Willamette Valley Oak and Prairie Cooperative

Strategic Action Plan

2025 Update

Acknowledgements (original 2020 version)

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Cover Photo: Oaks at Bald Hill Farm in Benton County (Greenbelt Land Trust)

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2025 Update Summary and Acknowledgements

Update Summary:

This 2025 update of the Willamette Valley Oak and Prairie Cooperative (WVOPC) Strategic Action Plan (originally finalized in 2020) was prepared by the current WVOPC Steering Committee and Coordinator to align the document with current OWEB Strategic Action Plan guidance. The core content remains consistent with the 2020 plan developed by the original Steering Committee.

2025 Steering Committee:

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2025 Record of Revisions:

- Added an Executive Summary prior to the Introduction.
- Updated section names to more closely align with OWEB guidance.
- Moved the Guiding Principles from the Governance Structure section to the Purpose section of the Introduction.
- Updated the term “stakeholders” to “partners” throughout the document.
- Updated the Governance Structure section for consistency with the Declaration of Cooperation, which was finalized in 2025. Adjusted terminology from “Memorandum of Understanding” (MOU; as it was referred to in the original SAP) to “Declaration of Cooperation” (DOC).
- Added the finalized DOC as an appendix.
- Moved the subsection Existing Conserved Oak and Prairie Anchor Sites from the previous Profile of Oak and Prairie Habitats in the Willamette Valley section to the Geographic Scope and Timeline section.
- Clarified in the Geographic Scope and Timeline section that the Strategic Action Plan provides a 30-year landscape-scale vision for the period 2020-2050.
- Added a paragraph to the Geographic Scope section describing a 2025 update to the Anchor Sites database. Added an updated Planning Area Map as an appendix to show the new Anchor Site additions.

- Combined the previous Profile of Oak and Prairie Habitats in the Willamette Valley section and the Conservation Needs and Opportunities section into a new section titled Conservation Context.
- Added a new subsection on Climate Impacts to the Conservation Context section.
- Adding two additional Limiting Factors to the Conservation Context section to reflect additions made to the Oregon Conservation Strategy.
- Added a new section on Sustainability describing strategies to maintain partnership capacity and funding.
- Updated section and figure numbering and cross references within text to reflect overall changes to the document.
- Added this 2025 Updates Summary and Acknowledgements page.

Note that no substantive changes were made to the plan's ecological priorities, goals, or vision.

Table of Contents

Figures

Appendices

A. Working Group Meeting #1 Summary: Strategies and Actions
B. Working Group Meeting #2 Summary: Conservation Concept Map Development
C. Summary Report – Working Group Questionnaire #2
D. Related Plans, Studies, and Initiatives
E. Declaration of Cooperation
F. Updated Planning Area Map following 2025 Anchor Site additions

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1. Executive Summary

The Willamette Valley Oak and Prairie Cooperative (WVOPC) is a collaborative partnership of Tribes, Land Trusts, Watershed Councils, Conservation Organizations, and Governmental Agencies that are working together to conserve, restore, and maintain a functional, resilient network of oak and prairie habitats across Oregon's Willamette Valley. Formed in 2018, the WVOPC developed this Strategic Action Plan (SAP) to guide regional conservation over a 30-year horizon through a coordinated, science-based approach that leverages collective resources and expertise.

The Partnership

The WVOPC operates through a voluntary, non-regulatory coalition bound by a Declaration of Cooperation. A Steering Committee and broad Partners guide implementation, progress tracking, and adaptive management. Six guiding principles anchor the partnership: diversity and inclusion; conservation and connectivity; active habitat management; shared knowledge; collaboration; and community advocacy.

Conservation Context

Oak and prairie ecosystems once covered roughly two million acres of the Willamette Valley but now persist on less than 10% (oak) and 2% (prairie) of their historical extent. These habitats support exceptional biodiversity and deep cultural significance for Indigenous communities, particularly the Kalapuya peoples who historically maintained them with fire. Habitat fragmentation, invasive species, and the loss of consistent fire regimes now threaten their persistence. The SAP responds to this urgent need by providing a unified framework to direct limited conservation resources where they can have the greatest ecological impact.

Vision and Goals

The WVOPC's 30-year vision is a landscape where oak and prairie habitats are widespread, well-connected, and resilient; species dependent on these systems are stable or increasing; and people throughout the Valley value and actively support habitat stewardship. Key vision elements include:

- Permanently protected and restored core habitats linked by ecological corridors
- Oak and prairie habitats that are integrated within working and urban lands
- Beneficial fire practices and active management used to maintain habitat conditions
- Thriving partnerships, community engagement, and sustained funding

Conservation goals are focused on improving habitat extent and quality, enhancing connectivity, reducing threats, and fostering community and policy support. Priority habitats identified within the SAP include oak woodland, oak savanna, and upland and wet prairie; priority species include Fender's blue butterfly, Kincaid's lupine, and acorn woodpecker.

Strategies

The theory of change outlined within this SAP targets major regional threats (i.e., rural and urban development, woody encroachment, agricultural conversion, invasive species, and fire exclusion) using coordinated, partner-driven actions and approaches. Overarching strategies include:

- Developing and sharing spatial data to support coordinated, data-driven decision-making
- Integrating diversity, equity, and inclusion into all aspects of conservation and governance
- Strengthening human connections to nature to build public support and equitable access
- Increasing climate resilience by anticipating and adapting to future environmental change

Conclusion

The WVOPC Strategic Action Plan establishes a shared vision and practical roadmap for restoring one of the Pacific Northwest's most imperiled ecosystems. By aligning partners around common priorities, fostering inclusive collaboration, and focusing investment on strategic actions, the plan lays the foundation for a resilient network of oak and prairie landscapes that sustain the Willamette Valley's biodiversity, cultural heritage, and communities for generations to come.

Baskett Slough NWR (J. Krueger)

2 Introduction

2.1 Background

Oak and prairie habitats in the Willamette Valley are some of the most iconic, culturally important, and imperiled in Oregon. The First Peoples of the Willamette Valley, including the Kalapuya, have been inseparable from the landscape since time immemorial. As the original land stewards, they used fire to maintain open conditions and nurture habitats that support hundreds of plant and animal species, many of which hold cultural importance as food, medicine, tools, weaving and home materials, decorations, essences for storytelling, and more. Prior to European colonization, approximately two million acres of prairie and oak habitat and 25,000 Kalapuyan people existed in the Willamette Valley (Christy and Alverson 2010; Lewis 2016). Early Euro-American settlers to the Valley described wide expanses of prairie interspersed with scattered oaks, maintained in an open condition by fires set by Native Americans. The last 170 years have brought dramatic change to the Valley. Settlement resulted in conversion of many native ecosystems to urban and agricultural land use and regular burning was halted, allowing woody vegetation and conifers to move into prairies, oak savannas, and woodlands.

Why Oak and Prairie Habitats?

"Concerns about the dramatic declines of historically widespread oak and prairie habitat in the Willamette Valley are reflected in the prioritization of protection and restoration of these habitats in numerous conservation plans, including the Oregon Conservation Strategy, the Willamette Subbasin Plan, and USFWS Willamette Valley Conservation Study and Prairie Species Recovery Plan. Addressing this priority will necessarily bring together practitioners, planners and community groups, leveraging their individual skills and capacities through a cooperative approach and guided by a region-wide Strategic Action Plan."

-Damien Miller, Project Leader, Willamette Valley National Wildlife Refuge Complex

Today, it is estimated that oak habitat in the Valley is found on under ten percent of its pre-settlement area while prairie is found on less than two percent (see Figure 7-1). Much of what remains is fragmented, isolated, and heavily impacted by fast-growing conifers and invasive species. Despite 170 years of loss and fragmentation, significant and timely habitat conservation opportunities are still before us. These opportunities, if acted upon, will have essential and lasting benefits both to Oregon's natural and human communities. Without swift action, however, this window of opportunity will close. In addition to continued loss of biodiversity, additional oak-prairie dependent species could be added the endangered species list, complicating conservation and creating new barriers to economic development. More importantly, we risk the loss of some of the signature features of this landscape, and an important part of what has long made the Willamette Valley such a unique and special place to live.

2.2 Purpose

The Willamette Valley Oak and Prairie Cooperative (WVOPC) is a partnership with a long-term vision to conserve and maintain prairie and oak habitats within the Willamette Valley through a regionally focused, collaborative, and sustainable program. This Strategic Action Plan (SAP) describes the Cooperative's aspirations over the long term (30 years) and what will be required to achieve ecological goals in the partnership's focal area. In essence, the SAP will serve as the road map, or blueprint, for the partnership's conservation, restoration, and habitat management activities. The SAP will be the catalyst for partners to coordinate their work under a unified and focused strategy for oak and prairie conservation. The SAP will guide long-term actions that will result in the conservation, restoration, and management of a connected network of prairie and oak habitats. These interconnected habitats will be capable of supporting native plants, pollinators, and wildlife that is resilient in the face of climate change, land use changes, and invasive species. Proposed strategies contained within this SAP were developed through a collaborative process that involved multiple partners and are intended to provide a high-level framework for implementation. Future participation of landowners and partners is voluntary.

Guiding Principles

The WVOPC's long-term conservation vision is grounded in six guiding principles that inform our goals and strategies, priority-setting, implementation, and collaboration across the WVOPC planning region.

1. **Diversity, Equity, Inclusion, and Justice**
   Meaningful conservation requires a broad, inclusive coalition that reflects the region's cultural, social, and demographic diversity. Principles of equity, inclusion, and justice guide all Cooperative activities and governance.
2. **Conservation and Connectivity**
   A resilient network of core oak–prairie habitats connected by well-managed corridors is essential for sustaining species and ecological processes in a changing climate and a region under significant land-use pressure.
3. **Habitat Management**
   High-quality habitat depends on active, science-based management and restoration informed by best practices, climate resilience research, and Tribal knowledge and cultural practices.
4. **Knowledge and Understanding**
   Achieving conservation outcomes rely on accessible research, guidance, spatial data, shared tools, and knowledge exchange to support stewardship, inform decisions, and track progress.
5. **Partnership and Collaboration**
   Landscape-scale challenges require strong collaboration among nonprofits, landowners, Tribes, agencies, and community partners. The WVOPC coordinates implementation, funding, and shared learning.
6. **Community Support and Advocacy**
   Long-term success depends on community and decision-maker understanding of the ecological, cultural, and economic value of oak and prairie habitats—and on building broad support for conservation and restoration.

2.3 Strategic Planning Process

Development of the SAP began in January 2018, in a process built upon the input and expertise of partners from around the Willamette Valley. A twelve-person Steering Committee and the SAP Working Group of over forty technical experts participated in this planning process and provided critical input toward the development of the SAP. Many of these partners will oversee its implementation in the coming years and decades.

Steering Committee

The WVOPC Steering Committee was formed in 2018 to oversee the development and implementation of the Willamette Valley Oak and Prairie Cooperative SAP and support collaborative, sustainable partnerships for conservation and restoration of oak and prairie habitats in the Willamette Valley. The Steering Committee was originally made up of members representing Tribal, municipal, and non-profit organizations. Roles and responsibilities of the Steering Committee have been:

Steering Committee and Working Group touring Bald Hill Farm (photo: J. Krueger)

1. Securing funding to support the development and implementation of the Strategic Action Plan;
2. Working with the key partners and contractors to develop the SAP and implement partner outreach;
3. Assisting the contractors as needed in defining and accomplishing the tasks associated with development of the SAP; and
4. Facilitating the development of a membership, governance, and operational structure for the Willamette Valley Oak and Prairie Cooperative over the long term.

SAP Working Group

The SAP Working Group serves as a panel of technical experts assembled to provide input and feedback in support of the development of the SAP. The original SAP Working Group was made up of over 40 members representing organizations and agencies from around the valley.

Roles and responsibilities of the SAP Working Group included:

- Meeting with the WVOPC Steering Committee and contractors at key junctions of the planning process to provide input;
- Being available for topic specific consultation by email, phone, or survey as needed;
- Providing feedback on draft materials as needed; and
- Serving to represent the mission and goals of their organization.

SAP Working Group members met for two half-day work sessions during the development of the SAP (see summary reports in Appendix A and B) and participated in filling out two on-line questionnaires. The second questionnaire asked for feedback on the draft strategies and 30-year Conservation Concept Map (see summary report in Appendix C). The SAP Working Group was instrumental in ranking threats, identifying potential strategies and actions, and identifying geographic priorities within the planning area. Additionally, many of the SAP Working Group members participated in sub-group meetings to develop results chains for high priority threat categories. Upon completion of the SAP, the SAP Working Group will remain in place to continue to provide technical feedback to the WVOPC as needed and SAP Working Group membership will be refreshed as needed to maintained a balanced technical and geographic representation.

Small group exercise during the April 2018 SAP Working Group meeting (photo: J. Krueger)

Partners

Interested parties representing Tribal, State, Federal, and local governments, non-profit organizations, and landowners have been identified and were kept up to date on the planning effort. Support and buy-in from the partners will be key to the successful implantation of the Strategic Action Plan. The WVOPC will continue to coordinate with partners as the SAP is implemented and partners will have the opportunity to participate in the governance of the Cooperative in the future.

Bumble bee on lupine (C. Kerst)

3 Partnership Structure and Roles

3.1 Mission of the Willamette Valley Oak and Prairie Cooperative

The Willamette Valley Oak and Prairie Cooperative is an emerging partnership with a long-term vision to conserve and maintain prairie and oak habitats within the Willamette Valley ecoregion through a regionally-focused, collaborative, and sustainable program. As defined by the Steering Committee and included as the guiding purpose of the partnership in the WVOPC Operations Manual and Memorandum of Understanding, the mission of the Willamette Valley Oak and Prairie Cooperative is stated below:

Willamette Valley Oak and Prairie Cooperative Mission

To protect, restore, and maintain a functional, resilient network of oak and prairie habitats in the Willamette Valley through a coordinated and strategic approach that leverages resources, focuses on priority geographies and species, and produces substantial ecological returns

3.2 Overview of Cooperative Structure

The Willamette Valley Oak and Prairie Cooperative is a voluntary, collaborative network committed to protecting, restoring, and maintaining a resilient mosaic of oak and prairie habitats across the Willamette Valley. The Cooperative's mission is to protect, restore, and maintain a functional, resilient network of oak and prairie landscapes across the Willamette Valley through a coordinated, strategic, and collaborative approach. Participants work independently but in a coordinated and mutually supportive manner aligned with the Cooperative's mission, vision, and long-term Strategic Action Plan. The Cooperative operates through two levels of participation—Steering Committee and Partners—supported by a Coordinator who facilitates communication, convening, and administrative capacity.

3.3 Steering Committee

Composition and Formation

The Steering Committee is the Cooperative's primary decision-making body. Committee membership consists of agencies and organizations (not individuals) that meet the criteria outlined in the Declaration of Cooperation, including active engagement in oak and prairie conservation and participation in the Cooperative's organizational work.

The current Steering Committee is made up of:

- Organizations that served on the original Steering Committee responsible for developing the Strategic Action Plan;
- Long-standing core partners who maintained the Cooperative's momentum in the years following publication; and
- Entities that played central roles in re-establishing governance and drafting the Declaration of Cooperation.

This continuity ensures strong institutional memory, trusted relationships, and steady leadership while remaining open to the addition of new members through a formal vote.

Roles and Responsibilities

Steering Committee members commit to:

- Upholding the Cooperative's guiding principles and Strategic Action Plan;
- Participating actively in planning, implementation, and annual work planning;
- Supporting sustained collaborative capacity;
- Sharing expertise and coordinating resources across the Willamette Valley;
- Providing timely feedback on documents and proposals; and
- Contributing to meeting logistics and Cooperative operations as able.

Decision-Making

The Steering Committee strives for consensus-based decision-making, defined as support from the whole group such that all members can "live with the decision." If consensus cannot be reached, the Committee may pause to allow additional discussion or may proceed with a supermajority vote if timely action is needed.

Decisions requiring Steering Committee approval include:

- Revisions to the Strategic Action Plan;
- Annual work planning and Cooperative direction-setting;
- Adding or removing Steering Committee members;
- Letters of support or funding allocations made in the Cooperative's name;
- Representation of the Cooperative to outside audiences;
- Applications submitted on behalf of the Cooperative (e.g., OWEB FIP proposals); and
- Hiring or appointing a Coordinator or contractors.

Each Steering Committee entity has one vote. A quorum is 50% + 1 of Committee entities, and a supermajority is two-thirds of those present (meeting quorum). Steering Committee deliberations are open to all partners, though only Committee entities vote. Meeting outcomes and minority opinions are transparently documented.

3.4 Partners

Partners include private landowners; Tribes; federal, state, and local agencies; conservation organizations; researchers; funders; and other individuals or entities that support oak and prairie landscapes. Partners play essential roles by:

- Providing technical, scientific, cultural, or planning expertise;
- Implementing restoration and conservation actions on the ground;
- Participating in meetings, field tours, and working groups as capacity allows;
- Sharing data, lessons learned, and emerging opportunities; and
- Helping build community awareness and relationships across the region.

Partners do not hold voting authority, but their input is fundamental to the Cooperative's success. Steering Committee processes are designed to ensure broad partner engagement, transparency, and meaningful opportunities to shape priorities and inform decisions.

Partners can nominate themselves or others to serve on the WVOPC Steering Committee at annual meetings.

The Cooperative recognizes that partners contribute at different levels depending on their roles, mandates, and capacity. Some core partners bring substantial staff time, expertise, and resources, and play central roles in planning, implementing, monitoring, adaptively managing, and communicating progress across the landscape. Other partners participate in more focused or supportive ways—such as providing technical or cultural expertise, scientific input, permitting or regulatory guidance, or insights related to specific geographic or thematic needs. Both levels of engagement are essential to the strength and success of the Cooperative.

3.4.1 Working Groups

The Cooperative may convene Working Groups to advance specific tasks, technical needs, or short-term priorities identified by partners or the Steering Committee. Working Groups are voluntary and temporary, bringing together partners with relevant expertise or interest to complete clearly defined deliverables such as developing guidance, drafting proposals, refining monitoring approaches, or coordinating implementation details. Working Groups operate in an advisory capacity, producing recommendations or work products for Steering Committee consideration. Once their task is complete, they are dissolved.

4.4.2 SAP Working Group

The SAP Working Group was a temporary team formed to lead the development of the original *Willamette Valley Oak and Prairie Cooperative Strategic Action Plan* (2020). This group included representatives from the core partner organizations that initiated the Cooperative, provided ecological and cultural expertise, and contributed substantial capacity to the planning process. The SAP Working Group coordinated data compilation, identification of priority geographies, development of strategies, and partner engagement that shaped the final plan. Although the group has since concluded its work, its contributions provide essential foundation and continuity for the Cooperative's ongoing landscape-scale efforts

3.5 Coordinator

The Coordinator serves as a neutral convener and capacity provider for the Cooperative. The Coordinator's responsibilities include:

- Facilitating Steering Committee and partnership-wide meetings;
- Supporting agenda development, documentation, and communication;
- Maintaining regular information flow among partners;
- Tracking progress toward Strategic Action Plan goals;
- Supporting grant development and administrative needs; and
- Helping ensure transparency and accessibility across the Cooperative.

The Coordinator does not make decisions on behalf of the Cooperative but instead supports the structures, processes, and relationships that allow partners to participate fully.

3.6 Ensuring Inclusive and Transparent Participation

A core value of the Cooperative is that everyone engaged in oak and prairie conservation has opportunities to contribute their knowledge, perspectives, and priorities. To uphold this value, the Cooperative will:

- Keep Steering Committee meetings open to all partners;
- Make decision-making processes explicit, documented, and easily understood;
- Provide space in meetings for partner perspectives and questions;
- Convene working groups and subregional clusters to deepen engagement; and
- Respect and uphold Tribal sovereignty, including data sovereignty and culturally important information.
- Hold a minimum of one cooperative-wide convening annually to ensure good communication about cooperative activities and provide space for learning, information sharing, and relationship building for all partners

These practices foster shared ownership, trust, and collaborative action across diverse organizations, communities, and sovereign Tribal Nations.

4 Geographic Scope and Timeline

Indian Head in Linn County (J. Krueger)

4.1 Geographic Scope

Primary Planning Area
The Primary Planning Area addressed by this Strategic Action Plan includes all lands within the Willamette Valley ecoregion, minus the Portland metropolitan area, which is currently being addressed in a parallel planning effort (See Figure 4-1: Planning Area Map). In total, the area encompasses approximately 2.4 million acres and is bound by the conifer forest-dominated lands of the Coast Range to the west and Cascade Range to the east. The majority of the Primary Planning Area is in private ownership and less than 4% of the land area (approximately 94,000 acres) is currently managed by public or non-profit organizations for habitat conservation purposes or is otherwise in a permanent conservation status (see Figure 7-5: Ownership Table). Agricultural and urban uses dominate the valley and portions of 8 counties and 35 incorporated cities lie within the Primary Planning Area.

Climate Change Resiliency Area
An expanded planning area has also been established to account for possible future shifting of habitat conditions due to the effects of climate change. This Climate Change Resiliency Area extends approximately ten miles beyond the Willamette Valley ecoregional boundary. Based on available vegetation data, this buffer area captures much of the inventoried oak-prairie in the adjacent ecoregions across a variety of elevations. The oak and prairie habitats within this area tend to be found on dryer south facing slopes and rocky outcrops. Habitat patches tend to be relatively small and isolated compared to the conditions in the Primary Planning Area. Public lands, primarily U.S. Bureau of Land Management- and the U.S. Forest Service-owned, make up approximately half of the 2.2 million acres contained within the Climate Change Resiliency Area.

Existing Conserved Oak and Prairie Anchor Sites
The identification of existing conservation lands in the Willamette Valley that currently contains significant areas of oak and prairie habitat was an important task of the strategic action planning process. Referred to as “Anchor Sites”, these conserved oak and prairie habitats form the foundation, or starting point, for future conservation efforts that can be built upon in the future.

Using the professional knowledge and available spatial data, the WVOPC Steering Committee and select members of the Working Group went through a process of defining and identifying known Anchor Sites. Lands that met the following criteria were designated as Anchor Sites:

- Must have permanent conservation status (public land or private lands with conservation easement);

- Must be contained within the Willamette Valley ecoregional boundary;
- Must contain a significant component of oak or prairie habitat (based on available spatial data and professional knowledge); and
- Must be 100 acres or larger with some exceptions for smaller sites that were also included due to the known presence of outstanding habitat.

Anchor Sites were identified by Steering Committee members based on professional knowledge of the valley and review of available spatial data. Following the nomination process, planning intern Alejandro Brambila from the University of Oregon created a spatial data set and compiled attributes for each site. It is important to note that considerably more oak and prairie habitat exists in the Willamette Valley, but is either contained on privately owned land or within conserved land in smaller patches. A total of 76 Anchor Sites were mapped as of 2020, covering a total of 44,390 acres (see Figure 4-1: Planning Area Map).

In 2025, the WVOPC Steering Committee solicited new Anchor Sites from the Full Membership to update the database with newly conserved properties over the past five years, and to add exceptional sites that were not previously considered. During this solicitation, the Steering Committee considered Anchor Site nominations with flexibility applied to the criteria described above. This solicitation resulted in 17 new Anchor Sites for an additional 5,550 acres. An updated Planning Area Map with the new Anchor Sites has been added as an Appendix to this SAP. Note that in the updated Planning Area Map, private property (conservation easement) sites are now symbolized with points rather than polygons to preserve landowner privacy.

The conservation vision contained within this Strategic Action Plan (see Section 5) describes a future network of large blocks of conserved oak and prairie habitat, connected through a series of habitat corridors. To achieve this vision, Anchor Sites will be managed and enhanced for oak and prairie habitat and where possible, expanded in size to create viable habitat conditions able to support a diverse and sustainable assemblage of oak and prairie dependent plant and animal species.

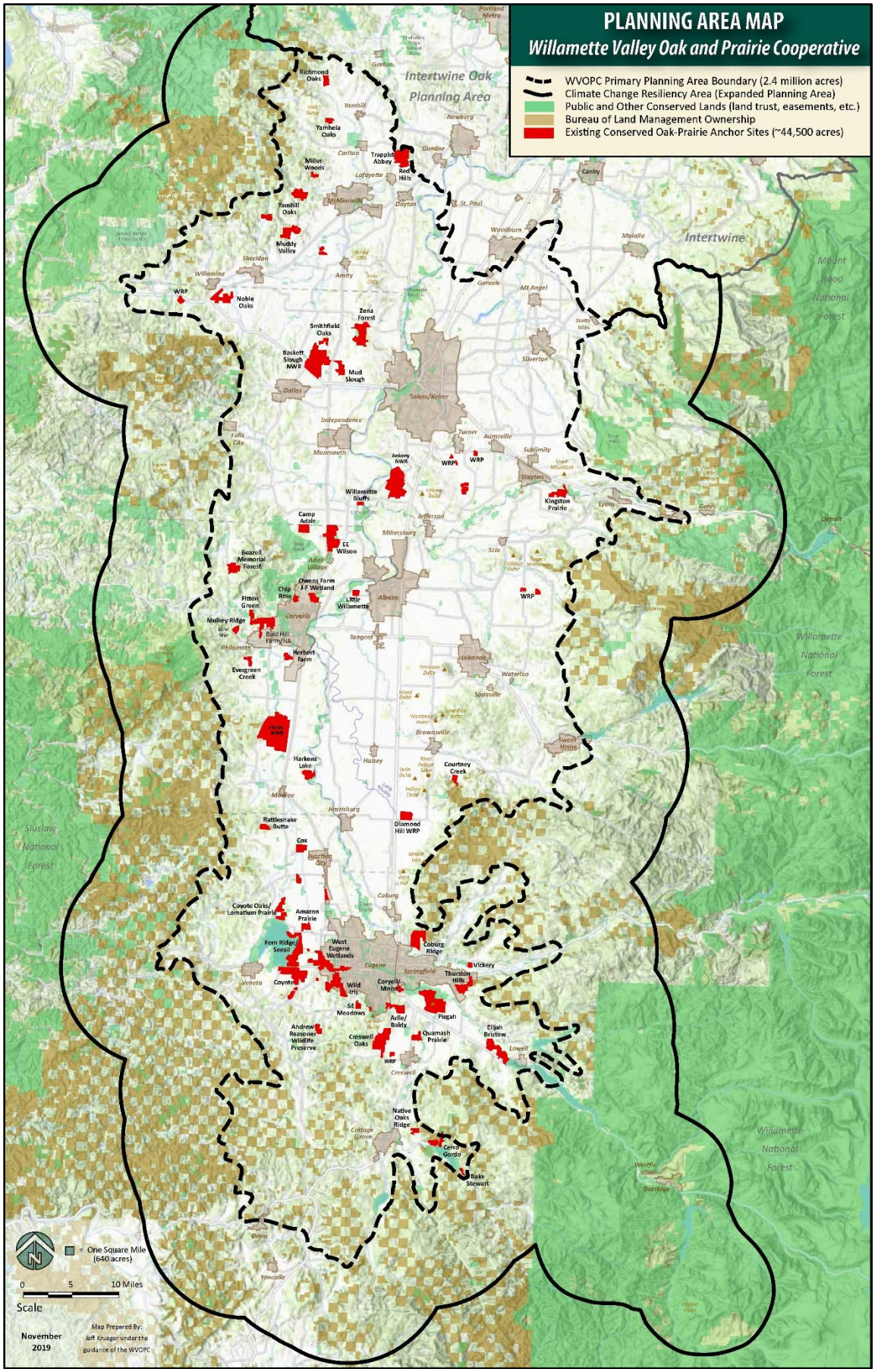
4.2 Timeline

This Strategic Action Plan provides a 30-year landscape-scale vision (2020-2050) for oak and prairie habitat conservation and management with more specific strategies and actions prioritized for short-term implementation:

- Short-term (6 years), covering the first three State biennium
- Medium-term (12 years), covering the second three State biennium
- Long-term (30 years), covering the full extent of the Strategic Action Plan vision

Figure 4-1: Planning Area Map

[Click map to see a higher resolution PDF]



Buford Recreation Area (E. Alverson)

Working Group site visit at Bald Hill Farm (J. Krueger)

5 Willamette Valley Oak and Prairie Vision

5.1 Consensus 30-Year Vision for Oak and Prairie in the Willamette Valley

At the onset of the strategic action planning process, the SAP Working Group and Steering Committee members were asked to articulate their ideal future Willamette Valley oak and prairie system using the following prompt:

Responses were limited to 150 words or less and were submitted via an on-line survey form. The verbatim (word for word) responses to this visioning scenario are included verbatim in Appendix A. The following ten vision elements were derived from common themes that were articulated by the SAP Working Group and Steering Committee members during this visioning exercise:

Visioning Scenario

Imagine you're able to time travel to 30 years into the future. When you arrive, you spend several days touring the Willamette Valley (perhaps by flying car) and are overcome by the quality and extent of the oak and prairie habitats you are seeing. You also spend a day with members of the Willamette Valley Oak and Prairie Cooperative, and they explain to you how this on-the-ground success was achieved. Please describe this ideal future Willamette Valley oak and prairie system you are seeing and the mechanisms that were used to achieve this success. Please try to be visionary and as concise as possible in your description.

Aspirational Vision Elements

1. Oak and prairie-dependent species are stable and thriving.
2. The largest and highest quality oak-prairie remnants have been permanently preserved through acquisition and easements.
3. New habitats are being restored.
4. A web of interconnected oak and prairie corridors stretch across the valley, providing connectivity between large conservation areas.
5. Urban growth is contained and oak and prairie habitat is integrated into newly developing areas.
6. Fire has returned to the landscape.
7. Oak and prairie habitats are expertly managed on both private and public lands.
8. Public understanding, enjoyment, and support for oak and prairie habitats has blossomed.
9. Partnership and collaboration are thriving.
10. Stable and abundant funding and favorable policies are achieved.

5.2 Development and Purpose of the 30-Year Conservation Concept Map

5.2.1 Purpose and Use of the Map

The WVOPC Conservation Concept Map is intended to provide a high-level spatial framework for future oak and prairie conservation and restoration efforts in the planning area (primary planning area plus the lands included within the climate change resiliency area. The concept displayed on the map highlights broad areas of interest and opportunity for oak and prairie conservation efforts based on available data and SAP Working Group input. The map will be used to:

- Identify high priority conservation target areas and habitat corridors;
- Guide partners on where to focus/invest limited resources in oak and prairie restoration;
- Serve as a communication tool for partners, landowners, and elected officials;
- Show how individual projects and conservation efforts fit into the big picture; and
- Support efforts to obtain funding.

The map is not intended to be property-specific at this time and undoubtedly, conservation and restoration opportunities exist beyond those areas depicted on the map. Implementation of the concept depicted on the map will be reliant on voluntary participation by landowners and partners. Specific properties to be targeted for specific conservation and habitat management actions will be determined over time based on partnership input, interest of landowners, availability of funds, and additional analysis.

5.2.2 Development of the 30-Year Conservation Concept

On November 15, 2018, a total of 38 SAP Working Group and Steering Committee members met and participated in a half-day work session to help develop the 30-year Conservation Concept Map for the planning area. This interactive work session used a design charrette process where participants were asked to complete a mapping exercise to identify high priority oak and prairie geographies. A charrette process is an interactive and collaborative work-session in which a diverse group of participants develops a solution to a design problem within a defined period of time. The SAP Working Group and Steering Committee members split into six teams to complete the small group design charrette process with the goal of developing a Conservation Concept Map using the following prompt (next page):

Small group exercise during the 2018 charrette (photo: J. Krueger)

Charrette Assignment
We have assembled the best and brightest conservation minds in the Willamette Valley to work together to develop a 30-year Conservation Concept Map for oak and prairie habitats within WVOPC planning area. This map will be based on your group's assessment of the available conservation data, evaluation of threats and opportunities, and your personal on-the-ground knowledge of the planning area. Your team has approximately two hours to produce a proposed Conservation Concept Map that you will present to the larger group.

Each team worked for two and a half hours to complete the exercise and presented their results to the larger group. A set of thematic maps including data such as existing oak-prairie vegetation, ODFW Conservation Opportunity Areas (COAs), USFWS Priority Conservation Areas (PCA), The Nature Conservancy's Key Oak Parcels data, Oak-Prairie Anchor Sites (derived by WVOPC Steering Committee), conserved lands, and tax lots were provided to each team to help guide their decision-making process.

After identifying high priority conservation areas and key connections, team members were each given ten sticker dots (symbolizing money) and asked to place them on what they thought were the highest priority areas. At the end of the work session, each team presented their vision map. Each of the six map products developed by the teams are included in Appendix B.

These six maps were the basis for the 30-Year Conservation Concept Map (see Figure 5-1) developed by the Steering Committee and Contractors. Following the SAP Working Group meeting, the six maps were carefully reviewed by the Contractors and Steering Committee members and common themes were noted and synthesized into a single 30-Year Conservation Concept Map. The polygons showing on the map were refined based on close inspection of underlying thematic map data and aerial photo interpretation. As noted, the map is intended to provide a high-level/big picture framework for future oak and prairie conservation and restoration efforts in the planning area over the next 30 years. The concept depicted on the map highlights broad areas of interest and opportunity based on available data and SAP Working Group input and is not intended to be property specific.

Presentation of small group work (photo: J. Krueger)

5.3 Conservation Concept Overview and Map Key

5.3.1 Conservation Concept Overview

The 30-year concept for protecting, restoring, and maintaining a functional, resilient network of oak and prairie habitats in the Willamette Valley includes:

- Establishing several large core conservation areas of sufficient size to support viable populations of a variety of oak and prairie species over the long term. Conservation actions within these high priority areas would include land acquisition and establishment of permanent easements to build on existing, and establish new, Anchor Sites (see definition below). This would be done in combination with increased restoration and management support for habitats on private lands located within these core areas including oak release, habitat restoration, increased ecological burning, and implementation of habitat-friendly best management practices (BMPs) on agricultural lands.
- Creating a network of opportunity-based conservation areas that provides connectivity between core areas. Efforts in these areas would rely primarily on habitat management and restoration actions implemented on private lands where opportunities exist. Future land acquisition could be focused in these areas in the future with the goal of establishing new and emerging Anchor Sites.
- Creating corridors and stepping-stones of managed habitat to provide opportunities for species to move across the agricultural landscape on the Valley floor and up into the higher-elevation oak-prairie habitat patches.

5.3.2 Map Key

Definitions of the themes depicted on the 30-Year Conservation Concept Map are listed below:

WVOPC Primary Planning Area Boundary
The Primary Planning Area includes the land contained within the Willamette Valley Ecoregion of Oregon. It excludes the Portland Metropolitan area which is covered by a separate oak-prairie SAP. Totaling 2.4 million acres, the planning area is bounded by the conifer forest-dominated lands of the Coast Range to the west and Cascade Range to the east.

Climate Change Resiliency Area
An expanded planning area has been established to account for possible future shifting of habitat conditions due to the effects of climate change. The defined area extends approximately ten miles beyond the Willamette Valley ecoregional boundary. Based on available vegetation data, this buffer area captures much of the inventoried oak-prairie in the adjacent ecoregions across a variety of elevations.

Public and Other Conserved Lands
These lands include a mix of Federal, Tribal, State, county, and local government-owned lands and other non-profit properties (land trust ownership, conservation easements, etc.). Although managed for a variety of purposes, all of these lands are off-limits to urban or rural development.

Bureau of Land Management Ownership
Also off-limits to development, the U.S. Bureau of Land Management (BLM) -owned lands are dominated by conifer forest and are predominantly managed for timber harvest, although special habitats, including numerous oak and prairie sites, have been inventoried and often receive special management considerations.

BLM/USFS Inventoried Oak-Prairie Sites
These include oak and prairie vegetation communities that have been inventoried and mapped on U.S. Bureau of Land Management and U.S. Forest Service lands. Many of these sites are located within higher elevation areas and could provide an important climate resiliency function in the future.

Existing Conserved Oak-Prairie Anchor Sites
Anchor Sites are defined as relatively large parcels of permanently conserved lands that contain a significant component of oak or prairie habitat. Anchor Sites were identified by Steering Committee members based on professional knowledge and review of available spatial data. Anchors range in size from 50 to over 1,000 acres and cover a total land area of 44,390 acres combined. A total of 76 Anchor Sites have been identified.

Proposed Focus Areas (30-Year Vision)

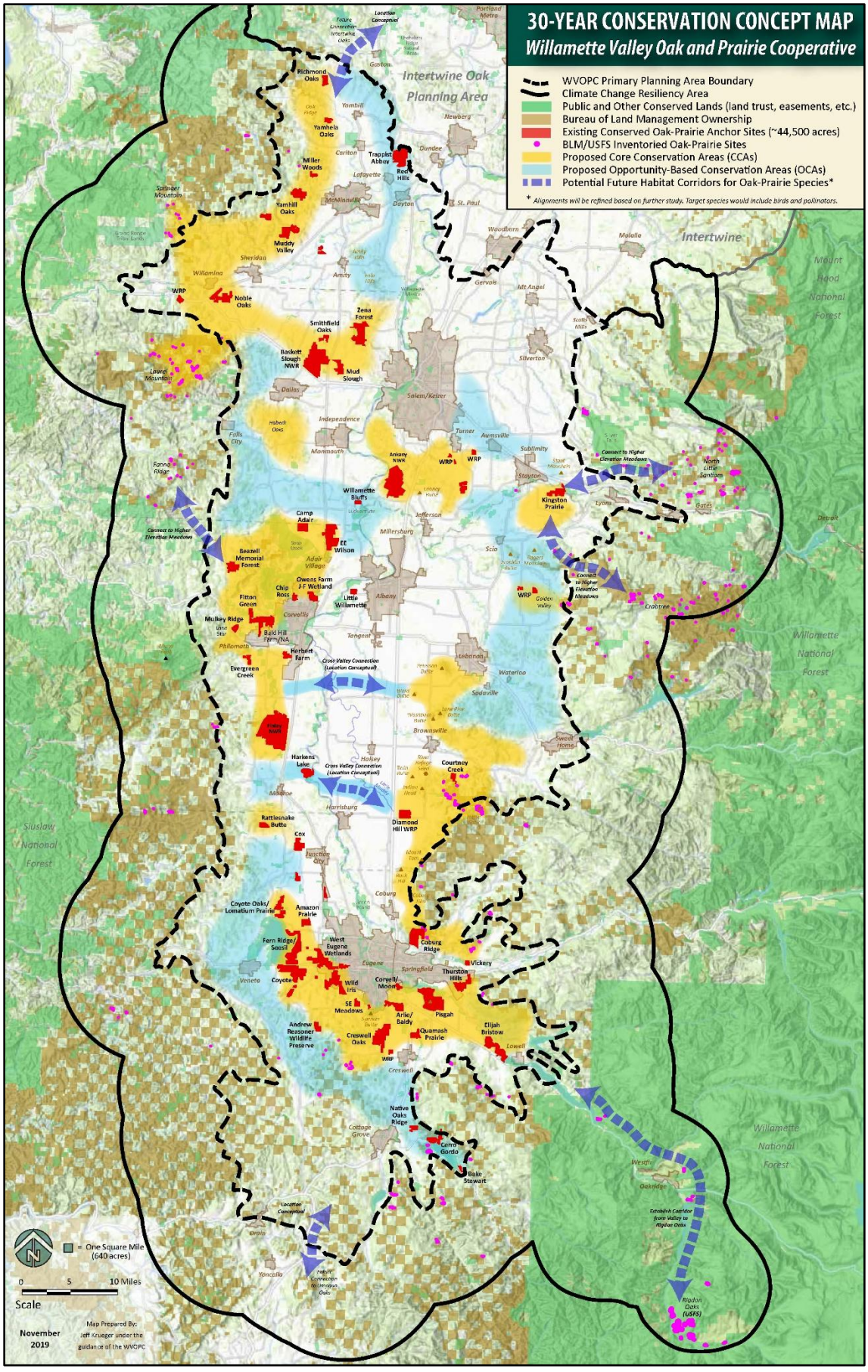
Proposed Core Conservation Areas (CCAs)
Core Conservation Areas (CCAs) are the highest priority geographies for immediate and focused investment for habitat acquisition, increased management, and restoration. The areas shown were selected based on their proximity to existing Anchor Sites; known concentrations of particularly high-quality oak and prairie habitat on larger parcels; or because areas of high-value oak or prairie habitat are under a high level of threat (e.g., agricultural conversion, urban development, incompatible management). Focusing future conservation and restoration efforts within these CCAs will support the Strategic Action Plan goal of conserving blocks of high-value oak and prairie habitat of adequate size to support viable populations of oak and prairie species over the long term. The CCAs shown are not intended to be property specific and their exact extent will be based on further analysis and landowner outreach.

Proposed Opportunity-Based Conservation Areas (OCAs)
These areas contain dispersed oak and prairie habitats and have been identified by the SAP Working Group as being critical areas for providing connectivity between CCAs. Efforts to integrate oak-prairie ecosystem functions within farm, forest, and urban lands will be a focus in these areas. Strategies that help improve management and restore habitats on private lands would be the primary focus (e.g., Oak Accord, watershed council assistance, Natural Resource Conservation Service Wetland Reserve Program and Conservation Reserve Program, etc.), as relationships with landowners are established. Long-term land acquisition goals in these areas would focus on aligning with local restoration and management efforts and would be designed to build new Anchor Sites where high-quality conservation opportunities are developed.

Potential Future Habitat Corridors for Oak-Prairie Species
These areas been identified as potentially important corridors for movement of oak and prairie dependent species. These corridors would either provide cross-valley connectivity or provide connectivity between CCAs and the higher-elevation oak-prairie patches located within the Climate Change Resiliency Area. Managing for oak and prairie habitats within these corridors could include oak release projects, thinning, integration of nectar producing forbs for pollinators in agricultural areas, and restoration of “stepping-stones” of oak and prairie habitat.

Figure 5-1: 30-Year Conservation Concept Map

Click map to see a higher resolution PDF



6 Ecological Priorities and Goals

Post-burn West Eugene Wetlands (P. Gordon)

6.1 Ecological Priorities

6.1.1 Priority Habitats

The ecological priorities of this Strategic Action Plan are the historically fire-dependent ecosystems of the Willamette Valley that include a spectrum of oak and prairie habitats. These habitats can be classified based on canopy cover and soil conditions:

- Oak forest (71-100% canopy)
- Oak woodland (31-70% canopy)
- Mixed forest/woodland with an oak component (31-100% canopy)
- Oak savanna (6-30% canopy)
- Upland prairie (0-5% canopy with upland soils)
- Wet prairie (0-5% canopy with hydric soils)

Oak woodland at Bald Hill Farm (J. Krueger)

Oak savanna at Finley NWR (E. Alverson)

Upland prairie at Kingston Prairie (M. Benotsch)

Wetland prairie at Coyote Prairie (J. Krueger)

Why are Oak and Prairie habitats important to the State of Oregon?

