Oregon Department of Forestry's Landscape Resiliency Program: Assessing implementation and outcomes for the 2021-2023 Biennium

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About the Ecosystem Workforce Program:

The Ecosystem Workforce Program is a bi-institutional program of University of Oregon's Institute for Resilient Organizations, Communities, and Environments and the College of Forestry at Oregon State University. We conduct applied social science research and extension services at the interface of people and natural resources. Our publications aim to inform policy makers and practitioners, and contribute to scholarly and practical discourse.

Acknowledgements

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Cover photo: Laurel Butte Landscape Resiliency Program's contractor, Inbound LLC., pile burning. Credit: Dustin Rymph, SWFC.

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Lower Rogue Oak Resiliency's USFS site. Credit: Matthew Timchak

Executive Summary

The Oregon Department of Forestry's (ODF) Landscape Resiliency Program (LRP) is a grant program established by Senate Bill 762 (SB762), Section 18-20 (2021), to support cross-boundary restoration of landscape resiliency and fuels reduction within Oregon. In fall 2021, ODF requested the Ecosystem Workforce Program (EWP) at the University of Oregon (UO) to devise and carry out a plan for monitoring investments and outcomes of the LRP. The full monitoring plan can be found on the University of Oregon, Scholar's Bank website[1]. The LRP monitoring plan focused on three stages: Project Selection, Implementation, and Outcomes. The purpose of this working paper is to report the results of the Implementation and Outcomes monitoring phases. Results from the Project Selection phase can be found in a separate report[2]. This report presents 1) an overview of selected projects, 2) project participants' experiences with project implementation successes, challenges, and lessons learned, 3) on-the-ground accomplishments of LRP projects, and 4) an assessment of the economic aspects of LRP.

Key Findings

- **Accomplishments:** Nine cross-boundary rangeland and forest restoration projects across the state received a total of $20 million and leveraged $12 million in matching funds and in-kind contributions for the 2021-2023 biennium. Together, these projects accomplished a total of 201,000 acres of activities including thinning, prescribed burning, piling, pile burning, chipping, mastication, encroachment control, invasive grass treatment, stream restoration, and native grass seeding. A total of 45 federal, state, local, and non-profit organizations[3], along with 177 private landowners, were involved as collaborators across the nine LRP projects.

- **Co-benefits:** Each project accomplished extensive outreach and engagement with the local community and many interviewees indicated the LRP spread awareness within their community about the importance of active forest management. Interviewees across all LRP projects indicated that project treatments would benefit habitat for species such as mule deer, elk, and spotted owl. Tree en-

1. https://scholarsbank.uoregon.edu/xmlui/handle/1794/27937
2. https://scholarsbank.uoregon.edu/xmlui/handle/1794/28062

3. Number of collaborators is based on proposals and discussions with project leads. While ODF was counted as one organization, each USFS unit involved was separately counted.

croachment control and fine fuels treatments will likely also benefit native plant restoration.

- **Successes:** Interviewees indicated that the LRP filled a critical funding gap and was an integral part of their communities' restoration strategy. They discussed how collaboration, particularly between coordinating organizations and private landowners, played a key role in project success. Most interviewees reported positive interactions with ODF and found ODF contacts to be supportive and responsive throughout the implementation process.

- **Challenges:** Interviewees indicated that the two-year biennium timeline for grant implementation was too short and led to implementation challenges. Many interviewees expressed concern about longer-term maintenance and monitoring of project treatments. Projects with prescribed burn plans found that air quality regulations restricting smoke emissions and short burn weather opportunities, along with the USFS agency-wide 90-day pause on prescribed fires in 2022, created challenges for meeting project deadlines. Several organizations participating in the LRP struggled with administering the grant and keeping up with data requests from ODF and the LRP monitoring team due to lack of staff capacities.

