqua River	1.56	1.33	1.56
		TOTAL	**20884.62**	**34031.70**	**61787.20**

APPENDIX 6

LAND OWNERSHIP BY CORE PRIORITY AREA

Myrtle Creek Priority Area:
acres of oak vegetation by land ownership

	Oak Savanna	Oak Woodland	Oak Conifer
Private	925	2512	4797
Private Industrial	354	1036	1558
Federal	94	288	5,402

Oakland Priority Area:
acres of oak vegetation by land ownership

	Oak Savanna	Oak Woodland	Oak Conifer
Federal	0.7	0.00	7
Private Industrial	2	0.4	13
Private	441	61	483

North Bank Priority Area:
acres of oak vegetation by land ownership

	Oak Savanna	Oak Woodland	Oak Conifer
Federal	123	150	661
Private Industrial	36	58	72
Private	1231	4129	4651
Other	2	3	18

Upper South Umpqua Priority Area:
acres of oak vegetation by land ownership

	Oak Savanna	Oak Woodland	Oak Conifer
Federal	230	1142	1745
State	0.00	0.2	0.2
Local	0.2	0.2	0.4
Tribal	12	10	22
Private Industrial	1447	1607	2045
Private	328	943	1003

APPENDIX 7

VIABILITY ASSESSMENT - CURRENT AND DESIRED CONDITION

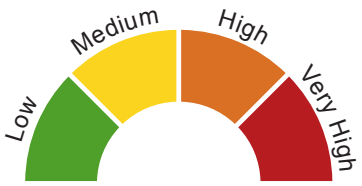
Our approach to developing goals and objectives builds on a Habitat Viability Assessment which includes 1) defining KEAs to describe both current and desired conditions for each habitat type; 2) identifying indicators to measure those conditions; 3) establishing benchmarks for what constitutes “Good” condition; and 4) assessing each habitat’s current and desired future condition using a qualitative ranking of Poor, Fair, or Good. The objectives in this plan were developed based on approaches used in the development of the Klamath Siskiyou Oak Network’s Strategic Action Plan (Alexander et al. 2020).

Key: *Cells left blank if metrics do not apply to those attributes. Condition: Poor - Restoration increasingly difficult, may result in extirpation of target; Fair - Outside acceptable range of variation, requires human intervention; Good - Within acceptable range of variation, some intervention required to maintain. Fire Regime I - <36 years since low severity fire.*

KEA	Indicator	Prairie		Oak Savanna		Oak Woodland		Oak Conifer		25-Year Objective
		Current	Desired	Current	Desired	Current	Desired	Current	Desired	
Amount on Landscape	Total area by subbasin	**Poor** Unknown acres	**Fair** Increase	**Fair** 20,962 acres	**Fair** 20,962 acres	**Fair** 34,171 acres	**Fair** 34,171 acres	**Fair** 62,141 acres	**Good** 66,491 acres	Increase the amount of oak conifer by 4,350 acres (7%); increase the amount of prairie; and maintain the current amount of oak savanna and oak woodlands.
Plant Community	>25% native understory cover with high structural and compositional diversity, adequate structural conditions for the persistence of rare species, and minimal cover of state or federally-listed noxious weeds	**Poor** <25% landscape	**Fair** >25% landscape	**Poor** <25% landscape	**Fair** >25% landscape	**Poor** <25% landscape	**Fair** >25% landscape			Maintain or improve the condition of oak savanna and woodlands so that at least 5,240 acres of oak savanna and 8,543 acres of oak woodlands support >25% cover of high-diversity native understory
Oak Trees	Abundance of younger age class oaks					**Fair** >25% landscape	**Good** >50% landscape	**Fair** >25% landscape	**Good** >50% landscape	Maintain or improve the condition of oak woodland and oak conifer habitat, so that at least 17,086 acres of oak woodland and 31,071 acres of oak-conifer habitat support abundant younger age-class oaks, retain at least 90% of legacy oaks, and ensure accessible, high-quality acorn crops.
Oak Trees	Non-encroachment of 90% of existing and potential legacy oaks (encroaching species)					**Fair** >25% landscape	**Good** >50% landscape	**Fair** >25% landscape	**Good** >50% landscape	
Oak Trees	Abundant and high-quality acorn crops					**Fair** >25% landscape	**Good** >50% landscape	**Fair** >25% landscape	**Good** >50% landscape	
Fuel Load	Low load surface fire behavior model (based on flame length, radial spread, suppression difficulty)					**Fair** >25% landscape	**Good** >50% landscape	**Fair** >25% landscape	**Good** >50% landscape	
Fire Regime	Proportion of landscape (e.g., subbasin (HUC6)) oak targets within fire frequency interval (existing) and severity (actual and predicted), relative to desired KEA fire regime condition for oak targets	**Poor** <25% of landscape as Fire Regime 1	**Fair** >25% of landscape as Fire Regime I	**Poor** <25% of landscape as Fire Regime 1	**Fair** >25% of landscape as Fire Regime I	**Poor** <25% of landscape as Fire Regime 1	**Fair** >25% of landscape as Fire Regime I	**Poor** <25% of landscape as Fire Regime 1	**Fair** >25% of landscape as Fire Regime I	Maintain or improve the condition of oak woodland and oak conifer habitat, so that at least 17,086 acres of oak woodland and 31,071 acres of oak conifer are characterized by a low load surface behavior model.
Breeding Birds	>75% of focal bird species present	**Fair** >25% of landscape	**Good** >50% of landscape	**Fair** >25% of landscape	**Good** >50% of landscape	**Fair** >25% of landscape	**Good** >50% of landscape	**Fair** >25% of landscape	**Good** >50% of landscape	Maintain or improve the condition of oak habitat so that more acres of prairie, 10,481 acres of oak savanna, 17,086 acres of oak woodland, and 31,071 acres of oak-conifer have >75% of focal bird species present.