In a national assessment, oak and associated prairie and chaparral habitats were found to be one of the most endangered ecosystems in the U.S. due to land conversions and altered fire regimes. Yet, these habitats are home to numerous bird, terrestrial, and plant species addressed in the Oregon Conservation Strategy. Maintaining the connectivity of oaks and their associated prairie and chaparral habitats is crucial to support species utilization of greater habitat range, but also to facilitating the gradual movement of species to the north from California in response to climate change. Many species dependent on oak habitats may be considered for ESA-listing in the future; thus, an increase in habitat connectivity, complexity and acreage will benefit these vulnerable species. In addition, these habitat types are iconic and culturally important to the Native American tribes.

– Oregon Watershed Enhancement Board, 2018

Oak woodland at Buford Recreation Area (E. Alverson)

6.1.2 Priority Species

The Oregon Conservation Strategy (ODFW 2016) lists the following oak and grassland (prairie and savanna) dependent species as high priority for conservation and recovery efforts in the Willamette Valley ecoregion (see Figure 6-1).

Figure 6-1: Priority Wildlife and Plant Species

Common Name	Scientific Name	State Status	Federal Status
Wildlife			
Acorn Woodpecker	*Melanerpes formicivorus*	Sensitive	Species of Concern
Chipping Sparrow	*Spizella passerina*	Sensitive	
Fender's Blue Butterfly	*Icaricia icarioides fenderi*		Endangered
Grasshopper Sparrow	*Ammodramus savannarum perpallidus*	Sensitive	
Great Spangled Fritillary	*Speyeria cybele*		
Monarch Butterfly	*Danaus plexippus*		
Oregon Vesper Sparrow	*Pooecetes gramineus affinis*	Sensitive	Species of Concern
Short-Eared Owl	*Asio flammeus*	Sensitive	
Streaked Horned Lark	*Eremophila alpestris strigata*	Sensitive	Threatened
Taylor's Checkerspot Butterfly	*Euphydryas editha taylori*		Endangered
Western Bluebird	*Sialia mexicana*	Sensitive	
Western Gray Squirrel	*Sciurus griseus*	Sensitive	
Western Meadowlark	*Sturnella neglecta*	Sensitive	
White-breasted Nuthatch	*Sitta carolinensis aculeata*	Sensitive	
Plants			
Bradshaw's Desert Parsley	*Lomatium bradshawii*	Endangered	Endangered
Golden Paintbrush	*Castilleja levisecta*	Endangered	Threatened
Kincaid's Lupine	*Lupinus oreganus*	Threatened	Threatened
Nelson's Checkermallow	*Sidalcea nelsoniana*	Threatened	Threatened
Peacock Larkspur	*Delphinium pavonaceum*	Endangered	Species of Concern
Wayside Aster	*Eucephalus vialis*	Threatened	Species of Concern
White Rock Larkspur	*Delphinium leucophaeum*	Endangered	Species of Concern
White-topped Aster	*Sericocarpus rigidus*	Threatened	Species of Concern
Willamette Daisy	*Erigeron decumbens*	Endangered	Endangered

Acorn Woodpecker (C. Kerst)

Willamette Daisy (G.D. Carr, Oregon Flora Project)

6.2 Conservation Goals

The following conservation goals have been developed to address conservation needs and threats (see Section 7).

Goal 1: Increase Conservation and Connectivity
Establish multiple core oak-prairie conservation Anchor Sites of adequate size and quality to support viable populations of oak-prairie species over the long term and establish a network of managed habitat corridors to connect these areas.

Goal 2: Increase Habitat Management
Maintain and improve the quality of oak and prairie habitat for priority species through increased active management and restoration efforts using science-based best management practices, traditional ecological knowledge and practices, and innovative approaches.

Goal 3: Limit Impacts of Urban and Rural Development
Limit future impacts of urban and rural development through implementation of more ecologically friendly development regulations and policy, preservation of high-value habitats where threatened, and technical assistance to landowners and developers.

Goal 4: Decrease Woody Encroachment and Habitat Management
Manage existing and future restored oak and prairie habitats to control woody vegetation, release oaks, and enhance native understory on conserved and private lands.

Goal 5: Decrease Agricultural Conversion and Increase Compatible Management
Work with landowners to limit agricultural conversion, implement habitat management best management practices specific to oak and prairie habitat on agricultural lands, and conserve key habitats.

Goal 6: Limit Non-Native Invasive Species Invasions
Limit or eradicate invasive species invasion using improved tools and information for land managers, increase Early Detection Rapid Response (EDRR) resources, increase weed management capacity, and increase supply of affordable native plant materials. Support existing networks to share information on impactful species and methods of control.

Goal 7: Decrease Fire Exclusion
Increase the scale and frequency of ecological burning by increasing burn capacity and training, increasing and stabilizing funding, strengthening tribal partnerships, and implementing coordinated planning.

Goal 8: Increase Knowledge and Understanding
Compile, develop, and distribute the best available research, guidance (including Traditional Ecological Knowledge), and spatial data to support improvement of conservation and stewardship activities across the Willamette Valley and track future progress of activities such as land acquisition, establishment of conservation easements, and major on-the-ground habitat management (e.g., fire and thinning) and restoration projects.

Goal 9: Increase Partnership and Collaboration
Form and operate the WVOPC as a coordinating body of key oak and prairie interests including non-profits, private landowners, Tribes, and local, State, and Federal governments that oversees the implementation of the Strategic Action Plan vision, promotes collaboration, secures funding, and tracks accomplishments.

Goal 10: Increase Community Capacity to Support Healthy Ecosystems and Promote Environmental Justice
Promote community awareness of the cultural, economic, and ecological importance of oak and prairie habitat, engage and involve underrepresented populations and perspectives, and build broad support for expanded conservation and restoration efforts that includes meaningful participation by a broad and inclusive coalition of interests diverse in race, ethnicity, gender, and ability.

Ward Butte in Linn County (J. Krueger)

7 Conservation Context

7.1 Geographic Setting

Bordered by the vast expanses of Pacific Northwest conifer forest, a network of inland oak and prairie habitat extends from southern British Columbia to northern California. A central component of this network, and the focus of this Strategic Action Plan, is the Willamette Valley ecoregion of Oregon. The defined planning area includes the entire ecoregion, minus the area in and around Portland which was addressed by a parallel strategic action planning effort. In total, the core planning area covers 2.4 million-acre (3,750-square mile) and is approximately 120 miles long (north-south) and 40 miles wide (east-west), bound by the Coast Range to the west and Cascade Range to the east.

7.2 Historical Context

7.2.1 Native American Influences and Cultural Significance

Humans have lived in the Willamette Valley for over 10,000 years and were known to have had significant influence on the Valley's vegetation patterns. Prior to Euro-American habitation, most native inhabitants in the Willamette Valley belonged to the Kalapuya Tribe, made up of numerous bands. The Kalapuyan people were known to have regularly set fires throughout the Willamette Valley, likely in an effort to manage the land to improve hunting, forage, and travel. These fires helped maintain the Valley's mosaic of open prairies and oak savannas that the early Euro-American explorers and settlers encountered.

Camas (photo: E. Alverson)

The Kalapuyans were known to have used grasslands (prairie and savanna) and oak dominated areas intensively for food production and utilized at least 50 species of plants (Christy et al. 2011). Important food plants included bulbs of camas (*Camassia* spp), brodiaea (*Brodiaea* spp.), and checker lily (*Fritillaria affinis*); acorns from Oregon white oak (*Quercus garryana*) and California black oak (*Quercus kelloggi*); roots of biscuitroot (*Lomatium* spp.) and

yampah (*Perideridia* spp.); and seeds of tarweed (*Madia* spp.) and balsamroot (*Balsamorhiza* spp.). Evidence of these food production practices can be found in the form of camas oven remnants located throughout the Willamette Valley. The oldest archeological evidence of camas ovens and charred bulbs in the Willamette Valley date back 7,750 years. Several ovens excavated near Eugene measure six feet in diameter and contain the remains of cooked camas and baking stones (Sultany et al. 2007).

With increased pressure from settlers to control fire and the devastating decline of the Kalapuyans due to introduced diseases and forced removal from their traditional lands, the practice of large-scale burning had largely ended by the late 1840s. In the wake of this cultural suppression, these traditional ways of knowing and the habitats supported by them continue to be threatened by a variety of prevailing societal, political, and environmental limitations. These include human impacts, varying land stewardship and control patterns, intergenerational poverty, historical trauma, public misconceptions regarding Tribal Sovereignty, dismissive attitudes toward treaty rights, legal challenges, and changing climate patterns.

7.2.2 Historical Vegetation Patterns

Accounts from early explorers and settlers to the Willamette Valley indicate that, prior to Euro-American settlement in the mid-1800s, large expanses of grassland and oak dominated habitats covered the valley floor, forming a complex mosaic of upland and wet prairie, oak savanna, and oak woodland mixed with broad bands of riparian forest lining major rivers (see Figure 7-1: Historical and Current Extent of Oak and Prairie Habitats within the Planning Area and Figure 7-3: Historical Extent of Oak-Prairie Vegetation Map). In general, open prairie occupied a central position within the valley bottom surrounded by bands of savanna and woodland, transitioning to conifer forest on the valley fringes and on some north facing hillslopes. Based on information derived from the General Land Office (GLO) survey notes from the 1850s, it is estimated that 61 percent (1,461,469 acres) of the planning area was occupied by oak or prairie habitat at the time.

David Douglas Description of Willamette Valley Conditions in 1827

David Douglas was a Scottish botanist and explorer who visited the Willamette Valley in 1827. Selected journal entries from the exploration are listed below:

"Country undulating; soil rich, light, with beautiful solitary oaks and pines interspersed through it, and must have a fine effect, but being burned and not a single blade of grass except on the margins of rivulets to be seen. This obliged us to camp earlier than we would have otherwise done."

-Journal entry, September 27, 1827.

"Camped on the south side of the Yamhill River, a small stream about twenty-five yards wide; channel for the greater part mud and sand. Two hundred yards below where we forded are fine cascades 7 feet high. Country much the same as yesterday; fine rich soil; oaks more abundant, and pines scarcer and more diminutive in growth."

-Journal entry, September 28, 1827.

"Started at nine and continued our route in a southernly direction , on the opposite side of the hill from where we were yesterday. Most parts of the country burned; only on little patches in the valleys and on flats near the low hills that verdure [green vegetation] to be seen. Some of the Natives tell me it is done for the purpose of urging the deer to frequent certain parts to feed, which they leave unburned and of course are easily killed. Others say that it is done in order that they might better find honey and grasshoppers, which both serve as articles of winter food."

-Journal entry, September 30, 1827

7.3 Current Extent

As described earlier, the extent of oak and prairie habitat is greatly diminished in the valley and now covers significantly less than 10% of its historic range (see Figure 7-1). What remains is generally found in highly fragmented patches and in most cases is significantly impacted by invasive species and colonizing woody vegetation (see Figure 7-3).

It should be noted, that the total extent of oak woodland is shown to have increased slightly, likely due to the fact that denser patches of oak trees have now colonized areas that were formerly oak savanna or prairie.

Figure 7-1: Historical and Current Extent of Oak and Prairie Habitats within the Planning Area

Vegetation Community	*Historical Extent (acres)	**Estimated Current Extent (Acres)	Estimated Remaining % of Historical Extent
Oak Woodland	**45,229**	**59,178**	**131%**
Grasslands (combined)	**1,416,320**	**70,690**	**5%**
• Oak Savanna	475,329	16,635	**3%**
• Upland Prairie	641,569	19,278	**3%**
• Unmanaged Pasture	0	29,777	-
• Wetland Prairie	299,422	5,000	**2%**
Total Oak-Grasslands Combined	**1,461,549**	**129,868**	**9%**
Other (all non-oak or prairie)	930,023	2,261,704	**243%**
Total Planning Area (Acres)	**2,391,572**	**2,391,572**	-

**Based on General Land Office surveys of the 1850s*

***USFWS vegetation data (2017) derived from various sources. Wetland prairie is estimated from a subset of the 34,022 acres of mapped wetland.*

7.4 Biophysical Context

7.4.1 Ecoregional Context

The Willamette Valley ecoregion (Level III ecoregion of the conterminous United States) is bound by the West Cascade and Coast Range ecoregions and contains terraces and floodplains of the Willamette River system along with scattered hills, buttes, and adjacent lower-elevation foothills. Elevations within the Willamette Valley ecoregion are generally below 1,000 feet in elevation with the exception of some higher elevation foothill areas and isolated buttes. The "Climate Change Resiliency Area" potion of the planning area extends approximately ten miles into the West Cascade and Coast Range ecoregions and ranges in elevation from 1,000 feet to over 4,000 feet.

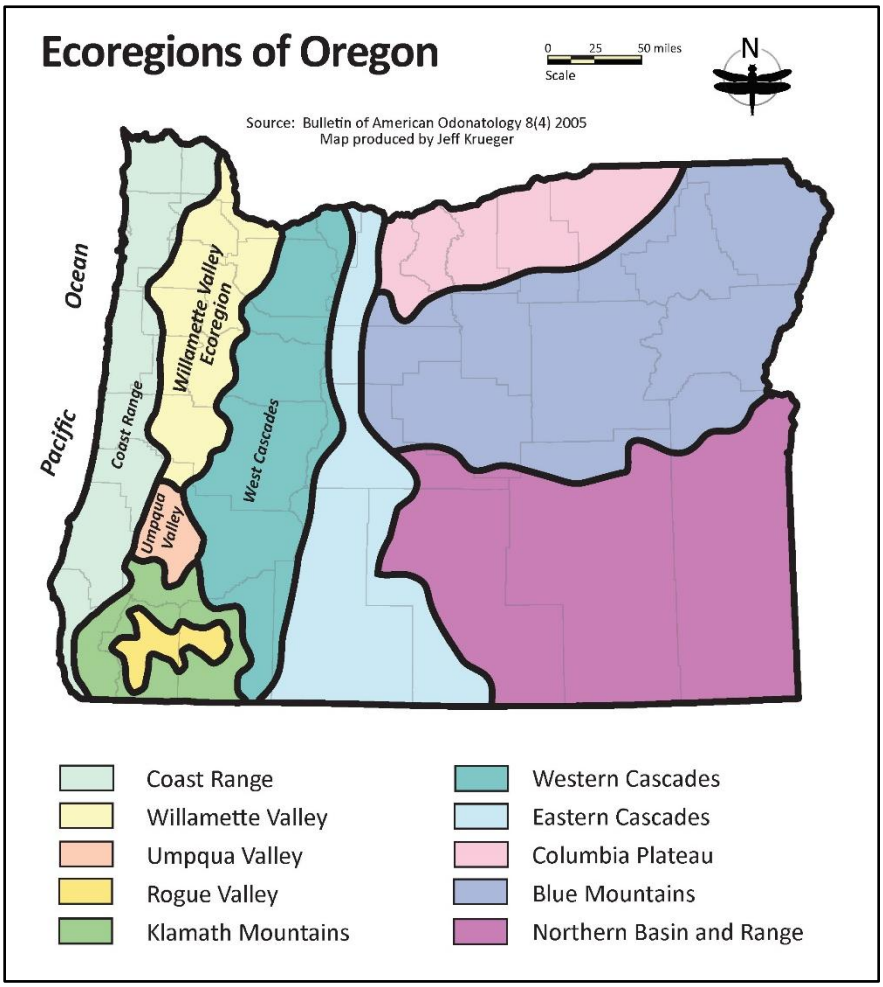
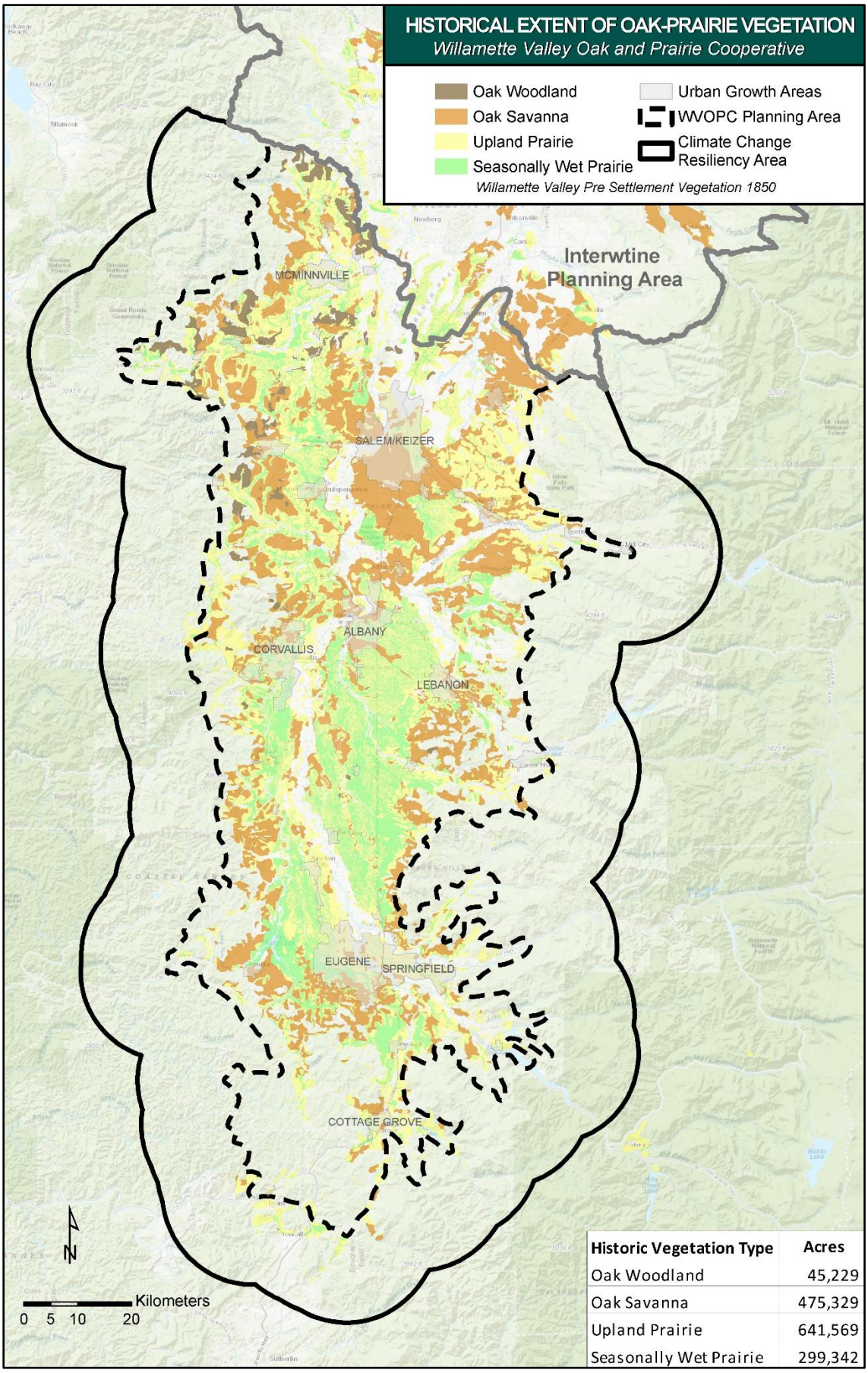


Figure 7-2: Ecoregions of Oregon Map

Figure 7-3: Historical Extent of Oak-Prairie Vegetation Map

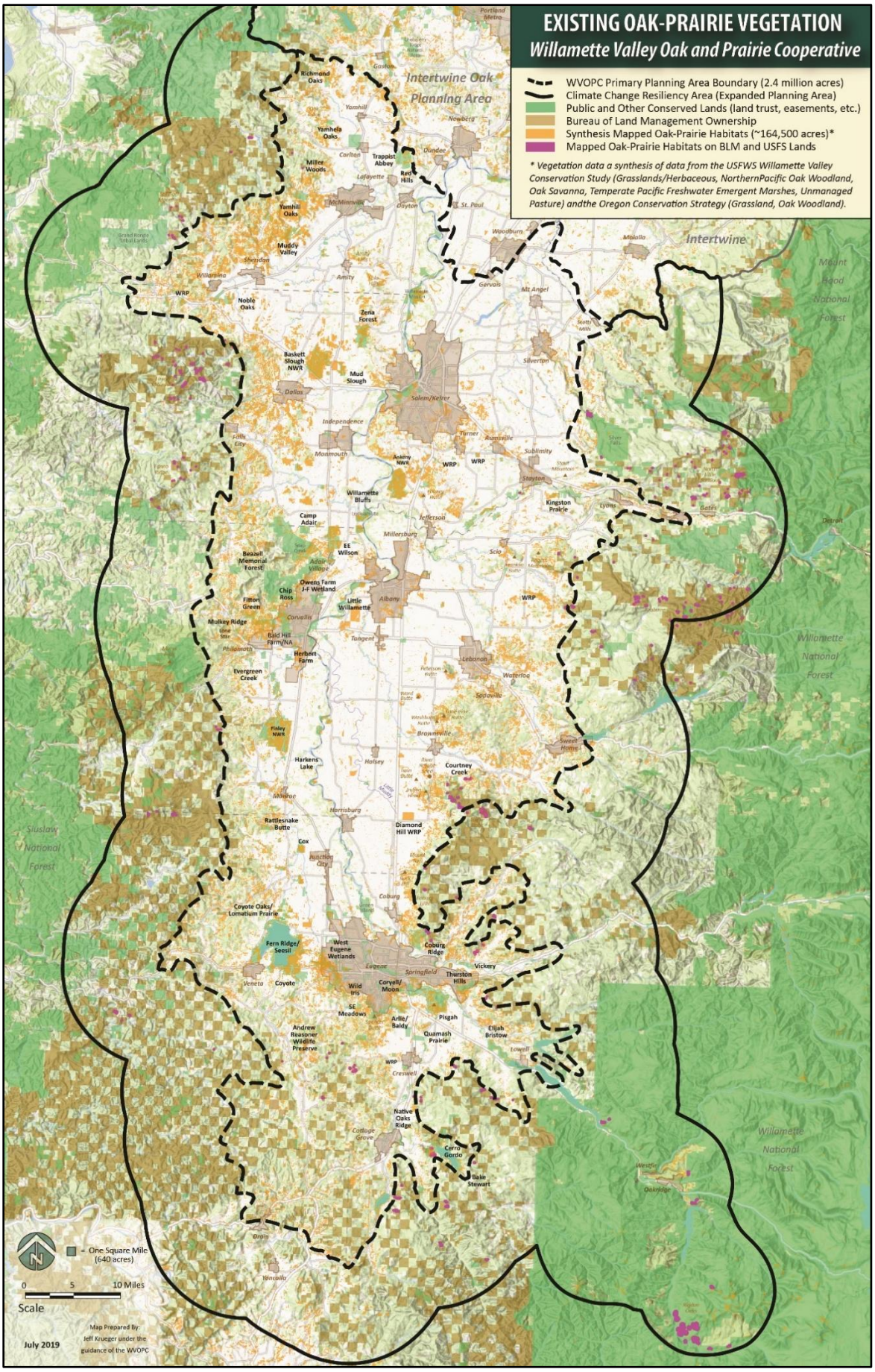
Click map to see a higher resolution PDF



Historic Vegetation Type	Acres
Oak Woodland	45,229
Oak Savanna	475,329
Upland Prairie	641,569
Seasonally Wet Prairie	299,342

Figure 7-4: Existing Synthesis Oak and Prairie Vegetation Map

Click map to see a higher resolution PDF



7.4.2 Terrestrial Ecosystems and Supported Species

Oak and prairie habitats of Willamette Valley are considered to be fire-dependent ecosystems that are well adapted to a frequent fire return interval. These habitats, once dominant in the valley, are inhabited by a diverse assemblage of plant and animal species that flourished for many thousands of years under this frequent cycle of disturbance. Prairie and oak habitats in the Willamette Valley/Puget/Georgia ecoregion support approximately 350 native plant species including grasses dominant throughout the year with seasonal displays of wildflowers (Alverson 2005).

Oak and prairie habitats are home to a diverse array of native wildlife species as well, with over 200 native prairie- and oak-dependent wildlife species found in the valley. Streaked horned lark, Western meadowlark, and short-eared owl nest exclusively in prairies. Acorn woodpeckers and western gray squirrels feed on acorns produced by oaks. Many birds such as the western bluebird forage for insects among lichens, mistletoe, and mosses growing on large oak limbs. Nuthatches, kestrels, northern pygmy-owls, and the California myotis bat all nest in cavities or under loose bark on oak trees. In just one spring and summer, a group of citizen scientists observed 40 species of birds in one large Oregon white oak tree in the West Eugene Wetlands. The Oregon Conservation Strategy (ODFW 2016) designates a total of 23 grassland and oak dependent plant and wildlife species as "Strategy Species". Strategy Species are of high conservation priority for the State and also include several Federally listed Threatened or Endangered species (see Section 6.1.2).

The Cycle and Diversity of the Willamette Valley Prairie

In April the floral display in the prairies and savannas swings into full gear, with yellow buttercups (*Ranunculus occidentalis*), pink shooting stars (*Dodecatheon hendersonii*), white saxifrage (*Saxifraga integrifolia*) and white Oregon fawn lilies (*Erythronium oregonum*) brightening the landscape. In May the prairies are often filled with sheets of purple camas lilies (*Camassia quamash)*, accentuated with larkspurs (*Delphinium* spp.), pink sea blush (*Plectritis congesta*), and yellow balsamroot (*Balsamorhiza deltoidea*). Peak diversity of flowering species is in late spring; a single square meter of high-quality prairie may support over 20 species of native plants. Increasing summer drought in July and August brings seed maturation and vegetative dormancy, along with the burn season, but a few composites (*Aster* spp*., Grindelia integrifolia*) and umbels (*Perideridia montana* and *P. oregana*) flower into late summer and fall.

-Ed Alverson, Preserving Prairies and Savannas in a Sea of Forest, 2005.

7.5 Social Context

7.5.1 Land Ownership and Uses

A total of 35 incorporated cities are located within the planning area with major cities including (from north to south) McMinnville, Dallas, Salem, Keizer, Stayton, Albany, Corvallis, Lebanon, Sweet Home, Brownsville, Eugene, Springfield, and Cottage Grove. Based on available spatial data, approximately 93 percent of the land within the Primary Planning Area is currently in private ownership (See Figure 7-5: Ownership Table).

Figure 7-5: Ownership Table

Ownership	Acres	Percent
Private	2,213,182	92.5%
Conserved and Managed for Conservation (public and non-profit)	94,415	4.0%
BLM O&C Timber Lands*	83,975	3.5%
Total:	**2,391,572**	**100.0%**

** Oregon and California Railroad Revested Lands*

Source: Various land ownership spatial data sets.

7.5.2 Key Partners

There is a long history of partners working together to coordinate and achieve shared habitat conservation and restoration goals in the Willamette Valley. Successful implementation of this Strategic Action Plan will rely heavily on continuing to grow and build upon the collaboration of a wide array of partners. In addition to Tribal, Federal, State, and local governmental organizations operating in the valley, key partners in this effort also include vineyard and small woodland owners, farmers, land trusts, watershed councils, extension services, and an array of non-profit organizations. The coordination of this diverse group of partners will be an essential function of the WVOPC.

7.6 Climate Impacts

Projected climate change is expected to significantly influence the structure and function of oak and prairie ecosystems within the Willamette Valley. Warmer temperatures, reduced summer precipitation, and more variable seasonal rainfall patterns will place increasing physiological stress on native vegetation. Prolonged summer droughts are likely to reduce overall ecosystem productivity and lead to higher rates of tree and native plant mortality. Drought-stressed trees will also become more susceptible to pests and pathogens, such as the emerging threat of Mediterranean oak borer. In prairie systems, shifts in temperature and precipitation are expected to alter flowering and pollinator phenology, disrupting mutualistic relationships that support seed production and food availability for wildlife. Wet prairies may experience altered hydroperiods as precipitation patterns shift toward wetter winters and drier summers, potentially reducing the extent and duration of seasonal inundation needed by many wet prairie-dependent plant species.

Means to address climate change area integrated throughout this Strategic Action Plan:

- The need for climate resilience is included as a driver of the WVOPC guiding principles of conservation and connectivity and habitat management (Section 3.2).
- A climate change resiliency area is established in the geographic scope and analyses (Section 4.1).
- Specific climate related needs and actions are built into the results chains for woody encroachment and fire exclusion (see Sections 8.2.2, 8.2.5).
- Climate resiliency is identified and described as one of four overarching strategies to support achievement of the conservation goals, complementing the strategies identified for the five major threat categories (Section 8.2.6).
- Responses of oak and prairie systems to climate change is called out as an area of uncertainty to be addressed through adaptive management (Section 10.2).

Conservation actions identified in this Strategic Action Plan will help mitigate these impacts and increase ecosystem resilience. Restoring and connecting core oak and prairie habitats provides species with the opportunity to move across the landscape and adapt to changing conditions. Controlling invasive species and enhancing native plant diversity will strengthen ecological function and resistance to disturbance. Incorporating diverse seed sources and reintroducing traditional ecological knowledge, including the use of prescribed fire, will further enhance adaptive capacity across the landscape.

Despite growing awareness of climate risks, the WVOPC faces several constraints in fully integrating climate considerations into conservation planning. Downscaled climate data at the site level remain limited, hindering precise modeling of vegetation and species responses. Resource constraints limit the ability of partners to conduct long-term monitoring, evaluate adaptive management outcomes, and test climate-resilient restoration approaches. Differences in institutional capacity, funding availability, and organizational mandates among partners can also slow consistent implementation of climate-informed strategies. The WVOPC will continue to address these challenges through collaborative learning, integration of new science, and adaptive management as understanding of regional climate impacts evolves.

7.7 Conservation Need and Limiting Factors

7.7.1 Conservation Need

As described earlier, oak and prairie are some of the most culturally and ecologically important habitats in the Willamette Valley, and once covered an estimated 1,400,000 acres of the Willamette Valley prior to Euro-American settlement. The rapid decline of these habitats over the past 150 years to just a fraction of their historic range has resulted in steep declines in many oak and prairie dependent species. These habitats are now considered some of the most imperiled ecosystems in Oregon and the United States. Ecologists, wildlife biologists, botanists, foresters, and land managers recognize the critical role that prairie and oak woodlands play in preserving overall biodiversity in the Willamette Valley. Over the past 25 years, conservation efforts have begun to focus on these habitats and restoration and management techniques are becoming much more refined. The Oregon Conservation Strategy (OCS), first released in 2006 and refined in 2016, has designated grasslands (including upland prairie and savanna), wet prairie, and oak habitats as "strategy habitats" meaning they are given high priority for conservation and restoration efforts.

7.7.2 Oregon Conservation Strategy Limiting Factors

The Oregon Conservation Strategy identifies the following limiting factors impacting oak and prairie habitat in the Willamette Valley ecoregion:

- Land use conversion and urbanization: Habitat continues to be lost through conversion to other uses.
- Altered fire regimes: Maintenance of open-structured habitats such as grassland, oak savanna, and wet prairie is dependent, in part, on periodic burning. Fire exclusion has allowed succession to more forested habitats.
- Altered floodplain: The floodplain dynamics of the Willamette River have been significantly altered. Multiple braided channels dispersed floodwaters, deposited fertile soil, moderated water flow and temperatures, and provided a variety of slow-water habitats, such as sloughs and oxbow lakes. The Willamette River has largely been confined to a single channel and disconnected from its floodplain.
- Habitat fragmentation: Habitats for at-risk native plant and animal species are largely confined to small and often isolated fragments, such as roadsides and sloughs. Habitat fragmentation also limits species' ability to move across the landscape to fulfill life history needs.
- Invasive species: Invasive plants and animals disrupt native plant and animal communities and impact populations of at-risk native species.
- Wildlife hazards: Urban landscapes can present a variety of hazards for wildlife, such as bird collisions with windows, impacts due to light pollution, predation and disturbance by pets, collisions with vehicles and power lines, exposure to pesticides and contaminants, and harassment and illegal take of wildlife. These hazards can significantly impact wildlife and undermine habitat conservation efforts.

7.8 Threats and Threat Rating

7.8.1 Threat Categories and Rating Results

For the purpose of this analysis, a threat is defined as a human-induced actions or events that will directly degrade a system or habitat. Threats to the ecological integrity (biological diversity and resilience) of oak and prairie habitats in the Willamette Valley have been well documented in numerous plans and studies. From this background information the Steering Committee identified the following categories of threats:

- Rural & Urban Development
- Conversion to Agriculture
- Fire Exclusion
- Non-Native Species Invasion
- Woody Encroachment
- Transportation and Utilities
- Human Intrusion and Disturbance

- Incompatible Agricultural Management
- Incompatible Water Management

Through an April 2018 questionnaire with the SAP Working Group and Steering Committee, members were asked to rank the threat categories based on their Scope, Severity, and Irreversibility relative to oak and prairie habitats. Approximately 50 responses were submitted. Reponses were tabulated and scored using Miradi Adaptive Management software (see Figure 7-6: Threats Rating Results).

7.8.2 Scoring Definitions for Scope, Severity, and Irreversibility

The following definitions were provided to participants in the threat rating exercise:

Scope: Most commonly defined spatially as the geographic scope of impact on the conservation target (oak and prairie habitat) that can reasonably be expected within ten years under current circumstances (i.e., given the continuation of the existing situation).

- Very High: The threat is likely to be very widespread or pervasive in its scope and affect the conservation target throughout the target's occurrences at the site.
- High: The threat is likely to be widespread in its scope and affect the conservation target at many of its locations at the site.
- Medium: The threat is likely to be localized in its scope and affect the conservation target at some of the target's locations at the site.
- Low: The threat is likely to be very localized in its scope and affect the conservation target at a limited portion of the target's location at the site.

Severity: The level of damage to the conservation target that can reasonably be expected within ten years under current circumstances (i.e., given the continuation of the existing situation).

- Very High: The threat is likely to destroy or eliminate the conservation target over some portion of the target's occurrence at the site.
- High: The threat is likely to seriously degrade the conservation target over some portion of the target's occurrence at the site.
- Medium: The threat is likely to moderately degrade the conservation target over some portion of the target's occurrence at the site.
- Low: The threat is likely to only slightly impair the conservation target over some portion of the target's occurrence at the site.

Irreversibility: The degree to which the effects of a threat can be undone.

- Very High: The effects of the threat are not reversible (e.g., wetlands converted to a shopping center).
- High: The effects of the threat are technically reversible, but not practically affordable (e.g., wetland converted to agriculture).
- Medium: The effects of the threat are reversible with a reasonable commitment of resources (e.g., ditching and draining of wetland).
- Low: The effects of the threat are easily reversible at relatively low cost (e.g., off-road vehicles trespassing in wetland).

7.8.3 Threats Rating

The threats rating results are sorted from most to least severe based on their overall score and address human interactions/anthropogenic activities that are a threat to oak and prairie habitat.

Figure 7-6: Threat Rating Results

Threat	Scope	Severity	Irreversibility	Final Ranking
Rural & Urban Development	High	Very High	Very High	Very High
Conversion to Agriculture	High	Very High	High	High
Fire Exclusion	Very High	High	Medium	High
Non-Native Species Invasions	Very High	High	Medium	High
Woody Encroachment	High	High	Medium	High
Transportation and Utilities	Medium	Medium	High	Medium
Human Intrusion and Disturbance	Medium	Medium	Medium	Medium
Agriculture Management	Medium	Medium	Medium	Medium
Incompatible Water Management	Medium	Medium	Medium	Medium

Source: Rating based on SAP Working Group and Steering Committee input with calculations by Pacific Birds Habitat Joint Venture Miradi software

7.9 Contributing Factors

The top five highest ranked threat categories are listed below with contributing factors (indirect issues and opportunities related to each threat). The April 2018 SAP Working Group meeting was dedicated to identifying contributing factors (issues and opportunities) listed below and brainstorming potential strategies and actions that could be employed to address these to threats. These are the basis for the Results Chains listed in Section 8.

Rural and Urban Development

Issues:

- Lack of effective land use policy and code to protect oak and prairie habitat
- Many developers do not currently value oak or prairie habitat
- New development produces tax revenue for cities and counties
- Real and perceived benefit of rapid development
- Limited land availability within UGBs adds to development pressure in rural areas
- Many elected officials and public employees have limited appreciation of oak and prairie
- Strong desire to live in the country is driving rural development, especially near cities
- Many landowners do not currently understand the importance of oak and prairie habitat
- Rural development patterns fragment habitat patches
- Many golf courses are managed in ways that limit habitat benefit

Opportunities:

- Citizens are beginning to understand the cultural heritage and habitat benefits of oak and prairie
- Homeowners may be willing to manage habitat if provided with guidance materials
- Tribes are increasingly interested in off-reservation acquisition and protection
- Many park managers and open space providers are beginning to focus more on oak and prairie conservation

Conversion to Agriculture

Issues:

- Large scale agricultural conversion, especially land conversion to vineyards and orchards, has been significant in the valley over the past decade
- Many farmers do not currently recognize the value of oak or prairie
- Existing tax deferral benefit discourages habitat conservation on agriculturally zoned lands
- Value of agricultural land is increasing, resulting in conversion for intensive agriculture and family farms are being sold to larger commercial or international farm operations
- Agriculture is a business, so maximizing profit is a high priority

Opportunities:

- Generational turnover and potential openness of new landowners to conservation values
- Hobby farms may be more open to integration of habitat with agricultural uses
- Marketing opportunities for incorporating habitat into agricultural uses (e.g., wineries)

Fire Exclusion

Issues:

- Fire exclusion has led to a loss of biological diversity and educed habitat resiliency
- Many citizens and elected officials are unaware of the benefits of ecological burning
- Lack of understanding of history and cultural significance of fire in our valley
- Negative perception of fire by the media
- Some landowners and residents do not support prescribed fire (dislike smoke)
- Decades of fire suppression policies have created dense stands of fuel in some areas
- Stringent burn policies often severely limit the available burn window
- Lack of indigenous burning
- Lack of available crews during burn windows
- Lack of regular funding for burn planning
- Insufficient supply of affordable native seed to replant areas following a burn
- Much of the current public fire budgets goes toward suppression and not prescribed fire
- Limited educational materials currently exist

Opportunities:

- Burning is a traditional indigenous practice and Tribes have interest in growing capacity for burns
- Overall burn expertise is on the rise in the Willamette Valley
- Public perception and understanding of the benefits of ecological burning is beginning to change in some areas
- Many interested citizens would be available to assist with post burn seeding and monitoring if trained
- Willamette Valley Native Plant Materials Partnership is beginning to increase seed availability for replanting

Non-native Species Invasion

Issues:

- Invasive species have caused a loss of biological diversity and reduced habitat resiliency
- Fire exclusion along with timber practices has resulted in favorable conditions for invasive plant species
- Invasive vegetation has significantly displaced native species, especially understory and grasses and forbs
- Invasive grasses dominate many grassland areas and restored areas require continued medium- and long-term management commitment to keep invasives from reestablishing
- Communication sometimes lacking between Farm Bill programs, research, and implementation of BMPs
- Insufficient supply of native plants to replant areas following invasive species treatment
- Lack of resources and expertise being dedicated toward Early Detection Rapid Response (EDRR) efforts
- Limited understanding of the economic impacts of invasive species
- Lack of understanding and support from many elected officials
- Perceived danger from herbicide
- Lack of public awareness and understanding
- Retail “wildflower” packages often contain invasives
- Invasives often unintentionally spread by equipment and vehicles
- Invasives often unintentionally spread by humans and pets
- Ornamental invasive frequently spread from residential areas

Opportunities:

- Public educational materials are currently available
- Many city and county governments are beginning to support weed management efforts
- Citizen science efforts could help EDRR efforts with proper training and resources
- Traditional burn practices may aid in invasive control and favor native beneficial species

Woody Encroachment

Issues:

- Lack of available funding to support thinning
- High cost of treatment and maintenance, especially if done at a small scale
- Sale of timber and wood from ecological thinning does not always cover cost
- Lack of understanding of the relationship between dense vegetation and wildfire
- Overgrown oak and prairie areas are often seen as good habitat by untrained observers
- Insufficient supply of native plants to replant after woody plants are removed
- Lack of public support for herbicide use
- Lack of public and elected official support for ecological burning
- Lack of homeowner understanding of habitat values of thinning
- Lack of market for thinned trees (especially non-conifers)

Opportunities:

- Coordinating thinning efforts could reduce per acre cost
- Markets for hardwood could be further developed
- Legacy individual savanna oaks and oak stands are still present and restoration of habitat structure (overstory) is a fairly straightforward and achievable process

7.10 Planning Context: Related Plans, Studies, and Initiatives

A significant number of high-level plans, studies, and initiatives related to Willamette Valley oak and prairie habitat have been completed or are underway and provide important background and direction for the development of the WVOPC Strategic Action Plan. Appendix D includes a list of many of these resources along with a brief summary of its relationship to the WVOPC planning process. In addition to these valley- and region-wide efforts, there are an extensive number of site- or watershed-specific efforts that are too numerous to be listed.

The following high-level resources have been particularly valuable for guiding this planning process:

- *Prairie, Oaks, and People: A Conservation Business Plan to Revitalize the Prairie-Oak Habitats of the Pacific Northwest* (Cascadia Prairie-Oak Partnership and Pacific Birds, 2017)
- *Willamette Valley Conservation Study – Strategic Habitat Conservation in Oregon's Willamette Valley* (U.S. Fish and Wildlife Service, 2017)
- *Oregon Conservation Strategy* (Oregon Department of Fish and Wildlife, 2016)

Oregon saxifrage in prairie (City of Eugene)

8 Theory of Change

8.1 Background

A *theory of change* is an articulation of the hypothesized relationships and underlying assumptions between strategy implementation, resulting intermediate ecological outcomes, and long-term ecological goals (defined in Section 6) (Conservation International 2013). Results chains are a process and a tool contained in the Conservation Measures Partnership's Open Standards for the Practice of Conservation (Conservation Measures Partnership 2013), to develop and document theories of change (Margoluis et al. 2013, Foundations of Success 2007, and Association of Fish and Wildlife Agencies 2011).

Results chains include strategies, actions, and outputs. A strategy is a group of related actions that is intended to reduce or eliminate limiting factors in order to restore critical ecological processes or functions associated with ecological priorities. Actions are specific tasks that support implementation of strategies, and are specific ecological conservation or restoration treatments, projects, or other activities that have specific aims. Outputs are the immediate, measurable results that would be anticipated based on successful implementation of a strategy or a series of related actions. Collectively, outputs will reduce threats and lead to achievement of the long-term ecological goals, improving the status of the ecological priorities (oak and prairie habitats).

Volunteers from the SAP Working Group and additional outside subject matter experts met in small groups for two-hour sessions in February and March of 2019 to develop results chains for each of the five highest ranked threat categories. Each sub-group was facilitated by Steering Committee members. Participants were provided with copies of the strategies developed in the April 2018 SAP Working Group meeting in advance, then met to collaboratively build results chains for each threat. The draft result chain output was sent back to the sub-groups and the Steering Committee for review and comment and were then updated based on the feedback (see results chains in Figures 8-1, 8-4, 8-7, 8-10, and 8-13).