Introduction

The Oregon Department of Forestry's (ODF) Landscape Resiliency Program (LRP) is a grant program established by Senate Bill 762 (SB762), Section 18-20 (2021) to support cross-boundary restoration of landscape resiliency and fuels reduction within Oregon. As directed by SB762, ODF organized a workgroup composed of representatives of stakeholder organizations to guide the LRP program development and to facilitate the project proposal review and selection process. In early 2022, the grant program announced funding in the amount of $20 million for the 2021-2023 biennium awarded to nine landscape-scale fuels reduction projects across the state. The 2021 request for proposals outlines elibigility criteria, program rules, and the program timeline[4].

All project activities were required to be complete by June 30, 2023, which allowed projects a year and a half for implementation. In fall 2021, ODF requested the Ecosystem Workforce Program (EWP) at the University of Oregon (UO) devise and carry out a plan for monitoring investments and outcomes of the LRP. To enhance capacities and capabilities, EWP partnered with the USDA Forest Service Pacific Northwest Research Station to provide expertise on natural resource economics and Oregon State University (OSU) to provide expertise on wildfire risk reduction.

The monitoring plan addresses three program phases:

1. **Project selection**
2. **Project implementation**
3. **Project outcomes**

This working paper reports monitoring results for project implementation and outcomes. A working paper with results from the project selection monitoring phase can be found elsewhere[2].

Approach

In January 2023, EWP initiated data collection for monitoring the implementation and outcomes phases of the LRP. Data collection focused on the following topics:

Implementation:

1. Overview of projects: characterization of project structure, funding awarded, participating organizations, land ownerships, and contractors involved in implementation.
2. Program participants' experiences with implementation of LRP activities, including successes, challenges, and lessons learned.
3. Program participants' experiences working with ODF.

Outcomes:

1. Assessment of on-the-ground accomplishments.
2. Assessment of economic aspects.
3. Social and ecological outcomes of LRP activities.

4. https://www.oregon.gov/odf/programs/lrp-request-for-proposals-2021-2023.pdf

Interviews

To understand program successes, challenges, and outcomes, we interviewed LRP program participants ("key informants") who we identified as persons affiliated with grantee organizations, partner organizations named on the grant applications, contractors, and any others who our initial contacts suggested were knowledgeable about the LRP project activities. By design, the 2021-2023 LRP projects were intended to be landscape scale wildfire mitigation projects, with each involving multiple activities, partners, and landownerships. Organizations funded by the LRP program were most often managing other ongoing forest restoration projects using multiple funding streams. To avoid project participants conflating activities funded through different mechanisms, we sought to link program participants' experiences with an LRP-funded "activity area." We defined "activity area" units as one or more LRP grant-funded (or matched) activities undertaken by the same set of collaborating partners and occurring on a spatially bounded location or set of locations. Because of the diversity of projects that were funded, we relied on program participants to help further define and operationalize the "activity area" in ways that were most consistent with the local project contexts.

To collect data on program participants' experiences with project implementation and outcomes, we aimed to recruit at least one key informant per activity area. We considered activity area key informants to be individuals who were knowledgeable about activity outcomes and heavily involved in project implementation. The number of activity areas per project ranged from one to seventeen. To recruit key informants for each activity area, we first requested a list of activity areas and appropriate, knowledgeable contacts from each LRP project lead via email. For most projects, the LRP project leads were the individuals listed on the LRP grant proposals. However, for the Central Oregon project, which included 17 agreements, we considered the primary contacts for each agreement to be the project leads. Based on activity area information that project leads shared with us, we emailed at least one contact from each activity area to recruit key informants for interviews. We created two interview protocols, one for LRP project leads and another for activity area key informants. In cases where the LRP project lead was also identified as an activity area informant, we utilized both protocols during interviews. Interview questions were a mix of multiple choice, yes/no, and open-ended questions.

The LRP project lead interview protocol included questions about the following topics:

- Identification of relevant contacts for activity areas.
- Experiences communicating with ODF program administration.
- Challenges, successes, and opportunities for improvement in coordination between ODF and project partners.

The activity area key informant interview protocol included questions about the following topics:

- Activities accomplished, land ownerships included, and partners involved in activity area.
- Activity co-benefits, planned use, and outreach efforts.
- Direct, match, and in-kind funding received.
- Employment for technical services and contracting.
- Successes, challenges, and opportunities for improving LRP implementation and outcomes.