APPENDIX 8

THREAT ASSESSMENT FOR OAK AND PRAIRIE HABITAT IN THE UMPQUA BASIN



Threats	Prairie	Oak Savanna	Oak Woodland	Mixed Oak-Conifer	Overall Rating
Conversion to Intensive Agriculture	High	High	High	High	High
Non-native and Invasive Plant Species	High	High	High	High	High
Conifer and Woody Encroachment	Medium	Medium	High	High	High
Conversion to Industrial Timber	Low	Medium	High	High	High
Fire Exclusion	Low	Low	High	Very High	High
Incompatible Grazing	Medium	High	Medium	Medium	Medium
Road Development	Low	Medium	Medium	Medium	Medium
Rural Residential Development	Medium	Medium	Medium	Medium	Medium
Urban Development	Medium	Medium	Medium	Medium	Medium
Pest and Diseases	N/A	Low	Low	Low	Low

APPENDIX 9

FULL STRATEGY AND ACTION FRAMEWORK

This appendix contains the complete set of strategies and associated actions developed through UOP's collaborative working group sessions. It reflects the full breadth of ideas generated across multiple partner meetings, including strategies that are currently being implemented, those actively under development, and those identified as longer-term or aspirational goals. While the main plan highlights a prioritized subset of high-impact strategies, this appendix preserves the full record of collaborative input and serves as a living reference for future adaptation and resource alignment. Some strategies appear multiple times across different threat categories—this intentional overlap reflects the integrated nature of oak restoration and the recognition that certain approaches (e.g., prescribed fire, native plant restoration, land protection) are essential to addressing multiple, interrelated threats.

Conversion to Intensive Agriculture or Industrial Timber

Strategy 1: Develop conservation easement opportunities for landowners	
1	Work with OSU Extension to develop an outreach strategy that highlights conservation opportunities
2	Initiate conversations with land trusts to identify working lands and conservation opportunities for landowners (COLT, OAT, LTA, MRT, SOLC, WRLT, etc.)
3	Support conservation easement opportunities for landowners to protect oak habitats through UOP partners and other organizations
Strategy 2: Build capacity through interagency coordination and partnerships	
1	Coordinate across UOP partner organizations to pool resources, assist landowners, and develop land management strategies that achieve production goals while maintaining oak habitats on the landscape
2	Support grant opportunities and fiscal agreements between organizations/agencies that promote working land opportunities for the agriculture and timber communities
3	Leverage existing NRCS/ODF Technical Assistance Agreement to promote Farm Bill opportunities and develop similar partner program opportunities with landowners.
4	Develop informational materials that highlight UOP partner programs to create a shared understanding of working lands programs available to landowners.