The strategies identified in the results chains were then ranked by the SAP Working Group and Steering Committee, using an online questionnaire (see Appendix C: Summary Report - Working Group Questionnaire #2). The questionnaire asked participant to rank each strategy based on the following two factors:

- **Potential Impact**: How effective will each strategy be at reducing the impact of the threat category to oak and prairie habitats (Very Effective, Effective, Less Effective, or Not Effective)?
- **Urgency:** What is the urgency of implementing this strategy relative to the other proposed strategies in this category (Very High, High, Medium, or Low)?

Ranked data were analyzed using the Miradi Adaptive Management software, which categorized potential impact on a scale from most effective to not effective and categorized urgency on a scale from very high to very low. Miradi also assigned an overall (rolled-up) score for each strategy. It should be noted that none of the proposed strategies scored in the "not effective" or "low" range indicating that the proposed strategies were generally accepted by SAP Working Group and Steering Committee members as having some importance. The results of the Miradi output is included by subcategory in the sections below (see Figures 8-2, 8-5, 8-7, 8-11, and 8-14) along with single-selection questionnaire results (see Figures 8-3, 8-6, 8-9, 8-12, and 8-15). This information was then utilized by Steering Committee members to help determine implementation priorities for this Strategic Action Plan.

8.2 Strategies, Actions, and Outputs

8.2.1 Rural and Urban Development

Threat Summary

The majority of Oregon's population and industry is located in the Willamette Valley, with significant human population growth forecast in the coming decades. Future development pressure is the highest in urban fringe areas and along transportation corridors where remnant oak and prairie habitats and associated species are often found. Although Oregon's land use planning laws and local development codes provide some minimal protections, oak and prairie habitats are likely to continue to decline due to the fragmentation and degradation resulting from urban and rural development under the current scenario.

Theory of Change for Addressing Impacts of Rural and Urban Development

Limiting impacts from rural and urban development on oak and prairie ecosystems will require a wholesale shift in how development projects are planned, designed and implemented. In order for policy makers and planners, developers, and the public to support more oak-prairie compatible development, the WVOPC will work with those groups to build an awareness and understanding of the importance of and need for habitat-friendly development practices. With broader support, we will work to strengthen local and statewide land use planning regulations and policies, and increase funds for open space preservation and access to incentive programs that will motivate developers to incorporate conservation within existing codes, and provide models and tools for oak-prairie friendly development. These policies and programs will need to be supported by guidance on best management practices so developers and landowners can make more habitat-friendly decisions on the ground. Long-term management of oak and prairie systems will require substantial resources, thus developing incentives and providing technical assistance will be critical to support that ongoing need. The outcome will be that urban and rural development actions will, where possible, limit impacts to oak and prairie and ideally improve the network of protected and restored oak and prairie habitat. See Results Chain on next page (see Figure 8-1) for detail on proposed strategies, actions, and outcomes.

Urban Development in west Eugene (J. Krueger)

Figure 8-1: Rural and Urban Development Encroachment Results Chain

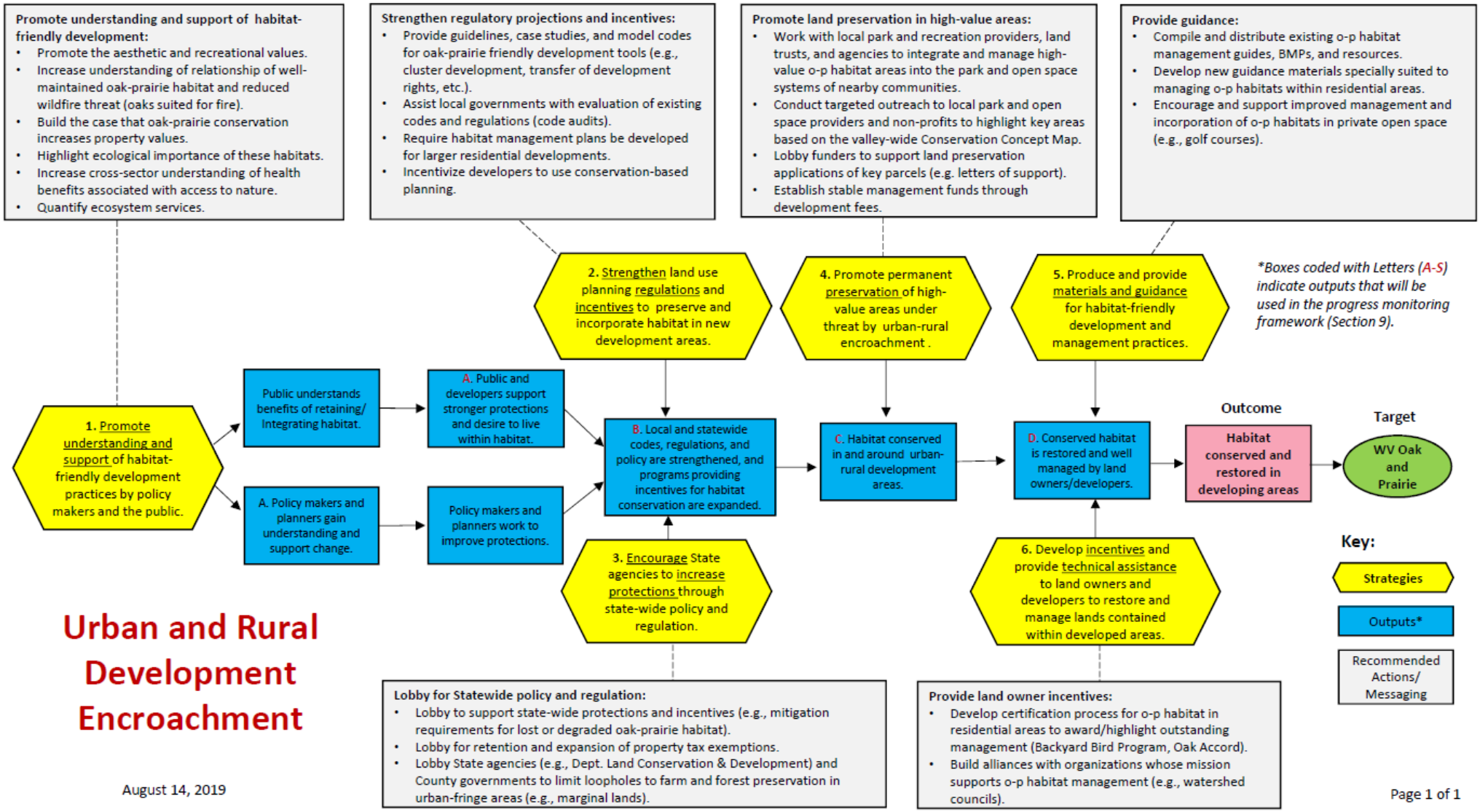


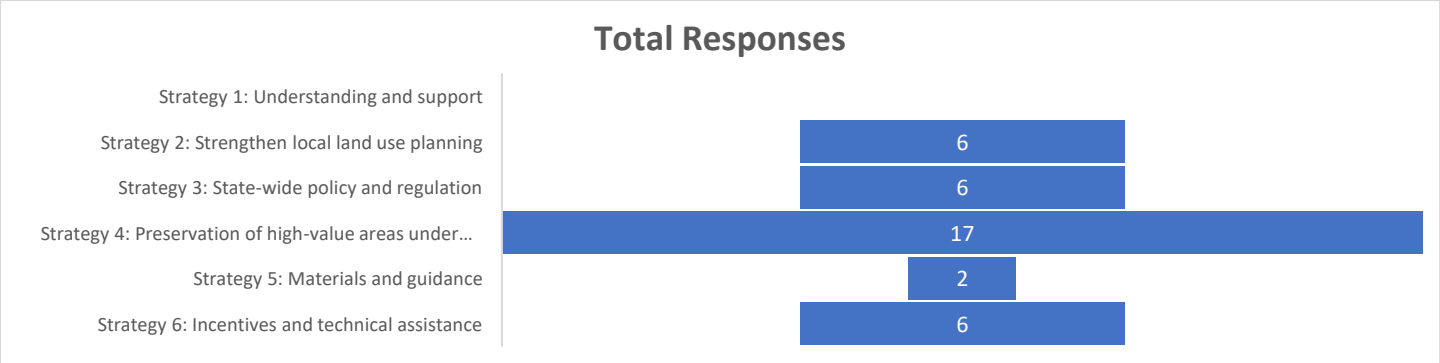
Figure 8-2: Rural and Urban Development Strategy Rating for Potential Impact and Urgency

Threat Category and Proposed Strategies	Potential Impact	Urgency	Roll-up
Rural and Urban Development			
1. Understanding and support	Effective	High	Effective
2. Strengthened local land use planning	Effective	High	Effective
3. Strengthened State-wide policy/regulation	Effective	High	Effective
4. Preservation	**Most Effective**	**Very High**	**Very Effective**
5. Materials and guidance	Effective	Medium	Less Effective
6. Incentives and technical assistance	**Most Effective**	**Very High**	**Very Effective**

Source: The Strategy rating shown in the table above is a compilation of input from the SAP Working Group and Steering Committee provided through in a spring 2019 questionnaire. The input was analyzed using the Miradi Adaptive Management software, which categorized potential impact on a scale from most effective to not effective and categorized urgency on a scale from very high to very low.

Figure 8-3: Rural and Urban Development Single Strategy Selection Results

Survey Question: If you only had enough funding to implement one of the strategies, which one would it be?



Source: SAP Working Group and Steering Committee responses from the spring 2019 questionnaire.

8.2.2 Woody Encroachment

Threat Summary

In the absence of regular fire or other management interventions, encroachment of trees and shrubs threatens the persistence of prairie and oak habitats, and requires short- and long-term action.

Theory of Change to Address Woody Encroachment

Addressing the woody encroachment threat to oak and prairie will first require a shift in public understanding of the issue. To increase broader support of woody encroachment treatments, the general public will need to understand that fuels loading significantly increases the risk of wildfire, and that ongoing maintenance of oak and prairie systems is important to ecosystem health. The WVOPC will implement an awareness campaign centered on communicating the benefits that come from woody encroachment treatment on public and private lands, namely the reduction of wildfire risk and improvements in oak and prairie ecosystem function. Strengthening state and local policy will increase availability of incentives and technical assistance to promote woody encroachment management on private lands. Options for this include a conservation tax deferral policy, increased funds and capacity from NRCS, watershed councils, and SWCDs, as well as private foundation engagement. The cost of removing woody vegetation is high and often requires specialized equipment, making it mostly unaffordable and inaccessible to landowners. Developing incentive programs and providing technical assistance to both public and private landowners will reduce that barrier. Costs can be further reduced through workforce development programs and by increasing landowner access to specialized equipment. Increased capacity, funding, and coordination around woody encroachment treatment combined with targeted outreach to landowners that have large tracts of encroached oak habitat, increases the likelihood those landowners will engage in conservation programs. As more encroached acres on private and public lands are treated, the overall risk of wildfire is reduced resulting in more acres of healthy oak and prairie.

Completed oak release project in Yamhill County (E. Alverson)

See Figure 8-3 for detail on proposed strategies, actions, and outcomes.

Figure 8-4: Woody Encroachment Results Chain

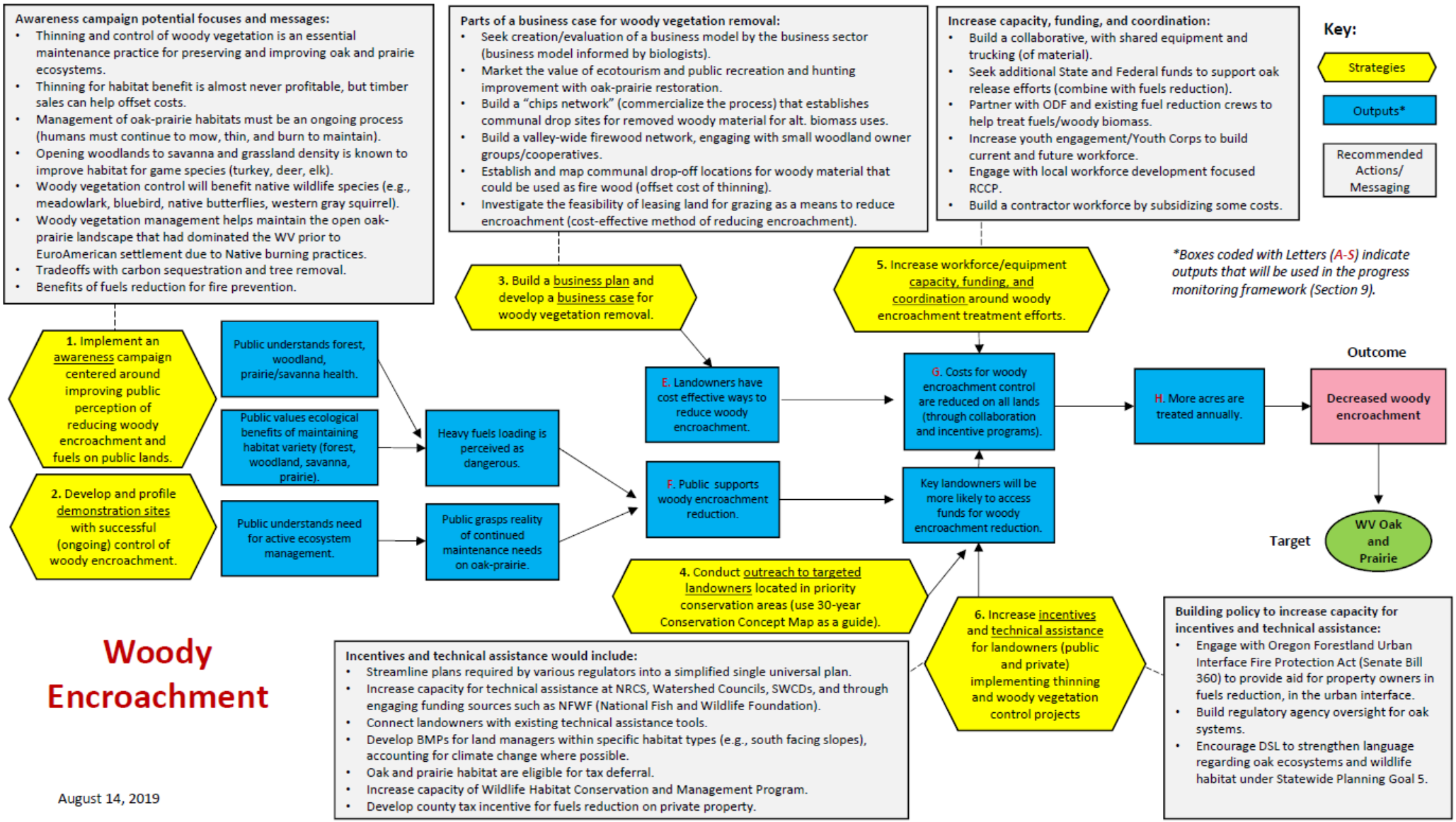


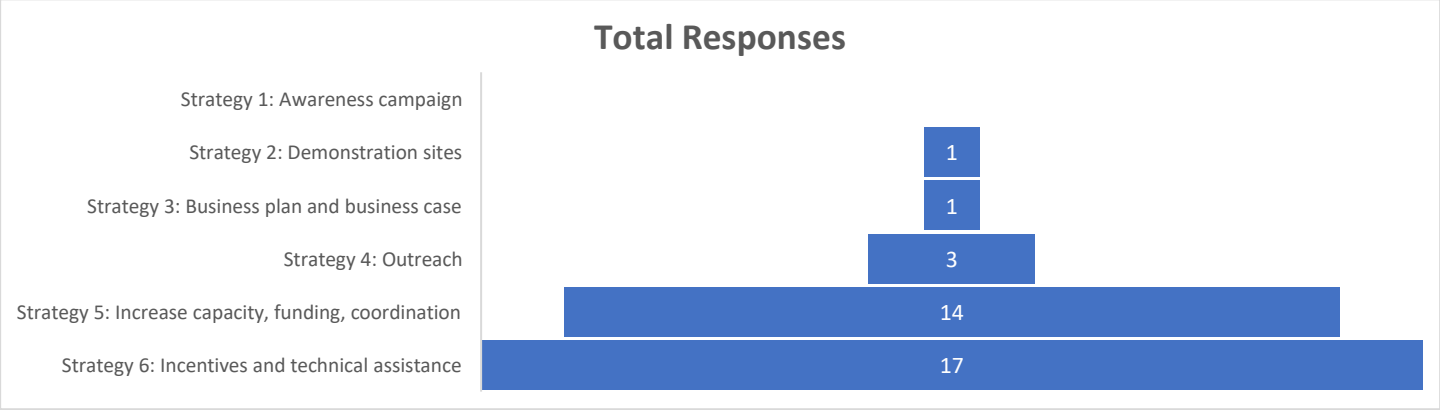
Figure 8-5: Woody Encroachment Strategy Rating for Potential Impact and Urgency

Threat Category and Proposed Strategies	Potential Impact	Urgency	Roll-up
Woody Encroachment			
1. Awareness campaign	Effective	Medium	Less Effective
2. Demonstration sites	Effective	Medium	Less Effective
3. Business plan and business case	Effective	Medium	Less Effective
4. Outreach	Effective	High	Effective
5. Increase capacity, funding, coordination	**Most Effective**	**Very High**	**Very Effective**
6. Incentives and technical assistance	**Most Effective**	**Very High**	**Very Effective**

Source: The Strategy rating shown in the table above is a compilation of input from the SAP Working Group and Steering Committee provided through in a spring 2019 questionnaire. The input was analyzed using the Miradi Adaptive Management software, which categorized potential impact on a scale from most effective to not effective and categorized urgency on a scale from very high to very low.

Figure 8-6: Woody Encroachment Single Strategy Selection Results

Survey Question: If you only had enough funding to implement one of the strategies, which one would it be?



Source: SAP Working Group and Steering Committee responses from the spring 2019 questionnaire.

8.2.3 Agricultural Conversion and Incompatible Management

Threat Summary

Much of the remaining oak and prairie habitat in the Willamette Valley is located on privately-owned lands. Conversion of pastures to agricultural uses, or conversion of existing agricultural lands to more intensive production such as vineyards, orchards, and cropland, will often displace these remnant habitats. Likewise, incompatible management of pastureland may degrade habitat for native species and reduce biodiversity.

Theory of Change to Address Agricultural Conversion and Incompatible Management

The key driver in conversion of oak-prairie habitat to agricultural use or less compatible agricultural use is economic opportunity and value. Without regulation-based protection, there are no mechanisms to limit the amount of oak or prairie converted. The business case for habitat conservation on working lands will provide evidence to landowners that incorporating conservation into agricultural operations can actually improve their bottom line while also generating important co-benefits such as habitat, carbon sequestration, pollination, and healthy soil. The success of this messaging will depend in part on where it comes from and peer-to-peer outreach is one of the most effective. Therefore, building strong relationships with key members of the agriculture community to serve as 'ambassadors' of the conservation business case, along with successful examples of its on-the-ground application, will be important to convincing landowners to engage in conservation-compatible agriculture.

Cost is a major prohibitive factor in decisions regarding conservation on private land, therefore once landowners are aware of and open to this message of conservation-based agriculture, we will need incentive programs as well as technical assistance to help them make the transition from a more conventional approach. The WVOPC will need to support the development and dissemination of management guides and technical assistance to ensure best management practices are being implemented. With increased financial support and information about how to implement best conservation management practices on the ground, it will be easier for landowners to make that transition.

Regulation and policies that effectively limit the amount of conversion of native habitat to agricultural production is an alternate strategy. Thus, the WVOPC will work to strengthen policies to decrease conversion of habitat to production.

See Figure 8-7 for detail on proposed strategies, actions, and outcomes.

Oregon Oak Accord habitat conservation at Mahonia Vineyard (Willamette Partnership)

Figure 8-7: Agricultural Conversion and Incompatible Management Results Chain

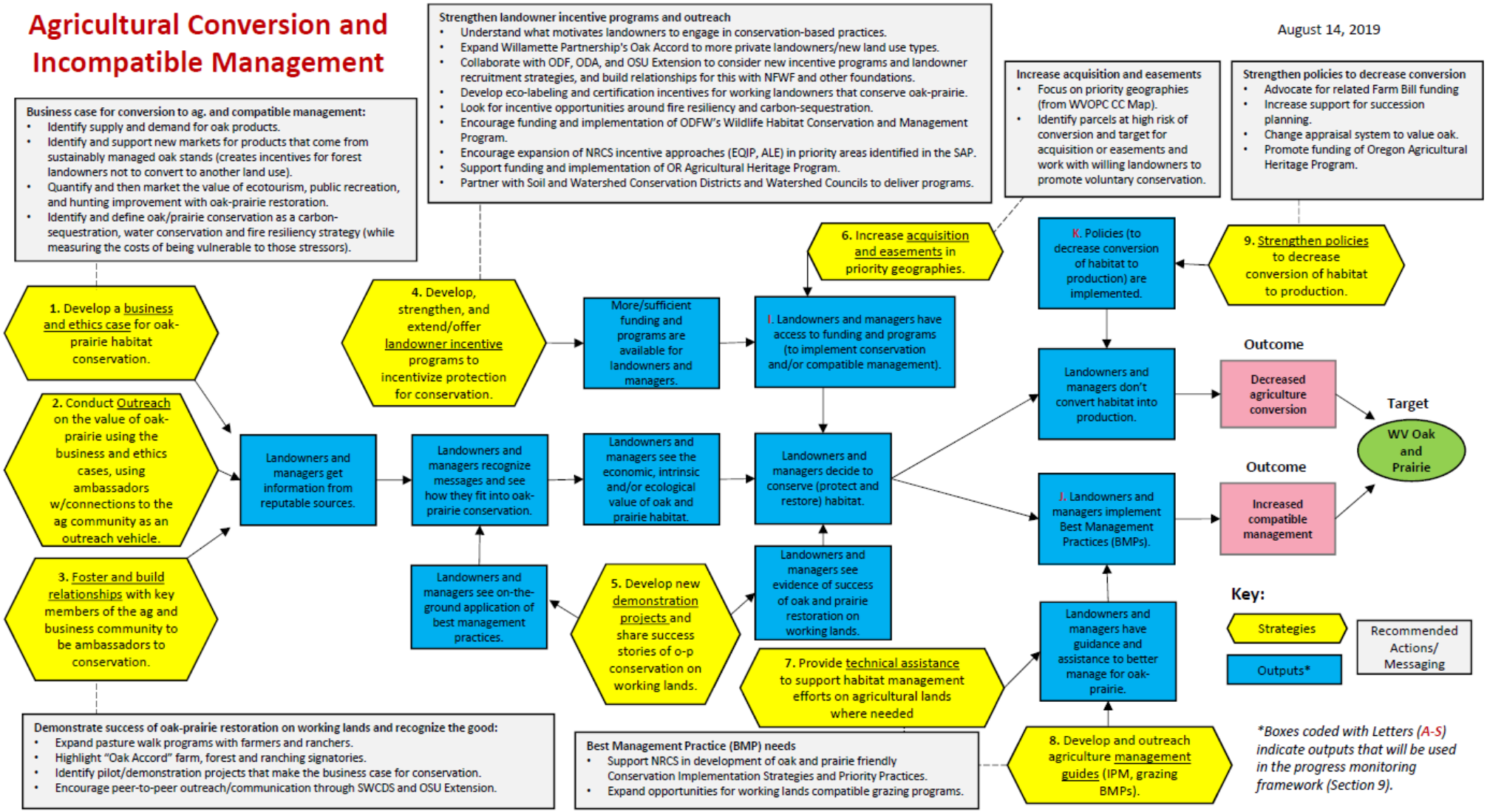


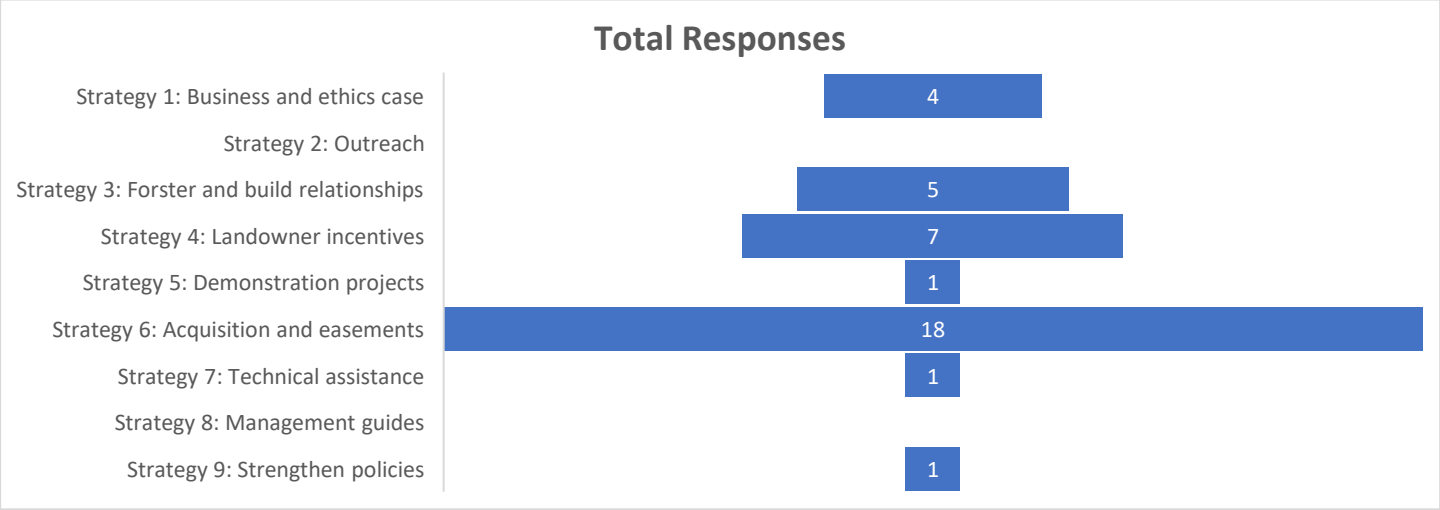
Figure 8-8: Ag. Conversion and Incompatible Management Strategy Rating for Potential Impact and Urgency

Threat Category and Proposed Strategies	Potential Impact	Urgency	Roll-up
Agricultural Conversion and Incompatible Management			
1. Business and ethics case	Effective	High	Effective
2. Outreach	Effective	High	Effective
3. Foster and build relationships	Effective	High	Effective
4. Landowner incentives	**Most Effective**	**Very High**	**Very Effective**
5. Demonstration projects	Effective	Medium	Less Effective
6. Acquisition and easements	**Most Effective**	**Very High**	**Very Effective**
7. Technical assistance	**Most Effective**	**Very High**	**Very Effective**
8. Management guides	Effective	Medium	Less Effective
9. Strengthen policies	Effective	Medium	Less Effective

Source: The Strategy rating shown in the table above is a compilation of input from the SAP Working Group and Steering Committee provided through in a spring 2019 questionnaire. The input was analyzed using the Miradi Adaptive Management software, which categorized potential impact on a scale from most effective to not effective and categorized urgency on a scale from very high to very low.

Figure 8-9: Ag. Conversion and Incompatible Management Single Strategy Selection Results

Survey Question: If you only had enough funding to implement one of the strategies, which one would it be?



Source: SAP Working Group and Steering Committee responses from the spring 2019 questionnaire.

8.2.4 Non-Native Invasive Species

Threat Summary

Non-native invasive vegetation is widespread in the Willamette Valley, resulting in a decline in native plant species cover and biodiversity and degrading habitat quality and functionality for pollinators, birds, and other oak and prairie dependent species. Aggressive invasive species pose significant challenges for management and restoration efforts in oak and prairie habitats.

Theory of Change to Address Non-Native Invasive Species

Garnering landowner, manager, and public support for invasive species management in oak and prairie systems will require an outreach campaign using a business and ethics case. This case will focus on the financial benefits of invasives management as well as connect invasives management to overall ecosystem health. With that support, the WVOPC will need to have the information and best management practices in place for landowners and managers to be able to address invasives on their property. As such, the WVOPC will work to increase Early Detection Rapid Response (EDRR) and monitoring for priority plant species and plant diseases in priority areas as well as update invasive species response best management practices. This will ensure land managers have the data, tools, and techniques they need to engage.

An additional barrier is the cost associated with invasive species management. Increasing weed management capacity and coordination will result in not only a more skilled workforce but also a system that supports shared equipment and resources and coordinated scheduling. Increasing the availability and reducing the cost of native plant materials can make restoration efforts more affordable and effective. Engaging with funders and decision makers to increase the funding available for invasive species management will ensure that invasive species management and incentive programs continue to grow and be sustained into the future.

See Figure 8-10 for detail on proposed strategies, actions, and outcomes.

Invasive species colonization in oak and prairie habitat in Linn County (J. Krueger)

Figure 8-10: Non-Native Invasive Species Results Chain

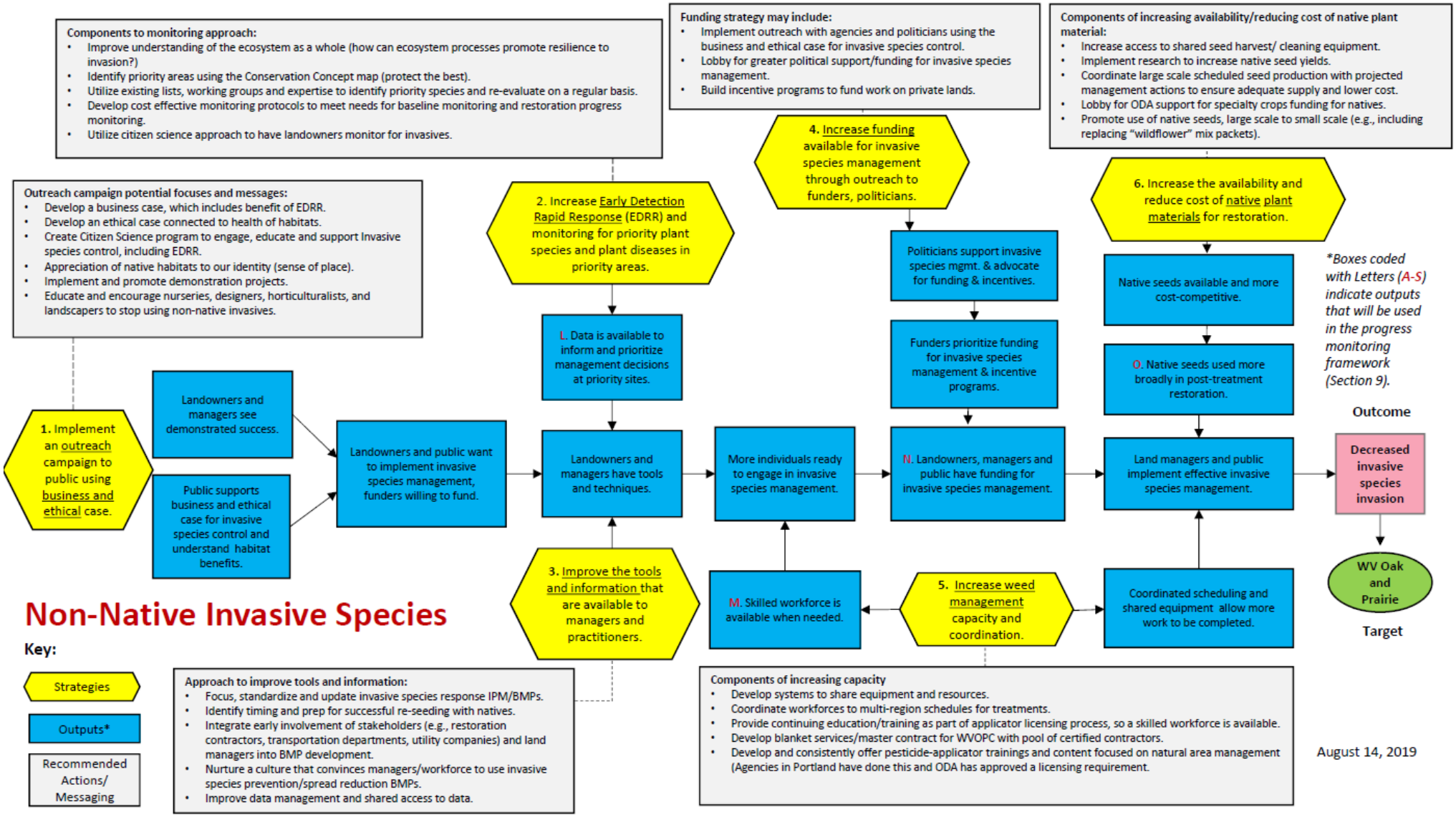


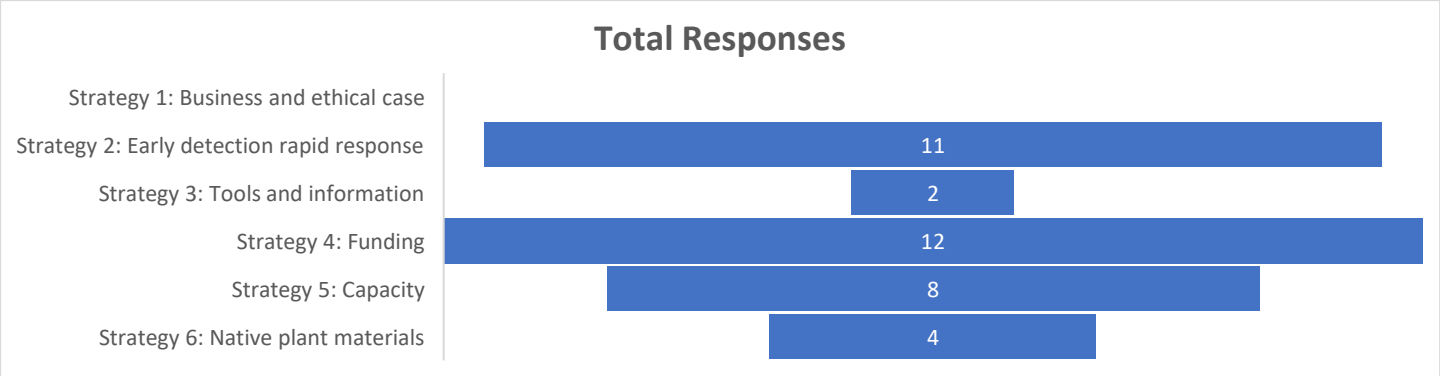
Figure 8-11: Non-Native Invasive Species Strategy Rating for Potential Impact and Urgency

Threat Category and Proposed Strategies	Potential Impact	Urgency	Roll-up
Non-native Species Invasion			
1. Business case and ethics case	Less Effective	Medium	Less Effective
2. Early detection and rapid response	Effective	High	Effective
3. Tools and information	Effective	High	Effective
4. Funding	Effective	**Very High**	Effective
5. Increase capacity and coordination	Effective	**Very High**	Effective
6. Native plant materials	Effective	High	Effective

Source: The Strategy rating shown in the table above is a compilation of input from the SAP Working Group and Steering Committee provided through in a spring 2019 questionnaire. The input was analyzed using the Miradi Adaptive Management software, which categorized potential impact on a scale from most effective to not effective and categorized urgency on a scale from very high to very low.

Figure 8-12: Non-Native Invasive Species Single Strategy Selection Results

Survey Question: If you only had enough funding to implement one of the strategies, which one would it be?



Source: SAP Working Group and Steering Committee responses from the spring 2019 questionnaire.

8.2.5 Fire Exclusion

Threat Summary:
Fire-adapted oak and prairie ecosystems dominated the valley floor, foothills, and tributary valleys for thousands of years. The cessation of burning by Native Americans by the mid-1800s followed by extreme fire suppression in the 1900s has led to replacement of these biodiverse ecosystems by conifer forest and other less fire-resilient vegetation types.

Summary of Theory of Change to Address Fire Exclusion

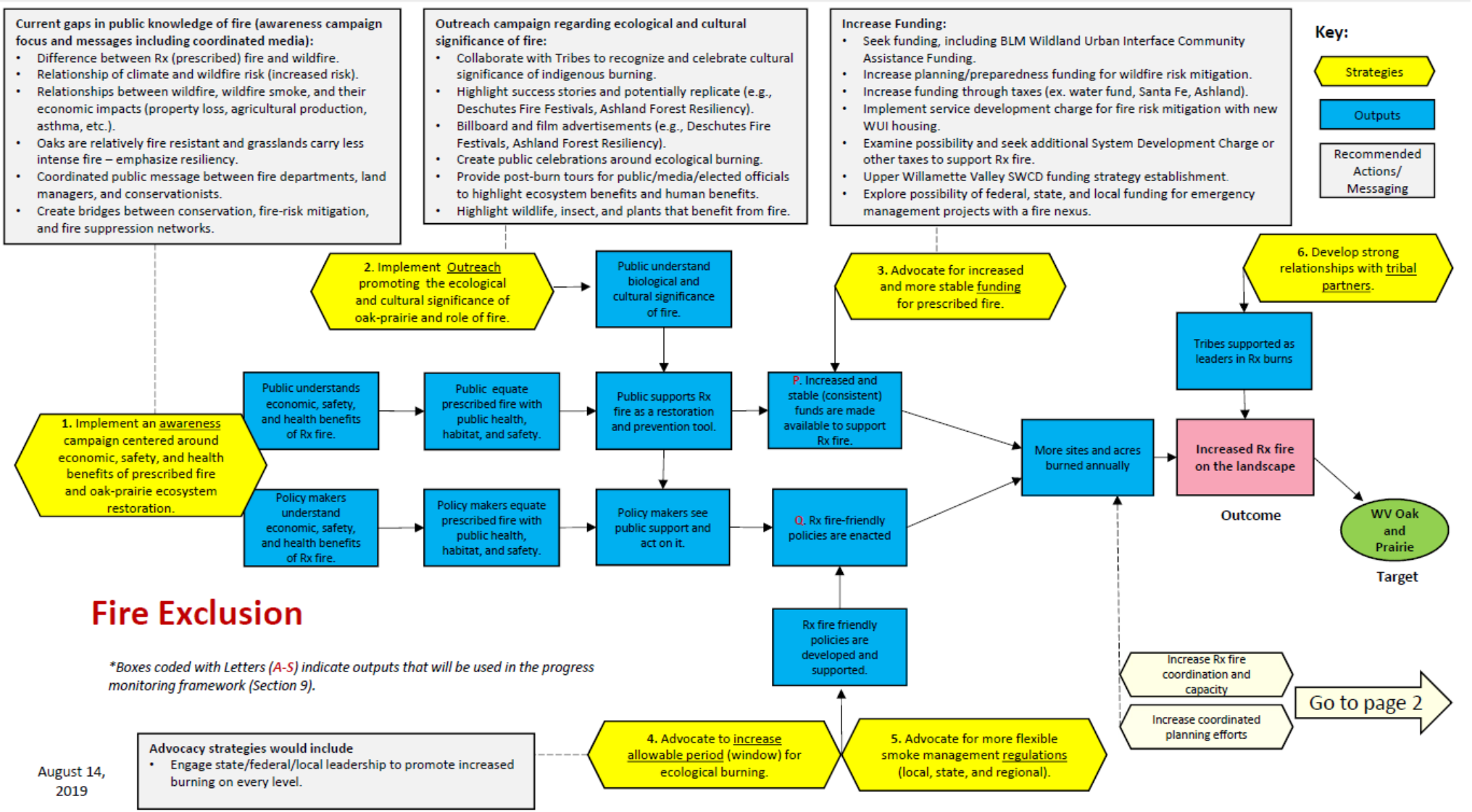
Prescribed fire has been identified as one of the most effective tools to restore oak and prairie systems in the Willamette Valley. Increasing the scale and intensity of prescribed fire on the landscape will require a supportive public, increased funding, and greater efficiency in the partnerships that implement prescribed burns. An awareness campaign centered on the economic and safety benefits of prescribed fire, as well as the ecological and cultural significance of fire, is the first step to build the support of policy makers and the public for the use of fire in oak-prairie ecosystem restoration. Engaging local, state, and federal leadership in advocating for consistent and sufficient funding levels, and practical burn periods and smoke management regulations, will make implementation of prescribed fire less restrictive.

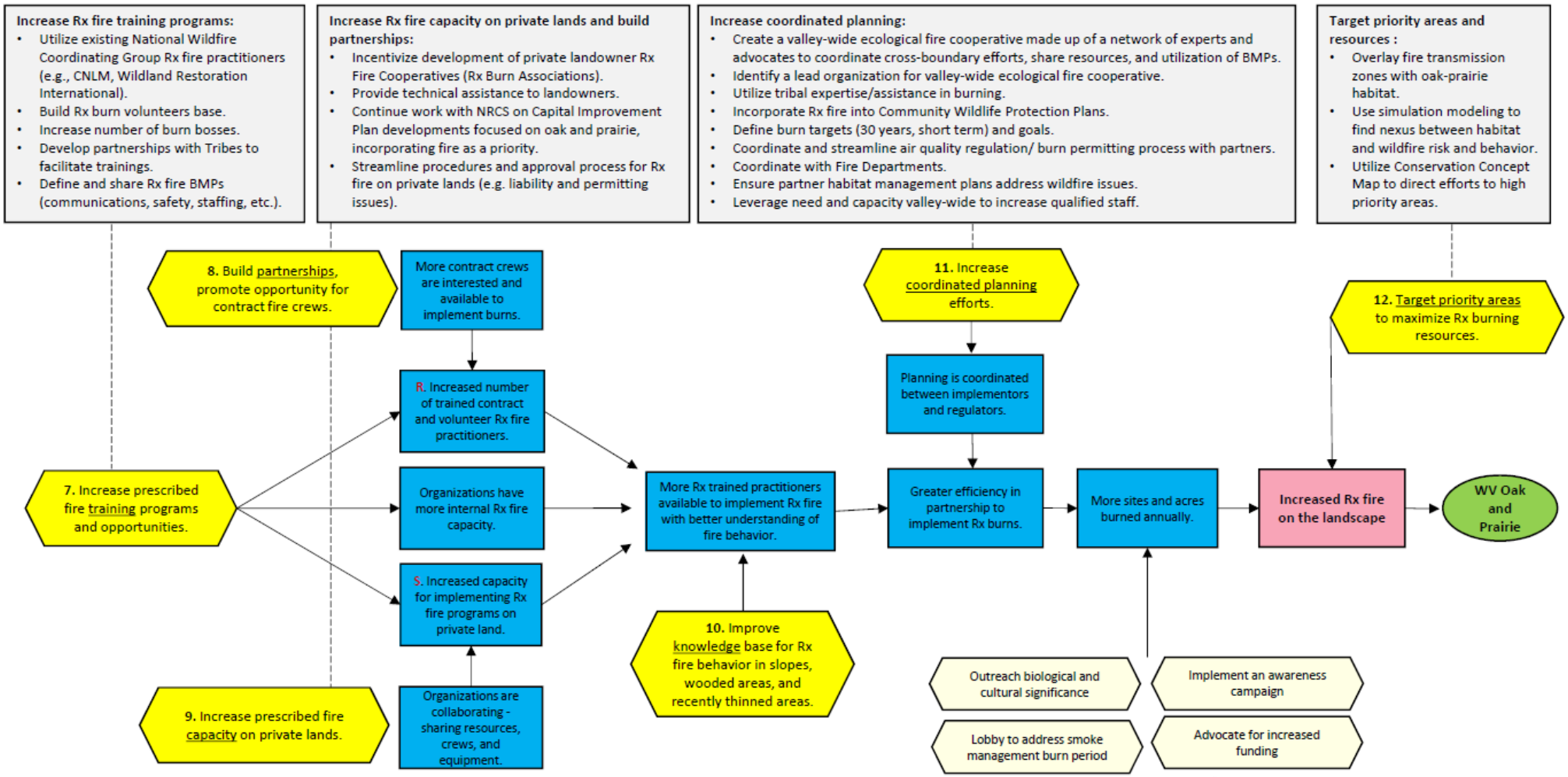
Safely and effectively implementing a prescribed fire strategy across the landscape will require significantly increased capacity including a more skilled workforce as well as a system that supports shared equipment and resources and coordinated scheduling. Promoting opportunities for contract crews, increasing fire training opportunities, and improving our knowledge base of prescribed fire behavior will result in both more practitioners available to implement prescribed fires and increase our collective understanding of fire behavior. Strong relationships with tribal partners to incorporate traditional ecological knowledge (TEK), increased coordinated planning efforts that support cross-boundary efforts, shared resources, and the development and utilization of best fire management practices, will increase the number of acres of oak and prairie habitat burned annually.