We piloted the two protocols with one project lead. Interviews were conducted both in-person and virtually from January through April 2023. We digitally recorded interviews, with interviewee consent, and used automated transcription features available on digital recording applications. We took notes during the interview through a password protected online data collection instrument that complemented the interview protocol. These notes were cross-checked with interview transcriptions to ensure accurate and comprehensive capture of interviewee responses.

For analysis, we partitioned the interview responses into two datasets based on the structure of open- and closed-ended questions within the interview

protocol. We used the qualitative analysis software, Dedoose, to apply an inductive coding structure that identified emergent themes in the responses to open-ended questions. To establish intercoder reliability, we cross checked the coding application of two different researchers, iteratively correcting codes that were unclear or ambiguous (see Appendix C for the codebook). We summed and reported the number of interviewees who mentioned themes identified within responses to understand the proportion of responses reflecting each identified code. In some cases, factual information discussed in interviews, such as key project changes or activities completed, was verified with ODF's records. We analyzed closed-ended (yes/no) and scalar response questions using IBM SPSS version 28, and report these results as percentages.

Additional data collection

In fall 2022, prior to our implementation and outcomes interviews, we conducted brief and informal interviews with project leads listed on proposals. These interviews focused on project structure, organizational relationships, and collaborative history among partners. To gain a deeper understanding of project structure and organizational roles within each LRP project, we conducted 1-2 day in-person site visits with eight projects[5] between fall 2022 and spring 2023. During site visits, we completed in-person interviews and visited various activity areas. In some cases, we were able to meet private landowners and see contractors implementing treatments in real time. These site visits provided deeper context for projects and served to verify project details discussed in prior interviews. We initially utilized project proposals to assess how funding and match were distributed, and to assess target acres treated. We then updated these numbers with data from ODF and they were up to date as of June 23 2023. However, because projects were able to complete activities through June 30, final numbers may differ slightly from those we report.

Prescribed burn warning sign, adjacent to wildfire evacuation route sign, for the Ashland Forest All-lands LRP. Credit: Michael Coughlan