Strategy 3: Provide landowners with technical and financial assistance opportunities	
1	Promote incentive programs that UOP partners administer (WHCMP, Access and Habitat, Partners for Fish and Wildlife, EQIP, CSP, etc.)
2	Engage policymakers to increase knowledge on the value of oak habitats
3	Identify and promote working lands programs (state, federal, and private)
4	Develop and maintain a list of state and federal grant programs to assist landowners
5	Work with agencies to develop comprehensive conservation plans for landowners that incorporate multiple programs to maximize ecological benefits while achieving landowners' goals and objectives
Strategy 4: Implement an awareness campaign and continue outreach to public groups and events	
1	Distribute the Landowner Guide and other oak restoration literature to interested local landowners at workshops and local events
2	Work with OSU Extension and other local advocacy organizations to develop an oak-related outreach strategy that engages the agricultural and private timber communities
3	Continue engagement with local advocacy organizations to promote the value of oak habitats on the landscape and UOP efforts (DTO, DSWA, DCLA, Audubon Society, Watershed Councils, SWCDs, etc.)
4	Develop regionally and locally specific materials on opportunities and the benefits of retaining oak habitats on a working landscape
5	Initiate a media campaign to promote the importance of oak habitats on the landscape and working lands concepts (Facebook/Instagram, website, newspaper, radio, etc.
6	Promote or develop "Oak Accord" or "Salmon Safe"- like marketing programs that highlight the importance of oak habitats and establish a "working lands" brand for local businesses
Strategy 5: Promote the value of oak habitats with private land managers and local policymakers	
1	Engage with and present to the County Commissioners on the value of oak habitats and their role in our community and on the landscape to develop a working lands mindset with elected officials.
2	Provide opportunities to private land managers to restore/conserve oak habitats through engagement (presentations, BMP flyers, workshops, information sharing opportunities, etc.)
3	Continue engagement with local advocacy organizations to promote the value of oak habitats on the landscape and UOP efforts (DTO, Audubon Society, Watershed Council, SWCDs, etc.)
Strategy 6: Increase availability of on-the-ground technical assistance, resources, and information materials to landowners and developers	
1	Explore and promote conservation easement opportunities for landowners/developers to protect oak habitats
2	Seek technical assistance funding to develop informational materials for landowners and developers
3	Leverage UOP partner's expertise to assist landowners and developers with the advantages of protecting and restoring oak habitats
4	Develop informational material that promotes maintaining oak habitats in areas that are being developed
5	Work with local partners (OSU Master Gardeners, nurseries, tribes, schools, etc.) to provide oak seedlings for landowners and developers

Strategy 7: Establish a working lands approach among landowners, planners, managers, and practitioners	
1	Targeted outreach to public officials and planners on working lands concepts, the value of oak habitats, and their role in our community
2	Work with partners (OSU Extension, SWCD, NRCS, etc.) to develop a working lands outreach strategy and materials, including the 2024 Landowner Guide
3	Continue engagement with local advocacy organizations to promote the value of oak habitats on the landscape and UOP efforts (DTO, DSWA, DCLA, Audubon Society, WC, SWCD, etc.)
Strategy 8: Continue strategic outreach to landowners and promote awareness through site visits and conversations	
1	Increase awareness of the importance of oak habitats on the landscape and promote working lands opportunities
2	Continue "door-to-door" engagement within priority areas to increase awareness of the importance of oak habitats, to provide landowners with working lands opportunities and information, and to develop trust and confidence in UOP as a value-added entity in the community
3	Work with UOP partners and other organizations to promote technical and financial assistance opportunities for landowners to implement working lands BMPs
4	Increase awareness of conservation easement opportunities, the benefits, and how to incorporate working lands into conservation management strategies
5	Support and promote a working lands mindset with agricultural producers through engagement at local meetings and workshops
Strategy 9: Increase on-the-ground technical assistance, resources, restoration workforce, and information materials to landowners	
1	Work with OSU Extension to develop TA materials and connection opportunities for landowners who are interested in incorporating work lands into their management strategies
2	Engage with land trusts to identify opportunities for landowners who are interested in developing strategies that incorporate conservation and working lands BMPs
3	Work with local organizations and UOP partners to build technical assistance capacity through training and workforce development (Phoenix School, veteran’s organizations, OCC, DFPA, tribes, etc.)
4	Work with local businesses and UOP partners to increase access to native plant materials (UNPP, local nurseries, school programs, etc.)