See Figure 8-13 for detail on proposed strategies, actions, and outcomes.

Ecological burn at underway at Coyote Prairie (P. Gordon)

Figure 8-13: Fire Exclusion Results Chain





August 14, 2019

Fire Exclusion (Continued)

From Page 1

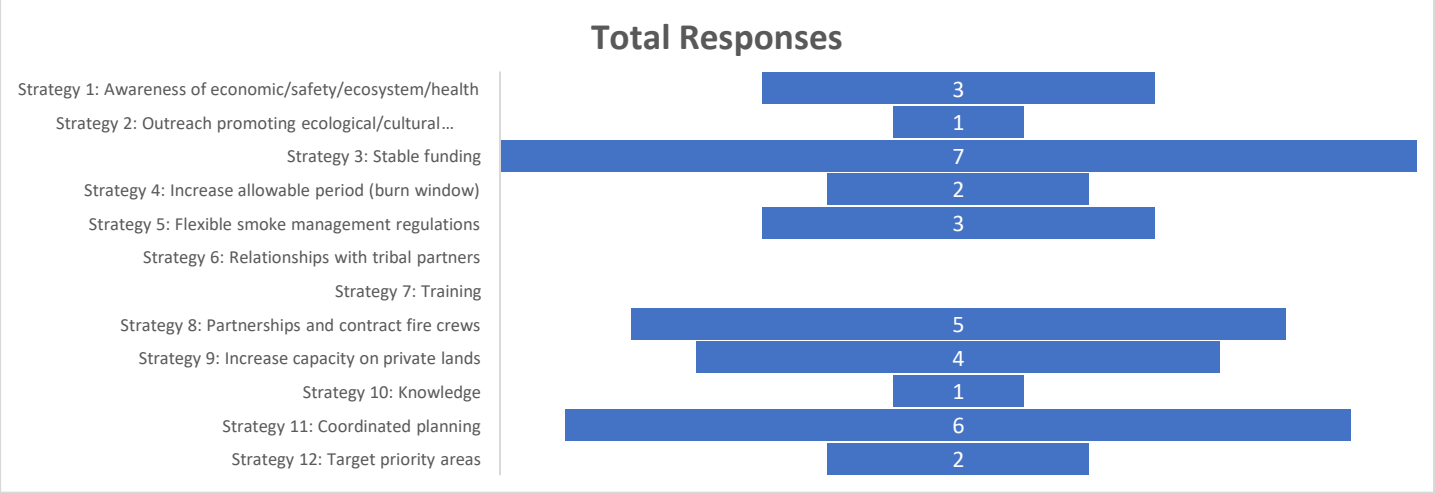
Figure 8-14: Fire Exclusion Strategy Rating for Potential Impact and Urgency

Threat Category and Proposed Strategies	Potential Impact	Urgency	Roll-up
Fire Exclusion			
1. Awareness campaign	Effective	High	Effective
2. Outreach (ecological/cultural significance)	Effective	Medium	Less Effective
3. Stable funding	**Most Effective**	**Very High**	**Very Effective**
4. Increase allowable period	Effective	High	Effective
5. Flexible smoke management regs.	Effective	High	Effective
6. Relationships with tribal partners (TEK)	Effective	High	Effective
7. Training	Effective	High	Effective
8. Partnerships and contract fire crews	Effective	High	Effective
9. Increase capacity on private lands	**Most Effective**	High	Effective
10. Knowledge	Effective	Medium	Less Effective
11. Coordinated planning	**Most Effective**	High	Effective
12. Target priority areas	Effective	High	Effective

Source: The Strategy rating shown in the table above is a compilation of input from the SAP Working Group and Steering Committee provided through in a spring 2019 questionnaire. The input was analyzed using the Miradi Adaptive Management software, which categorized potential impact on a scale from most effective to not effective and categorized urgency on a scale from very high to very low.

Figure 8-15: Fire Exclusion Single Strategy Selection Results

Survey Question: If you only had enough funding to implement one of the strategies, which one would it be?



Source: SAP Working Group and Steering Committee responses from the spring 2019 questionnaire.

8.2.6 Overarching Strategies and Actions

To build upon the strategies developed to address each of the five major threat categories (see Section 7.8), the WVOPC elected to identify four additional overarching strategies to support achievement of the conservation goals. These strategies center around the need for improved spatial data; greater integration of diversity, equity and inclusion; increasing the human connection to nature; and climate resiliency. These additional overarching strategies complement those identified in section 8.2.1-8.2.5, and are intended to act in concert.

Overarching Strategy 1: Develop and Maintain Improved Spatial Data

As identified in Guiding Principle 3 (Section 3.2), the WVOPC recognizes the importance of knowledge and understanding to the progress, success, and sustainability of this SAP. Therefore, developing spatial data to empower better, data-driven conservation decision-making and enhanced adaptive management is an essential strategy. Proposed actions to support this strategy will include, but are not limited to those described below:

Proposed Actions:

- Develop accurate and reliable spatial and tabular vegetation data for location and quality of oak and prairie habitats within the planning area and make available to partners.
- Conduct a threats analysis mapping effort to determine which areas are at highest risk from development and agricultural conversion.
- Work with state, federal, and Tribal partners to develop more robust wildfire threat assessment data to help partners prioritize woody encroachment and prescribed fire efforts.

Overarching Strategy 2: Integrate Diversity, Equity, and Inclusion into SAP Implementation

Guiding Principle #4 (see Section 3.2) describes how the success of the WVOPC in achieving its goals depends on engaging a broad and inclusive a coalition. The WVOPC is committed to a strategy that integrates principles of diversity, equity, and inclusion into WVOPC decision-making, and outreach, and community engagement. Proposed actions to support this strategy will include, but are not limited to those described below:

Proposed Actions:

- Create a governance structure that ensures the WVOPC supports diversity, equity, and inclusion, and commits time to regular discussion of how diversity, equity, and inclusion are essential to successful conservation of oak and prairie.
- Work to build effective partnerships with organizations and leaders representing communities and populations facing disparities.
- Develop a communications strategy that authentically engages diverse populations, sharing the WVOPC's activities and welcoming reciprocal engagement.
- Build strong, responsive relationships with under-represented groups and provide opportunities to connect as partnership leaders.
- Evaluate environmental justice considerations, including equitable investment in conservation actions, as a step in WVOPC decision making.

Overarching Strategy 3: Increase the Human Connection to Nature

While this Strategic Action Plan is focused on improving the ecological target of oak and prairie habitat by limiting impacts, the WVOPC recognizes that increasing evidence documents the positive effect of access to natural environments on human health. This concept of the essential linkage of the SAP's success to human factors is recognized in Guiding Principle 4, 5, and 6. Proposed actions to support this strategy will include, but are not limited to those described below:

Proposed Actions:

- Raise awareness of the importance of the human-outdoor connection with a diversity of communities spanning all age groups in conservation, prioritizing outdoor events, field trips, workshops, and tours in natural settings.
- Develop relationships with tribal communities to support cultural connections to landscapes and species.
- Build alliances between the health system and conservation organizations to increase collaboration towards the goal of healthy people and healthy environments.
- Work to overcome barriers that contribute to inequitable access to natural areas and outdoor education within the planning area.
- Work to promote public access, specifically of underserved communities, to conserved oak and prairie habitats, particularly in areas near population centers, to enable the public to experience, appreciate, and support these conserved habitats.

Overarching Strategy 4: Increase Climate Resilience

Climate change will bring changes to oak and prairie habitats, and also to agricultural lands and the patterns of urban and rural development. Working to anticipate and plan for its effects on oak and prairie habitats is an additional strategy in the WVOPC approach, and essential to the sustainability of the WVOPC's vision and mission over time. Climate change, with anticipated increases in temperatures, drought, invasive species, extreme precipitation events, wildfire frequency/intensity, changes in hydrology and water supply, and distribution of plant species and habitats, is a factor that interacts with all strategies in the SAP. The precise nature of that interaction will vary by threat category, and may be unknown at this time. Proposed actions to support this strategy will include, but are not limited to those described below:

Proposed Actions:

- Use the principles developed by the Oregon Global Warming Commission (2008) to guide the WVOPC integration of climate change considerations into implementation of SAP strategies: These principles are the maintenance and enhancement of key ecosystem processes; the establishment of an interconnected network of lands and waters that support fish and wildlife adaptation; acknowledgement of and evaluation of the risks of proposed management actions in the context of anticipated climate change conditions; and the need to coordinate across political and jurisdictional boundaries.
- Evaluate Anchor Sites and other priority conservation areas in the primary planning area for potential climate refugia, with particular consideration for at risk species that reside in prairie and oak habitats.
- Collaborate with USFWS, USBLM, ODF, and USFS to evaluate State and Federally managed lands within the "climate resiliency area" to determine those areas most likely to shift from conifer forest dominated habitat to oak-prairie habitat due to projected climate change and begin shifting management objectives in those areas accordingly. Areas most prone to this transition would likely include areas with south and west facing slopes and shallow soil. Initial focus should evaluate areas adjacent to known oak-prairie habitat patches and along Potential Future Habitat Corridors identified on the 30-year Conservation Concept Map.
- Regularly evaluate climate change as a consideration during adaptive management review of all SAP strategies.

9 Progress Monitoring Framework

Oak Basin (BLM)

9.1 Background

Habitat conservation is a long-term process and results are often not measurable in the timeframe of strategic action plans. Therefore, measuring threat reduction, and other intermediate outcomes, can help demonstrate the progress of strategy implementation. The progress monitoring approach of the WVOPC is based on OWEB guidance and will evaluate the effectiveness of the WVOPC's strategies on reducing threats to oak and prairie habitats in the planning area. This assessment structure will inform adaptive management of the strategies over the life of the SAP and will require consistency and collaboration by WVOPC partners, including regular reporting on project implementation as well as monitoring of metrics, some of which are outside normal conservation project reporting (i.e., tracking new policies, number of trainings, number of crews). Future OWEB and other funding requests that support implementation of the SAP will include progress monitoring frameworks (objectives and metrics) consistent with those outlined in this section.

Progress of the SAP will be tracked via intermediate ecological results and implementation results. Four primary categories of intermediate ecological results are outlined in Section 9.2. These are to be monitored by WVOPC partners and compiled by the WVOPC on an annual or six-year cycle (see Figure 9-1). A set of implementation results (outputs) considered to be most relevant and informative were selected from the results chains and are included in Section 9.3 (see Figures 9-2, 9-3, 9-4, 9-5, and 9-6). Implementation results will be monitored by WVOPC partners as SAP implementation projects targeting these results occur, whether funded by grants received from OWEB or supported by other related partnership activities. Monitoring results will then be reported to the WVOPC and compiled across the planning area.

9.2 Ecological Progress to be Tracked by the WVOPC

The ecological progress achieved under this SAP will be monitored by measuring the reduction in limiting factors to oak and prairie habitats (see Figure 9-1). Monitoring a comprehensive set of measures of ecological progress across the entire planning area is not feasible, and data describing baseline ecological conditions are not consistently available. The proposed approach is to track indicators of ecological progress (intermediate ecological results) in four key areas.

Figure 9-1: Ecological Results, Objectives, and Metrics to Reduce the Threats to Oak and Prairie Habitats

These intermediate ecological results will be tracked on an annual or six-year interval by the WVOPC:

Limiting Factor Reduction or Intermediate Ecological Results	Objectives	Metrics (annual tracking unless otherwise noted)
Habitat loss and fragmentation is decreased in the planning area	Increase total acres of oak and prairie habitat conserved and managed	• Acres of oak and prairie habitat conserved within the planning area (permanent conservation status via fee title ownership and easements)
Existing Anchor Sites for conservation are expanded and new anchors are added	Increase acres of core conserved and managed lands meeting the Anchor Site criteria (See section 4.1 for criteria; e.g., 100 acres minimum)	• Number of Anchor Sites established (based on WVOPC Anchor Site definition – see Section 4.1 for definition and 2019 data) • Total acres within all Anchor Sites combined (see Section 4.1 for 2019 acreage)
Increased prescribed fire on the landscape promotes diverse and fire adapted oak and prairie ecosystems	Increase acres burned annually	• Acres burned through prescribed fire (private and public lands)
Increased management supports the quality and function of oak and prairie habitats	Increase acres treated for woody encroachment and invasive species	The following data will be compiled on a six-year interval: • Acres of oak and prairie habitat mowed • Acres oak release • Acres of chemical weed control in oak or prairie habitats • Acres other weed control (manual, biocontrol, etc.) in oak or prairie habitats • Acres seeded with native species in oak or prairie habitats Note: A questionnaire will be sent out to land management organizations operating within the planning area once every six years asking for acreage estimates for all factors listed above for the previous six-year period. The first questionnaire will go out in 2021 asking for data for the previous six-year interval in order to establish a baseline.

9.3 Implementation Progress

Based on the theory of change in each threat category, and the strategy prioritization by SAP Working Group, Steering Committee members have identified select implementation results (outputs) that will be the most relevant and informative to track the progress of SAP implementation. These outputs, organized by threat category, are identified in the tables below (see Figures 9-2 to 9-6). The selected outputs are highlighted in the results chains in Section 8 with red letter coding. Projects supported by future implementation funding requests and other WVOPC sponsored efforts will utilize the consistent objectives and metrics outlined in the sections below so that progress of SAP implementation can be monitored using a common approach where feasible.

9.3.1 Rural and Urban Development

Critical implementation results from priority strategies to reduce the threat to oak and prairie from rural and urban development (see Figure 9-2) will include public and development community support, available incentive programs, and strengthened policy and regulations around habitat protection, in addition to habitat conservation and management.

Figure 9-2: Implementation Results, Objectives, and Metrics for Rural and Urban Development

Rural and Urban Development			
	Implementation Results (Selected Key Outputs)*	**Objectives**	**Recommended Metrics**
A	Public and development community support stronger protections and desire to live within habitat	• Increased property value in areas proximal to oak-prairie habitats.	• Property value in proximity to habitat (based on evaluation of sample urban fringe areas)
B	Local and statewide codes, regulations, and policy are strengthened, and programs providing incentives for habitat conservation are expanded (land use planning policy and codes support oak-prairie conservation)	• Engage the counties and cities in the planning area to implement code audits to assess and improve regulations to promote conservation. • Increase regulatory protections for habitats. • Increase the number of landowner incentive programs. • Increase the number of landowners and acreage enrolled in conservation land incentive programs. • Increase the number and quality of habitat management plans developed for retained habitat in larger developments.	• # Counties implementing code audits and updates • #, scope, and scale of new protections added • # Programs providing incentives for prairie and oak habitat conservation • # Landowners and acreage of land enrolled in incentive programs • # Habitat management plans, plan quality (per a standardized format)
C	Habitat conserved in and around urban-rural development areas.	• Add more lands with prairie and oak habitats to public parks and open space or land trust easements/ownership. • Establish development fees to fund stable management.	• Acres added to parks/open space • Revenue generated and directed to habitat management and acres of management funded
D	Conserved habitat is restored and well managed by landowners/developers.	• Build alliances that develop and distribute guidance materials to improve management practices. • Use a habitat certification process to encourage and highlight outstanding management (OSU Extension Service).	• Acres of new conservation in restoration and management • # of Certified lands participating

**Refer to results chains included in Section 8*

9.3.2 Woody Encroachment

Key implementation outputs in the process of reducing woody encroachment (see Figure 9-3)into the oak and prairie habitats of the planning area will include growing public support, in addition to cost-effective methods for woody vegetation removal, with costs for woody encroachment control reduced over the life of the SAP. Ultimately, these will result in a progressively greater number of acres being treated for woody species control in the planning area on an annual basis, particularly in key areas such as Anchor Sites.

Figure 9-3: Implementation Results, Objectives, and Metrics for Woody Encroachment

Woody Encroachment			
	Implementation Results (Selected Key Outputs)*	**Objectives**	**Recommended Metrics**
E	Landowners have cost effective ways to reduce woody encroachment.	• Develop a practical and sustainable business model for removal of woody encroachment and use of byproducts.	• Model developed
F	Public supports woody encroachment reduction.	• Increase the level of public support for woody vegetation removal and fuels reduction.	• Level of support relative to baseline level of support, as measured by survey
G	Costs for woody encroachment control are reduced on all lands (through collaboration and incentive programs).	• Establish a functional collaborative for sharing equipment and coordination of workforce. • Increase incentives in use by public and private landowners to implement thinning and woody control vegetation control projects.	• # Groups participating in collaborative, and volume of work completed • # Incentive programs available • # Enrolled in programs • Acres treated via programs annually • Cost of treatment/acre
H	More acres are treated annually.	• Increase the acres treated annually for woody vegetation control across the planning area.	• Acres treated in Anchor Sites • Acres treated via WVOPC partner projects

**Refer to results chains included in Section 8*

9.3.3 Agricultural Conversion and Incompatible Management

Implementation outputs in the process to decrease the threat from Agricultural Conversion and Incompatible Management (see Figure 9-4) will include sufficient access to funding and programs to implement conservation or compatible management, implementation of BMPS by landowners and managers, and strengthened policies to decrease conversion of oak and prairie habitat to agricultural production.

Figure 9-4: Implementation Results, Objectives, and Metrics for Agricultural Conversion/ Incompatible Management

Agricultural Conversion and Incompatible Management			
Implementation Results (Selected Key Outputs)*		**Objectives**	**Recommended Metrics**
I	Landowners and managers have access to funding and programs (to implement conservation and or compatible management).	• Expand existing Oak Accord program to include more landowners and additional agricultural use types. • Increase the number of working lands in conservation easements. • Increase the landowner participation in working lands programs. • Understand competing priorities on working lands and develop BMPs for oak and prairie conservation.	• # Landowners and agricultural uses engaged in Oak Accord • # Working lands easements, # acres in easements • # Sites/acres enrolled in conservation via working lands programs with NRCS or other partners
J	Landowners and managers implement Best Management Practices (BMPs).	• Increase the availability of technical assistance.	• # New guidance materials available • # Projects/# acres involved with working lands implemented by WVOPC partners
K	Policies (to decrease conversion of habitat to production) are strengthened.	• Increase value of oak and prairie habitats in property appraisal process. • Engage lands in funding through Farm Bill. • Provide greater support for working lands succession planning.	• Trend over time in value/acre. • # Sites/acres engaged in Farm Bill programs • # Succession planning workshops offered, # attendees

**Refer to results chains included in Section 8*

9.3.4 Non-Native Invasive Species

Critical implementation results in the process to reduce the threat to oak and prairie habitats from non-native invasive species (see Figure 9-5) include having information available to inform and prioritize management decisions at priority sites, the availability of a skilled workforce, stable funding for invasives species management, and greater use of native seeds in post-invasive species treatment habitat restoration.

Figure 9-5: Implementation Results, Objectives, and Metrics for Non-Native Invasive Species

Non-Native Invasive Species			
Implementation Results (Selected Key Outputs)*		**Objectives**	**Recommended Metrics**
L	Data is available to inform and prioritize management decisions at priority sites.	• Increase participation in the EDRR program • Collect baseline data on invasive species at selected Anchor Sites, and revisit at least every 10 years.	• # EDRR reports received • # Anchor Sites with invasive species survey data, # with data < 10 yrs old
M	Skilled workforce is available when needed	• Increase availability of training focused on natural areas management (e.g., pesticide applicator, invasive species identification). • Streamline the process to find trained and qualified applicators through a blanket services/master contract.	• # Trainings offered, # enrollees • # Applicators in blanket service/master contract pool; acres treated by this group
N	Landowners, managers and public have funding for invasive species management	• Sustain incentive programs for treatment of invasive species on private lands.	• # Program enrollees; # acres enrolled/treated.
O	Native seeds used more broadly in post-treatment restoration.	• Increase the volume of native seed applied in restoration projects. • Decrease the cost of native seed for restoration projects.	• # lbs native seed used in planning area • Cost ($/lb) of widely used native species

**Refer to results chains included in Section 8*

9.3.5 Fire Exclusion

Reducing the threat to oak and prairie habitats from fire exclusion (see Figure 9-6) will be tracked by several implementation results, including increased and stable funds for prescribed fire, enacting prescribed fire friendly policies, and increasing the number of trained contract and volunteer prescribed fire practitioners, in addition to increasing the capacity for implementing prescribed fire programs on private land.

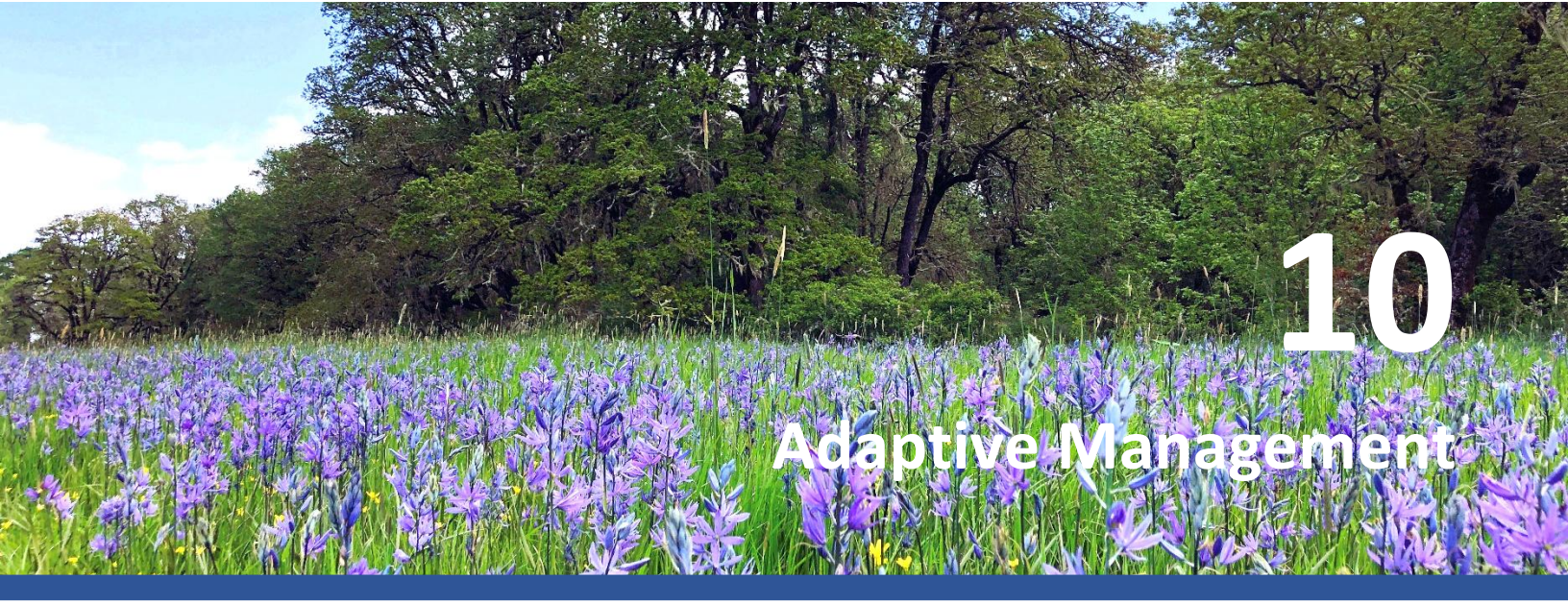
Figure 9-6: Implementation Results, Objectives, and Metrics: Fire Exclusion

Fire Exclusion			
Implementation Results (Selected Key Outputs)*		**Objectives**	**Recommended Metrics**
P	Increased and stable (consistent) funds are made available to support Rx fire.	• Receive stable funding from multiple sources on an annual basis.	• # Fire funding sources • Total fire funding available
Q	Rx fire-friendly policies are enacted	• Increase the allowable period for prescribed burning. • Increase the flexibility of smoke management regulations.	• # Burns implemented in extended period • # Burns implemented that would not have been possible with prior smoke regulations
R	Increased number of trained contract and volunteer Rx fire practitioners.	• Increase the number of trained fire crews available.	• # Crews (by person hours/year)
S	Increased capacity for implementing Rx fire programs on public and private land.	• Increase the acres burned annually. • Streamline permitting and simplify landowner incentives and assistance programs	• # Acres burned/year on public and private land

**Refer to results chains included in Section 8*

9.3.6 Overarching Strategies

The "overarching strategies" listed in Section 8.2.6 support strategy implementation under all of the threat categories. These additional strategies have not been captured directly within a results chain and therefore strategy-specific outputs are not identified. However, the progress of overarching strategy implementation and outcomes will be tracked in parallel with implementation of all strategies in the SAP.



10 Adaptive Management

10.1 Background

As described by OWEB, adaptive management is the intentional practice of adjusting strategies through a cycle of assessing, planning, implementing, monitoring, and evaluation (Figure 10-1). As the WVOPC implements this SAP, adaptive management will be particularly useful to address gaps in the information describing the behavior of oak and prairie ecosystems, or if there is uncertainty in the effectiveness of strategies and actions. The WVOPC expects that its partners will gather new information as strategies are implemented and monitored. There may also be changes in conservation circumstances or new information available from advancements in research or emerging threats. Through adaptive management, this information can be used to improve strategies and refine actions to more effectively achieve ecological progress (Figure 10-1).

10.2 Areas of Uncertainty and Research

Over the 30-year period of the SAP, the progress of the WVOPC will undoubtedly intersect changes in ecological, political, and social circumstances affecting oak and prairie. Such changes may include new threats or changes in existing threats affecting oak and prairie, such as new invasive species, new pathogens and pests, or new agricultural crops or agricultural land uses. New insight into preservation, enhancement and management of oak and prairie habitats is also likely to emerge. This may include new tools and techniques that reshape habitat restoration best practices and integrated pest management (e.g., novel herbicides or biological controls). Climate change will interact with all aspects of the SAP, through changing the pressures of development, altering the patterns of woody species encroachment and non-native species invasion, modifying fire behavior or causing adaptations in agricultural practices. The scope and scale of change in these factors, in addition to other unidentified aspects, will determine whether adjustment of strategies is needed.

10.3 Mechanism to Capture and Evaluate Information

Each year, WVOPC partners will report on the progress of implementing the SAP to be compiled by the WVOPC Coordinator (once the position is funded). This will include a record of work completed, as measured with a sub-set of selected objectives metrics identified in the progress monitoring framework (see Section 9). Progress will include sharing lessons learned, and providing specific feedback on the efficacy and efficiency of the actions and strategies of the SAP. Information will be shared in a standardized format tiered from the objectives and metrics of the progress monitoring framework for implementation and ecological progress, as identified in Section 9. Where possible, reporting will be completed electronically, via an online format that compiles directly into a single database. Information in the database

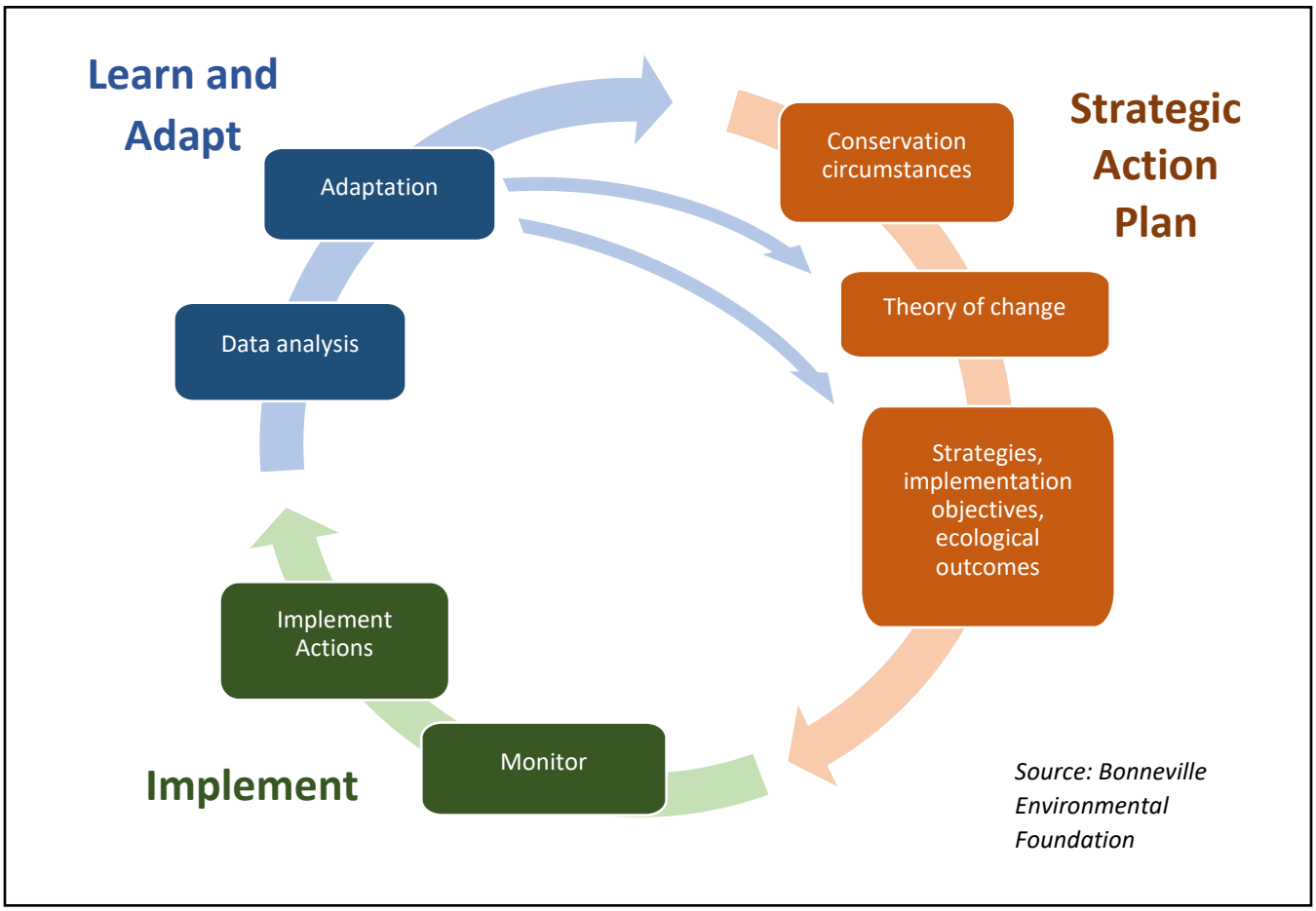
will then be analyzed and summarized on an annual and cumulative (over the term of the SAP) basis. Resulting outputs, will be described in a concise annual report shared with the WVOPC partners, funders, and made publicly available on the WVOPC website.

On at least a biennial (every other year) basis, the WVOPC will hold a partnership meeting to review SAP implementation progress, discuss feedback, and share new research relevant to the threats, strategies and actions within the SAP.

10.4 Process to Adapt the SAP

The WVOPC will evaluate cumulative implementation and ecological progress towards the implementation and ecological progress objectives annually and review and consider need for updating elements of the SAP approximately on a six-year cycle. Updates could include revising strategies and actions, updating the 30-Year Conservation Concept Map to reflect newly conserved lands and extent of Priority Conservation Areas, and refining the progress monitoring framework as needed.

Figure 10-1: Adaptive Management Diagram



Jackson Meadow (P. Reed)

11 Sustainability

The WVOPC recognizes that achieving the 30-year vision for oak and prairie conservation will require sustained collaboration, innovation, and investment. The Cooperative's success depends on maintaining stable funding, organizational cohesion, and technical capacity over the multi-decade timeframe needed to restore and protect oak and prairie ecosystems at a landscape scale. This section outlines the partnership's strategy for sustaining the financial, structural, and operational foundation required to implement the SAP effectively.

11.1 Securing Funding

The WVOPC will pursue a diversified funding strategy to support the implementation of conservation actions and achievement of ecological goals. The partnership plans to submit a Focused Investment Partnership (FIP) proposal to the Oregon Watershed Enhancement Board (OWEB), which will provide an opportunity to make significant progress on restoring priority habitats identified in the SAP. FIP funding will strengthen the WVOPC's ability to coordinate large-scale, cross-boundary restoration projects, implement strategic habitat management actions, and establish a long-term monitoring framework.

In addition to the proposed FIP, WVOPC partner organizations will continue to pursue independent and complementary funding sources that advance shared goals. These include OWEB open solicitation grants, the Bonneville Power Administration's Willamette Wildlife Mitigation Program, U.S. Fish and Wildlife Service Recovery Challenge and Partners for Fish and Wildlife grants, Natural Resources Conservation Service Regional Conservation Partnership Program, and National Fish and Wildlife Foundation (NFWF) programs such as the America's Ecosystem Restoration Initiative (AERI). Partners may also pursue funding from private philanthropic foundations and other sources. By maintaining a diversified portfolio of funding sources, the WVOPC will reduce reliance on any single program and build resilience against funding fluctuations.

11.2 Maintaining the Partnership

Sustaining the cooperative's organizational strength and collaborative effectiveness is a central priority for long-term success. The WVOPC will continue to operate as a voluntary, non-regulatory partnership governed by a Steering Committee and supported by active Working Groups. The Steering Committee will continue to guide strategic direction,

funding coordination, and adaptive management, while the Working Groups provide technical expertise and project-level implementation support.

Regular meetings, open communication, and transparent decision-making will remain foundational to maintaining trust and commitment among partners. The partnership will continue to emphasize shared ownership of outcomes, ensuring that members remain engaged and accountable to collective goals while pursuing complementary efforts within their own organizations. The WVOPC will maintain a Coordinator position, which is a critical role in maintaining this structure by facilitating coordination, communication, and progress tracking. While this position is currently only funded for 2025-2029, the WVOPC will continue seeking additional and sustained funding to support this position through OWEB, federal grants, and partner cost-share contributions to ensure continuity of leadership and coordination capacity.

11.3 Sustaining Progress Tracking

Tracking ecological outcomes and implementation progress is essential to measuring success and maintaining accountability. The WVOPC will build upon its existing Progress Monitoring Framework to evaluate both ecological and implementation indicators, including annual acres of habitat restored, managed, or protected; species response metrics; and measures of connectivity and resilience.

The WVOPC Coordinator, along with assistance from the Steering Committee, will oversee progress tracking, maintain a shared data repository, and convene partners to evaluate results. By integrating adaptive management into the monitoring process, the WVOPC will ensure that lessons learned are applied to improve project design and implementation over time.

12

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The following reports, plans, and studies were consulted during development of this Strategic Action Plan:

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Baskett Slough NWR (J. Krueger)

13 Partnership Certification

The original 2020 Strategic Action Plan (SAP) was developed under the guidance of the 2020 WVOPC Steering Committee. The Steering Committee was formed to oversee the development and implementation of the SAP and support collaborative, sustainable partnerships for conservation and restoration of oak and prairie habitats in the Willamette Valley. The 2020 Steering Committee, made up of twelve members representing Tribal, municipal, and non-profit organizations, actively participated in the development and refinement of the Strategic Action Plan.

Certification

I certify that this Strategic Action Plan is a true and accurate representation of the proposed work and that I am authorized to sign as the Partner Representative.

			Signature	Date
Clinton Begley	Executive Director	Long Tom Watershed Council		12/16/19
Sara Evans-Peters	Conservation Planner	Pacific Birds Habitat Joint Venture		12-16-19
Claire Fiegener	Conservation Director	Greenbelt Land Trust		12/16/2019
Tom Kaye	Executive Director	Institute for Applied Ecology		12/16/19
Nicole Maness	Resilient Habitat Program Manager	Willamette Partnership		02/05/20
Shelly Miller	Supervisor, Ecological Services and GIS Teams	City of Eugene		12/16/19
Will Neuhauser	Partnership Member	Yamhill Partners for Land and Water		12/16/2019
Michael Pope	Executive Director	Greenbelt Land Trust		12/16/2019
Lawrence Schwabe	Hydrosystem Compliance Specialist	Confederated Tribes Grand Ronde		12-16-19
Bruce Taylor	Partnership Coordinator	Pacific Birds Habitat Joint Venture		12.16.19
Brenda Bremner	General Manager	Confederated Tribes of Siletz Indians		2/14/20
Kelly Warren	Regional Biologist – Western Oregon	Ducks Unlimited		12-16-19

Willamette Valley Oak and Prairie Cooperative Strategic Action Planning Process

Summary of Working Group Meeting #1

Post-meeting tour of Bald Hill Farm

Draft: May 9, 2018

Summary Report Contents

Report compiled by Jeff Krueger (JK Environments)
All responses are based on meeting notes or verbatim responses from the questionnaire

Summary Report Purpose and Working Group/Steering Committee Rosters

This report is a summary of the first meeting of the Willamette Valley Oak and Prairie Working Group held on April 24, 2017 and responses from a pre-meeting questionnaire that went out to all Working Group members and the project Steering Committee. The Working Group serves as a panel of technical experts assembled to provide input and feedback in support of the development of the Willamette Valley Oak-Prairie Strategic Action Plan.

Working Group

- Bob Altman — American Bird Conservancy
- Ed Alverson — Lane County Parks
- Andrea Berkley — Oregon Parks and Recreation Department
- Jason Blazar — Friends of Buford Park & Mt. Pisgah
- Lynda Boyer — Heritage Seedlings
- Joe Buttafuco — The Nature Conservancy
- Mikki Collins — U.S. Fish & Wildlife Service
- Sarah Deumling — Zena Forest
- Daniel Dietz — McKenzie River Trust
- Sarah Dyrdhal — Middle Fork Willamette Watershed Council
- Matt Gibbons — The Nature Conservancy
- Lauren Grand — Oregon State University Extension Service
- Jarod Jebousek — U.S. Fish & Wildlife Service
- Bart Johnson — University of Oregon, Department of Landscape Architecture
- Pat Johnston — U.S. Bureau of Land Management
- Ann Kreager — Oregon Department of Fish and Wildlife
- Katie Mackendrick — Long Tom Watershed Council
- Mark Miller — Trout Mountain Forestry
- Will Neuhauser — Yamhill Partners for Land and Water
- Kevin O'Hara — U.S. Fish & Wildlife Service
- Sean Prive — Lomakatsi Restoration Project
- Lawrence Schwabe — Confederated Tribes of Grand Ronde
- Chris Seal — U.S. Fish & Wildlife Service
- Steve Smith — Retired U.S. Fish & Wildlife Service
- Tom Snyder — NRCS Benton/Linn County
- Audrey Squires — Middle Fork Willamette Watershed Council
- Diane Steeck — City of Eugene
- Emily Steel — City of Eugene
- David Stroppel — Oregon Department of Fish and Wildlife
- Laura Tesler — Oregon Department of Fish and Wildlife
- Megan Zarzycki — Confederated Tribes of Siletz Indians
- Chris Vogel — Oregon Department of Fish and Wildlife
- Matt Blakeley-Smith — Greenbelt Land Trust
- Amy Loop-Frison — Yamhill SWCD

Steering Committee

- Clinton Begley — Long Tom Watershed Council
- Sara Evans-Peters — Pacific Birds Habitat Joint Venture
- Tom Kaye — Institute for Applied Ecology
- Nicole Maness — Willamette Partnership
- Shelly Miller — City of Eugene
- Michael Pope — Greenbelt Land Trust
- Bruce Taylor — Pacific Birds Habitat Joint Venture
- Kelly Warren — Confederated Tribes of Warm Springs
- Jeff Krueger — JK Environments (project contractor)
- Carolyn Menke — Institute for Applied Ecology (project contractor)

Working Group Meeting #1 Agenda

Meeting:	**Willamette Valley Oak and Prairie Cooperative WORKING GROUP**
Date and Time:	Tuesday, April 24, 2018 from 9:30 a.m. – 12:30 p.m.
Location:	Scott Zimbrick Memorial Fire Station #5 - Walnut Community Room, 4950 NW Fair Oaks Drive, Corvallis, OR

10 minutes **1. Welcome and Agenda Overview**

- Welcome
- Introductions: Name, affiliation, and areas of expertise

35 minutes **2. WVOPC Background and Overview of Strategic Action Plan Process - Jeff**

- Purpose of WVOPC and Strategic Action Plan
- SAP process, product, and planning structure
- Timeline and completed tasks
- Defining our target habitat: oak-prairie spectrum (fire dependent ecosystems)
- Quick overview of planning area (including a few factoids)
- Report back on vision survey results
- **Questions and Comments**

25 minutes **3. Targets, Stresses, Threats Overview – Carolyn and Sara**

- Open standards process overview
- Defined target habitat (oak and prairie)
- Identified stresses and threats
- Report back on threat assessment survey results – Scope, Severity, Irreversibility
- **Questions and Comments**

90 minutes **5. Work Session with Small Groups**

- Strategies brainstorm by threat category
- Report back between categories

20 minutes **6. Next Steps and Closing Thoughts**

- Overview of next steps
- Closing thoughts

---Optional Site Tour to Bald Hill Farm Starting at 1:00---

Pre-Meeting Questionnaire Responses

Visioning Scenario

The Working Group and Steering Committee were asked to describe this ideal future Willamette Valley oak and prairie system you are envisioning and the mechanisms that were used to achieve this success. Responses were limited to 150 words or less. Responses listed below are verbatim and not all respondents were able to attend the meeting.

Visioning Scenario: Imagine you're able to time travel to 30 years into the future. When you arrive, you spend several days touring the Willamette Valley (perhaps by flying car) and are overcome by the quality and extent of the oak and prairie habitats you are seeing. You also spend a day with members of the Willamette Valley Oak and Prairie Cooperative, and they explain to you how this on-the-ground success was achieved. Please describe this ideal future Willamette Valley oak and prairie system you are envisioning and the mechanisms that were used to achieve this success. Please try to be visionary and as concise as possible in your description.