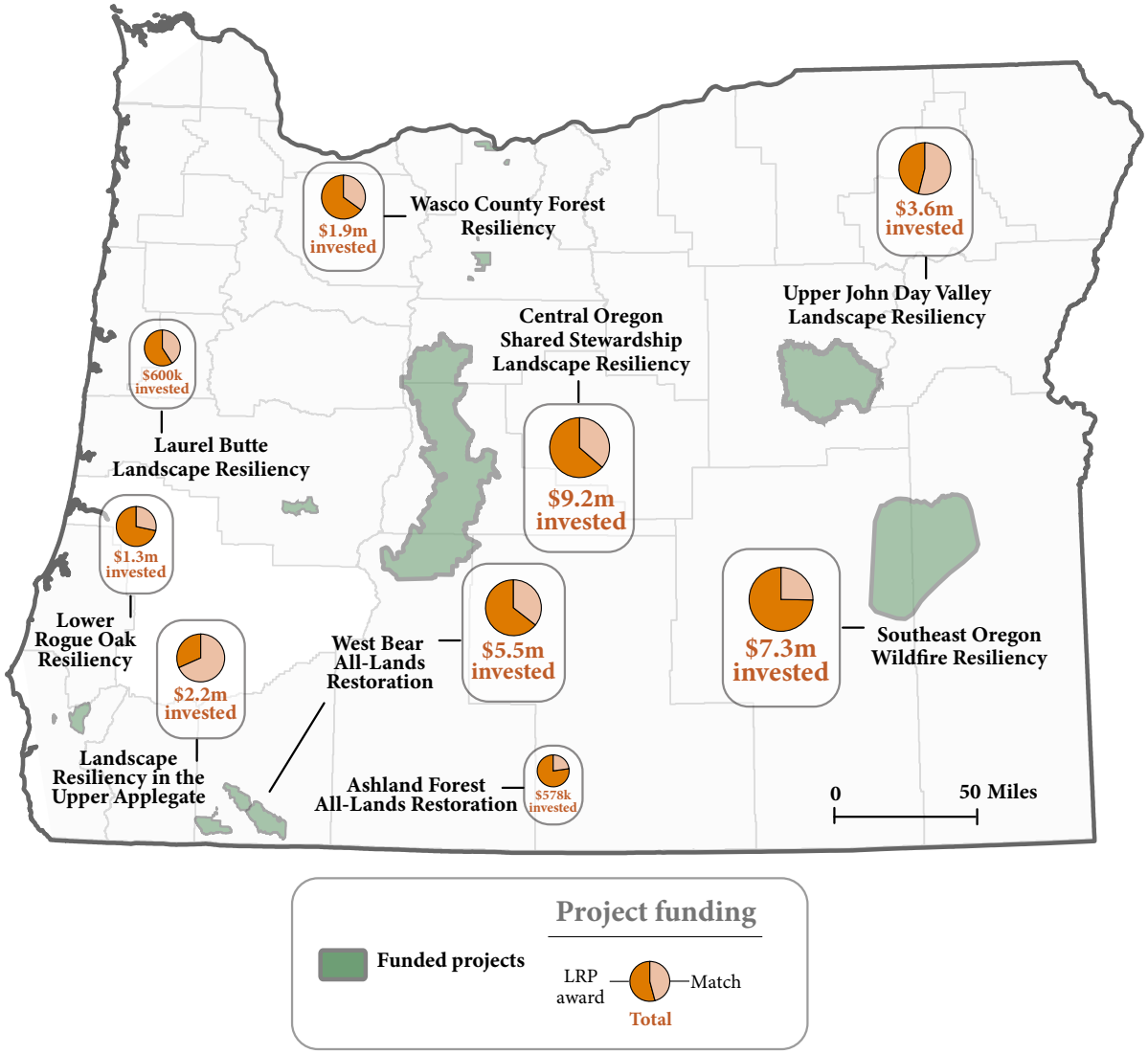
5. Our site visit for the Southeast Oregon Wildfire Resiliency Project was cancelled due to late season snow cover.

Results

Overview of projects and participanting organizations

The nine funded LRP projects (Figure 1) are characterized by a range of ecosystems and organizational structures. While each project included cross-boundary activities and collaboration across organizations, the nature and history of collaboration varied greatly across projects. Some projects leveraged their LRP award towards longer-term projects with established collaborations, while others utilized it as a springboard to foster new collaborations. In most cases, local forest collaboratives or restoration-based non-profits were highly involved in coordinating and leading LRP activities. This section highlights the unique structure of each LRP project. Here we use both the terms "collaborator" and "partner" to refer to any organization mentioned in project proposals or interviews that was involved in project planning or implementation, and "public entities" as any federal, state, county, or city agency, district, or governing body- including public universities.

Figure 1. Overview of LRP project locations, match funding, LRP award funding, and total investment.*



*Laurel Butte and Lower Rogue Oak Resiliency project areas slightly enlarged for visual clarity.

Ashland Forest All-Lands Restoration Project

The Ashland Forest All-Lands Restoration (AFAR) project is an ongoing effort that began in 2010 when the City of Ashland, RRSNF, The Nature Conservancy, and Lomakatsi Restoration Project signed the Ashland Forest Resiliency Stewardship Agreement. This LRP-funded phase of the AFAR project is led by the City of Ashland, in collaboration with the aforementioned partners. Project activities include thinning, pile burning, prescribed underburning, and mastication on 150 acres of private, federal, and city lands. The project area encompasses the cities of Ashland and Talent, which are classified within the highest wildfire risk class, and includes densely populated wildland urban interface (WUI) communities.