Oak Habitat Encroachment

Strategy 1: Implement an awareness campaign and continue outreach to public groups and events	
1	Distribute the Landowner Guide and other materials to the interested user groups. (Master Gardeners, Rotary, Chamber of Commerce, Audubon, Native Plant Society, etc.)
2	Include encroachment topics in workshops, tours, and talks with interested groups
3	Work with OSU Extension and DSWA to increase awareness and develop an oak literature resource kit for teaching.
4	Give a presentation to County Commissioners on the value of oak habitats and their role in our community

Strategy 2: Increase availability of on-the-ground technical assistance, resources, restoration workforce, and information materials to landowners	
1	Work with the private timber community to identify opportunities and resources to reduce encroachment
2	Leverage UOP partner programs to assist landowners in project development and provide technical expertise on reducing cross-boundary encroachment on their lands
3	Develop a list of contractors available to do habitat restoration work
4	Develop and distribute new and existing information materials and work with OSU Extension to hand out at workshops and other like venues
5	Encourage and support the technical expansion of the capacity of numerous partners (Tribe, SWCD, OCC, NYC, Phoenix School, etc.)
6	Support continuing education opportunities for natural resource professionals (SAF, ASCA, etc.)

Strategy 3: Continue strategic outreach to landowners and promote awareness through site visits and conversations	
1	Engage private land managers and landowners on the importance of oak habitats and opportunities to reduce or minimize encroachment on their lands
2	Work with DSWA, SAF, and forestry consultants to promote encroachment reduction in oak habitats
3	Develop and promote opportunities for landowners to learn about and utilize partner programs
4	Promote state and federal grant programs to assist landowners
5	Initiate a media campaign to share the importance of oak habitats and encroachment management
6	Work with private and public forest managers to develop opportunities to reduce encroachment, restore, and conserve oak habitats
7	Engage ODF to provide information and encourage landowners to manage oak habitats

Strategy 4: Build capacity through interagency coordination and partnerships	
1	Coordinate across agencies and non-governmental organizations to share resources and promote programs
2	Support grant opportunities and fiscal agreements between organizations/agencies
3	Leverage the NRCS/ODF Technical Assistance Agreement across the Umpqua and develop similar agreements
4	Share resources and information across oak partnerships to increase UOP capacity and effectiveness across the public/private interface
5	Increase agency education opportunities by providing information and presentations
6	Grow BLM capacity to increase management of the NBHMA

Fire Exclusion

Strategy 1: Continue strategic outreach to landowners and promote awareness through site visits and conversations	
1	Promote the OSU Prescribed Burn Program and work with local stakeholders to establish the Umpqua Prescribed Burn Association
2	Promote, organize, and facilitate local prescribed burn demonstrations and training opportunities
3	Partner with DCLA's Prescribed Burn Committee
4	Host workshop(s) that promote prescribed burning and the benefits to oak habitats
5	Initiate a media campaign to promote the importance of prescribed fire for oak habitats (newspaper, radio, podcast, TV, Social Media, etc.)
6	Distribute fire awareness and prescribed fire materials to landowners and public groups
Strategy 2: Increase availability of on-the-ground technical assistance, resources, restoration workforce, and information materials to landowners	
1	Work with OSU Extension and DFPA to develop an outreach strategy and materials for landowners
2	Leverage multiple stakeholders to combine resources through interagency coordination and partnerships
3	Work with local stakeholders to establish a Prescribed Burn Association
4	Host a Certified Burn Manager Program locally to develop a pool of local CBMs
5	Conduct prescribed fire workshops and training events to promote opportunities and programs
6	Work with OSU Extension and DFPA to condense the material that exists to develop prescribed burn information material (2-pager)
7	Work with tribes to increase understanding of Indigenous knowledge in order to incorporate into prescribed burn opportunities
8	Seek funding opportunities to increase prescribed burning and training opportunities (RCPP, OWEB, CWDG, etc.)
9	Work with local organizations to develop and/or increase a trained prescribed fire and fuel reduction workforce
Strategy 3: Establish a working lands approach among landowners, managers, and fuels and fire practitioners	
1	Work with local elected officials, private and public forest managers, rural fire districts, fire managers, and the Tribe to increase fuels reduction programs and opportunities in the Umpqua Basin
2	Continue engagement with local NGOs and Associations to promote prescribed burning and fuels reduction (SWCD, DSWA, Farm Bureau, etc.)
3	Work with DCLA to promote best management practices that promote working lands and the use of fire
4	Organize workshops that promote best management practices, fuels reduction, technical innovations, and new equipment
5	Revitalize the DCLA/DFPA Breakfast to grow relationships and create opportunities among stakeholders