- I'll say, "Wow, I can't go anywhere without seeing acorn woodpeckers." while on my way to a site that has breeding Lewis's woodpeckers and ash-throated flycatchers. Short-eared owls will breed here again as well. I'll be pleased to see that ranching has made a comeback in the Willamette Valley. I'll be impressed by how much the TNC/CNLM/USFWS/(and others) fire partnership has grown. ODF will be working with lots of landowners through partnerships and incentive programs to create open oak woodlands in an effort to reduce catastrophic wildfire risk. Mature oak trees will be a common component of woodland owners' forest management plans through various incentive programs. There are no federally listed species in the Willamette Valley. There will be a valley-wide network of conservation easements, NGO, and public lands that have high-quality plant communities with funding streams to ensure long term management. – **Jarod Jebousek**

- Ideally the system would prevent further loss of Oak habitats (oak savanna and woodland). Would manage and restore oak habitats to intact native habitats that achieve high function for the Willamette Valleys wildlife. It was achieved by cooperative partnerships, funding, and a shared well thought out vision. – **Kelly Warren**

- Ideally the system would prevent further loss of Oak habitats (oak savanna and woodland). Would manage and restore oak habitats to intact native habitats that achieve high function for the Willamette Valleys wildlife. It was achieved by cooperative partnerships, funding, and a shared well thought out vision. – **Matt Blakely-Smith**

- I was impressed how traveling from Seattle to Portland I could always spot scattered oaks with native wildflowers, or an oak grove. The foothills although used predominantly for grape production, were interspersed with patches of magnificent oak and patches of native prairie. The extent of historic oak savanna & oak woodland has been reduced but new habitats are being restored and and small oak trees are now visible within the restored upland prairie habitats. When I stopped to meet up with the tour the first bird I heard was a western meadowlark and bumble bees were a hummin. **– Steve Smith**

- The valley's native wildlife and plants are thriving, anchored by a linked network of lands managed primarily for their habitat and wildlife values. To accomplish this, the WVOPC followed a spatially explicit plan that focused efforts to build the network in agreed upon areas; adapted as necessary, but stuck with it. The WVOPC created the WV Oak and Prairie Initiative that was funded by the National Fish and Wildlife Foundation. The Initiative, governed by the WVOPC, prioritized actions and directed the funding. As part of the Initiative, WVOPC engaged partners and landowners in developing a working lands program that encouraged and incentivized landowners to contribute meaningfully to the network. The Willamette Wildlife Mitigation Program, in collaboration with the WVOPC, invested in areas identified by the plan. Meadowlark populations rebounded dramatically and are now regularly seen. Their robust songs drowning-out any effort to de-designate them as our state bird. **– Kevin O'Hara**

- Partners are working together as a seamless team, unified under a single mission in the restoration of WVOP habitats. administrative boundaries are not apparent as contiguous habitat is restored on a landscape scale. Partners support one another, leverage resources, coordinate closed to maximize efficiencies. Partners celebrate their successes together. My vision is not any different than how the West Eugene Wetlands Partnership looked in early 2000s - in particular 2004-2007. The land benefits from the human relationships. **– Pat Johnson**

- I would think self-driving car in this scenario.... in any case- I would see all the WWMP sites first and I would expect recovery to be fastest on these pieces due to partners who worked tirelessly to achieve restoration funding for them. All sites that had existing agriculture are now being returned to a natural state, without agriculture, and with very little forestry as all conifer has been removed from oak stands. Very limited controlled grazing might be done to assist with weeds management. All the areas that were established as high priority for wildlife connection have been successfully linked and there is a good amount of wildlife utilizing these corridors with very few negative interactions between them and humans. We also see good populations of OCS species such as vesper sparrow using these habitats efficiently. Trails have been thoughtfully planned to allow humans the chance to interact with the land and not disturb wildlife. Land use planning is still in place to protect from urban sprawl. **– Laura Tesler**

- Large expanses of oak and prairie are connected along the base of the Coast and Cascade ranges. Not all parcels are large and not all are connected, but overall, species that use this habitat are able to travel from one to another within a day. This was achieved through educating the public on how important this habitat is and how quickly it was disappearing. Some landowners were compensated for permanently protecting their properties and others were able to find compromises in land use that enabled them to continue to earn income off of the property (such as grazing). This landscape became very enticing to tourists and therefore increased this industry, bringing much needed tourism dollars into rural communities. Businesses dependent upon this tourism were willing to donate money towards this cause as it would end up generating money for them in the future. **– Annie Loop-Frison**

- Hopefully seeing a more robust/expanded version of the type of cost leveraged, voluntary, conservation partnerships we have now but more readily visible on the landscape and better known to area residents and landowners. Using 2000 as the dividing line, we'd be ~50 years into pushing back on the previous 150 years of intensive modification to this landscape. So, we might just be starting to reap the benefits of the approach stated above (e.g. ESA recovery, etc). **– Chris Seal**

- The Future Willamette Valley Oak and Prairie system would be the inclusion of several large blocks (2,000 acres +) of restored oak and prairie habitats throughout the valley with smaller connector oak parcels that serve has ecological corridors, interlinking these larger conservation parcels. The WWMP could have very well brought in 10,000 acres of prairie and oak habitat, with a variation of some properties with a relatively low restoration need to some that need total restoration. The Oak Cooperative is an alliance of oak and prairie conservation entities and organizations that collaborate together to draw in funding partnerships to make full restoration of protected lands possible. **– Lawrence Schwabe**

- In this future WV scenario, the majority of the present remnant oak/prairie sites have been protected and restored/enhanced through a variety of mechanisms-fee land acquisition, conservation easements, WRPs, and a number of agency programs working with private landowners. In addition, a growing number of farm fields in the historic Willamette and tributary floodplains have been converted to habitat. This was accomplished through floodplain reconnection projects, increasing riparian buffers, wetland prairie restoration and other activities. There remains much to be done, but key anchor habitats have been expanded and corridors connecting them are being developed. In addition, the existing prescribed fire program has been expanded to include new partners, such as the tribes, USFS district staff, and CNLM. The amount of habitat burned has quadrupled over the last 30 years and Willamette residents better understand the role and benefits of controlled burning. **– Joe Buttafuoco**

- 30 years isn't much time for an oak to grow but I would hope that most, nearly all, of the oak acreage existing today would still be here and significant new areas converted back to oak. A high portion of the oak that is currently threatened by conifers would be free, partly from active removal of the conifers, partly because on many sites able to sustain oak the fir has died due to climate induced drought stress. Altered moisture and temperature regimes will have affected which areas will sustain which plant communities. The invasive problem will not be gone but perhaps altered plant communities will have formed under the resilient oaks which will store carbon as well as the former plant communities. At the present time some folks at ODF are actually suggesting planting oak in the areas where firs are dying which should help increase the overall acreage of oak in the valley. **– Sarah Deumling**

- At least 10% of the historic extent of each major habitat type in the WV has been conserved or restored. This would mean about 100k acres of prairie and 50k acres of savanna, with lesser acreages of oak woodland and mixed oak-conifer types. Conserved/restored lands will be in blocks of varying sizes, but each county will have at least one block of conservation lands at least 10k acres in size (it will probably include other WV habitats in a mosaic). Most public lands will be available for hiking, camping, fishing, and hunting, but at least 1/2 of this conserved/restored landscape will be on private lands. Most agricultural lands will be used for growing food, and will include continuous buffers of native prairie and oak species as corridors and around the edges. Funding will come from public and private sources, because of a high level of public awareness and support for native habitat conservation on this close-to-home landscape. **– Ed Alverson**

- Currently, conservation is opportunistic. Strong land use laws and regulatory requirements may be the only way to achieve meaningful large-scale conservation of these systems. Voluntary conservation is piecemeal, not necessarily perpetual, and dependent on too many extraneous factors (availability, funding, economic influences, personal values, changing circumstances, etc) to count on with any great certainty. An overarching strategy on a landscape scale that requires state agencies and local governmental jurisdictions to participate is necessary. Just as we regulate water rights, wetland impacts, housing development, infrastructure, etc, natural resources need to be assessed, impacts quantified and mitigated, and cared for in perpetuity. **– Ann Kreager**

- I discover 100,000 acres of land conserved across private and public ownership from Cottage Grove to Portland. The portfolio features seventeen anchor properties each featuring 5,000 acres of oak-prairie habitat (often within a larger conservation area). The balance of the portfolio is comprised of sites ranging from 25 acres to 1,000 acres in size. This landscape defines the culture of the people of the Willamette Valley and informs the way they live within this place. One sustains the other. The mechanisms to realize this vision: Ample financial resources (including funds derived from a Willamette Valley System Development Tax) sufficient to support restoration projects and stewardship practices. A workforce outfitted with the skills, equipment (including a fleet of hover tractors), and relationships to implement projects and nurture habitat. Locally sourced, genetically appropriate plant materials. A robust ecological burning program with capacity to implement burns across 30,000 acres annually. **– Jason Blazar**

- Even with the massive increase in the human population in the WV by 2050 (now that coastal cities are inundated), the Coop has been able to conserve tens of thousands of acres of prairie and oak communities, begin restoring oak savannah from agricultural lands and continue restoring wet prairie. The Coop recognized the need to prioritize purchase of high quality prairie and oak remnants, creating core connected preserves of 5000- 25,000 acres, away from urban regions, where land was still affordable and remnants sustaining native species still occurred. The Coop gained the interest of a few massive donors/funders and provided 'destination' oak/prairie sites easily access from cities by bike, tourism-trail, and solar shuttle. This generated support from city dwellers that lacked preserves nearby. Funding likewise supported local rural economies, somewhat like UNESCO's Biosphere reserve project w/core, buffer, and transition areas. Smaller near/in-city oak savannah preserves provides nature-based hiking and education, which further generates support. **– Diane Steeck**

- Farmland with oak and prairie habitat corridors between them reducing the island affect. Hedgerows planted to native prairie species to attract native pollinators and beneficial insects and “marginal” lands restored to upland and wetland prairies. Working with the Oregon Association of Nurseries and ODA, the WVOPC was able to map areas of potential habitat using drones and satellite images. For example, swaths of bright yellow (Western buttercup) and deep pink (Rose checkermallow) led to discoveries of new upland prairie sites on private land. Next, the same partnership along with private landowners already restoring habitat on their lands led to outreach to these new landowners as to the value of their “back-40’s” and introduction to federal, state, and local funding to help maintain and restore that habitat. The Willamette Partnership Oak Accord Program was also a key component of outreach to businesses and private landowners showing the value of bottom-up volunteer protection versus mandated protection. Cities have grown up rather than out allowing for the optimal use of open space for habitats. Cities have converted more lawn areas to native prairie (a leading example was the conversion of the open space surrounding Oregon State Hospital and Penitentiary grounds in Salem). These efforts came about by new City ordinances and local groups encouraging natives be the first to be considered on new projects and be added to existing fallow lands owned by the City. **– Lynda Boyer**

- As I fly over the valley, I am seeing numerous large patches (1,000 acres and larger) of conserved oak and prairie habitat, with clearly visible corridors of oak and prairie meandering through the valley, making connections between these large core habitats. School buses can be seen at some of these conservation sites with students and their teachers out in the field conducting nature study and research. Consistent signage identified these properties as being part of the "Oak and Prairie Heritage Conservation Network". I also see that many vineyards, orchards, and farms contain large heritage oaks, and areas of newly planted patches of oaks and prairie integrated. The WVOPC members I have met with tell the tale of how the 50 partner organizations have banded together to implement this coordinated strategy. There is a bright and dedicated coordinator that holds the partnership together and inspires enthusiastic participation. **– Jeff Krueger**

- In the south valley, I would like drive up the I-5 corridor and see a sea of yellows, blues, whites and purples on both sides rather than a green grass seed wasteland. I would enjoy seeing oak woodlands and savannas from the hills of the Coburg Preserve north along the Coburg Ridge to Brownsville intact with large oaks with working ranches. In the mid Valley, I would like to see an extension of the national wildlife system. In the north valley, the remnant oak savannas and prairies will be protected and guarded from population explosion and conversion to hobby farms and vineyards. Acquiring properties fee title and through conservation easements is a primary tool for this vision. **– Chris Vogel**

- Vision was: A spatially interconnected network of well-functioning oak and prairie habitats consisting of protected public lands, mixed use working landscapes, tribal lands, and conservation directed private ownerships. This network functions as wildlife habitat, recreation areas, open space, and functioning farms. How was achieved: Consistent and substantial funding sources from state, federal, and private orgs that brings $ to table for protection and restoration; State and federal policies that help increase protection and restoration of prairie and oak habitat (an oak and prairie reserve program?); Outreach, education, and marketing efforts that change the way Willamette Basin Populace thinks about and appreciates oak and prairie systems (akin to pacNW cultural concepts around old growth and salmon); Tying First Oregonians (Native Americans) foodways and eco-cultural concepts to preservation of landscape. Increasing tribal ownership and rights in landscape; Slowing suburban and viticulture expansion in prime oak and prairie habitats (i.e., not allow Yamhill County to turn into another Napa county); Aggressive expansion of existing protected area networks; Expansion of USFWS NWR system; better knowledge around restoring oak and prairie systems - how to do it; Better "restoration economy" (i.e., knowledgeable practitioners, reliable markets); More fire, everywhere; and a really good map. – **Matt Gibbons**

- A matrix of large connected prairie patches with transition to oak savannah and oak woodland. Protection and restoration was achieved through a collaboration of partners sharing information about effective methods, and working to secure funds and other resources to provide adequate long-term maintenance. – **Mikki Collins**

- For days we have been wandering among blossoming wildflowers and native grass pedestals, in some places stretching as far as the eye can see. Butterflies, bumblebees and frogs cross our path. Our feet, occasionally wetted through in the vernal low prairies, now bring us into the oaks and junegrass. We flop down in the shade and look up. An acorn, diligently tended, is tightly wedged in a hole in a snag. Zoom out to the tree and the granary reveals itself, thousands of holes in dead branches of a gnarled old savanna oak at the bottom of a foothill slope. A colony of acorn woodpeckers lives here, foraging on the heavy mast produced by the surrounding legacy Oregon white oaks. Like the prairies, the savannas and woodlands provide for their bird brethren – homes, food, places to sing. Perched at the top, one bird can see far in all directions, a network of ancient oak trees, their grandchildren colonizing a restored and protected landscape where people and animals alike can roam, refuges of prairie and oak connected like ribbons among the farm fields and up to the edges of neighborhoods. **– Emily Steel**

- In 30 years, I'd hope to see a landscape with sweeping mosaics of wet and upland prairie punctuated by large savanna oaks merging with higher density oak woodlands and forests. Wildlife is abundant and diverse. Peppered amongst these natural landscapes are functioning, profitable, and sustainable farm, orchards and vineyards. The people of the Willamette Valley value oaks and prairies as much as they value old growth Douglas-fir and southern coastal redwoods. This vision was realized through a collaborative, multi-pronged approach bringing together urban and rural communities, businesses and government agencies and non-profits. This collaboration resulted in increased resources for acquisition, restoration, and long-term management on private and public land. **– Shelly Miller**

- I'd like to see a high degree of connectivity along crucial environmental gradients (i.e. riparian woodlands on the valley bottom to mixed oak-conifer higher on the landscape). Also, human interaction that is more participatory, such as gathering food and materials and setting fires. **– Sean Prive**

- Strategic targeted focus placed on mostly private, but also public, lands has resulted in the restoration of thousands of acres of oak and prairie plant communities. Much of this area is in permanent conversation achieved using a variety of mechanisms (e.g. conservation purchase, easements). Species dependent on these habitats are increasing in number dramatically as they are able to move through the landscape and find an interconnected network of large expanses of prairie and oak habitat. Some species in the Prairie Species Recovery Plan are approaching recovery. Mature oaks are protected and new cohorts of young oaks comprise the next generations of oaks, allowed to naturally establish through targeted invasive species control, as well as intentionally planted in key areas. **– Andrea Berkley**

- The valley bottoms along with west and south-facing slopes and numerous butte and ridge tops support an equal or greater amount of healthy, functioning oak-prairie habitat than other single land uses (housing, urban development, monoculture crops: hazelnuts, vineyards, grass seed, input-intensive hay, etc.). Landowners value oak-prairie habitat as an integral part of the landscape, their land, their livelihood, and their culture. Indigenous voices lead habitat restoration and stewardship efforts, and usual and accustomed gathering places are acknowledged across the landscape and across landownership lines. Policies support the protection and expansion of oak-prairie habitat and limit further habitat reduction for single land uses. Agroforestry and polyculture principles guide food systems practices that integrate native, culturally important species and introduced food and fiber species, and uphold and support healthy, functioning habitat. Policies support and encourage fire as a key management tool, and community members actively participate in habitat stewardship activities from prescribed burns to planting and seeding and brush cutting and much more. Social, cultural, and environmental values are as much or more important than economic values. **– Katie MacKendrick**

- I would envision a landscape with large connected blocks of oak (combination of savanna and woodland) and prairies that included complex and highly functional understories of native species. – **Michael Pope**

- Protect the best. Restore the rest. Hard to put a vision into 150 words. From the air, the valley still looks green - both from natural areas and vibrant farms. Big, charismatic oaks are still prominent in the valley foothills. Seas of purple camas can be seen from throughout the valley in spring. Development - both for agriculture and housing/industry - is smart, and protects the highest quality habitats. Restoration practitioners have developed trusting relationships with the agricultural industry allowing farmers to be farmers, but also empower and help them be good stewards of their natural resources. The Willamette Valley DOESN'T look like California's central valley. **– Sarah Dyrdahl**

- Across the valley floor, up lower slopes, and along valleys reaching high into the Cascades, oak savanna and prairies are visible from almost any vantage point. Less apparent, the Willamette Valley is interwoven with oak and prairie grassland functions across all land uses, from agriculture to urban and even forestry. Vineyards and pastures sport large open-grown oaks as habitat islands; savanna and prairie parks bloom in the cities, and residential streets are lined with interlocking canopies of twisted-branch Garry oaks. Within forest lands, grassland openings serve as stepping-stone refugia for savanna species, while in some very productive areas of former savanna, planted oaks grow quickly in full sun to become the next generation of “old growth” savanna oaks. The revived savanna landscape stores carbon safely belowground, and breaks up the spread of crown fires in increasingly hot, dry summers. People and oaks once again form a synergy for life. **– Bart Johnson**

- There are a handful of 10,000+ oak and prairie preserves with wildlife corridors connecting them. Pollinators and birds have an even easier time as even the urbanites and small farms are planting/leaving native habitat/plants in areas not growing food or commodities. Prescribed fire is considered the norm, and a state-federal partnership has more capacity to burn than there are places to burn. I look up and say "thank you, robots" **– Daniel Dietz**

- High quality oak and prairie habitats are abundant on public and private lands. People take it for granted that these features of the Willamette Valley landscape will always be protected and maintained because of the broad public consensus around the importance and value of oak and prairie habitats. Agricultural land owners have found ways to integrate habitat conservation into their operations, and Farm Bill programs provide incentives for sound stewardship. Former oak habitats with marginal value for commercial timber production have been restored. Members of the WVOPC have developed a valley-wide network of organizations and businesses with the technical expertise and work force to manage oak and prairie habitats effectively and efficiently. Voters regularly register their support for conservation funding, a product of three decades of outreach, education, and advocacy that have transformed oak and prairie conservation into a shared cultural value. The WVOPC has continued to evolve and adapt to changing needs and opportunities. Participation in the WVOPC is viewed as an honor and members are community leaders. **– Bruce Taylor**

- collaboration among many agencies that could do a needs assessment to see the state at present, evaluate techniques currently working and those that have not. Teamwork to provide good examples with before and after data. This would provide a how-to guide that can be used in an outreach and education campaign to encourage private landowners to complete the work too. I envision the work to be done on most public lands connected by small private entities. **– Lauren Grand**

Threats Ranking Exercise

Through the pre-meeting questionnaire, the Working Group and Steering Committee members were asked to rank threat categories based on Scope, Severity, and Irreversibility. Reponses were then tabulated and scored using Miradi Adaptive Management software.

Questionnaire Prompt: Threats to the ecological integrity of oak and prairie habitats in the Willamette Valley have been well documented in numerous plans and studies. We would like your help in ranking the **scope, severity, and irreversibility** of these threats. Please use the definitions below the table and rank each listed threat on a scale from low to very high. We will present preliminary results at our meeting.

Scoring Definitions

SCOPE **-** Most commonly defined spatially as the geographic scope of impact on the conservation target at the site that can reasonably be expected within ten years under current circumstances (i.e., given the continuation of the existing situation).

- Very High: The threat is likely to be very widespread or pervasive in its scope, and affect the conservation target throughout the target's occurrences at the site.
- High: The threat is likely to be widespread in its scope, and affect the conservation target at many of its locations at the site.
- Medium: The threat is likely to be localized in its scope, and affect the conservation target at some of the target's locations at the site.
- Low: The threat is likely to be very localized in its scope, and affect the conservation target at a limited portion of the target's location at the site.

SEVERITY - The level of damage to the conservation target that can reasonably be expected within ten years under current circumstances (i.e., given the continuation of the existing situation).

- Very High: The threat is likely to destroy or eliminate the conservation target over some portion of the target's occurrence at the site.
- High: The threat is likely to seriously degrade the conservation target over some portion of the target's occurrence at the site.
- Medium: The threat is likely to moderately degrade the conservation target over some portion of the target's occurrence at the site.
- Low: The threat is likely to only slightly impair the conservation target over some portion of the target's occurrence at the site.

IRREVERSIBILITY **-** The degree to which the effects of a threat can be undone.

- Very High: The effects of the threat are not reversible (e.g., wetlands converted to a shopping center).
- High: The effects of the threat are technically reversible, but not practically affordable (e.g., wetland converted to agriculture).
- Medium: The effects of the threat are reversible with a reasonable commitment of resources (e.g., ditching and draining of wetland).
- Low: The effects of the threat are easily reversible at relatively low cost (e.g., off-road vehicles trespassing in wetland).

Threats Ranking Results

Threat	Scope	Severity	Irreversibility	Final Ranking
Rural & Urban Development	High	Very High	Very High	Very High
Conversion to Agriculture	High	Very High	High	High
Fire Suppression	Very High	High	Medium	High
Non-Native Species Invasions	Very High	High	Medium	High
Woody Encroachment	High	High	Medium	High
Transportation and Utilities	Medium	Medium	High	Medium
Human Intrusion and Disturbance	Medium	Medium	Medium	Medium
Agriculture Management	Medium	Medium	Medium	Medium
Incompatible Water Management	Medium	Medium	Medium	Medium

Note: Scores updated in July 2018 to reflect additional Working Group Input

Additional Threats

The questionnaire also asked if there are any additional threats beyond those listed. Reponses included:

- If forest management is included in agriculture, then no. If forestry is not included, then it was a big miss. Catastrophic wildfire might be another one.
- Include conversion to timber under agriculture.
- Lack of education
- Forestry
- Property taxation rules
- Inability to pay "market" value of environmental services provided for protection of existing stands
- While a consequence of habitat loss and fragmentation, the small and disjunct population structure of wildlife itself should be thought of as a threat that makes them at increased risk of extirpation (extinction debt).
- Political unrest and corporate greed. Funding resources may become scarcer from the federal level, and more local levels of government (state and local governments). It is unknown how the new tax laws will affect nonprofit bottom lines. Basic resources to conduct restoration activities could diminish significantly over the next several years, this trend is likely going to take time to reverse.
- Slow erosion of land use over time; lack of ordinances to protect oaks; loopholes in existing laws to remove "hazard trees" usually oaks off a development site; changing trends in agriculture; slow restoration management of already owned sites; funding direction changes
- Funding capacity (or lack thereof) to sustain management (e.g. burning, mowing, weed treatment, etc.) of these habitats in perpetuity.
- Funding capacity and/or authority to permanently protect oak and prairie habitats post 2025 (i.e. post WWMP).
- Will there continue to be a sustained supply of known source plant materials required to do high quality prairie habitat restoration?
- climate change-extreme weather events
- Climate change
- Inappropriate forestry management and inappropriate tree planting (even in supposedly protected parks).
- Absence of historic predator fauna
- Incompatible recreation development/use
- Climate change
- Recreation (although perhaps this is covered under the umbrella of human intrusion)
- Public understanding and support
- Fire suppression - I also thought of this category as a lack of technical capacity and need for political support regarding prescribed fire. Thinking about our particular challenge in the WV of trying to add more fire to the landscape in a region with a history of smoke management concerns from agricultural burning.

- Forest pathogens are an outside threat compared to the list of items selected for ranking, and would better fit the timeframe of the SAP than the next 10 years. But sudden oak death, insect pests like Asian long-horned beetle and emerald ash-borer (riparian oak associations) etc. have potential to have a significant impact.
- Climate change is another threat that better fits the timeframe of the SAP, but could have effects. Indirect effects could include greater development pressure due to human migration (climate refugees), loss of remnant prairie/oak plant populations in localized areas, harsher growing conditions which could impact oak seedling establishment, increased chance/frequency/intensity of wildfire, etc.
- Policy/Funding -- mechanisms that support protection, enhancement, and restoration of prairie and oak systems on private lands must continue and grow. E.g. federal incentive programs, funded watershed councils, and private land trusts who connect private landowners to resources (or provide those resources) are critical to preventing further degradation and loss of these habitats.
- Potentially pests and pathogens, especially if ash trees are included in these ecosystems.
- Specific to agriculture, is the winery industry as evidenced by what has/is happening in Yamhill County through widespread clear-cutting of oak woodlands on south facing slopes to vineyards. There is an opportunity to call attention to this and perhaps develop some sort of certification program that wineries that conserve oaks can use for marketing.
- From what I experience, conversion to vineyards is the largest loss oak habitat around me.
- Societal injustices in policy-making, planning, and decision-making
- Land ownership system
- Capitalism
- Society-wide value of oak-prairie habitats
- A great lack of humility and reciprocity
- Introduction of pathogens (disease)
- Climate change
- Unsupportive elected officials
- Must include threats from human supported predators such as cats on ground nesting birds for example. this is both "non-native species invasion" and "Human intrusion and disturbance". If it could be controlled, many areas that may have the appropriate plant communities could regain substantial habitat function.

Small Group Exercise: Threats and Strategies

The following list of possible solutions were derived during a small group exercise at the April 24, 2018 WVOPC Working Group meeting. A total of five groups consisting of 5-7 participants spent 90 minutes on this brainstorming exercise.

Small Group Exercise: We have identified a total of 10 threat categories that have contributed to the decline in quality and extent of oak and prairie habitats. For each threat category, please brainstorm a range of possible solutions that could be utilized to address these threats.

- Group 1: Emily Steel, Diane Steeck, Linda Boyer, Laurence Schwabe, Michael Pope, Nicole Maness
- Group 2: Bruce Taylor, Matt Blakeley-Smith, Alejandro Brambila, Steve Smith, Jared Jabousek
- Group 3: Mark Miller, Kelly Warren, Andrea Berkley, Matt Gibbons, Sara Evans-Peters
- Group 4: Ed Alverson, Clinton Begley, Bob Altman, Kevin O'Hara, Carolyn Menke
- Group 5: Sara Deumling, Katie McKendrick, Pat Johnston, Shelley Miller, Audrey Squires, Megan Z., Tom Kaye

Threats	Solutions (Strategies and Actions)

A. Fire Suppression
 	
• Policies and management
• Lack of indigenous burning
• Burn restrictions limit ability to implement burns
• Lack of available crews during best burn windows
• Lack of public acceptance
• Capacity lacking at key times (competing with other fire priorities)
	Group 1 Responses:
	• Improve/Increase Public Outreach and Education:
	  ○ Need a communication strategy for this: what needs to be said about the how and why of burning; how do you reach different audiences?
	  ○ Development of outreach materials (e.g. online/sharable video) about the important role of fire.
	  ○ Collaborative effort to develop common communication tools that everyone can use (pool resources to design and produce tools).
	
	• Build Capacity:
	  ○ Build a network of experts and advocates.
	  ○ Trained staff, burn bosses.
	  ○ Partnerships with local communities: develop a collective strategy for planning, training and implementation.
	  ○ Connect people who want to use first on private land with those who do it on public land.
	
	• Make the Business Case for Fire
	  ○ It's an effective restoration tool if you can limit costs around public engagement and need to respond to public concern
	
	Group 2 Responses:
	• Create an integrated fire management effort that would include a coordinate approach with USFWS, TNC, BLM, USFS, Tribes, and other partners.
	• Bring in resources with experience in ecological burning from other regions (for example, TNC burn module from Colorado).
	• Consider hiring contractors to implement burns (issue is liability).
	
	Group 3 Responses:
	• Build capacity through training, education, and partnerships.
	• Possibly create a "burning cooperative" with a valley-wide focus.
	• Utilize best practices to guide valley-wide fire strategy.
	
	Group 4 Responses:
	• Look for opportunities to extend the burn season by burning outside the window- e.g., balds that could burn earlier.
	• Take advantage of urban interface policy where fire is promoted – e.g., urban interface boundary fire proofing.
	• Make sure we are recognizing all societal benefits of fire for public safety and fuels reduction.
	• Outreach about fire benefits.
	• Add tax base funding for feuls reduction and market benefits.
	• Overcome prior bias around field burning – redefine it as a public benefit, not a landowner benefit.
	• Create public celebration and involve general public in ecological burning. Integrate the tie to indigenous burning history and cultural history. Include outreach and on the ground tours.

Threats	Solutions (Strategies and Actions)
	Group 5 Responses: • Support BLM's EA for fire dependent ecosystems (BLM + partnership Lands, could lead to funding on private lands • Funding and technical support for burning on private lands. Make it seem simpler for private landowners and less complex (simplify procedures). • LRAPA $1000 permit- reduce cost. Or enable private land participation in Rivers to Ridges? • Cross boundary coordination and resource sharing. • NRCS meetings – county work groups. Request funds for burning. • Bring private landowners into the burning process and simplifying process and communication to support private landowners (reduce cost and permitting requirements). • Improve access to equipment and staffing. • Coordinate with NRCS county workgroups annual meeting about where to put $. •

B. Conversion to Agriculture
 	
• Conversion to vineyards
• Conversion to marijuana and hemp
• Conversion to orchards
• Conversion to Christmas tree farms
• Conversion to pasture
• Lack of potential land trusts or entity to hold properties
• Existing tax deferral incentives often discourage conservation
• Cost of agricultural land increasing
	Group 1 Responses:
	• Incentivize Habitat Restoration:
	  ○ Create long term incentives (payments, property tax incentives) for habitat restoration on private property.
	  ○ Make the business case for commodity production in a landscape that includes intact native habitat (i.e., it costs less, yields are improved or risks are reduced).
	
	• Explore Regulatory/Policy Approaches:
	  ○ E.g. maintain ag deferral status if kept in ag production.
	  ○ Explore Wetland Reserve Program as a model/template.
	
	• Develop Outreach Strategy about the Benefits of Sustainable Agriculture:
	  ○ Ecolabelling and certification as incentives to landowners and consumers.
	  ○ Education about how habitat restoration can improve production.
	
	• Develop Land Use Planning Strategies:
	  ○ Options to provide zoning flexibility to landowners as an incentive to maintain land in ag production.
	
	• Increase Availability of Resources for Restoration:
	  ○ Financial and technical support for landowners
	  ○ SWCDs are a lynchpin in the system
	
	Group 2 Responses:
	• Develop financial or tax incentives to encourage oak-prairie conservation and management.
	• Expand NRCS Incentives Programs.

Threats	Solutions (Strategies and Actions)
	Group 3 Responses: • Oregon agriculture and Heritage Program could be expanded to prioritize oak conservation. • Identify areas where agricultural conversion threats are the highest. • Find (map) oak on existing agricultural lands and conduct targeted outreach. • Acquire land or establish conservation easements on key parcels to create more favorable circumstances for conserving/restoring oak-prairie habitat. • Utilize NRCS expertise on agricultural land management. Group 4 Responses: • With policy, find a way to deal with the tax implications, and develop incentives not to convert for tax deferral. Create a special habitat assessment state wide that actually works – the current WHCMP does not work. • Habitat acquisition. • Education about the value of retaining habitats. • Do the analysis to understand where conversion is happening, how much is happening, and for what crops. Group 5 Responses: • Fund Zena forest to do continuing forest inventory. • Develop information on the value of oaks and prairie economically, ecologically and socially. • Something similar to oak accord but for prairies, especially wet prairie where ag isn't working. • Compatible ag use with ecological function – polyculture. • Regulation to limit whole sale conversion of oak/prairie. • Conserve native food and fiber plants and crops. • Engage OSU extension and ODA and ask for their assistance in recruiting land owners as partners in oak-prairie conservation efforts. • Demonstrate economic viability of agriculture that accommodates ecosystem function through neighbors and technical support. • CFI Funding plan to evaluate contribution of oaks.
C. Agricultural Management • Pesticide drift • Incompatible grazing • Lack of ecological focused management	Group 1 Responses: • Development of BMPs for prairie and oak habitat within managed landscapes (e.g. Salmon-Safe's butterfly friendly BMPs for viticulture). • Align corporate and family farm standards. • Connect with CSAs. Group 3 Responses: • "Salmon Safe" program is a potential example of a model or program that could be used to encourage oak-prairie habitat conservation/restoration. • The "Oak Accord" could be expanded beyond vineyards to work with other agricultural land owners. • Work with DEQ to identify harmful pesticides (conduct outreach to farmers). • Focus and prioritize working lands benefit and impacts.

Threats	Solutions (Strategies and Actions)
	Group 4 Responses: • Incorporate habitat into Ag business planning, with economic incentives for tourism related to retained habitat. • Develop and share operational BMPs for agricultural enterprise around timing and intensity of activities that can co-exist with habitat/species. • Identify financial incentives for conservation in ag lands/management actions – e.g., field flooding in CA central valley • Implement education o increase awareness (e.g., for farmer's field edge spraying--- this creates a great zone for weeds to invade – do some of the required ag certifications cause more problems than they solve?) • Develop alternate management practices and integrate these as outreach tools. Group 5 Responses: • Incentivize landowners (emotionally and financially) to manage a mosaic of habitats and crops (especially pieces of land not productive (e.g., too wet). • Work with DLCD to identify better places to place solar that limit habitat impacts or perhaps incorporate pollinator species in those areas. • Persuade ODF to be an ally in changing practices to not require replanting of conifers where incompatible (e.g., oak friendly habitat).
D. Transportation and Utilities • Roads • Utility and service lines • Solar farms	Group 1 Responses: • Development of BMPs (e.g., to support active habitat management in corridors) • Agreements with utilities to modify impacts. • Advance Planning – use locations of new transportation corridors to be proactive about need for habitat protection and restoration strategies. • Increase capacity within transportation and utility organizations. • Consider a voluntary mitigation program that makes it easier for transportation and utilities to compensate for impacts. Group 2 Responses: • Collaborate with utilities like BPA to improve prairie management in easement areas, especially in or near a natural area. • Collaborate with ODOT and Counties to improve native oak-prairie habitat in road rights of ways (use Benton County Transportation as a template). Group 3 Responses: • Utilize utility corridors for conservation benefit (butterflies and pollinators) • Work with BPA on increasing native composition under powerlines. Group 4 Responses: • Recognize where there are benefits, and maximize these • BPS has existing guidelines for vegetation management – continue to integrate habitat management into their protocols • New transportation and utilities – work to minimize their placement in high value habitat. Making the map of these high value habitats is a first step, and SHARING that map is critical.

Threats	Solutions (Strategies and Actions)
	• For transportation development, establish a goal of no net loss of prairie and oak, just like wetlands. E.g., when they are modifying highway 126, right by Fern Ridge, loss to prairie and oak would be mitigated. • If impacts happen in transportation/utility corridors, establish practices to reseed with natives. This should be integrated in BMPs and accompanied by mechanisms to increase the availability of native plant materials. • Manage ROW to benefit existing species, control invasives, and retain habitat value. • Inventory roadsides and communicate BMPs across roadsides. • Keep in mind that there can be a mortality risk on roadsides- these areas could be sinks for species (e.g., road kill, windshield butterfly effect…) <u>Group 5 Responses</u>: • Develop guidelines for improving ecosystem functions in solar farms. E.g., pollinator habitat, compatible prairie plants (note similarity to vineyards – rows of shade casting structure).
E. Urban and Rural Residential Development • Rural residential • Commercial and industrial uses • Golf courses • Other urban development and facilities • UGB expansion into oak-prairie areas (tend to have less protection)	<u>Group 1 Responses</u>: • Prioritize Land Banking – with limited time and resources, focus heavily on land protection. • Explore options to designate oak as high value habitat at the municipal level (e.g. City of Corvallis) that limit the impacts of new development. • Create incentives for new developments that use conservation-based planning/design. • Better mapping of corridors with overlay of population growth projections in order to prioritize land purchases. <u>Group 2 Responses:</u> • Work with golf course owners and managers to integrate oak-prairie habitat features and to enhance habitat for birds, bats, and pollinators. • Consider regulating Goal 5 resources in urban and rural areas to more effectively protect oak-prairie habitats. • Work with Home Builders organizations to integrate oak-prairie habitat into new developments. • Encourage more collaboration/consultation between land use planners and USFWS and ODFW to determine more oak-prairie friendly development patterns and park acquisition. <u>Group 3 Responses</u>: • Backyard Bird program is a potential model for rural residential areas. • NRCS or SWCD programs that provide landowner incentives could be established or expanded. • Education and outreach about improving oak and prairie habitat on residential properties. • Increase capacities to run landowner incentives programs (e.g., tax credits could be provided to encourage habitat management. <u>Group 4 Responses</u>:

Threats	Solutions (Strategies and Actions)
	• Reinforce zoning and land use laws • For marginal lands, implement legislative or political process to reduce development. • Integration of prairie values into policy for mitigation requirements (e.g., to mitigate loss from development). • Encourage cluster development with open space – onsite density transfer (build at higher density than zoned and put "savings" of land into open space). Protect land especially just outside UGB. • Generate revenue for acquisition through real estate taxes (e.g., LID) transaction fees, etc. • Develop policies that require mitigation for oak and prairie losses. • Help landowners with habitat to better manage for habitat values. Especially working with OSU extension and watershed councils. • Education and outreach. • Make sure when properties are acquired for conservation that they still pay taxes, and work against the perception that conservation is bad for the economy and the county tax rolls. <u>Group 5 Responses</u>: • Push 1000 friends of Oregon to do more. • R2R Support of local communities in visioning and planning process to value natural habitats. • Push for legislation to protect undeveloped lands, parks, etc. • Acquisition of natural areas. • Thoughtful land use planning.

F. Non-native Species Invasion
 	
• Non-native grasses
• Non-native forbs
• Prairie and oak habitats require ongoing maintenance
• Seed costs discourage revegetation of disturbed areas with native seed.
	<u>Group 1 Responses</u>:
	• Increase capacity (manpower and dollars) to better address the issue.
	• Develop an education and outreach strategy to inform private landowners about what they can do about invasive species.
	• Ensure better coordination on weed management:
	  ○ Encourage models like the cooperative Weed Management.
	  ○ Engage Department of Ag and Forestry: privately owned, unmanaged lands are a significant seed source of invasives; need to prioritize how to address these lands.
	• Encourage Use of More Native Seed:
	  ○ Need incentives for its use.
	  ○ Need more of it; cheaper.
	
	<u>Group 2 Responses</u>:
	• Create a stewardship trust fund that would allocate invasive control funds to areas of greatest need (geographic need or targeted species).
	• Follow Early Detection Rapid Response (EDRR) approach in managed oak-prairie habitat areas.
	
	<u>Group 3 Responses</u>:

Threats	Solutions (Strategies and Actions)
	• Increase funding for treatment of highest priority species. • Partner with established weed control programs/organizations and support expansion of education, outreach, and training efforts. <u>Group 4 Responses</u>: • Bolster existing EDRR and increase ability to rapidly respond. • Talk about success stories, case studies…. What does it take to be successful at different scales. • ODA needs to have more regulatory role, and implement enforcement (e.g., what really happens when neighbors report neighbors). • Advocate for adequate funding for better enforcement and a more adaptive list. • Be more strategic and define urgency vs priority. New species may not yet be a priority, but they can have higher urgency. • Implement preventative measures and minimization – this could consider tracking what nurseries are selling…. These invasives are often easy to propagate, especially by 'backyard nurseries'. • Address avenues for spread – for recreational users provide bike wash stations, boot cleaning stations at natural areas. • Build workforce of trained contractors that can diversify across seasons, so there are enough contractors available at key weed treatment times. • Provide training for contractors, to increase their skill. • Share knowledge about IPM BMPs. • Identify species with high potential to be invaders and do a full roll up of invasives across the US – identify those that are sold commercially in Oregon and evaluate those. • Find a way to reduce heavy equipment as vectors for weeds- e.g., mowers, road equipment. <u>Group 5 Responses</u>: • Engaging people to collect food from invasives, and maybe even natives. • EDRR support. • Species-specific control strategies – R and D, Disseminate information. • Coordinate herbicide use/avoidance with human use (e.g., Tribal harvest). • Workforce development. Rosario Franco visas. How to we support and develop a stable workforce – loss of migratory labor results in increasing costs. Job training with homeless, Dept of Correction inmate restoration hot shot crews. Support their development and training. Vocational training too.
G. Woody Encroachment • Conifer encroachment • Shrub encroachment	<u>Group 1 Responses</u>: • Increase capacity and funding to address the issue. • For thinning oaks in particular, create innovative options for end use of material. • Create incentives for private landowners to address. • Be proactive about how climate change might shift priorities / strategies around this issue in the future.

Threats	Solutions (Strategies and Actions)
• Unknown impacts of comate change and plant diseases	Group 2 Responses: • Utilize commercial oak thinning approaches (conifer harvest) to create different density oak stands. • Utilize ODF, BLM and other available fuels management funds to help implement oak-prairie management efforts while also reducing risk of wildfire in urban fringe areas. • Provide technical assistance and incentives to private land owners to encourage fuels reduction/habitat management efforts. • Work with ODF to modify policies that discourage management of oak habitats. Group 3 Responses: • Increase ecological burning to control woody encroachment. • Utilize TNC comate resiliency data to identify opportunity areas for future habitat expansion. • Look at historical maps of drought and conifer die-off and see if there are patterns occurring. Group 4 Responses: • Fuels reduction after fire – take advantage of opportunities • Education and promotion around achieving financial gain through Fir removal. Income can go to restoration… timber is often match for grants. Find ways to make the fir removal pay for itself. • Shared equipment and operators may help reduce costs and simplify forestry management aspects of restoration. • Non-native cherry can be high value specialty wood – work to expand this market • Long term stewardship markets- provide wood for streams, forestry product certification programs, try to shorten hauling distance as much as possible. • Jason Blazars restoration ciders – implement marketing and outreach around restoration 'products' • Should potential economic benefits be a section of the SAP? Give examples, stories? Group 5 Responses: • Develop markets for small and imperfect wood removed from oak stands, etc. Coordinate with neighbors for volume. Biochar? Vinegar, smoke charate for seed germination? Other methods? • Easier access for private landowners about Douglas-fir removal in oak stands. Pamphlets, websites, access to technical experts. • Use of prescribed fire for limiting tree/shrub encroachment (see fire suppression) • Better understanding and communication of importance and context of shrubs for birds and wildlife. Also risks of shrubs, especially blackberry. • Better outreach about judicious use of herbicides as part of integrated pest management. It's one tool cost comparisons among techniques, other impacts of other techniques, not talking about aerial application. • Develop and deploy workforce of paid and volunteer labor.