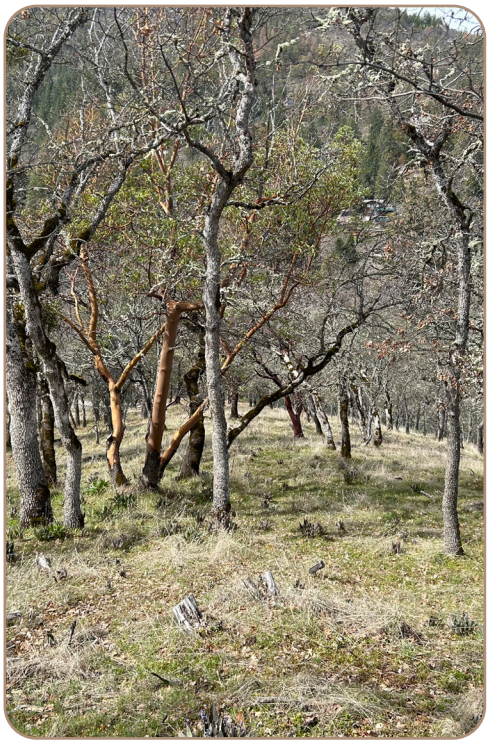
10 key collaborators
(1 agreement)

-including-

2 Non-profits

4 Public entities

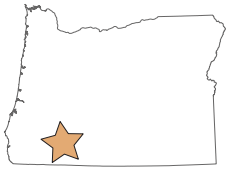
4 Private landowners



Above: Abraham Contracting crews pile burning on private lands in the neighborhood above Lithia Park, Ashland. Credit: Michael Coughlan

Right: Lithia Park (city lands) hillside following thinning treatments with LRP funding. Credit: Naomi Serio

148 acres treated (prescribed underburning, thinning, pile burning)



Central Oregon Shared Stewardship Landscape Resiliency Project

The Central Oregon Shared Stewardship Landscape Resiliency Project (COSSLRP) consisted of 17 different agreements between ODF and project partners. The Central Oregon Forest Stewardship Foundation (COFSF), a non-profit established in 2011, led COSSLRP's monitoring efforts and coordinated partner collaboration by hosting meetings and field trips. Bend Parks and Recreation, Deschutes Land Trust, La Pine State Park, Deschutes County, Black Butte Ranch, the Confederated Tribes of Warm Springs, the Upper Deschutes Watershed Council, Deschutes Soil and Water Conservation District, and several private landowners held individual agreements with ODF, together constituting the COSSLRP. Match was provided by the USFS and the Bureau of Land Management (BLM). The project partners treated approximately 32,000 acres of federal, state, county, tribal, and private rangelands and forests adjacent to watersheds classified within the highest wildfire risk classes. Project activities included noxious weed removal, thinning and fuel breaks, stream restoration, prescribed burning, a residential site assessment, and the development of a defensible space plan.

17 agreements

-with-

3 Non-profits

4 Public entities

9 Private landowners

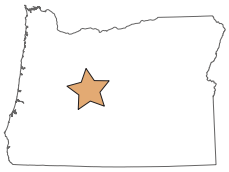
1 Tribe

Above: Project partners gather at the Upper Deschutes Watershed site to view stream restoration efforts.

Right: Pile burning on Glynn Properties, a private partner.

Both photos taken by Michael Coughlan during fall 2022 field trip organized by ODF.

39,000 acres treated (thinning, fuel breaks, invasives removal, prescribed burning)



Landscape Resiliency in the Upper Applegate Watershed

Lomakatsi Restoration Project, an Ashland-based non-profit that has been implementing collaborative restoration initiatives for 25 years, led the Landscape Resiliency in the Upper Applegate Watershed (UAW) project. In 2020, Rogue Forest Partners (RFP), which is composed of four non-profits and six public agencies, began implementing wildfire risk reduction treatments within the UAW through a six-year Oregon Watershed Enhancement Board (OWEB) Focused Investment Partnership (FIP) grant. Lomakatsi leveraged the LRP funding to contribute 354 acres of thinning on National Forest System lands that are connected to already treated portions of the longer-term UAW Restoration Project area. The LRP project area is adjacent to communities classified within the highest wildfire risk class and is composed of previously managed Douglas-fir plantations and natural young conifer-hardwood stands. Following the LRP work, Lomakatsi and project partners plan to use OWEB funding to pile and burn the thinned materials.