Strategy 4: Engage landowners and managers on the importance of prescribed burning in oak habitats and develop conservation opportunities for landowners	
1	Work with DCLA to promote prescribed burning on rural private lands
2	Work with DFPA and Rural Fire Districts to maintain and/or prioritize oak habitat retention in fuels reduction efforts
3	Work with public land management agencies and the private timber industry to promote oak habitat retention and fuel reduction
4	Engage tribes to incorporate Indigenous knowledge and practices in prescribed burns
5	Work with Tribe to develop cooperative prescribed burn opportunities that span multiple ownerships

Non-Native/Invasive Plant Species

Strategy 1: Increase the availability of on-the-ground technical assistance, resources, restoration workforce, and information materials for landowners	
1	Work with OSU Extension, ODA, and SWCDs to develop and distribute invasive species management information and opportunities for landowners
2	Utilize UOP partner expertise and programs to increase oak habitat restoration, remove non-native invasive species, and establish native plant species in the Umpqua
3	Work with DCNWAB and DCWMA Area to increase integrated weed management capacity
4	Promote and develop opportunities for the UNPP and other like organizations to increase capacity to deliver native species to landowners
5	Grow capacity in the Umpqua with the development of an Oak Habitat/Invasive Species Technician position
6	Support OCC to strengthen their fuels management/manual weeds crews and facilitate opportunities to engage in prescribed burning
7	Establish a contractor list with organizations that focus on oak habitat restoration and invasive species removal/management
8	Develop volunteer opportunities and engage local conservation organizations to participate in invasive species management and oak habitat restoration projects
9	Support and enhance "Weed Day" participation and provide partners and landowners with invasive species management training opportunities

Strategy 2: Continue strategic outreach to landowners and promote awareness through site visits and conversations	
1	Work with OSU Extension to promote and increase outreach opportunities and learning programs for landowners
2	Work with Douglas SWCD and help promote the DCWMA to partners and landowners in the Umpqua
3	Support DCNWAB to promote invasive species management/reduction programs
4	Promote state/federal programs that assist landowners in removing invasive species
5	Initiate a media campaign to promote the importance of invasive species management and healthy oak habitats
6	Participate in DCLA, Farm Bureau, and DSWA monthly meetings to develop trust and opportunities to promote invasive species management on private lands
7	Engage with local partners (OSU, ODA, Douglas County, etc.) to make materials and distribute information on invasive species management
8	Give presentations to conservation groups, landowner groups, road and home associations, right-of-way managers, etc., on the importance of managing invasive species
9	Create and/or update invasive species management guides and distribute to landowners and partners
Strategy 3: Build capacity through interagency coordination and partnerships	
1	Coordinate across agencies and partners to pool restoration and invasive species management resources
2	Facilitate grant opportunities and support fiscal agreements between partner organizations/agencies
3	Increase NRCS/ODF Technical Assistance Agreement capacity to increase invasive species management and oak restoration
4	Increase grant writing capacity through UOP partners
5	Share resources and information across UOP partners and other oak partnerships to increase capacity, efficiencies, and effectiveness of invasive species management in the Umpqua
6	Develop support for an Oak Habitat Technician position that can engage with landowners and increase invasive species management in the Umpqua
7	Facilitate funding for a Douglas County-focused noxious weed specialist(s)
8	Partner with agencies and other organizations (BLM, ODOT, USFS, Douglas County, Tribe, etc.) to increase invasive species management across ownership boundaries