Threats	Solutions (Strategies and Actions)
	• Encourage markets for small-scale harvest and/or combining work into larger, profitable projects.
H. Incompatible Water Management • Ditching • Drain tiles • Tension between landowners and leasing farmers	Group 1 Responses: • Create incentives to remove drain tiles and disconnect ditches • Partner with OWRD and NRCS Group 2 Responses: • Discourage use of pivot irrigation. • Eliminate incentives and policies that encourage tiling. • Reduce/eliminate water rights permit costs for wetland restoration projects (currently costs $7,800 while at the same time there is no fee for tiling). Group 3 Responses: • Promote incentives for landowners to reduce tiling and irrigation. • Remove drainage tiles and ditching from conservation lands where it exists. Group 4 Responses: • Wet prairie restoration ends up creating more and deeper water, benefitting different species than natural wet prairies address this. • Alternatives for marginal lands in agriculture. • Frequently big farmers/corporations are less interested in conservation – prevent these shifts in ownership, potentially through connecting with realtors, and filtering by a map of priorities. • Education and incentives about USDA programs. • Watch out for tiling in secret. Group 5 Responses: • Reconnecting stream for stream function • ACOE study of Amazon Basin accessibility stream needs. Implement it. • Plug ditches, remove dikes, recontour and needed to restore hydrology • Greater scope of assessment for stream and wetland function • Conversation with farmers about water use and ecosystem needs • Better understanding of water budget in Willamette Valley. Potential effects of climate change and human population growth. • Water right and water laws. • Engage U.S. Army Corps in floodplain restoration efforts (e.g. Metro Waterways Study in Eugene which proposes large wet prairie projects in conjunction with levee removal).
I. Human Intrusion and Disturbance	Group 1 Responses: • Address the root causes: homelessness, lack of education about the impacts of activities (e.g. illegal trail use) and outreach to user groups (e.g. bikers).

Threats	Solutions (Strategies and Actions)
• Poorly sighted trail development • Illegal area use (camping, off-roading) • Firewood cutting • Feral cats	• Provide alternative facilities (e.g., for biking). Group 2 Responses: • Consider closing sensitive habitat areas at certain times of the year. Group 3 Responses: • Support and encourage animal control agencies to reduce feral cat populations. Group 4 Responses: • Education and policy. Group 5 Responses: • Education and outreach. • Improve trails so bad trails are not used. • Partner with OFRI (OR Forest research institute). • Address homelessness and social services. • Ask counties to look ahead 30 years and decide what they want their county to look like (same with state legislature). • Partner with Eugene Mission. • Engage homeless in conservation actions. • Coordinate with 1000 Friends of Oregon to work with small communities to help them develop community visioning that includes conservation of native habitats.
J. Lack of Public Knowledge or Support	Group 1 Responses: • Develop and implement a communication strategy: ○ Include mapping that shows the loss of oak and prairie over the last 30 years; connects people to the impact they have had on the landscape (more meaningful than the 1850 to 2004 map. • Increase awareness of value to county staff. • Support good on the ground projects with profile. • Support/foster a peer to peer network of good stewards. • Increase outreach component (i.e. budget/effort) of projects/raise importance of outreach in staff work. • Bring different groups of people into oak and prairie landscapes to build advocacy. • Promote through Outdoor school. • Seek Ag partnerships with conservation ethic. Group 4 Responses: • Overarching – Compile information on what has been done, analyzed and achieved, and share it widely. • Develop a protocol for the process of developing actions, implementing them. How will adaptive management work, what are strategies to make our SAP happen effectively – E.g., CPOP? How do we make this happen without getting species focused?
Other Threats:	Group 1 Responses: • Plant oaks in prairie systems to create more savanna

Threats	Solutions (Strategies and Actions)
• Conversion of timber (owners are forced to reforest with conifers, even after harvesting hardwoods) • Existing property tax deferral systems encourages timber management and conversion to agricultural uses such as Christmas trees, while discouraging management of oak-prairie habitats • Lack of true oak savanna • Short term managed ecosystems	• Develop long term management strategies <u>Group 2 Response</u>: • Change property tax incentives so that forest deferral can include oaks. • Develop conservation tax deferral or tax reduction programs. • Work with Counties to adopt ODFW tax program. <u>Group 4 Response</u>: • Change of ownership is an opportunity for conservation. Risk is that out of state corporations acquire lands. Identify local family owned and managed lands where stewardship may be a greater value. Improve communication with real estate community to connect with sellers and buyers. This will require breaking into a protective group.

Appendices B. Working Group Meeting #2 Summary: Conservation Concept Map Development

Willamette Valley Oak and Prairie Cooperative Strategic Action Planning Process

Summary of Working Group Meeting #2

Small Group Exercise

Meeting Date: November 15, 2018

Summary Report Contents

Report compiled by Jeff Krueger (JK Environments)

Summary Report Purpose and Working Group/Steering Committee Rosters

This report contains a summary of the second meeting of the Willamette Valley Oak and Prairie Working Group held on November 15, 2018 at the Albany Public Library. The Working Group serves as a panel of technical experts assembled to provide input and feedback in support of the development of the Willamette Valley Oak-Prairie Strategic Action Plan.

Meeting Participants

First Name	Last Name	Affiliation	WVOPC Status
Ed	Alverson	Lane County Parks	WORKING GROUP
Alejandro	Bambilla	UO	INTERN
Clinton	Begley	Long Tom WC	STEERING COMMITTEE
Marc	Bell	Polk SWCD	WORKING GROUP
Andrea	Berkley	OPRD	WORKING GROUP
Matt	Blakeley-Smith	Greenbelt Land Trust	WORKING GROUP
Lynda	Boyer	Heritage Seedlings	WORKING GROUP
Sarah	Deumling	Zena Forest	WORKING GROUP
Sarah	Dyrdhal	Middle Fork Willamette WC	WORKING GROUP
Sara	Evans-Peters	Pacific Birds Habitat Joint Venture	STEERING COMMITTEE
Claire	Fiegener	Greenbelt Land Trust	WORKING GROUP
Bart	Johnson	University of Oregon	WORKING GROUP
Molly	Juillerat	U.S. National Forest Service	WORKING GROUP
Tom	Kaye	IAE	STEERING COMMITTEE
Cameron	King	USFWS	WORKING GROUP
John	Klock	BLM	WORKING GROUP
Ann	Kreager	ODFW	WORKING GROUP
Jeff	Krueger	JK Environments	CONTRACTOR
Amie	Loop-Frison	Yamhill SWCD	WORKING GROUP
Katie	Mackendrick	Long Tom WC	WORKING GROUP
Nicole	Maness	Willamette Partnership	STEERING COMMITTEE
Carolyn	Menke	IAE	CONTRACTOR
Anne Mary	Meyers	ODFW	WORKING GROUP
Shelly	Miller	City of Eugene	STEERING COMMITTEE
Will	Neuhauser	Yamhill Partners for Land and Water	WORKING GROUP
Reilly	Newman	Coast Fork Willamette WC	WORKING GROUP
Kevin	O'Hara	USFWS	WORKING GROUP
Michael	Pope	Greenbelt Land Trust	STEERING COMMITTEE
Nicole	Ruggiero	Tualatin Hill SWCD	WORKING GROUP
Donna	Schmitz	Benton SWCD	WORKING GROUP
Lawrence	Schwabe	Confederated Tribes Grand Ronde	STEERING COMMITTEE
Courtney	Shaff	OWEB	OWEB GRANT MANAGER
Tom	Snyder	NRCS Benton/Linn County	WORKING GROUP
Diane	Steeck	City of Eugene	WORKING GROUP
Emily	Steel	City of Eugene	WORKING GROUP
Bruce	Taylor	Pacific Birds Habitat Joint Venture	STEERING COMMITTEE
Stan	van de Wetering	CTSI	STEERING COMMITTEE
Kelly	Warren	Ducks Unlimited	STEERING COMMITTEE

AGENDA

Willamette Valley Oak and Prairie Cooperative Working Group

Date and Time: Thursday, November 15, 2018, 10:00 a.m. to 2:30 p.m.

Location: Albany Public Library, 2450 14th Ave SE (downstairs meeting room)

Contacts: Jeff Krueger, jkenvironments@gmail.com, 541-579-0241
Carolyn Menke, carolyn@appliedeco.org, 541-730-3370

10:00 – 10:20 **1. Welcome, Introductions, Agenda Overview**

- Welcoming remarks by Michael Pope (GLT) and Courtney Shaff (OWEB)

10:20 – 11:00 **2. Background, Process Updates, and Meeting Purpose** – Jeff and Carolyn

- Purpose of WVOPC and Strategic Action Plan
- Recap WG Meeting #1 (threats and strategy development)
- Target ecosystem and highlights from visioning exercise
- Thematic maps and data
- Developing strategies with theory of change model
- Questions and comments?

11:00 – 1:30 **3. Small Group Charrette Exercise** – All

- Examples of vision concepts from Working Group questionnaire
- Overview of charrette assignment
- Split into small groups
- Begin work (see instructions on back)

----------WORKING LUNCH WITH YOUR SMALL GROUP----------

1:30 – 2:00 **4. Small Groups Report Back** – All

2:00 – 2:30 **5. Wrap Up and Next Steps** – Jeff and Michael

Small Group Exercise

Assignment
We have assembled the best and brightest conservation minds in the valley to work together to develop a 30-year Conservation Concept Map for oak and prairie habitats within Willamette Valley planning area. This map will be based on your group's assessment of the available conservation data, evaluation of threats and opportunities, and your personal on-the-ground knowledge of the planning area. Your team has approximately two hours to produce a proposed Conservation Concept Map that you will present to the larger group at 1:30.

SUGGESTED SMALL GROUP PROCESS

Step 1: Review and become familiar with the available map data. [10 minutes]

Step 2: Group discussion. What approach does your team recommend for creating/preserving an ecologically viable network of oak-prairie habitat in the Willamette Valley? [20 minutes]

Step 3: Identify and map "High Priority Oak-Prairie Conservation Areas" [80 minutes]

Definition: "High Priority Conservation Areas" are those lands that your team believes should be the focus of future oak-prairie conservation and restoration efforts in the valley. Proposed strategies such as land acquisition, stewardship efforts on private lands, restoration, and habitat management efforts would be focused within these areas.

Suggested steps:

- Did we miss any "Existing Conserved Anchor Sites" in our mapping? If so, please add with notation. Reminder: For this purpose, an anchor is defined as a significant oak-prairie site (100+ acres) that is already in some sort of conservation status (public, land trust, conservation easement, etc).
- Identify opportunities for expanding existing "Conserved Oak-Prairie Anchors" (see map)
- Identify opportunities for establishing new oak-prairie Conservation Areas
- Identify Key Connections (corridors that would tie isolated conservation areas together)
- Please outline Priority Conservation Areas on the map in **RED**
- Tip: Start with colored pencil. Use bold marker when complete.

Please Annotate:
Please document why your team selected these areas. Include relevant information such as:

- Special target habitat or species present;
- Implementation options (acquisition, easements, collaboration with private land owners, etc.);
- Responsive to a specific threat (e.g., agricultural conversion);
- Potential for significant educational or recreational use (e.g., urban fringe areas)
- Etc.

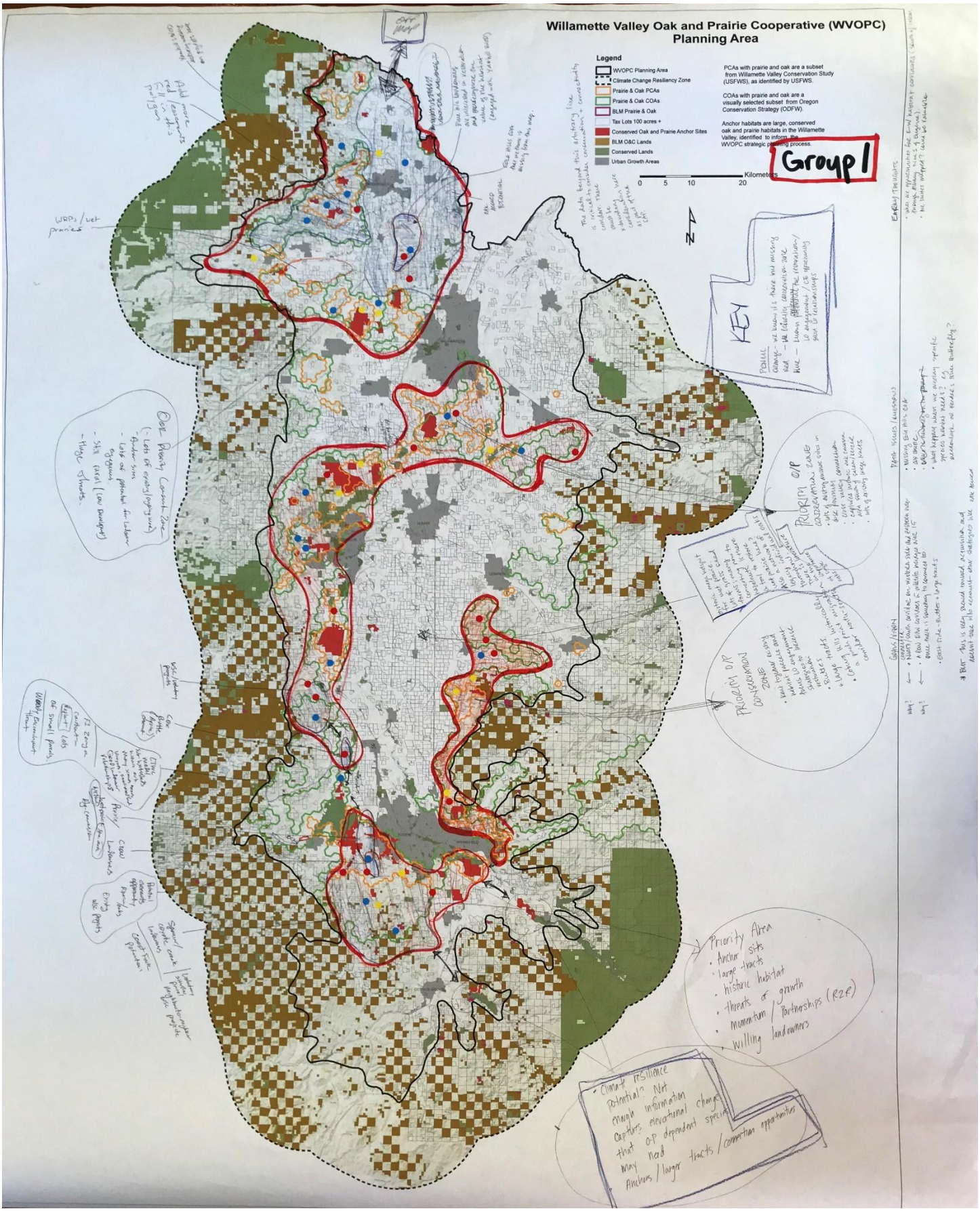
Step 4: Prioritize Areas. [15 minutes] – Dotting exercise (Jeff will hand out dots and explain)

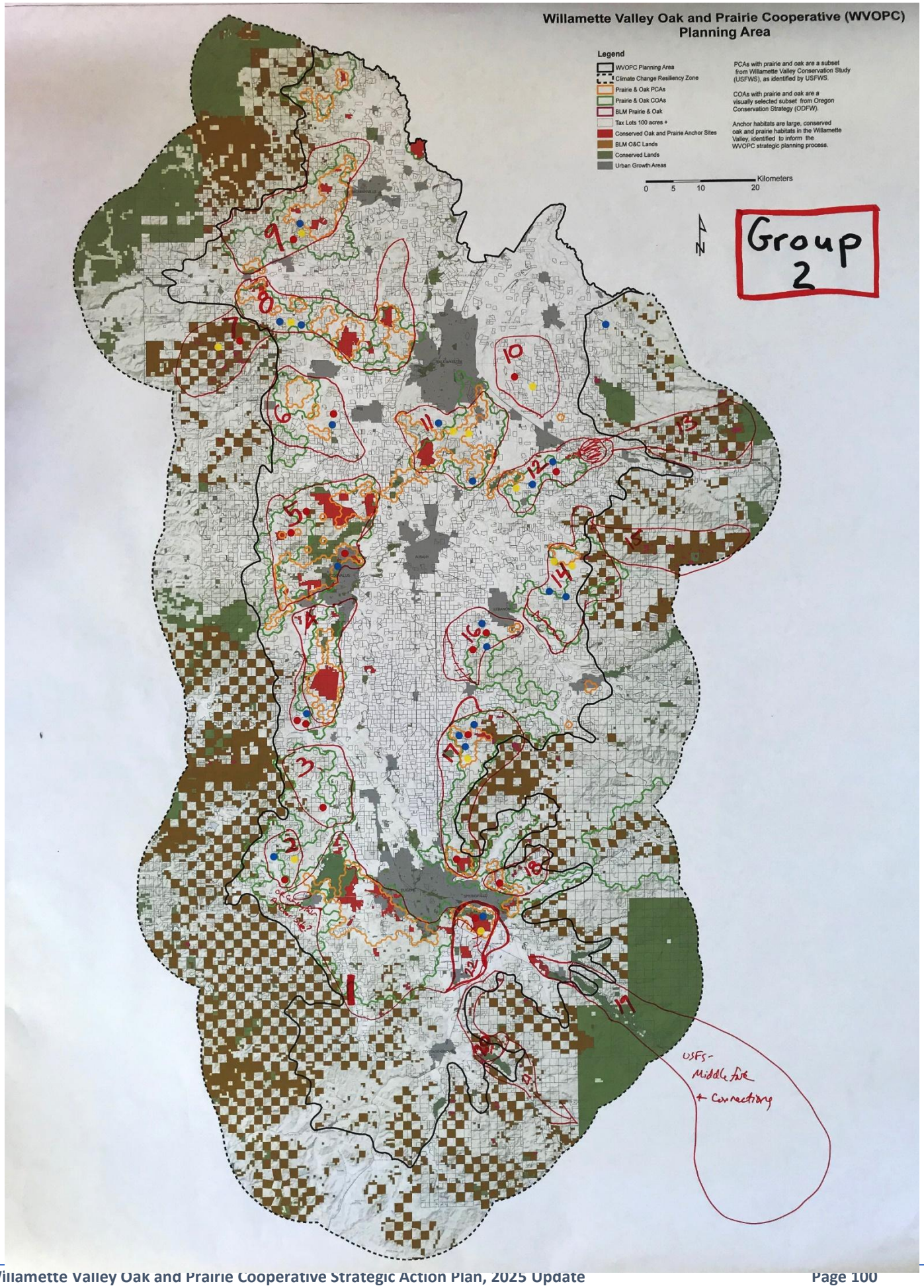
Small Group Exercise: Design Charrette Process

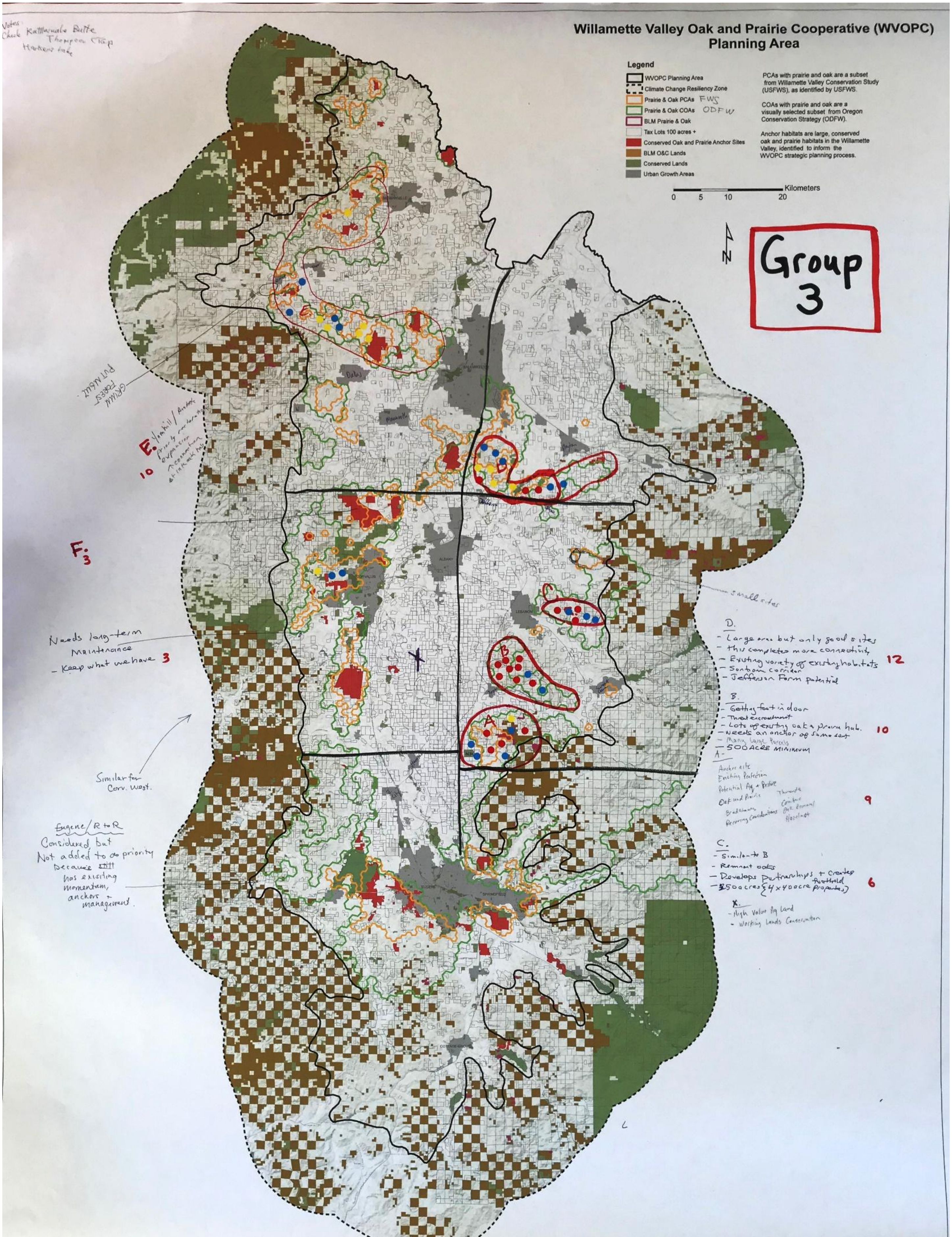
The Working Group and Steering Committee members split into six teams to complete the small group design charrette process with the goal of developing a Conservation Concept Map. Each team had two and a half hours to complete the exercise then presented their work to the larger group.

- Group 1: Clinton Begley, Andrea Berkley, Amie Loop-Frison, Nicole Maness, Nicole Ruggiero
- Group 2: Ed Alverson, Lynda Boyer, Sara Evans-Peters, Ann Kreager, Kelly Warren
- Group 3: Cameron King, John Klock, Carolyn Menke, Anne Mary Meyers, Lawrence Schwabe
- Group 4: Marc Bell, Ssarah Beumling, Claire Fiegener, Molly Juilleratm, Tom Kaye, Katie Mackendrick
- Group 5: Bart Johnson, Will Neuhauser, Michael Pope, Courtney Shaff, Tom Snyder, Diane Steeck, Stan van de Wetering
- Group 6: Matt Blakeley-Smith, Sarah Dyrdhal, Reilly Newman, Kevin O'Hara, Donna Schmitz, Emily Steel, Bruce Taylor

Conservation Concept Maps from Small Group Exercise




Willamette Valley Oak and Prairie Cooperative (WVOPC)
Planning Area
Legend
WVOPC Planning Area
Climate Change Resiliency Zone
Prairie & Oak PCAs
Prairie & Oak COAs
BLM Prairie & Oak
Tax Lots 100 acres +
Conserved Oak and Prairie Anchor Sites
BLM O&C Lands
Conserved Lands
Urban Growth Areas
PCAs with prairie and oak are a subset from Willamette Valley Conservation Study (USFWS), as identified by USFWS.
COAs with prairie and oak are a visually selected subset from Oregon Conservation Strategy (ODFW).
Anchor habitats are large, conserved oak and prairie habitats in the Willamette Valley, identified to inform the WVOPC strategic planning process.
0 5 10 20
Kilometers
N
Group 2
USFS - Middle Fork + Connecting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Legend
WVOPC Planning Area
Climate Change Resiliency Zone
Prairie & Oak PCAs
FWS
Prairie & Oak COAs
ODFW
BLM Prairie & Oak
Tax Lots 100 acres +
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BLM O&C Lands
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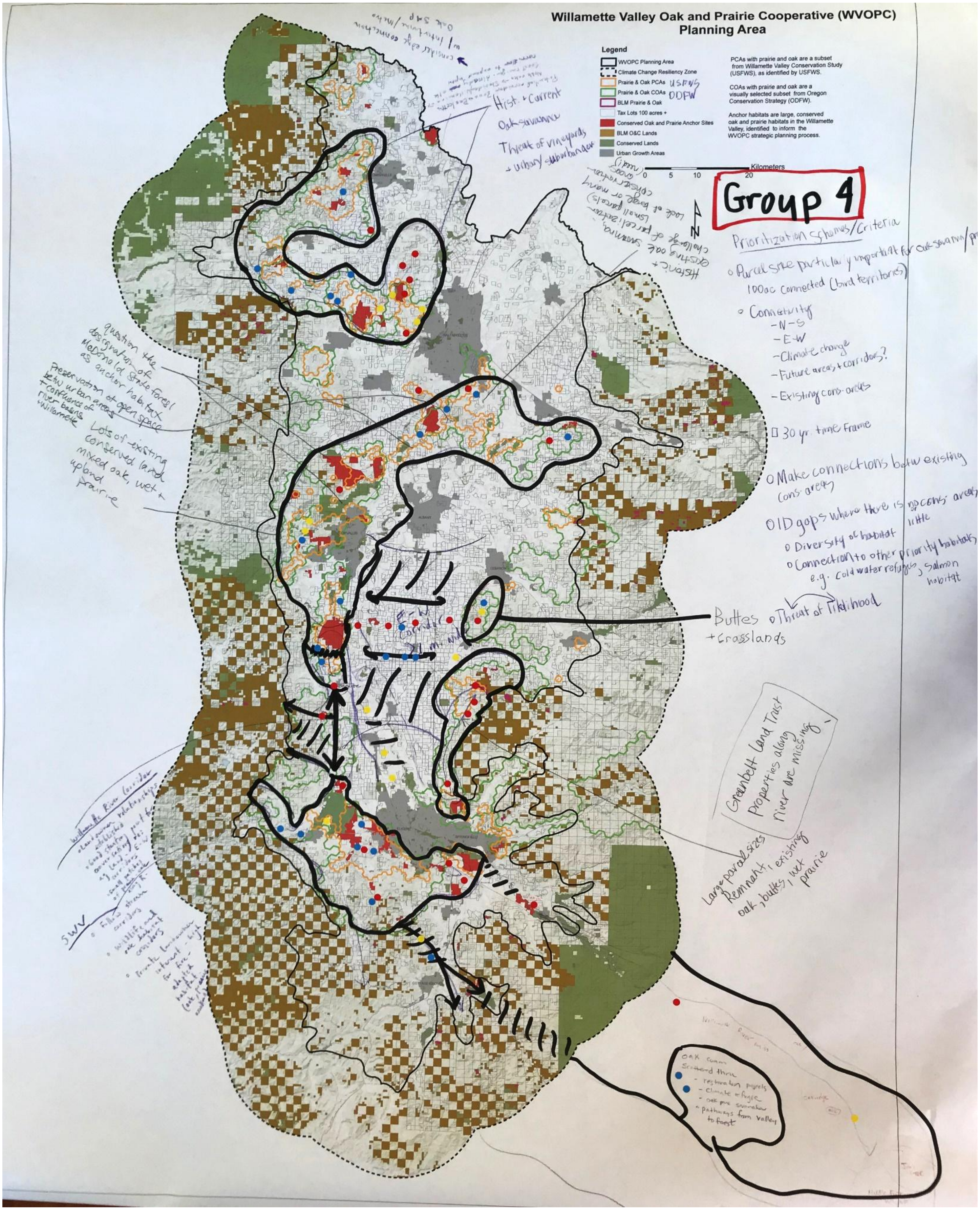
Kilometers
0 5 10 20
Group 3
small sites
D.
- Large area but only good sites
- this completes more connectivity
- Existing variety of existing habitats
- Santiam corridor
- Jefferson Farm potential
12
B.
- Getting foot in door
- Lots of existing oak & prairie hab.
- Needs an anchor of some sort
- Many Large Parcels
- 500 ACRE MINIMUM
10
A-
Anchor site
Existing Protection
Potential Ag + Pasture
Oak and Prairie
9
C.
- Similar to B
- Remnant oaks
- Develops partnerships + creates foothold
6
X.
- High Value Ag Land
- Working Lands Conservation
E.
10
F.
3
Needs long-term Maintenance
- Keep what we have
3
Similar for Corv. West.
Eugene/R to R
Considered, but Not added to priority because has existing momentum, anchors + management.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Kilometers
0 5 10 20
USFWS
ODFW
Group 4
Hist. + Current
Oak savanna
Threat of vineyards
+ urban/suburbanization
Prioritization Schemes/Criteria
Parcel size particularly important for oak savanna/prairie
100ac connected (bird territories)
Connectivity
-N-S
-E-W
-Climate change
-Future areas + corridors?
-Existing cons. areas
30 yr. time frame
Make connections btw existing cons. areas
ID gaps where there is no cons. areas/little
Diversity of habitat
Connection to other priority habitats, e.g. cold water refugia, salmon habitat
Buttes
Threat of Tikelihood
+ Grasslands
Greenbelt Land Trust properties along river are missing
Large parcel sizes
Remnant, existing oak, buttes, wet prairie
Lots of existing conserved land
mixed oak, wet + upland prairie
E-W Corridor


Willamette Valley Oak and Prairie Cooperative (WVOPC)
Planning Area
Legend
WVOPC Planning Area
Climate Change Resiliency Zone
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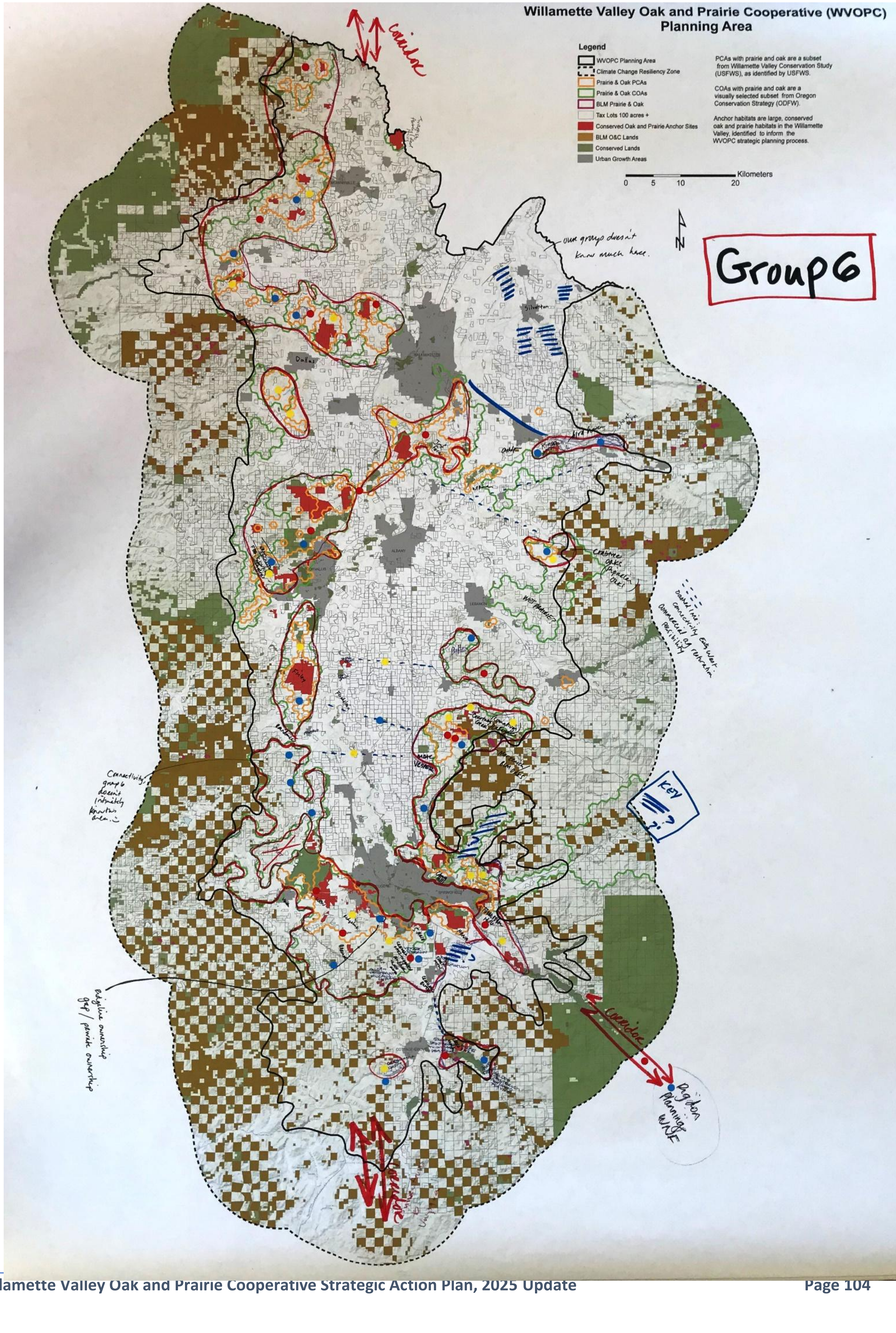
Kilometers
0 5 10 20
N
Group 5
Connect BLM to
STRATEGIES: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Kilometers
0 5 10 20
Group6
corridor
our group doesn't know much here.
KEY
corridor
corridor

Summary Report
Working Group Questionnaire #2

Strategy Ranking and Feedback on the

30-Year Conservation Concept Map

July 24, 2019

Summary Report Contents

Report compiled by Jeff Krueger (JK Environments)
All responses are verbatim from the questionnaire

Questionnaire Background

Purpose of Questionnaire

In lieu of an in-person Working Group meeting, the Steering Committee commissioned an online questionnaire in May 2019 to solicit input on the draft strategies and the 30-year Conservation Concept Map. Input from this questionnaire will be used to refine and prioritize strategies that have been developed over the past 18 months. Input on the 30-year Conservation Concept Map that will be used to clarify purpose of the map and to refine priority geographies.

Process

The questionnaire was developed by Jeff Kruger (JKE), Carolyn Menke (IAE), and Sara Evans-Peters (Pacific Birds) based on direction from the WVOPC Steering Committee. A draft version was tested by Steering Committee members Clinton Begley (LTWC), Bruce Taylor (Pacific Birds), Tom Kaye (IAE), and Nicole Maness (Willamette Partnership). The on-line questionnaire was built in JotForm with a link sent out to the Working Group, Steering Committee, and Topic-Area Experts who had participated in various aspects of the strategy and map development. The questionnaire went out via an email link on May 7, 2019 and remained open until July 3. During that time, a total of 39 responses were received. This summary report captures and summarizes the questionnaire responses and the written feedback is listed verbatim (as submitted) with minor edits for spelling and grammar. The strategy prioritization matrices were derived using Miradi Adaptive Management software.

Questionnaire Section One: Rank Proposed Strategies

Background on How the Strategies were Developed

In March 2018, the Working Group and Steering Committee members were asked to rank threats to the ecological integrity of Willamette Valley oak and prairie habitat based on Scope, Severity, and Irreversibility. Reponses were then tabulated and scored using Miradi Adaptive Management software. Based on this analysis, the highest ranked threat categories for oak and prairie habitat in the Willamette Valley were identified as:

1. Rural and Urban Development
2. Agricultural Conversion/Incompatible Management
3. Non-native Species Invasion
4. Woody Encroachment
5. Fire Exclusion

Potential strategies that could be employed to address these threats were brainstormed at our April 2018 Working Group meeting. Since that time, five "sub-groups" have synthesized and refined these strategies using an Open Standards process and developed a set of results chains for each threat category. For additional background on the Open Standard process and results chains, click **here**. [Link to open standard tutorial].

What is a Strategy? A Strategy is a group of related actions that are intended to reduce or eliminate limiting factors in order to restore critical ecological processes or functions associated with ecological priorities. Note: Key words in each proposed Strategy listed below have been highlighted in **Red** for quick reference.

Instructions to Respondents

Please Rank Strategies Based on Potential Impact and Urgency:

> **Potential Impact**: How effective will each strategy be at reducing the impact of the threat category to oak and prairie habitats (on a scale from Very Effective to Not Effective)?
>
> **Urgency:** What is the urgency of implementing this strategy relative to the other proposed strategies in this category (on a scale of very high to low)?

Draft Results Chains

Before you start, please download the Results Chain diagrams located **here** as a reference as you rank the strategies below. The results chains include anticipated "Outcomes" for each Strategy and "Recommended Actions" that could be utilized to help implementation of the Strategies.

Reponses and Comments

The questionnaire and responses are sorted by the five ranked threat categories.

Urban and Rural Development Encroachment Strategies

Threat Summary: The majority of Oregon's population and industry is located in the Willamette Valley, with significant human population growth forecast in the coming decades. Future development pressure is the highest in urban fringe areas and along transportation corridors where remnant oak and prairie habitats and species are often found. Although Oregon's land use planning laws and local development codes provide some minimal protections, oak and prairie habitats are likely to continue to decline due to the fragmentation and degradation resulting from urban and rural development under the current scenario.

Please review the following proposed strategies, then rank them based on their potential impact and urgency.

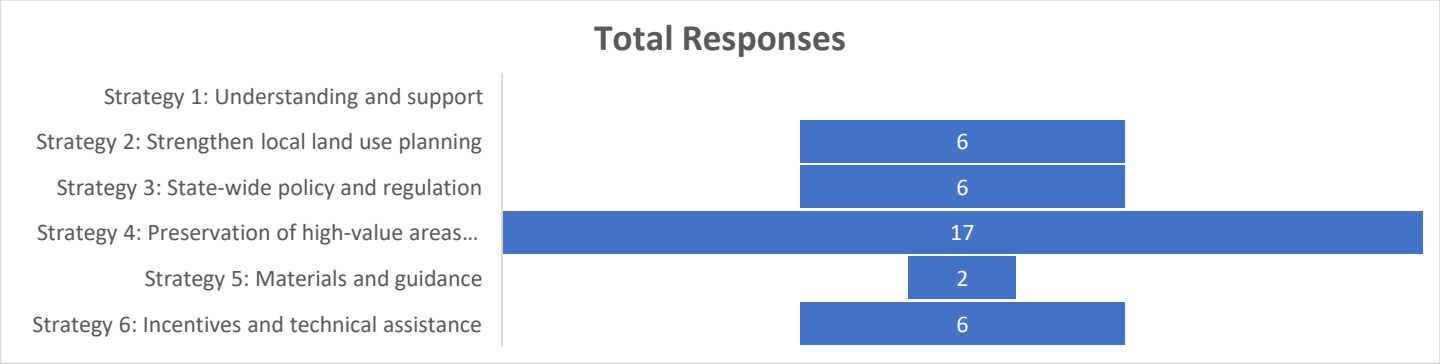
- **Strategy 1: Promote understanding and support** of habitat-friendly development practices by policy makers and the public.
- **Strategy 2: Strengthen** land use planning **regulations** and **incentives** to preserve and incorporate habitat in new development areas.
- **Strategy 3: Encourage** State agencies to **increase protections** through state-wide policy and regulation.
- **Strategy 4:** Promote permanent **preservation** of high-value areas under threat by urban-rural
- **Strategy 5:** Produce and provide **materials and guidance** for habitat-friendly development and management practices.
- **Strategy 6:** Develop **incentives** and provide **technical assistance** to land owners and developers to restore and manage oak and prairie habitats contained within developed areas.

Summary of Questionnaire Ranking

Ranked data were analyzed using the Miradi Adaptive Management software, which categorized potential impact on a scale from most effective to not effective and categorized urgency on a scale from very high to very low. Miradi also assigned an overall (roll-up) score for each strategy. It should be noted that none of the proposed strategies scored in the "not effective" or "low" range indicating that the proposed strategies were generally accepted by Working Group and Steering Committee members as having some importance.

Threat Category and Proposed Strategies	Potential Impact	Urgency	Roll-up
Rural and Urban Development			
1. Understanding and support	Effective	High	Effective
2. Strengthen local land use planning	Effective	High	Effective
3. State-wide policy and regulation	Effective	High	Effective
4. Preservation	Most Effective	Very High	Very Effective
5. Materials and guidance	Effective	Medium	Less Effective
6. Incentives and TA	Most Effective	Very High	Very Effective

***Question**: If you only had enough funding to implement one of the strategies listed above, which one would it be?*



***Question**: Do you have any additional feedback on any of the strategies listed above?*

- We need to meet publicly and privately with city and county commissioner planners not to mention State land policy makers. I'll speak for the city of Albany, where public meetings about development are dominated by the CONSTRUCTION INDUSTRY. The mayors are under siege and will ultimately bend to industry pressure. Unless we are working in this format with planners, steering them, convincing them, everything else will be band-aids. Farmers are very independent-minded people and like old-fashioned hand-shake type deals, where a man's (woman's) word is important. Get them on our side and we will have them as an ally in convincing others. This theme is followed below a great deal in my answers.
- They all rank pretty high for me in terms of need and potential impact.
- I think all the strategies listed above all have great merit. In considering the political environment, regulation is very effective but tends to create division and bitterness which may not be fruitful for oak and prairie habitat in the long run. Having the government tell landowner what they can and cannot do on their personal property has always been an area of conflict. The conservation community has the right to acquire property rights for the long term protection of oak and prairie habitats that could be supported by governmental incentives.
- Collaboration and unity among the conservation community to implement the most important strategies.
- There is no single successful strategy - prioritized mixing and match around the ebb and flow of resources (i.e. funding and personnel) of all engaged organizations.
- Second place would be preservation
- In order for local land use planners to support incorporating habitat preservation requirements into local policies, they need to have the understanding and support, so these two are intertwined. Policies make habitat preservation required so that even people who don't care have to participate.
- We already have good documents on how to manage oak and grassland habitat for landowners. I think that incentives and direct technical assistance is going to have a much larger impact.
- The approaches don't seem entirely consistent in what can be achieved and who can do it. For instance in the title "Preservation of high-value..." it does say "establish stable mgmt funds", but then in other items under that heading the action is "lobbying". The Statewide policy/reg is all "Lobbying". So, although I think state-wide policy and regulation would be very effective, since the strategy is "lobbying" to achieve this, and we don't have existing

laws (and I think the social climate is poor to achieve this), then I don't think this would a very effective strategy. In contrast, the "Strengthen regulatory projections has the actual achievement of "Require habitat mgmt. plans..." A concrete outcome.