10 key collaborators
(1 agreement)

-including-

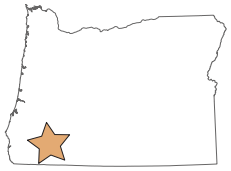
4 Non-profits

6 Public entities

Above: GE Forestry crews, contracted by Lomakatsi, cutting and piling on National Forest Service lands. Credit: Michael Coughlan

Right: Thinned National Forest Service lands in the Upper Applegate. Credit: Michael Coughlan

432 acres treated (thinning and piling)



Laurel Butte Landscape Resiliency Project

Southern Willamette Forest Collaborative (SWFC), an Oakridge-based collaborative, along with its fiscal sponsor, South Willamette Solutions (SWS), led project planning and implementation for the Laurel Butte Landscape Resiliency Project. The 150-acre project area bisects Oakridge and Westfir communities. Project activities included understory thinning, brush removal, and piling on private non-commercial lands. Five landowners, ODF, OSU, the USFS, the Cities of Oakridge and Westfir, Oakridge Air, and a RARE Americorps service member at the University of Oregon collaborated on project planning and outreach. Lane Regional Air Protection Agency and Oakridge Air helped with public communications regarding prescribed burns. This group of partners has a history of collaboration focused on improving forest health, reducing wildfire risk, and coordinating wildfire smoke response.

15 key collaborators
(1 agreement)

-including-

3 Non-profits

7 Public entities

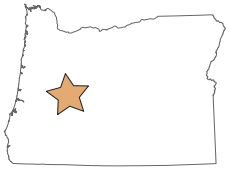
5 Private landowners

Above: Inbound LLC. burn crew member pile buring.

Top right: Northwest Youth Corps crew removing invasive blackberries.

Bottom right: ASI crew from Salem, Oregon.
All photos taken by Dustin Rymph, SWFC.

153 acres treated (thinning, piling, pile burning, invasives removal)



Lower Rogue Oak Resiliency Project

The Rogue River-Siskiyou National Forest (RRSNF), along with Wild Rivers Coast Forest Collaborative (WRCFC) and its fiscal sponsor, Cascade Pacific Resource Conservation and Development, led project planning and implementation for the Lower Rogue Oak Resiliency Project. The project area, which primarily lies in the RRSNF, is adjacent to the communities of Agness, Oak Flat, and Illahe. Project activities include thinning, piling, and meadow enhancement on 840 acres of National Forest Service and private non-commercial lands. The Lower Rogue Watershed Council, in collaboration with the Confederated Tribe of the Siletz Indians and landowners, led planning and implementation for the private lands portion of the project. Southern Oregon Forest Restoration Collaborative, the Lower Rogue Watershed Council, and RRSNF additionally contributed to the USFS portion of the project. This group of partners has been collaborating since 2012 and is currently working together on additional projects outside the LRP, such as the Shasta Agness Landscape Restoration Project.

8 key collaborators
(1 agreement)

-including-

4 Non-profits

2 Public entities

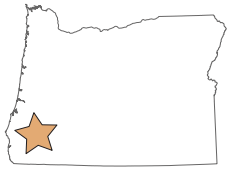
1 Private landowner

1 Tribe

Above: Agness community members gather for a public meeting coordinated by the USFS to discuss LRP activites. Credit: Tabatha Rood

Right: National Forest Service lands treatment area in December 2022. Credit: Matthew Timchak

996 acres treated (hand thinning and piling)



Southeast Oregon Wildfire Resiliency Project

The Southeast Oregon Wildfire Resiliency (SOWR) project is led by High Desert Partnership, a non-profit that supports and convenes six collaboratives, including the Harney County Wildfire Collaborative (HCWC), whose members came together to develop the LRP proposal. The BLM, Harney Soil and Water Conservation District, Oregon Department of State Lands, Burns Paiute Tribe, Oregon Department of Fish and Wildlife, Pheasants Forever, Harney County Cooperative Weed Management Area, NRCS, and EcoSource Native Seed and Restoration are the core partners implementing LRP activities. The project area includes 76,000 acres of federal, state, private, and tribal land, mainly composed of sagebrush steppe, and is adjacent to two Sage-Grouse Priority Areas of Conservation. Treatments include aerial spraying of invasive annual grass, native grass seeding, and juniper encroachment control.