Strategy 4: Leverage available funding opportunities to develop opportunities for landowners that incentivize the management of invasive species	
1	Work with SWCD to fund and develop the DCWMA program
2	Develop a technical assistance opportunities flyer for landowners that includes funding opportunities and agency programs for landowners
3	Develop materials on the benefits of removing and managing invasive species for landowners and their land
4	Management of non-native/invasive species through Conservation Easements that protect oak habitats
5	Develop cost-share programs (equipment rental programs, seed coop, equipment washing, etc.) that increase landowner propensity to implement invasive species management BMPs
Strategy 5: Establish a working lands management approach among landowners, planners, managers, and practitioners	
1	Give presentations to landowners and user groups on the issues/concerns with non-native/invasive species on the landscapes, and provide BMP information and opportunities
2	Work with public land managers to develop opportunities to increase non-native/invasive species management on public and adjacent private lands
3	Engage with DSWA, Farm Bureau, the DCLA, and additional landowner organizations to promote a working lands approach that increases invasive species management on private lands
4	Engage with the County Commissioners on the value and importance of non-native/invasive species removal programs in our community
5	Demonstrate working lands and integrated weed management through workshops and tours

Rural Residential & Urban Development

Strategy 1: Establish a working lands approach among landowners, planners, developers, and practitioners	
1	Give a presentation to landowners and user groups (i.e., DCLA, Vineyard Association, Homeowner Associations, etc.) on the benefits of oak habitats and native species on working lands
2	Work with OAT to develop opportunities to increase working lands management
3	Engage with DSWA, Farm Bureau, and DCLA to promote working lands concepts
4	Give a presentation to the Umpqua Valley Home Builders Association and the Douglas County Association of Realtors on the importance of oak habitats
5	Work with developers and homeowners' associations to develop restoration and management opportunities for landowners
6	Give a presentation to the Douglas County land use planning department and board on the benefits of retaining oak habitat on the landscape

Strategy 2: Continue strategic outreach to landowners, developers, and realtors to promote awareness of the importance of oak habitats through site visits and conversations	
1	Work with OSU Extension Service and UNPP to establish outreach materials that promote oak habitats as part of the landscape
2	Work with realtors to identify opportunities to educate landowners on the importance of oak habitats
3	Distribute the Landowner Guide and other oak management materials to local realtors and developers
4	Support DCNWAB to promote invasive species management and reduction programs
5	Educate landowners and developers on state/federal programs and habitat conservation opportunities
6	Initiate a media campaign to promote the importance of oak habitats
7	Work with SWCDs to increase awareness and effectiveness on conserving and restoring oak habitats
8	Engage with and present to city councils and mayors to increase awareness about the importance of oak habitats in our communities and on the landscape
9	Engage local communities to increase awareness and provide resources/information about oak habitats in the Umpqua Basin at local events: Master Gardeners, Earth Day, Arbor Day, Migratory Bird Day, Douglas County Fair, etc.
10	Promote the development and retention of well-distributed anchor habitats throughout the basin.
Strategy 3: Provide incentive opportunities to landowners and developers and leverage available funding programs	
1	Work with SWCDs to develop landowner and developer outreach strategies that target lands that are at risk of being developed
2	Develop and maintain a conservation incentive opportunities flyer for landowners and developers
3	Develop materials that promote the benefits of oak habitats and highlight funding programs and conservation opportunities
4	Work with homeowners, Homeowners Associations, and Roads Associations to encourage the retention and restoration of oaks
5	Work with city/county parks, state, and federal property managers to increase oak habitat conservation and restoration opportunities
Strategy 4: Increase availability of on-the-ground technical assistance, resources, and information materials to landowners and developers	
1	Explore and promote conservation easement opportunities for landowners/developers to protect oak habitats
2	Seek technical assistance funding to develop informational materials for landowners and developers
3	Leverage UOP partner's expertise to assist landowners and developers with the advantages of protecting and restoring oak habitats
4	Develop informational material that promotes maintaining oak habitats in areas that are being developed
5	Work with local partners (OSU Master Gardeners, nurseries, tribes, schools, etc.) to provide oak seedlings for landowners and developers