- I ranked #4 and #5 lower because I think, to a large extent, these resources already exist though they may be way overextended - NRCS, USF&W, etc.
- For the fastest and most effective strategy, preservation of critical areas would, of course, work best. That would allow time to develop and implement long-range practices such as habitat-friendly development and state and local regulation, which take a very long time because they require policy (read: political) decisions. Then, perhaps later, some of the preserved areas could become subject to additional land uses.
- Local planning regulations are of greater importance and impact than State-wide due to the complexity and quality of implementation.
- I think to make a difference with most developers, there needs to be some regulatory or planning teeth behind the protection of habitat from urban or rural development. Even with our existing Goal 5 and other natural resource planning policies, development is happening that is not truly protecting the resource.
- I worry that too much regulation can breed contempt for conservation an cause division where there need not be. I am more of the mind to incentivize, educate, and bring everyone that will come along. More carrot, more communication and face-time, less stick--as a starting point. That said, stronger policies can help steer development away from key conservation areas and I'm not against thoughtfully strengthening policy/regulation.
- Strategies 2 and 3 are linked, and should be approached in a unified way. Same with 5 and 6.
- It seems to me that providing incentives would work really well in the development realm because economics is a big part of that world.
- just creating regulations that can't be enforced will not work as well as creating community buy in first. For all of these categories a collaborative process that brings multiple state holders to the table is preferred.
- Policy and planning approaches are critical so that more bottom-up approaches (e.g. Strategies 1, 4, 5, 6) can gain traction on the ground. At the same time, it is critical not to rely solely on regulatory or planning approaches - public support writ large, as well as the support of individual oak landowners has to be the core support that drives the success of the policy and planning goals. We should be wary of too much reliance on regulatory policies v. planning tools, incentives and opportunities.

<u>Question</u>: Are there additional strategies related to addressing impacts of rural and urban development that should be considered?

- On a federal level, respond to timber sales by challenging the concept of planting always 400 Douglas-Fir per acre which by the way is a fire hazard, even after thinning. To do this, address the silvicultural side of replanting AND the O+C influence on the public comment process. O+C commissioners in the county are a powerful voice and federal land managers are subject to their pressure. Planting oak is a win-win for everyone with respect to habitat, fire resiliency, and timber (in the long-run) but the public does not frame their comments well and/or are not aware. TALK TO FIELD MANAGERS (BLM) in each field office in a private setting. They will listen to you but most of their appointments get filled up and they have a certain mentality that can be changed.
- Same as above: Meet publicly and privately with city and county commissioner planners not to mention State land policy makers and it may take a very strong united voice by the WHOLE environmental community. Maybe our oak dollars might be better spent creating a supper coalition.
- The above strategies cover this (I think) but an education budget, long term and fully funded is critical.
- Wildfire prevention and mitigation should be highlighted in both rural and urban settings, as land management strategies with these things in mind align with habitat treatments that benefit Oak and Prairie species.
- Expanding the knowledge and comfort levels of conservation practitioners in discussing economics and sociological/demographic shifts/trends with the folks who own this land.
- Preservation and sufficient buffers from existing priority oak habitat is the only consideration, rather than attempting to integrate development within oak habitat. Oak habitat degradation risk is significantly reduced with this approach rather than an integration alternative.

- I know that fire and woody encroachment have their own categories below, but given climate change, threat of wildfire will be high on the list for policy makers and land use planning officials to address. All of the policy, regulation, and outreach strategies in this category seem to only be habitat related, which will always come in lower on the list for the policy and planning people that you need to reach.

Woody Encroachment Strategies

Threat Summary: In the absence of regular fire or other management interventions, conifers and other shade-producing woody vegetation will colonize and replace oak and prairie habitats over time.

Please review the following proposed strategies, then rank them based on their potential impact and urgency.

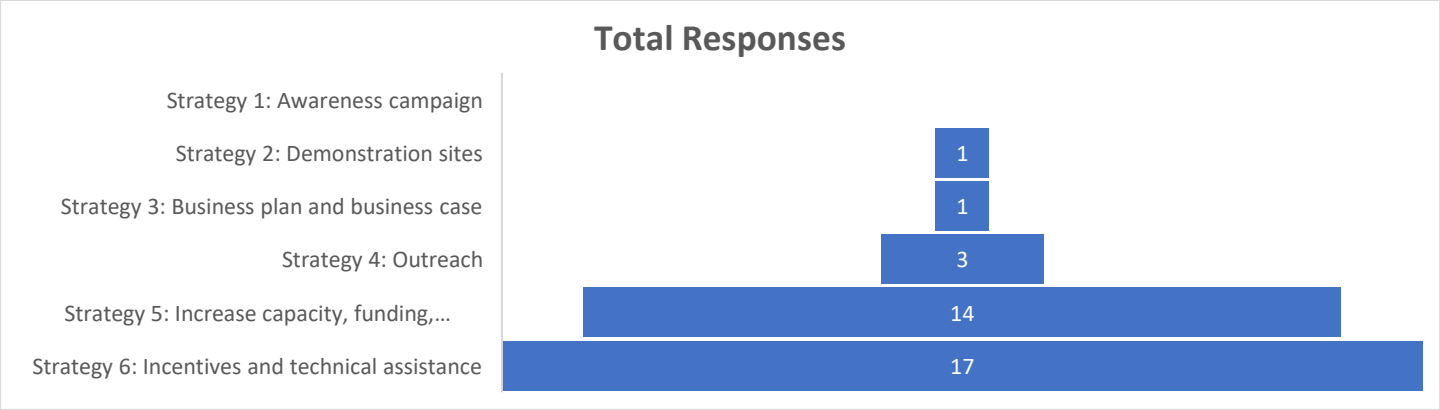
- **Strategy 1:** Implement an **awareness campaign** centered around improving public perception of reducing woody encroachment and fuels on public lands.
- **Strategy 2:** Develop and profile **demonstration sites** with successful (ongoing) control of woody encroachment.
- **Strategy 3:** Build a **business plan** and develop a **business case** for woody vegetation removal.
- **Strategy 4:** Conduct **outreach to targeted landowners** located in priority conservation areas (use the 30-year Conservation Concept Map as a guide to focus outreach).
- **Strategy 5:** Increase workforce/equipment **capacity, funding, and coordination** of on-the-ground woody encroachment treatment efforts.
- **Strategy 6:** Increase **incentives** and **technical assistance** for landowners (public and private) implementing thinning and woody vegetation control projects.

Summary of Questionnaire Ranking

Ranked data were analyzed using the Miradi Adaptive Management software, which categorized potential impact on a scale from most effective to not effective and categorized urgency on a scale from very high to very low. Miradi also assigned an overall (roll-up) score for each strategy. It should be noted that none of the proposed strategies scored in the "not effective" or "low" range indicating that the proposed strategies were generally accepted by Working Group and Steering Committee members as having some importance.

Threat Category and Proposed Strategies	Potential Impact	Urgency	Roll-up
Woody Encroachment			
1. Awareness campaign	Effective	Medium	Less Effective
2. Demonstration sites	Effective	Medium	Less Effective
3. Business plan and business case	Effective	Medium	Less Effective
4. Outreach	Effective	High	Effective
5. Increase capacity, funding, coordination	Most Effective	Very High	Very Effective
6. Incentives and TA	Most Effective	Very High	Very Effective

***Question**: If you only had enough funding to implement one of the strategies listed above, which one would it be?*



***Question**: Do you have any additional feedback on any of the strategies listed above?*

- See above answers. Increase capacity of policy-makers for city, county, state, federal. Get around and talk to decision makers in the government (not the field going people only). Decision-makers are field managers, district managers in the BLM and their counterparts in the Forest Service, NRCS, State agencies.
- All great strategies.
- In many oak systems, we're seeing demand currently far outweigh funding, and to some degree capacity. We're at a point in many cases where more funding would legitimately equate directly to sound woody encroachment treatments on the landscape.
- Strategy 5 blends very different things. Funding. work force capacity. partner coordination.
  It's too late, but I'd put coordination in with technical assistance. then funding and work force capacity would be two separate items.
- Broken record here as usual - see response on same question above.
    - The business plan and business case is a little confusing to me because Oregon already has tons of markets for wood, and those existing markets are already being used to pay for oak release. So I am unclear on how this strategy differs from what is already being done/already existing.
    - I feel like demo sites already exist.
    - Technical assistance already exists (OWEB TA's, NRCS are a few examples).
    - Funding already exists, but there of course can always be more. I think that if more watershed councils and SWCDs focused on oaks, we could go a long way using existing funding, programs, and capacity.
- Hard to find capable contractors to accomplish the work. Ideally we need LOTS of people on the ground doing the physical maintenance. If someone can do the work as part of a business model to pay themselves, then we don't have to wait for the bottleneck of grant funding/public money. Business model needs to incorporate a land care ethic.
- Some of the most successful project on private land that I have seen are those done by USFWS Partners and County SWCDs in partnership with the landowners. If we can amplify efforts like those (which take time and money), it will have a meaningful impact on the ground. Landowners talk to each other, so through networks and relationships, awareness can grow organically.
- Add in adjustment based on latest climate change models. If firs are diminishing substantially in 15 years, recognize reduced threat of woody encroachment and reduced need for strategy to combat it. Same with Emerald Ash Borer - the need to maintain prairie structure through removal of ash may be short-term only.
- I ranked #1 lower because it seems that I am already constantly hearing or reading about the urgency of reducing fuels in overstocked forests.

And #2 because I'm pretty sure there are already examples of control of woody encroachment that could be accessed as demonstration sites. We have a few ourselves.

- Outreach to landowners with properties deemed critical should probably happen first, focusing on prevention when appropriate. Offering incentives to them is key.
- Prioritizing areas for focused incentives and support and marketing to these landowners is highly effective.
- A few well-located demonstration sites would be needed, and annual tours should be conducted (e.g., like Heritage Seedlings does at the restored Jefferson Farm).
- I really see Strategies 5 and 6 as having the greatest ability, together, to affect change in habitat condition in the next decade. I picked #5 in the question above (and not #6) due to the timelines associated with policy changes. Certainly a few of the Recommended Actions in Strategy 6 can be worked on in the short-term, but those that will affect the greatest changes (as reflected in acreage restored/maintained) may require years of effort to get in place.
- There are a lot of details to flesh out in this category, and my rankings would vary greatly depending on many of those details.
- The suite of strategies presented works as an integrated and mutually supportive set. That said, I suspect 5 and 6 are most urgent to get things done on the ground. Implementing them requires #4, which will produce #2, and could stimulate the need for #5 and help secure #1

<u>Question</u>: Are there additional strategies related to addressing impacts of woody encroachment that should be considered?

- Yes, if, on federal land we get to planting oaks and we get a planting failure, that dissuades decision-makers to do it again. The power of the oak cannot just lie with wildlife biologists or botanists. Getting a larger coalition of public employees on board is key.
- Release cuttings of Douglas Fir are PERFECT for timber sales. Let me explain, government timber agencies (BLM) have some protections for oak, especially with our new BLM RMP. Foresters will allow removal of Doug Firs around oak if they have advanced notice and know where the oak are. You have the potential to get a big bang for your buck by releasing oaks through public timber sales!
- this list is great, and ambitious.
- Tie this to fire prevention and fuels management as well. The public is scared of fires, and fuels reduction treatments very closely align with woody encroachment management and desired habitat conditions.
- This almost certainly needs to be directly tied to fire management capacity, i.e. both for pile burning slash material as well as post woody veg treatment maintenance (broadcast burning) to protect the investment.
- A long-term maintenance strategy needs to be considered. I wouldn't consider applying for additional grant funding over and over a long-term solution. People have to feel invested in the work and feel motivated to carry it forward on their own. I think the business case will help provide this.
- Sharing of resources such as heavy equipment and trucking during removal work would support ability of multiple projects within close proximity.
- Maintaining woody vegetation removal treatments with prescribed fire is the most ecologically appropriate method, and has the potential to be more cost effective if larger/more acres were regularly burned in the valley. May be worth adding the link between fire and woody veg. encroachment explicitly, including the importance of removing barriers to burning on private lands.

Agricultural Conversion and Incompatible Management Strategies

Threat Summary: Much of the remaining oak and prairie habitat in the Willamette Valley today is located on privately-owned lands. Conversion of fallow lands to agricultural uses, or conversion of existing agricultural lands to more intensive production such as vineyards, orchards, and cropland, will often displace these remnant habitats. Likewise, incompatible management of pastureland may degrade habitat for native species and reduce biodiversity.

Please review the following proposed strategies, then rank them based on their potential impact and urgency.

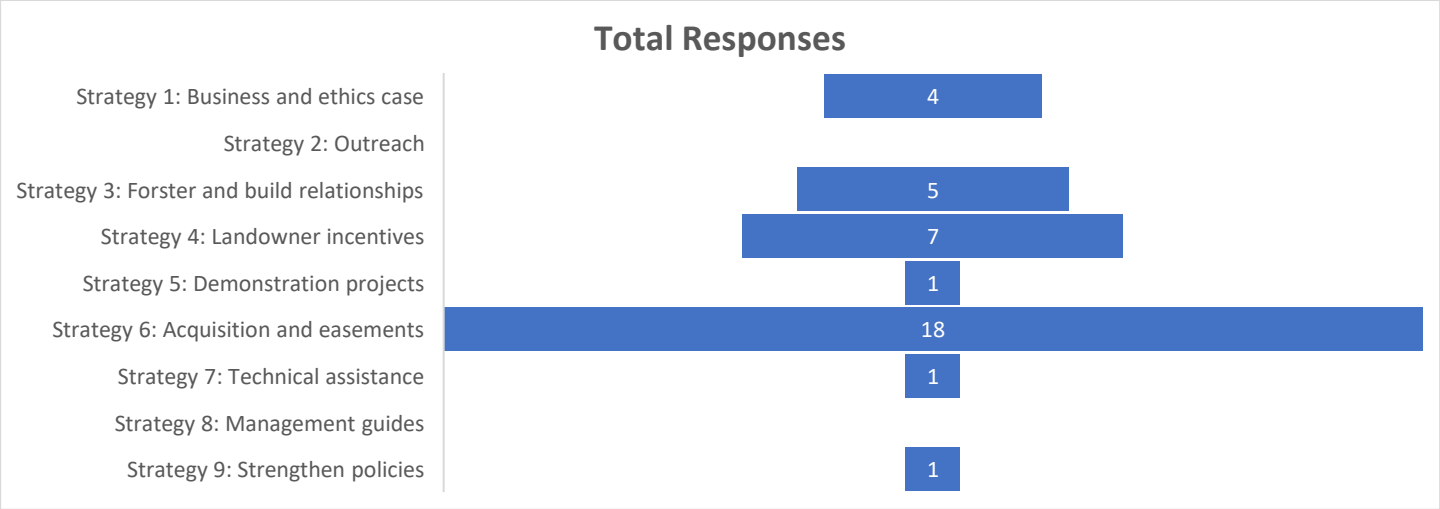
- **Strategy 1:** Develop a **business and ethics case** for oak-prairie habitat conservation.
- **Strategy 2:** Conduct **outreach** on the value of oak-prairie using the business and ethics cases (above), using ambassadors with connections to the agricultural community as an outreach vehicle.
- **Strategy 3: Foster and build relationships** with key members of the agriculture and business community to be ambassadors to conservation. Demonstrate success of the good work being done with oak-prairie restoration on working lands.
- **Strategy 4:** Develop, strengthen, and extend/offer **landowner incentive** programs to incentivize protection over conversion.
- **Strategy 5:** Develop new **demonstration projects** and share success stories of oak-prairie conservation on working lands.
- **Strategy 6:** Increase **acquisition and easements** in priority geographies.
- **Strategy 7:** Provide **technical assistance** to support habitat management efforts on agricultural lands where needed.
- **Strategy 8:** Develop and outreach agriculture **management guides** (IPM, grazing BMPs).
- **Strategy 9: Strengthen policies** to decrease conversion of habitat to production.

Summary of Questionnaire Ranking

Ranked data were analyzed using the Miradi Adaptive Management software, which categorized potential impact on a scale from most effective to not effective and categorized urgency on a scale from very high to very low. Miradi also assigned an overall (roll-up) score for each strategy. It should be noted that none of the proposed strategies scored in the "not effective" or "low" range indicating that the proposed strategies were generally accepted by Working Group and Steering Committee members as having some importance.

Threat Category and Proposed Strategies	Potential Impact	Urgency	Roll-up
Agricultural Conversion and Incompatible Management			
1. Business and ethics case	Effective	High	Effective
2. Outreach	Effective	High	Effective
3. Foster and build relationships	Effective	High	Effective
4. Landowner incentives	Most Effective	Very High	Very Effective
5. Demonstration projects	Effective	Medium	Less Effective
6. Acquisition and easements	Most Effective	Very High	Very Effective
7. Technical assistance	Most Effective	Very High	Very Effective
8. Management guides	Effective	Medium	Less Effective
9. Strengthen policies	Effective	Medium	Less Effective

***Question**: If you only had enough funding to implement one of the strategies listed above, which one would it be?*



***Question**: Do you have any additional feedback on any of the strategies listed above?*

- I ranked acquisitions and easements lower again because, though I am very much in favor of such, spending time searching for the willing owner does not seem so urgent. If they are interested they will appear and the topic can be divisive among landowners. More urgent is to change the thinking and culture of landowners on the subject of conservation - thus my emphasis on #1.
- I suspect most landowners convert land into production as a way to make a living and/or because they are required to. if there is a clear alternative that earns them a living and tax deferment, I think many landowners would be just as happy to go for the conservation option.
- We need to find ways of harmonizing "production" and "conservation". How can humans have our needs met AND conserve habitat for other life? This is where the business case comes in and I think is an important long-term strategy.
- 1+2+3 could be listed as a single strategy with three components. They work as an integrated unit. This would reduce the proliferation of strategies within this section. it would also be useful as a next step to consider how to integrate other strategies that don't necessarily require each other but that could have synergistic potential. For example, visits to demonstration projects would be perfect opportunities to distribute management guides and to have a representative to discuss technical assistance.
- Demonstration projects and relationship building: Remaining oak and prairie is often found on ground that is less productive for producers. Because of this, and the general consensus that a well-managed stand of oak and prairie has significant aesthetic benefits and usability for a landowner, building relationships with the landowners and showing them examples of what their property could look like with certain management strategies almost always inspires desire to alter management to some degree.
- Same as above....
- Strategies 2 and 3 would have increased effectiveness if they were done in the priority geographies specifically, rather than broadly by every entity working in the whole ecoregion.
- Good Oak Landowner Guides already exist. Perhaps they could be modified to focus them more at ag landowners
- Some of these seem somewhat redundant and could be lumped (for example, strategies 2 and 3)..
- Feedback on my ranking - I'm not familiar with "pasture-walk" programs or Good Steward Funding Programs, or several other programs, so I left the effectiveness rankings similar and didn't rank the urgency of strategies.
- Again, as noted previously, protection is the most urgent, and other more slow-moving tasks can come after degradation has been halted.
- Agricultural markets will dictate utilization of land and existing practices and land management are established. Given this standard there is likely no substantial gains from agricultural practices changing other than vineyards.

- The Recommended Actions under Strategy 1 seem pretty oak-focused, while hydrologic alterations to wet prairies and existing grass fields to facilitate conversion to hazelnuts and cannabis are a significant threat to those habitats, as well as the conversion from herbaceous to woody cover.
- Also, for #1, the business case could include the values of grasslands for carbon sequestration (as written mentions oak).
- #4 and #9 seem to have quite a bit in common. Merge?
- It seems like strategies 1-3 are interconnected and would be best implemented together as one strategy.
- Demonstration oak planting projects on federal land after harvest would be a good start. A lot of people are blind to the huge community out there. Why can't all of these oak organizations SPEAK in one voice to government agencies from the city to the federal. Sorry I am rambling, but my point is well advised. Pick an oak czar that can speak for all.

<u>Question</u>: Are there additional strategies related to addressing impacts of agricultural conversion and incompatible agricultural management that should be considered?

- I wonder how much gain there would be from working with growers of some of the prominent crops in the Willamette on how they can incorporate habitat on their properties. This could be cover cropping that use a native component or at least high-quality pollinator species. Or hedgerows. More science out of OSU on this could be helpful. So much of the agricultural I see is monocultured with almost no other vegetation around. What are best practices for incorporating more habitat into these cropping systems?
- Specifically tie this to the fledgling Oregon Agricultural Heritage Program housed at OWEB and the new farm bill.
- It is probably worthwhile to revisit the state's regulations regarding solar installations on EFU lands, which are in a state of flux right now due to growing awareness and demand. Conservation of oak and prairie lands, like solar energy, is not a land use that was considered at the inception of our land use laws in the 1970s, and I suspect some changes are coming.
- Vineyard conversion is the greatest threat that will continue to be an issue to address.
- Strategy 4. Why not expand new collaborations beyond listed state agencies & NRCS programs? WRP, NFWF, foundations, other?
- Is wetland mitigation banking a viable strategy to list here? The valley as a whole is in major need of credits - perhaps there is a way to work with DSL to meet regulatory needs while also protecting/restoration critical wet prairie habitats.
- Eat local, grass-fed beef. Some of the best oak habitat left are the last ranching holdouts. We've got to find a way to protect and restore a bit of that way of life and make it pay. Unfortunately, the ship has mostly sailed. The new generation isn't up for the commitment of raising livestock, nor can they afford a large enough land base needed to make a living at it.
- Landowners want to do the right thing and often financial incentives may or may not be useful. Appeal to their higher spirit. I, personally, donate blood, but I do not need a 10-dollar Home Depot card to make me give blood. I do it because it is the right thing to do. Rambling part 4.

Non-Native Invasive Species Strategies

Threat Summary: Non-native invasive vegetation is widespread in the Willamette Valley, resulting in a decline in native plant species cover and biodiversity and degrading habitat quality and functionality for pollinators, birds, and other oak and prairie dependent species. Aggressive invasive species pose significant challenges for management and restoration efforts in oak and prairie habitats.

Please review the following proposed strategies, then rank them based on their potential impact and urgency.

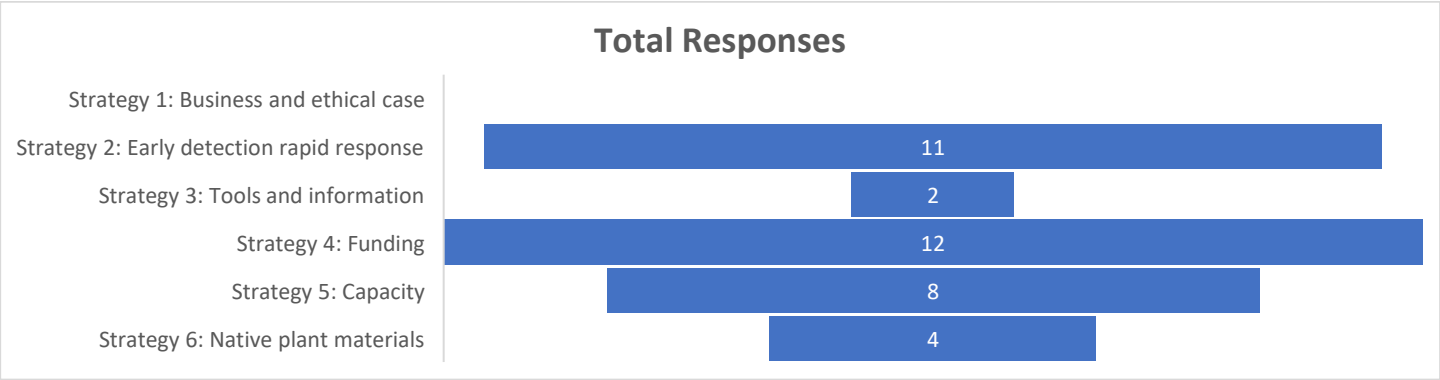
- **Strategy 1: Implement an outreach campaign to public using business and ethical case.**
- **Strategy 2: Increase Early Detection Rapid Response (EDRR) and monitoring for priority plant species and plant diseases in priority areas.**
- **Strategy 3: Improve the tools and information that are available to managers and practitioners.**
- **Strategy 4: Increase funding available for invasive species management through outreach to funders, politicians.**
- **Strategy 5: Increase weed management capacity and coordination.**
- **Strategy 6: Increase the availability and reduce cost of native plant materials for restoration.**

Summary of Questionnaire Ranking

Ranked data were analyzed using the Miradi Adaptive Management software, which categorized potential impact on a scale from most effective to not effective and categorized urgency on a scale from very high to very low. Miradi also assigned an overall (roll-up) score for each strategy. It should be noted that none of the proposed strategies scored in the "not effective" or "low" range indicating that the proposed strategies were generally accepted by Working Group and Steering Committee members as having some importance.

Threat Category and Proposed Strategies	Potential Impact	Urgency	Roll-up
Non-native Species Invasion			
1. Business case and ethics case	Less Effective	Medium	Less Effective
2. Early detection and rapid response	Effective	High	Effective
3. Tools and information	Effective	High	Effective
4. Funding	Effective	Very High	Effective
5. Increase capacity and coordination	Effective	Very High	Effective
6. Native plant materials	Effective	High	Effective

Question: If you only had enough funding to implement one of the strategies listed above, which one would it be?



<u>Question</u>: Do you have any additional feedback on any of the strategies listed above?

- It would be good to know if these are on public or private lands. importance and urgency might be different in each of those cases. I also recommend partnerships with extension that have a lot of resources available as well.
- EDRR is an obvious strategy proven to save money and be effective. For other species, managers need to be more selective about what species they prioritize so that we can put funds towards the species are areas that are most in need of treatment. The pendulum has likely swung too far in the direction of control vs tolerance of weed species. The reality is that certain weeds are much worse than others and even the bad ones like blackberry are just fine in some areas, as they create habitat for numerous species. I would focus on the species that change the structure of habitat or completely outcompete other species.
- it's a tough call between early detection and funding. but if we don't get a handle on early detection and/rapid response, the battle is half lost and the funding needs skyrocket. For this reason, the strategy proposed below for "preventative medicine" is also a high priority that goes with early detection as a top priority. we have to reduce colonization so that less needs to be 'detected'.
- Control of invasives should consider current understanding of substances used in the past and try to get out ahead of the understanding of certain products, as occurred with glyphosate.
- Long term habitat enhancement is only achievable within clearly delineated management areas where nonnative invasive vegetation control will occur.
- It doesn't seem as though outreach does much for invasive control. It's not typically new information for people, they just have other reasons (finances, time, expertise) for not addressing it.
- The technical approach to weed management is very refined and there are a lot of local experts that are effective at it. Also, most landowners despise weeds. So, the effective strategies are available and there is landowner and community support, more dollars would equate to additional and more effective weed management.
- killing weeds alone without subsequent restoration tasks is a temporary fix that erodes public support when it all goes back to weeds.
- #6. Funding for large-scale grow-out. Native seed and plant materials are a limiting factor/impact restoration quality. Large-scale grow-out to bring down costs is needed (acknowledging needs for protecting genetic diversity while also considering landscape-scale needs).
- I believe it is important to focus on what we DO value if we are doing outreach or narratives around invasive species, rather than on demonizing the plants themselves. Focus needs to be on holistic management FOR a purposeful landscape that is balanced and diverse. This might include accepting some level of invasive species as long-term components of the landscape, and more regular/labor-intensive mechanical means of managing species populations.
- Does the Business/Ethics case include education on manipulating site conditions to negatively impact invasives? (i.e. increased shade for blackberries and scotch broom).
- EDRR-- we do our best, but it is not going to make or break the oak decline
- Business cases- there is some misleading information out there that oak is not a profitable or viable harvest crop and the biggest critics are the timber consultants and industry that are all pro Doug-Fir. Get good case studies together and get them to the key players.
- Funding-- use the non-profit strategy of applying for multiple government FOAs. Federal employees have their hands tied by bureaucracy... help us out. Sorry, I think IAE has a good funding model that can be used.

<u>Question</u>: Are there additional strategies related to addressing impacts of non-native invasive species that should be considered?

- In the "improve tools" strategy, I would add an effort to narrow the list of target species for oak/prairie habitats and then educate people on the worst of the worst.
- Need a component to identify and target vectors of transmission and establishment. For example, maintenance equipment (mowers), farm equipment, people (hikers), horses (need weed-free seed). Connect this to research and development of best management practices in each other sector (e.g. ag, fire, urban development,). This

includes assessing of landscape features such as roads and waterways. This is urgent enough and specific enough that it needs targeted attention and then could be fed into other strategies.

- Sharing of resources across organizations should be a high priority to reduce cost and maximize impact.
- While EDRR can detect and help control the costs of dealing with newer, aggressive, and habitat-altering invaders, some of the most widespread impacts to oak and prairie systems in the WV come from a suite of well-established non-native grass species. Perhaps those were not considered as "invasive" for the purposes of this effort, but regardless they make up a large proportion of the dominant cover we see in the degraded habitat out on the landscape today. The invasive species topic area should address the impacts from non-native grasses and propose strategies for addressing them, which could then be coupled with native plant material establishment for working to address this threat.
- Building soil health needs to be part of the conversation about invasive species. "Invasive species" are opportunistic plants growing where condition are well-suited to their growth habit (i.e. degraded and disturbed soils). They also are informative and potentially useful—i.e., Scotch Broom is a nitrogen fixer and voluntarily improves soil health; Japanese knotweed is a highly effective remedy for Lyme disease, which is increasing in our region; and St. Johns Wort is more effective than many pharmaceuticals at overcoming seasonal depression. Focus needs to be not only on short-term eradication, but on understanding WHY these species are showing up, what they are doing and what value they might have, and building long-term soil health to support the plant communities we do value. We also need to phase out herbicide use as a management strategy. We can also ask ourselves and study whether a plant is actually causing a negative impact before being threatened by its success. Let's remember to keep the long-term goals in mind and not just react to booming plant populations.
- Work to ensure that a realistic collective mindset is cultivated and maintained in relation to the landscape in question. Namely that it ain't pristine now and ain't ever gonna be. Shoot for realistically achievable targets (in other words a world where their will continue to be many well entrenched non-native species - this does not preclude ecological function for many species up to and including ESA listed species).
- Native plants are pricey, if there were subsidized as part of the funding strategy I imagine more people would utilize natives as a management strategy.
- Also, education/material on benefits of natives (bird viewing, edible, etc.) may further increase public participation.
- Get involved in the collaborative weed councils. EDRR is important on Federal lands but it is not our only priority. Soft brome, blackberry, and soft brome are noxious concerns.

Fire Exclusion Strategies

Threat Summary: Fire-adapted oak and prairie ecosystems dominated the valley floor, foothills, and tributary valleys for thousands of years. The cessation of burning by Native Americans by the mid-1800s followed by extreme fire suppression in the 1900s has led to replacement of these biodiverse ecosystems by conifer forest and other less fire-resilient vegetation types.

Please review the following proposed strategies, then rank them based on their potential impact and urgency.

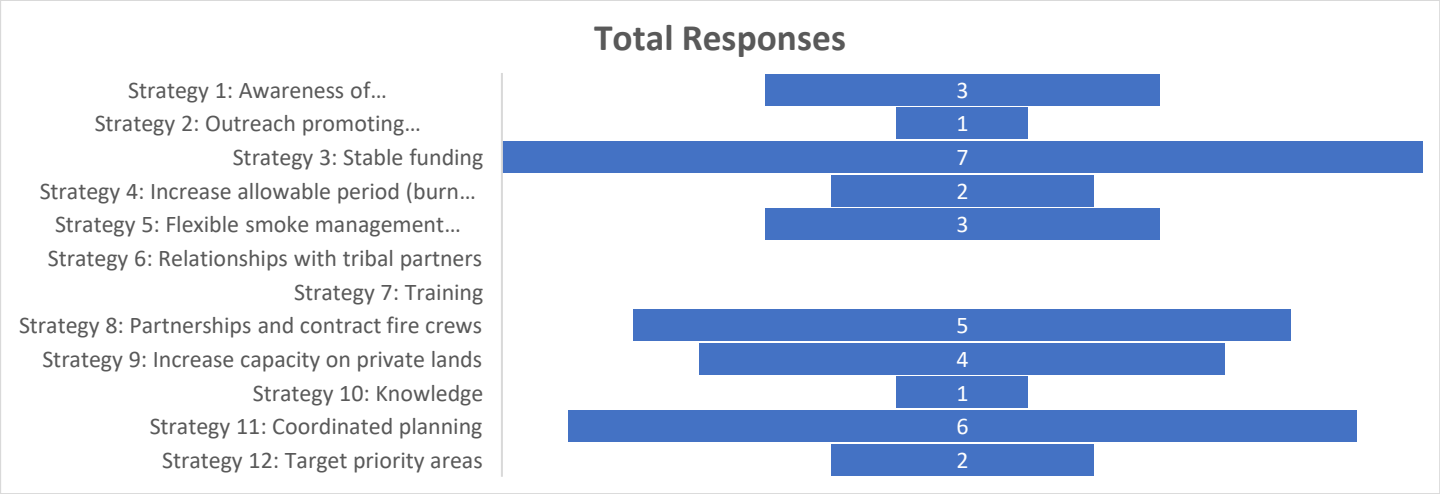
- **Strategy 1:** Implement an **awareness** campaign centered around economic, safety, and health benefits of prescribed fire.
- **Strategy 2:** Implement **outreach** promoting the ecological and cultural significance of oak-prairie and role of fire.
- **Strategy 3:** Advocate for increased and more stable **funding** for Rx fire.
- **Strategy 4:** Advocate to **increase allowable period** (window) for ecological burning.
- **Strategy 5:** Advocate for more flexible **smoke management regulations** (local, state, and regional).
- **Strategy 6:** Develop strong relationships with **tribal partners**.
- **Strategy 7:** Increase prescribed fire **training** programs and opportunities.
- **Strategy 8:** Build **partnerships**, promote opportunity for contract fire crews.
- **Strategy 9:** Increase prescribed fire **capacity** on private lands.
- **Strategy 10:** Improve **knowledge** base for prescribed fire behavior in slopes, wooded areas, and recently thinned areas.
- **Strategy 11:** Increase **coordinated planning** efforts.
- **Strategy 12:** **Target priority areas** to maximize prescribed burning resources.

Summary of Questionnaire Ranking

Ranked data were analyzed using the Miradi Adaptive Management software, which categorized potential impact on a scale from most effective to not effective and categorized urgency on a scale from very high to very low. Miradi also assigned an overall (roll-up) score for each strategy. It should be noted that none of the proposed strategies scored in the "not effective" or "low" range indicating that the proposed strategies were generally accepted by Working Group and Steering Committee members as having some importance.

Threat Category and Proposed Strategies	Potential Impact	Urgency	Roll-up
Fire Exclusion			
1. Awareness campaign	Effective	High	Effective
2. Outreach (ecological/cultural significance)	Effective	Medium	Less Effective
3. Stable funding	Most Effective	Very High	Very Effective
4. Increase allowable period	Effective	High	Effective
5. Flexible smoke management regs.	Effective	High	Effective
6. Relationships with tribal partners	Effective	High	Effective
7. Training	Effective	High	Effective
8. Partnerships and contract fire crews	Effective	High	Effective
9. Increase capacity on private lands	Most Effective	High	Effective
10. Knowledge	Effective	Medium	Less Effective
11. Coordinated planning	Most Effective	High	Effective
12. Target priority areas	Effective	High	Effective

***Question**: If you only had enough funding to implement one of the strategies listed above, which one would it be?*



***Question**: Do you have any additional feedback on any of the strategies listed above?*

- We need community buy in for adding more smoke to the landscape, without that none of the others would happen easily.
- If there is dwindling public support that continues, controlled burning will be eliminated. Increasing awareness and support is critical.
- too much proliferation of strategies. Combine ones that clearly go together so that there's a smaller set of distinctive strategies. e.g. combine 4 and 5. Are there others that go together enough to group? and if not, then cluster in categories to organize. #1 and #2 could be combined, with #2 becoming a line item under #1
  I identified #11 as top priority as a central organizing lens through which others can be prioritized and targeted. #11 needs #12. #11+#12 can guide priorities for #10, etc. This type of staging would be useful to follow from the prioritization so as to lead to a strategic action plan - perhaps that's what is intended.
- #2. Would like to see some explicit language here inviting/including tribes, esp. around items like first bullet in Recommended Actions.
- #3. Consider generalizing first bullet - or naming specifically all of the programs that are available for Rx fire planning, prep, assistance.
- #6. There should be Recommended Actions for this bullet.
- #4. How big of an issue is this outside of Eugene/Springfield? (pardon my ignorance)
- #8. Seems like a component of #7. As this topic has many strategies, try to combine these into one.
- There is such a smoky haze (pun intended) around the politics of fire, that it may be something we have to be content with where we currently stand. More would be better, but at what point does it provoke producers to question regulators "why can they do it and not us"? And our chances at winning the burn battle with the farming community, in my estimation, would be dismal.
- There is so much pushback from the public for Rx burning, but with the current state of wildfire smoke in our area, the argument "breathe a bit now, or much more later" can increasingly be made.
- I get the feeling that some of these things might fall into place if another strategy is completed. For example,
- I might be misunderstanding some of the aspects of these strategies. Maybe we needed more fire dogs at these meetings. Many of them are already occurring. Improving knowledge of fire behavior is always occurring. I'm not sure what is meant by training. What would the training be intended to do? Turn non-firefighters into firefighters? We won't be able to do much burning without federal partners, so meeting the federal interagency qualifications is the only training that matters. And, we can train up all the FF2s we want, but the limiting factors will be the people with advanced qualifications (burn bosses 1 through 4, division bosses, engine bosses, etc.) and all of them require experience as a squad boss. Getting these experiences and training usually means working for a federal agency for years, maybe state.

- Controlled fire burning is difficult on federal lands and easier on private.
- I don't feel I have enough knowledge and experience in this area to answer in a useful way. Therefore incomplete answers.
- Strategy 8 seems unclear to me what it means.
- OPRD has done strategy 6 and it has been key in allowing us to be able to make a burn happen. It also has some immense win-win aspects for the resources and for the tribal workers and members, both financially as well as regaining and relearning historic management expertise.
- Strategy 11 is being done extremely effectively, the most effectively in the whole ecoregion, in the Eugene area. it is an excellent model already existing that could easily be expanded.
- I would urge you to consider developing fire-resiliency as a part of the message. Instead of thinking about what you want to tell/teach or inform. Think about your audience and what they need to hear and how that then relates to what you want to tell them.
- It has been well established that oak habitats that originally "ringed" the Willamette Valley provided a fire-resilient band separating the valley (now heavily populated) from the high value timber at upper elevations. Identifying these remnant oak habitats that fringe the Willamette Valley provides the partnership the opportunity to target areas to create and restore fire-resilient plant communities and to protect communities and high value timber assets.

<u>Question</u>: Are there additional strategies related to addressing impacts to reducing fire exclusion that should be considered?

- Importance of existing efforts on public lands (thinking mainly of NWRs/BLM/USACE here)- providing demonstration sites, partnerships, for how to achieve this ecologically-critical conservation work in both the rural and urban areas of the WV.
- Along the same lines, partnering more widely throughout the valley with federal agencies, who have highly skilled staff including burn bosses, who can act as leads, to implement burning over a larger acreage where capacity is limited.
- More explicitly build in public safety to outreach. Develop messaging around smoke management, protecting lives & property, and associated, valued ecological benefits.
- I see a lot of good effort focused on private lands here - also seems like sustainability of burn programs on public lands should be incorporated.
- One thing I don't see in here (could be missing it) is the value of multiple agencies working collaboratively in a controlled situation - as well as training opportunities for municipal firefighters to work on non-structural fires. This is something that has been acknowledged as a benefit by both municipal fire departments and rural fire authorities for improving public safety in the event of a wildfire and even other emergency response situations that would require a response from multiple jurisdictions.
- Overall, the responses to this threat are, importantly, focused on the planning and capacity-building side of things. Is there an estimate, and could/should it be included in this effort, about the # of acres that need burning annually? Or, put another way, what are critical implementation benchmarks?
- Continue allocating resources to proper habitat restoration at a level that can produce vegetative results that are resilient plant communities which require much less fire over time. i.e. hardy, long-lived perennials, much fewer grasses, tailored plant communities that allow for other habitat-driving tools to be used.
- Partnership with health agencies relative to respiratory effects of Rx burning must be made.
- Seems like there is a very obvious high level political / administrative Strategy missing that isn't quite captured in Strat #5. Smoke management is just one sub-issue of what we need help with. We need state / federal / local leadership to promote increased burning on every level.
- Integrate realities of shifting climate patterns. E.g. the last four years - broadcast burning is later, fire season (including extensive early shutdowns/red flag weather) and associated limitations on unit prep, etc. is longer.
- 1. Capacity
  2. Stable INCREASED funding
  3. Capacity

4. Reign in LRAPA
5. Capacity

- Fire resilient species planting.
- THE BLM has been able to bring Wildland Urban Interface "community" funding to projects in Lane County largely due to the Lane County Community Wildfire Protection Plan (CWPP).
- Apparently, each county was responsible for developing a CWPP. The Lane County CWPP identifies large areas for moderate and high risk, which in turns elevates priority projects for the BLM funding. As I mentioned, we have brought substantial funding to a large piece of City of Eugene land behind Lane Community College and Thurston Hills behind Springfield. We could certainly work with the USFWS partners program on private lands or other similar partnership approach. It would be best if we developed a landscape scale approach, not 5-10 "one-offs" - but to aggregate contiguous land, that includes multiple landowners to get the most effectiveness out of a project AND to raise the level of priority for BLM funding.
- NOTE: The CWPPs are highly variable on how they were done. We were luck in Lane County, as large areas were identified as moderate and high. I understand that the Linn County plan was less generous and drew polygons around structures for protection, which is less helpful for us (BLM) to bring funding to the table.

Questionnaire Section Two: Feedback on the 30-Year Conservation Concept Map

Purpose and Use of Map

The WVOPC Conservation Concept Map is intended to provide a high-level framework for future oak and prairie conservation, restoration, and efforts within the planning area. The concept depicted on the map highlights broad areas of interest and opportunity based on available data and Working Group input. The map is intended to depict a high-level concept and is not intended to be property-specific at this time. Implementation of the concept depicted on the map will be reliant on voluntary participation by landowners and partners. Specific properties to be targeted for conservation and habitat management actions will be determined over time based on partnership input, landowner interest, availability of funds, and additional analysis. The 30-Year Conservation Concept Map will be used to:

- Depict high priority conservation focus areas and habitat corridors;
- Guide partners on where to focus/invest limited resources in oak-prairie restoration;
- Serve as a communication tool for partners, landowners, and elected officials;
- Show how individual projects and conservation efforts fit into the big picture; and
- Support fundraising efforts.

30-Year Conservation Concept Map Development

This draft map was developed based on extensive evaluation of spatial data and input provided by Working Group members at the November 15, 2018 meeting. At this meeting, a total of 38 Working Group and Steering Committee members met and participated in a half-day design charrette process where participants were asked to complete a mapping exercise. The summary report for the charrette, including photos of each team's final map can be found **here**.

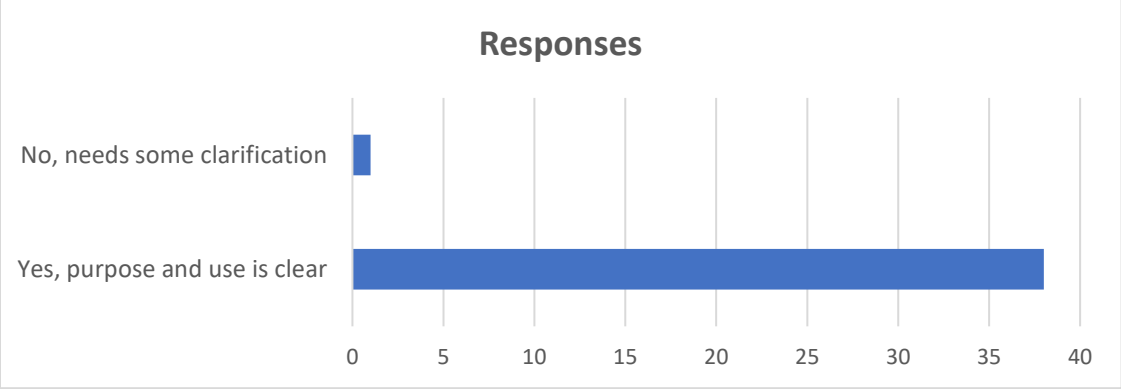
Proposed Map and Key

Please take a few minutes to review the proposed **30-Year Conservation Concept Map** and **Map Key** and then answer the questions below.

Note: If you would like to review the underlying GIS data in more detail, go to the clickable PDF map **here**. This will allow you to view some of the key underlying GIS data including USFWS Priority Conservation Areas, ODFW Conservation Opportunity Areas, Existing Oak and Prairie Habitat (synthesis of USFWS and ODFW data), and TNC's Key Oak-Prairie Parcels. Note, this is a bigger file, so may take a few minutes to download.

Questions and Comments

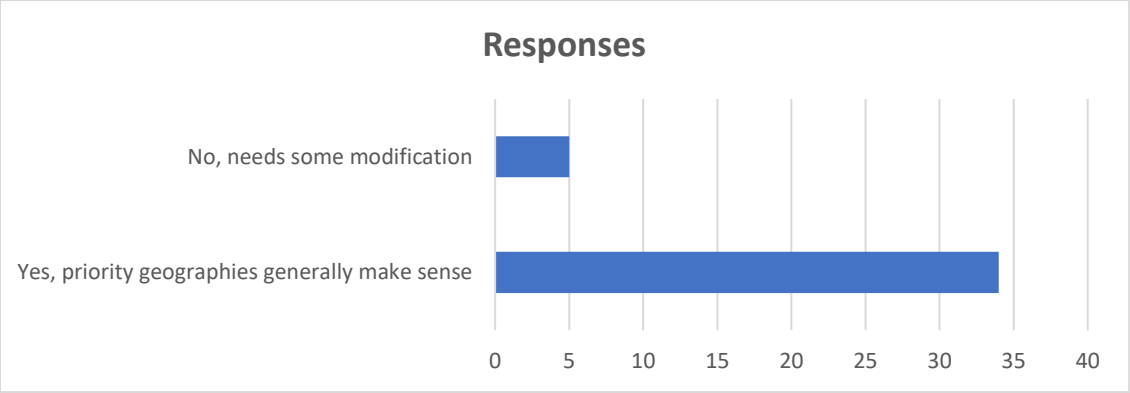
Question 1. Based on the "Purpose and Use of Map" described above, and your review of the map and key, is the general purpose and use of the map clear?



If you answered no, please provide feedback below

- It may be useful if the letter referred to something. And if they aren't named areas- then maybe they're not needed.
- I still think we need to clarify the difference between proposed CCAs and OCAs. Also, I don't know if there is much value in separating BLM and Forest Service on the map? The key seems a bit cluttered. I could see it all being condensed to two colors. protected and not protected.

<u>Question 2</u>: Based on your participation in the charrette process, review of spatial data, and/or on-the-ground knowledge, does the map accurately highlight priority geographies where future conservation efforts should be focused?



If you answered no, please provide feedback below:

- Let's discuss separately (done June 10, 2019)
- This may be getting too detailed, but I note that city limits are clearly outlined; however, a large development threat is land zoned for rural residential. Perhaps the RR-zoned lands could be shown in a slightly lighter color? In my experience, the acreage is significant, and because the properties are larger, there are often valuable remnants on them. A specific type of outreach, as opposed to farmer outreach, is required for rural residential landowners.
- Of the 5 main threats identified, both Rural Development and Fire Exclusion are major factors on lands zoned for rural residential, which can be 2, 5, or 10 acres in size, and are all under private ownership.
- I know everyone is going to have edits to their geographies and what they care about and that this is not intended to be property-specific, so I apologize in advance for that. That said, I think that the area to the SE of Thurston Hills before Elijah Bristow should be a CCA rather than an OCA. It fits the description of a CCA and it would likely be beneficial in seeking funds for restoration in that area if it is listed as an OCA.

- It is close to an existing anchor site.
  - There are known concentrations of particularly high-quality oak and prairie habitat on a large parcel (one landowner interested in conservation of their >600 acre parcel, in addition to multiple other landowners interested in conservation of their oak habitat).
  - This area is already being encroached upon by development, and so it's important to work toward conservation quickly.
- Mostly yes, but we need to acknowledge that it's an incredibly biased process. We all know a lot about our sites and not others. It's impossible to advocate for areas you don't know about. So...I don't know if there are major gaps, hopefully we had a broad enough representation that gaps don't exist, but I bet there are, especially on private parcels. Also, I would trust one of our "conservation elders" like Ed Alverson or Steve Smith ranking these sites more than anyone else.
- As I discussed with Jeff Krueger, the map really leaves out the opportunity of a federal nexus - with so much emphasis on the private land and the current threats. It is well accepted that climate change is happening and we should really be expanding the conversation and strategy to include the Climate Resiliency boundary. This will bring your federal partners to the table and can be happening concurrently while other partners are working on the lower elevation, immediate threats that are 95% privately controlled.

<u>Question 3</u>: Do you have any additional feedback on the 30-Year Conservation Concept Map that you would like us to consider?

- Great map! It represents so much information!
- The south location conceptual to Umpqua Oaks is not clear and likely out of scope given geography.
- Great job engaging, facilitating, and creating!
- I would make the blue connector lines 50% wider for clarity when viewed a full extent. I would include some small text - on the map if possible that explains briefly the purpose of each future potential connector. E.g. "Connect to river valley oak habitats extending from the WV ecoregion into the Cascades and Coast Range"; "Connect to higher-elevation meadows on federal checkboard lands"; Create oak-prairie corridor across valley floor in former OP habitat on productive soils now converted to agriculture. An alternative to text on the map would be to use numbers on each corridor that key to a typology of connectors in a text box on the lower right
- I like the title.
- I like how this vision has changed over time. This is the best representation I have seen of an inclusive vision for the best areas for protection and connectivity and then also that next tier of lands that are still important. Great work!
- Nice work!
- Bullet 2 from above states "Guide partners on where to focus/invest limited resources in oak-prairie restoration". I question a bit whether this map meets the criteria for "focused" as nearly 50% of the planning area is defined as "Core" or "Opportunity" area. However, it does do a good job of highlighting the core areas as well as additional potential outside of them.
- Never miss a great opportunity to protect rare habitat just because it was missed n the mapping exercise. May need some criteria for helping landowners add their site to a priority area.
- I'd like to see an effort to better define climate resiliency areas/criteria.
- It was unclear to me what the letters referred to on the CCAs. Will these correspond to names or descriptions?
- The cross-valley corridors make sense and will provide needed connectivity and restoration options on the valley floor. However, more opportunities for wetland prairie restoration would also make sense, given the importance of these habitats for migratory birds, wetland species and our current success rate of restoration of these habitats. One alternative is to create a series of mid-valley stepping stones that provide habitat options for birds.
- It looks really great.
- I still feel, though, that the artificial separation of the Portland metro area is a shame and that it will cause confusion among private landowners, funders, policymakers, and others. It seems that if we had the time and the will, there would be a way to combine the two efforts into a single map. I say "artificial" separation because all

areas in the ecoregion should be included if we look at this from purely a biological standpoint, even with the more intensive land conversion that has happened in the Portland metro area.

- At the very least, the Purpose and Use of Map document should provide links to more information regarding this area, like the Regional Conservation Strategy, Oregon Conservation Strategy mapping, and the "other" Oak-Prairie
- Working Group's products. That way when someone wants to know what is going on in that area they know where to look.
- I'm wondering if conserved areas outside of the CCAs should be identified as anchor sites (especially the smaller sites), if one idea is to increase the size of some of the existing anchors to create habitats suitable for supporting viable populations. I would hope that WVOPC members would focus their land protection efforts inside the CCAs and not just jump at any opportunity that comes their way. I wouldn't include sites like Little Willamette of Cox as a WVOPC anchor site.
- I'm also thinking we shouldn't be identifying a CCA outside the planning area boundary. Why does the CCA extend to Springer Mountain to capture BLM/FS sites, but it doesn't extend to other areas, like Laurel Mountain or Crabtree?
- Is the idea of the climate change resiliency zone to include areas where species might find refugia should their climate envelope no longer include the valley and/or is to identify the resiliency zone's future use as a north-south corridor for species on the move. If north-south movement is anticipated, then I'd add a couple of small north-south corridors just to illustrate that.
- Nitpicky point: The purple color on the map key for BLM/FS o-p sites, prints out almost the exact same color as the existing anchor sites, making them hard to distinguish. If others are having the same problem, maybe consider a different color for the BLM/FS sites??

<u>Question 4</u>: Do you have any additional thoughts or comments on the Strategic Action Planning process?

- This has been an educational experience for me, and I'm impressed by the process. It would be great if other agencies/organizations would employ this type of planning.
- I am a bit scared that we are going to just split up all of the resources between all of the groups and not have anything big to show for it at the end of this initiative. There is so much great information that went into this process, but I think it all comes down to let's purchase / protect as much habitat as we can as quickly as we can in the most strategic way that we can!
- Keep participants apprised along with all partners to prioritize and emphasize actions.
- As noted in comments on two of the threats section, there are some important strategies that didn't fit into any of the 5 categories covered, such as how to recover OP habitats in areas that have already lost all oaks and prairie, and how to link the reintroduction of fire to broader wildfire risk planning. Perhaps there could be a section on opportunities to cross-link among the five key areas, as well as to other WV initiatives.
- Include current Utility Right of Ways as possible east/west corridors
- Folks have accomplished a lot in a remarkably short time. A big thank you to lead people, and everyone who has contributed to this process!
- I look most forward to directing and implementing projects based on the plan, rather than consume my thoughts with any further planning exercises....
- Looks fantastic, job well done!!!
- Beautiful map work, as always!
- No time to review map now, but don't want to lose what I've done, so am submitting and will address as time allows. A save function would be useful.
- The devil is always in the details with these kinds of strategy/action plans, and I understand those details can't be displayed on the results chains due to space limitations. But this left me with many questions related to the actions/messages. I'm assuming they will be further developed as the SAP progresses, and we'll have a chance to comment on them?

Willamette Valley Oak-Prairie Cooperative

Draft: February 6, 2017

A number of high-level plans, studies, and initiatives related to Willamette Valley oak and prairie habitat have been completed or are underway and provide important background and direction for the development of the WVOPC Strategic Action Plan. These are listed below along with a web link (if available) along with a brief summary of its potential relationship to the WVOPC planning process. In addition to these valley- and region-wide efforts, there are an extensive number of site- or watershed-specific efforts that are too numerous to be listed here but may still be considered during the development of the Strategic Action Plan.

Table 1: Completed Plans, Studies, and Initiatives

Title, Author, and Date	Relationship to the Willamette Valley Oak-Prairie Cooperative
Prairie, Oaks, and People: A Conservation Business Plan to Revitalize the Prairie-Oak Habitats of the Pacific Northwest Cascadia Prairie-Oak Partnership and Pacific Birds, 2017	This conservation business plan for the broad area spanning from British Columbia to northern California is intended to showcase our vision for healthy and abundant populations of native prairie-oak plants and animals within the context of human needs and a changing climate. The vision for the business plan is to create an interconnected network of prairie-oak habitat that sustains native species across the region and provides ecological services for future generations. Supporting objectives are related to recovery population of 41 imperiled species and restoration and maintenance of habitats. This plan will provide a strategic framework that will help guide implementation of the WVOPC.
Willamette Valley Conservation Study – Strategic Habitat Conservation in Oregon's Willamette Valley U.S. Fish & Wildlife Service, March 2017	This USFWS study recommends that networks of grasslands, oak woodlands, and riparian habitats in specific areas of the Willamette Valley (subsets of Conservation Opportunity Areas identified by the Oregon Department of Fish and Wildlife) to be provided as safe and secure habitat to allow populations of sensitive native wildlife and plants space and time to recover. USFWS convened a Willamette Valley Strategic Conservation Management Team, comprising many conservation partners active in the Willamette Valley, to help development of the study. Mapping analysis used known occurrences of Western meadowlark, western bluebird, slender-billed nuthatch and cross referenced with the locations of remnant oak and prairie habitats to determine high value habitat patches. This underlying data will be a useful resource for development of the WVOPC Strategic Action Plan.
Oregon Conservation Strategy Oregon Department of Fish & Wildlife, 2016	The Oregon Conservation Strategy (OCS) was developed to provide statewide guidance on conservation priorities and values and identifies high priority target vegetation communities and species. High value conservation communities identified for the Willamette Valley include oak woodlands, grasslands (prairie and savanna), wetlands (including wet prairie), and flowing water/riparian. The OCS also lists high priority "Strategy Species" by habitat type and ecoregion including amphibians, birds, mammals, reptiles, fish, invertebrates, and plants and algae. Additionally, the OCS maps "Conservation Opportunity Areas" (COAs) which are places where broad fish and wildlife conservation goals would best be met. Focusing investments in these prioritized areas can increase the likelihood of long-term success for protecting Strategy habitats and species.

Title, Author, and Date	Relationship to the Willamette Valley Oak-Prairie Cooperative
A Conservation Concept Map for Yamhill County, Oregon Jeff Krueger, for the Yamhill Partners for Land and Water, September 2015 (uploaded to Base Camp)	This Conservation Concept Map is based on data provided by The Nature Conservancy, U.S. Fish and Wildlife Service, Oregon Department of Fish and Wildlife, and various local park and recreation plans. Initial concepts were generated by the *Yahmill Partners for Land and Water* in a series of workshops help in 2014 (Yamhill County Conservation Feasibility Analysis, February 2014). Subsequently, Jeff Krueger worked with the Yamhill Partners to take previous work and create a Conservation Concept Map that depicted key concepts. The map calls-out some of the higher priority conservation opportunities (included oak/prairie) in the Yamhill County portion of the Willamette Valley Ecoregion. The Yamhill Partners are using the map to guide ongoing conservation efforts.
Conserving Nature's Stage: Identifying Resilient Terrestrial Landscapes in the Pacific Northwest The Nature Conservancy, February 2015	The goal of this project was to identify areas in the Pacific Northwest that are collectively and individually best suited to sustain native biodiversity, even as the changing climate alters current distribution patterns. The report represents the results of land facet mapping, and the calculation of local permeability, topoclimate diversity, and terrestrial landscape resilience across the entire 92 million hectare/11 ecoregion project area using uniform methods. Associated spatial data could be used by WVOPC to help map areas that may be more resilient in the face of climate change.
A Conservation Concept Map for the Mid-Willamette Valley Jeff Krueger for Greenbelt Land Trust, May 2014 (uploaded to Base Camp)	This Conservation Concept Map is the documentation of the results of a design charrette process that was hosted by Greenbelt Land Trust on May 16, 2014. The facilitated work-session included participation by numerous mid-Willamette Valley conservation partners and technical experts. The map depicts some of the higher priority conservation opportunities present in the mid-Willamette Valley portion of the Willamette Valley Ecoregion, an area of approximately 1.5 million acres. The map is conceptual and intended to help focus and coordinate future on-the-ground conservation efforts among various partners in the region.
Identifying Priority Willamette Valley Oak and Prairie Habitat – Final Phase The Nature Conservancy (Ed Alverson), December 2011 (uploaded to Base Camp)	This analysis effort identified key oak-prairie parcels throughout the Willamette Valley ecoregion based on parcel size, historical vegetation, and existing vegetation derived through aerial photo interpretation. This report provides project background, description of methodology, and results. The data developed through this process could potentially be updated for the WVOPC planning process and used as a resource to help identify large high value oak-prairie parcels.
Recovery Plan for Prairie Species of Western Oregon and Southwest Washington USFWS, 2010	This Recovery Plan identifies actions to down-list or delist threatened and endangered oak (savanna) and prairie species including one butterfly and four plant species: • Fender's blue butterfly • Willamette daisy • Bradshaw's lomoatium • Kincaid's lupine • Nelson's checker-mallow The Plan also provides conservation measures specific to the Willamette Valley for golden paintbrush (a threatened species for which a recovery plan was established in 2000) and addresses one candidate species and six non-listed species of conservation concern: Taylor's checkerspot butterfly, pale larkspur, Willamette Valley larkspur, peacock larkspur, shaggy horkelia, white-topped aster, and Hitchcock's bue-eyed grass.

Title, Author, and Date	Relationship to the Willamette Valley Oak-Prairie Cooperative
Strategic Conservation Management in Oregon's Willamette Valley ***Surrogate Species Pilot 1.0*** USFWS, 2014	The U.S. Fish and Wildlife Service is using Strategic Conservation Management and a surrogate species approach to conserve important landscape habitats in the Willamette Valley. This approach emphasizes the use of surrogate species to monitor, evaluate, and motivate landscape conservation in the Valley. The strategy builds on and seeks to expand existing conservation capacity of the Service and our valued partners. Under this approach, surrogate species such as Bradshaw's lomatium and Fender's blue butterfly, are umbrella species and will be used to provide direct insight regarding the status of other species on those landscapes. Some of our other surrogates, such as Oregon white oak, actually represent or determine the overall landscape habitat conditions. The selection of these habitats and surrogate species was conducted by a core team of representatives from USFWS, ODFW, and key conservation leaders from agencies and organizations working in the Valley. Biological objectives for each of the surrogate species, which in turn led to identification of priority conservation and monitoring actions.
Benton County Habitat Conservation Plan and Prairie Conservation Strategy Institute for Applied Ecology for Benton County, December 2010	This strategy was developed as one of the Conservation Measures of a multi-species Habitat Conservation Plan funded by a USFWS grant to Benton County and also serves as a stand-alone reference document for prairie conservation, restoration, and management. Aspects of this Benton County focused plan can be expanded valley-wide.
Ridgeline Area Open Space Vision and Action Plan Lane Council of Governments and Partners, 2008	This vision document was developed by multiple Rivers to Ridges partners, interest groups, and members of the public and provides a framework for future park and open space planning within the 20-mile Ridgeline corridor extending from Fern Ridge Reservoir to Mount Pisgah in the southern Willamette Valley (along south edge of the city of Eugene). This Vision Map identifies several large patches of oak-prairie dominated habitats as "Key Habitat Areas" and recommends targeted conservation and enhancement to be focused in these areas. The Vision Document includes a detailed set of implementation strategies related to conservation and management of oak-prairie habitat in the area.
Willamette Subbasin Plan The Northwest Power and Conservation Council, 2004	This technical assessment of the Willamette Subbasin identifies focus species characterization and status for a range of habitats including oak woodland, oak savanna, upland prairie, and wetland prairie. The assessment sets basin-wide priorities and identifies limiting factors by subbasin (16 total). The information contained in this report has been used as to inform and support many of subsequent conservation planning efforts in the area including the 2006 version of the Oregon Conservation Strategy.
Rivers to Ridges Metropolitan Regional Park and Open Space Study Lane Council of Governments and Partners, 2003	The *Rivers to Ridges* Vision was developed to provide a landscape scale framework for future park and open space planning in the Eugene-Springfield region and was endorsed unanimously by local elected officials. The vision identifies key open space anchors and connecting corridors. Preservation and connection of oak and prairie habitats is a key guiding principal of this vision document. A formalized Rivers to Ridges Partnership, which consists of 17 partner organizations, functions as the coordination body for habitat preservation efforts in the southern Willamette Valley.

Title, Author, and Date	Relationship to the Willamette Valley Oak-Prairie Cooperative
West Eugene Wetlands Plan *Lane Council of Governments and City of Eugene, originally adopted by the Eugene City Council and the Lane County Board of Commissioners in 1992 (updated by City of Eugene in 2004)*	This Plan was developed as an amendment to the Eugene-Springfield Metropolitan Plan to address the significant area of jurisdictional wetland that had been identified in Eugene's primary industrial development area in the late 1980s. The Plan included and inventory and assessment of existing wetlands and policy direction for conservation, restoration, and development. The Plan spurred the acquisition of nearly 2,000 acres of wetland by Federal, State, local, and non-profit organizations. Additionally, the Plan resulted in the formation of the State's first wetland mitigation bank with a goal of allowing the development of certain low-quality wetland areas and the creation and restoration of nearby wetlands to offset those losses. The West Eugene Wetlands, along with adjacent ODFW and Corps lands forms one of the most significant blocks of wetland and upland prairie habitat remaining in the valley.

Table 2: Related Planning Efforts Now Underway

Title, Author, and Date	Relationship to the Willamette Valley Oak-Prairie Cooperative
East Cascades Oaks Partnership Funded November 2017 (FIP Capacity Building). Completion date estimated at 12/31/2019. Total project cost: $187,000 ($102,000 OWEB). Partners: Columbia Land Trust, USFS, Pacific Birds, ODFW, Wasco County Soil & Water Conservation District, Deschutes Land Trust, National Wild Turkey Federation, Confederated Tribes of the Warm Springs, WDFW, WDNR, Yamhill Nation, Underwood Conservation District *Contact:* Lindsay Cornelius lindsayc@columbialandtrust.org	The East Cascade Oaks Partnership's goal is to develop an adaptive, strategic, collaborative, multi-scale Strategic Action Plan to guide conservation that will improve the pace, scale, and effectiveness of oak conservation efforts in the East Cascades Ecoregion. The SAP will identify the highest priority strategies and geographies for addressing limiting factors that affect the connectivity, extent, and ecological integrity of Oregon white oak habitats, and it will do so across jurisdictional boundaries that might otherwise constrain individual partners. The SAP will include: • Conservation targets • Desired ecological and cultural outcomes • Threats and limiting factors, including knowledge gaps • Stakeholder engagement strategies • Inputs, strategies, actions and outcomes that address limiting factors and provide ecological lift, or halt or slow ecological decline of the conservation target • Conservation target map products (geographic prioritization for restoration and conservation efforts) and an East Cascade oak habitat classification system. • Prioritization of conservation actions. The plan will consider the inputs required to implement various strategies and the impact each strategy has to guide partners toward the most efficient, effective means of realizing desired ecological outcomes with limited resources. • Effectiveness monitoring and adaptive management strategy
Klamath Siskiyou Oak Network (KSON) Funded November 2017 (FIP Capacity Building). OWEB funding: $143,000 ($100,000 OWEB). Partners: USFS, BLM, NRCS, Lomakatsi Restoration Project, Klamath Bird Observatory, USFWS, TNC *Contact:* Jaime Stephens jlh@klamathbird.org	A Strategic Action Plan will be developed in 2018/2019. KSON is a collaborative regional partnership with a mission "to conserve oak habitats on private and public lands in southern Oregon and northern California". KSON works with the community and partners within the Klamath Siskiyou Bioregion to: • Promote the restoration and conservation of oak habitats • Provide a forum for education and community engagement on issues affecting oak plant communities • Encourage applied science, monitoring, and adaptive management in the restoration of oak habitats • Develop and promote best management practices for oak restoration • Integrate social, economic, and eco-cultural values in the understanding of oak plant communities • Form partnerships and alliances with organizations that share interests in habitat conservation and restoration of oak savanna, woodlands, and mixed forest They will use **Open Standards for Conservation** approach in SAP development. The SAP will serve as a road map for oak habitat restoration actions and will establish short-, medium-, and long-term goals to achieve our ecological outcomes over the entire southern Oregon landscape. The plan will identify threats, conservation needs, a strategic framework for restoration actions, ecological outputs, and ecological outcomes. This will be used to prioritize geographies for restoration actions over the short (6 year), medium (12 year), and long (30 year) term.

Title, Author, and Date	Relationship to the Willamette Valley Oak-Prairie Cooperative
Oak Prairie Work Group Strategic Action Plan (OPWG SAP) *Underway since 2015, with target completion date of 2018* *Contact:* Janelle St. Pierre Janelle.St.Pierre@portlandoregon.gov	The Intertwine Alliance Oak Prairie Work Group (OPWG) formed in 2012 during the development of the Alliance's *Regional Conservation Strategy for the Greater Portland-Vancouver Region* to address the lack of a regional oak data necessary to improve conservation outcomes for imperiled Oregon white oak ecosystems. After an initial focus on oak mapping, the group broadened its work in 2015 to address stewardship, restoration, and education, with a focus on both native oak and prairie habitats. The OPWG includes nearly thirty agency, nonprofit, and community partners, and meets quarterly with additional project-specific committee meetings. This OPWG Strategic Action Plan addresses a need identified in the Regional Conservation Strategy and will guide the work of the OPWG partnership for the next ten years. It brings needed focus to our most imperiled lowland ecosystems, Pacific Northwest oak and prairie. Note: The WVOPC planning area will exclude the geography already covered by the Intertwine OPWG planning area which includes Metro Portland and surrounding lands.
Willamette Valley Species Recovery: Oak Habitat Assessment and Inventory U.S. Bureau of Management	Project is set to begin in Calendar Year 2018 and will focus primarily on BLM owned and managed lands.
McKenzie River Trust Conservation Plan MRT with assistance by Jeff Krueger, target completion date of 2018	The Conservation Plan takes a landscape scale look at the MRT 5.4 million-acre Service Area (which includes the southern Willamette valley) and defines Strategic Conservation Areas (SCAs) for targeted conservation over the next ten years. The Plan also includes target plant and animal species for oak and grassland habitats and a set of implementation strategies.

E. Declaration of Cooperation

DECLARATION OF COOPERATION

for the Willamette Valley Oak and Prairie Cooperative

MISSION & VISION

The Willamette Valley Oak and Prairie Cooperative (herein referred to as 'the Cooperative') is a partnership with a long-term vision to conserve and maintain prairie and oak landscapes within the Willamette Valley ecoregion through a regionally-focused, collaborative network. The mission of the Willamette Valley Oak and Prairie Cooperative is to protect, restore, and maintain a functional, resilient network of oak and prairie landscapes in the Willamette Valley through a coordinated and strategic approach that leverages resources, focuses on priority geographies and species, and produces substantial ecological returns.

COOPERATIVE STRUCTURE

The Willamette Valley Oak and Prairie Cooperative is a loosely affiliated network of participants who voluntarily work together towards fulfilling the stated mission and vision. Each party carries out its activities independently in a coordinated and mutually beneficial manner.

Strategic Action Plan

The WVOPC's Strategic Action Plan (SAP), published in 2020, describes the Cooperative's aspirations over the long term (30 years) and serves as the roadmap for achieving ecological goals.

Participants

The participants of the Cooperative operate at the levels Steering Committee and Partners, with assistance by the Coordinator, as defined below.

A. **Steering Committee –** Steering Committee members are:
   - practitioners of oak and prairie conservation/restoration
   - active in of the Willamette Valley
   - agencies or organizations, not individuals
   - actively involved in the organizational work of the collaborative
   - empowered to vote
   - initially composed of the entities who crafted this Declaration of Cooperation: Benton Soil and Water Conservation District; Upper Willamette Stewardship Network; Oregon Department of Fish and Wildlife; U.S. Fish and Wildlife Service; Ducks Unlimited; Confederated Tribes of Siletz Indians; Confederated Tribes of Grand Ronde; City of Eugene Parks and Open Space; Willamette Partnership; Institute for Applied Ecology; Greenbelt Land Trust; and Pacific Birds Habitat Joint Venture
   - The Steering Committee may be expanded in the future to include others through a vote. A committee member may be removed only by a supermajority vote of the committee

B. **Partners** – Partners are:
   - those who are willing to constructively engage in/support oak and prairie landscapes, on specific projects and/or more broadly

- private landowners; federal, state, and local government agencies; special districts; Tribes; conservation organizations; academics; funders; and other individuals or entities who can help advance the mission of the Cooperative
- able to fill a technical advisory role including: scientific input, funding advice, consultation and permitting guidance, resource management, land-use planning, outreach/communication
- Partners may contribute time, expertise, funding, and other resources in support of the collaborative efforts
- Partners are free to organize themselves in any ways they deem necessary to complete their work

C. **Coordinator** – The Coordinator serves as a convening agent for the Willamette Valley Oak and Prairie Cooperative and provides capacity support for its collective work.

Meetings

The Steering Committee will meet annually to renew commitments to the Cooperative and set its direction for the year. Additional meetings will be convened on an as-needed basis. Steering Committee meetings are open to all Cooperative partners. One partnership-wide meeting will be convened at least once annually and as needed.

PARTICIPATION & COMMITMENTS

Expectations for Steering Committee:

- Commit to support the WVOPC's Guiding Principles and work towards achieving the goals and strategies described in the SAP, and agreed upon work plans
- Participate actively and in a timely fashion in the planning, decision-making and implementation processes, including annual work planning
- Support the long term sustainability of the Cooperative and its collaborative activities
- Attend at least 50% of meetings/field trips a year (expected to be the 2-4/yr)
- Sign the Declaration of Cooperation
- Provide input on the majority of documents circulated between meetings
- Provide updates and track progress towards SAP goals annually or as requested
- Commit to sharing expertise within the Steering Committee and with broader partnership
- Assist with meeting logistics and administrative needs (on a rotating basis)
- Participate in subregional groups, network projects and ad hoc working groups (e.g. shared grant writing, joint permit applications, collaborative research, workshops) as capacity allows

Expectations for Partners:

- Commit to sharing expertise
- Commit to building mutually beneficial relationships with other partners
- Share information of potential interest to the Cooperative

DECISION-MAKING

The Steering Committee is the decision-making body of the Cooperative. Decisions requiring Steering Committee approval includes:

- Adding or removing members from the Steering Committee
- Strategic Action Plan revisions
- Annual work planning or direction-setting for Steering Committee activities or work conducted in the name of the WVOPC

- Letters of support and funding allocations in the Cooperative's name
- Hiring/Appointing of Coordinator or other contractors
- Amending or terminating this Declaration of Cooperation
- Representation of the whole Cooperative to external audiences
- Applications on behalf of the Cooperative for grant support, such as to Oregon Watershed Enhancement Board (OWEB) for a Willamette Valley oak-centered Focused Investment Partnership (FIP), including which organization is the fiscal sponsor

Decision-making process

- The Steering Committee strives for consensus in decision-making. Consensus is defined as support from the whole group for the decision at hand such that group members can at least "live with the recommendation or decision"
- If consensus is not achieved the group may postpone a decision to allow time for additional work to achieve a resolution. If a collective decision is necessary and consensus cannot be achieved, the Steering Committee may decide by a supermajority vote
- While anyone may participate in Steering Committee meetings and deliberations, only Steering Committee entities (those signing this Declaration of Cooperation) may participate in formal decision-making. Each Steering Committee entity will have one vote, which may be made by any representative from that entity
- A quorum will consist of 50% of the Steering Committee entities plus 1
- A supermajority is defined here as at least two thirds of the steering committee members present, as long as they consist of a quorum
- A Committee member may provide comments and submit a vote by email if they are not able to attend the meeting in person
- Those voting will disclose any potential conflicts of interest
- Meetings may be held in-person or virtually
- E-mail notice will be sent to all participants prior to votes
- The facilitator may set up an email vote if a decision needs to be made before the next meeting.
- Votes will be transparent to the entire Steering Committee
- The outcome of votes will be documented in the meeting notes and minority opinions can also be reflected in the notes at the request of those in opposition to a particular outcome

PRINCIPLES FOR WORKING TOGETHER

Steering Committee members and anyone participating in Steering Committee meetings or Cooperative-wide events and business ("participants") agree to act in good faith in all aspects of the Cooperative effort. As such, participants will do their best to participate consistently, will consider the input and viewpoint of other participants, and conduct themselves in a manner that promotes joint problem-solving and collaboration. Participants agree to the following operating principles:

A. Honor commitments and respond promptly and thoughtfully.
B. Share relevant ideas, concerns, and information to support group goals.
C. Engage in open, respectful, and constructive dialogue, ensuring all voices are heard.
D. Seek common ground by articulating interests, testing assumptions, and understanding other perspectives.
E. Act in good faith, maintaining consistent views across all discussions.
F. Work collaboratively to resolve differences and achieve consensus.

AUTHORITIES

Listed below are regulations, policies, and legal citations for entering into this Declaration of Cooperation:

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)

ADMINISTRATION

A. **Records Management -** Data/records produced as part of this Declaration of Cooperation will be kept by one of the Signatory partners. 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 Declaration of Cooperation, made available upon request, and upon termination of the Declaration of Cooperation will be turned over to all Declaration of Cooperation Signatories. Parties to this Declaration shall not use, sell or disseminate data/records without permission of affected parties in this Declaration. Exceptions to this clause may apply in the case of Tribal data/records (see clause C).

B. **Public records -** Any information furnished to any of the undersigned government agencies is subject to the Freedom of Information Act (5 U.S.C. 552) and state public records laws.

C. **Data sovereignty -** The partners will uphold the Tribes as sovereign Nations in all aspects of work. The partners acknowledge that any information or data collected on Tribal lands or under direction of any Tribe is the property of that Tribe, who therefore retain data sovereignty, including the rights to approve or disapprove of any use of the information or data collected. In the case of any potential/perceived conflict with other rules or procedures, the partners will support and advocate for Tribal sovereignty as the ultimate authority.

D. **Confidential information** - No partner will disclose confidential or proprietary information received as a result of this Declaration of Cooperation except pursuant to a separate agreement duly executed by affected parties, except as described in the preceding sections.

E. **Non rights-obligating document -** This Declaration of Cooperation is not intended to, and does not create, any right, benefit, or trust responsibility, substantive or procedural, enforceable at law or equity, by a party against the United States, its agencies, its officers, or any person.

F. **Non fund-obligating document -** This Declaration of Cooperation is neither a fiscal nor a funds obligation document. Any endeavor to transfer anything of value involving reimbursement or contribution of funds between the parties to this Declaration of Cooperation 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 agreements that shall be made in writing by representatives of the parties and shall be independently authorized by appropriate statutory authority. This Declaration of Cooperation does not provide such authority. Specifically, this Declaration of Cooperation does not establish authority for noncompetitive award to the cooperator of any contract or other agreement.

G. **New members** - The Steering Committee may vote in a new member organization at any time. To formalize the addition of a new Steering Committee member organization, the new member will sign an Adoption Agreement that affirms their support for the content outlined in this Declaration of Cooperation.

H. **Modification -** This Declaration of Cooperation may be extended or amended upon written request of any of the undersigned parties and the subsequent written concurrence of the others prior to any changes being performed.

I. **Termination -** This Declaration of Cooperation is executed as of the date of last signature and is effective for five years at which time it will expire unless extended. Any of the parties, in writing, may terminate the Declaration of Cooperation in whole, or in part, at any time before the date of expiration.

SIGNATURES

On behalf of CTGR, I agree to the terms of this Declaration of Cooperation

(name of organization)

Cheryle A. Kennedy, Chairwoman	Cheryle A. Kennedy	9-2-25
Print Name	Signature	Date

On behalf of USFWS, WVNWRC, I agree to the terms of this Declaration of Cooperation

(name of organization)

Damien Miller	Signed by: Damien Miller 74E0258EA1EF4D8...	10/14/2025
Print Name	Signature	Date

On behalf of _____, I agree to the terms of this Declaration of Cooperation

(name of organization)

On behalf of Greenbelt Land Trust, I agree to the terms of this Declaration of Cooperation

(name of organization)

Jessica McDonald	Signed by: Jessica McDonald 8EACD8A1806D40D...	10/13/2025
Print Name	Signature	Date

On behalf of Institute for Applied Ecology, I agree to the terms of this Declaration of Cooperation

(name of organization)

Keith Norris	Signed by: Keith Norris 75C4D92AEABA40E...	10/14/2025
Print Name	Signature	Date

On behalf of Ducks Unlimited, Inc., I agree to the terms of this Declaration of Cooperation

(name of organization)

Jeffrey McCreary	Signed by: Jeffrey McCreary 11FB4A059C8F4D6...	11/6/2025
Print Name	Signature	Date

On behalf of the Upper Willamette Stewardship Network, I agree to the terms of this Declaration of Cooperation

(name of organization)

Sydney Nilan	Signed by: Sydney Nilan F187CD7E38B5424...	10/21/2025
Print Name	Signature	Date

On behalf of Benton Soil and Water Conservation District, I agree to the terms of this Declaration of Cooperation

(name of organization)

Michael Ahr	Signed by: Michael Ahr 6F9454030D224BC...	10/10/2025
Print Name	Signature	Date

On behalf of Pacific Birds Habitat Joint Venture, I agree to the terms of this Declaration of Cooperation

(name of organization)

Sara Evans-Peters	Signed by: DO60A665844A4BE...	10/15/2025
Print Name	Signature	Date

On behalf of Eugene Parks and Open Space, I agree to the terms of this Declaration of Cooperation

(name of organization)

Shelly Miller	Signed by: Shelly Miller 699F453AF49A487...	10/17/2025
Print Name	Signature	Date

On behalf of Oregon Department of Fish and Wildlife (ODFW), I agree to the terms of this Declaration of Cooperation

(name of organization)

Kelly Reis	Signed by: Kelly Reis AB6511E08FD8433...	10/10/2025
Print Name	Signature	Date

Exhibit A: DESCRIPTION OF SIGNATORY ENTITIES

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.

Greenbelt Land Trust: Greenbelt Land Trust's vision is for a thriving, healthy environment for all and our work is oriented around three strategic areas: climate resilience, community wellbeing, and social justice. We believe that by protecting and taking care of the lands and waters of the Willamette Valley, we will all be better off. Our air and water will be cleaner, our fish and wildlife more abundant, our working lands more productive, and our communities and families will be healthier. Greenbelt is a regional leader in land acquisition and large-scale habitat restoration within the mid-Willamette Valley. We have permanently protected over 5,500 acres (and counting) of native prairies, forests, floodplain habitats, trails and working lands.

Institute for Applied Ecology: The Institute for Applied Ecology (IAE) is a non-profit 501(c)(3) organization based in Corvallis, Oregon and Santa Fe, NM. The mission of IAE is to conserve native species and habitats through restoration, research and education and a vision of a world where all people and wildlands are healthy and interact positively, biological diversity flourishes, and environmental challenges are met with a social commitment to solving problems with science. IAE implements this mission through programs that concentrate on Habitat Restoration, Conservation Research, Plant Materials Development, and Ecological Education. IAE collaboratively restores habitat with an emphasis on oaks and prairies in western Oregon, hosts the Native Seed Network website, and coordinates seed partnerships in the Willamette Valley, Oregon Coast, and Southwest to increase the availability of native seeds for habitat restoration.

Willamette Partnership: Willamette Partnership is a nonprofit bringing collaborative conservation to infrastructure, working lands, and public health across the West. Willamette Partnership is a conservation non-profit with a deep commitment to helping build stronger, healthier, and more equitable communities that are sustained by nature. We believe that people need nature and that the well-being of communities and natural systems is inextricably linked. Communities don't have to choose between a healthy economy and a healthy environment. We do work that benefits both people and nature, building innovative, cross-sector solutions through effective collaboration.

City of Eugene, Parks and Open Space Division: Eugene Parks and Open Space is a local government parks organization managing over 5,000 acres of parkland including over 4,000 acres of natural area and 30 miles of waterways. Our parkland supports a range of habitats including oak and prairies. We protect, enhance and maintain Eugene's parks and open spaces for healthy people, community and environment. The City of Eugene is also a founding partner of the Rivers to Ridges Partnership (www.rivers2ridges.org).

Confederated Tribes of Grand Ronde: The Confederated Tribes of Grand Ronde (CTGR), acting through its Tribal Council, is a federally recognized Indian Tribe organized under the Grand Ronde Restoration Act, Public Law 98-165. Reservation lands located about 30 miles northwest of Salem, OR are managed for timber harvest, wildlife habitat, and recreation while non-Reservation lands may be used for a wider variety of Tribal goals including housing, governmental offices, and economic development projects.

Confederated Tribes of Siletz Indians: The Confederated Tribes of Siletz Indians (CTSI) is a federally recognized Tribe. The CTSI lands are mainly located in close proximity to the Siletz and Tahkenitch watersheds of the Oregon Central Coast as well as areas in the WV. The CTSI has its headquarters in Siletz and has area offices in Eugene, Salem, and Portland to provide services to membership throughout western Oregon.

Ducks Unlimited Inc.: Ducks Unlimited conserves, restores, and manages wetlands and associated habitats for North America's waterfowl. These habitats also benefit other wildlife and people. Waterfowl conservation is facing important challenges as wetlands and other habitats are being degraded and destroyed across the continent. The vision of Ducks Unlimited is wetlands sufficient to fill the skies with waterfowl today, tomorrow and forever. DU will achieve our vision through diverse public and private partnerships to address the full range of factors that continue to erode waterfowl habitat across North America.

U.S. 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 a number of programs designed to provide technical assistance, coordination, and cost-share funding for conservation projects.

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. Oregon's blueprint for conserving at-risk species and habitats is the Oregon Conservation Strategy which identifies grasslands, oak savannas, and oak woodlands as key habitats that need dedicated conservation focus. ODFW's participation in the Willamette Valley Oak and Prairie Cooperative is intended to help meet the department's broad mission and specifically achieve conservation goals for oak and prairie habitats and their associated species in the Willamette Valley Ecoregion.

Upper Willamette Stewardship Network (UWSN): The Upper Willamette Stewardship Network is a collaborative that brings together the Long Tom, Mckenzie, Coast Fork and Middle Fork Willamette Watershed Councils, McKenzie River Trust, Upper Willamette SWCD, and the Friends of Buford Park & Mt. Pisgah with the shared mission to work with communities to care for land and water in the Upper Willamette. The Network strives to build a culture of generosity and abundance centered in relationships of trust, working together to generate and share resources and expertise, reduce redundancies, and bring about opportunities for landscape scale restoration and conservation.

Benton Soil and Water Conservation District (Benton SWCD): The Benton Soil and Water Conservation District's mission is to engage Benton County residents in the conservation and stewardship of natural resources for current and future generations. Benton SWCD works with farmers, ranchers, woodland owners, and urban residents on voluntary projects that conserve soil, water, plants, and wildlife habitat. The District has a long history of providing technical and financial assistance to managers of Oregon white oak in Benton County and continues to emphasize program growth and outreach to those who manage this limited habitat.

Appendices F. Updated Planning Area Map

This map was created following the 2025 anchor site additions