38 key collaborators
(1 agreement)

-including-

4 Non-profits

6 Public entities

27 Private landowners

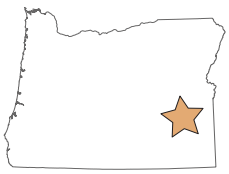
1 Tribe

Above: Aerial spraying of invasive grasses.

Right: Juniper stand following encroachment control treatment.

Both photos taken by Brand McMullen, BG Michael Images

133,000 acres of annual grass treatment, Juniper removal, and native grass seeding



Upper John Day Valley Landscape Resiliency Project

The Upper John Day Valley LRP, led by Grant Soil and Water Conservation District (SWCD), builds upon existing fire resiliency work initiated in 2016 with funding from the Natural Resources Conservation Service (NRCS) and OWEB. The LRP funding provided three programmatic expansions to the existing project—23,000 acres of fine fuels treatment on private lands, 204,000 acres of private land assessment, and the development of a story map. Leading Edge Aviation was the operator for the fine fuels component of the project, which targeted invasive annual grasses with aerial herbicide application. OSU led the private land assessment, which measured forest conditions, stand density, and other information that proved useful for future risk reduction project proposals, such as the Joint Chiefs. The assessment first utilized remote sensing methods and then ground-truthed 114,000 of those acres. OSU created the story map, which summarizes project efforts and outcomes.

63 key collaborators
(1 agreement)

-including-

1 Non-profit

7 Public entities

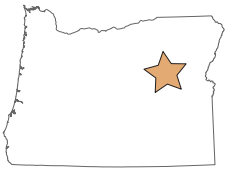
55 Private landowners

Above: Matt Wenick, Grant Soil and Water Conservation District, walking the line between treated and untreated plots. Credit: Envu

Right: John Rizza, OSU Extension, explaining how to take measurements for the private lands assessment. Credit: Aaron Roth

23,000 acres fine fuels treatment

204,000 private lands assessed



Wasco County Forest Resilience Project

Wasco County Forest Resilience Project is a collaboration among The Dalles ODF Unit, Mt. Hood National Forest, Columbia River Gorge National Scenic Area, Lupine Forests LLC, Columbia Land Trust, East Cascades Oak Partnership, and OSU Extension Service. Project activities included thinning, piling, mastication, road improvement for access, fine fuels treatment, and native plant restoration on approximately 13,000 acres of federal, state, and private mixed conifer and pine/oak stands. Additionally, the Columbia Land Trust, along with other partners in the East Cascades Oak Partnership, led white oak monitoring efforts, which focused on understanding oak system response to disturbance events, such as wildfire and prescribed burning. The project area lies within three high priority, high risk wildland urban interfaces and is adjacent to several other cross boundary risk reduction and restoration projects.

6 agreements

-with-

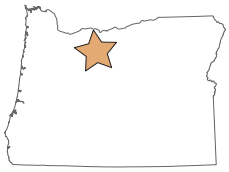
3 Non-profits

3 Public entities

Above: Thinning and piling in the Columbia River Gorge National Scenic Area near historic barn. Credit: Naomi Serio

Top right: Thinning and piling on land trust property near Friend, OR. This property was managed by The Conservation Fund during the LRP grant period and includes healthy white oak stands. Credit: Naomi Serio

Bottom right: Oregon Department of Fish and Wildlife refuge near Tygh Valley, post-mastication. Credit: Michael Coughlan



1,600 acres treated (thinning, piling, mastication, road improvement)

West Bear All-Lands Restoration Project

The West Bear All-Lands Restoration Project, led by Lomakatsi Restoration Project, began in 2020 with a FEMA Hazard Mitigation Program award for hazardous fuels reduction and community wildfire resiliency coordination. Lomakatsi is planning and implementing West Bear alongside its partners at Rogue Forest Partners (RFP), which is composed of four non-profits and six public agencies with over two decades of restoration collaboration. The LRP award, which complements several additional federal, state, and private funding sources, was utilized for cutting, piling, and burning 2,275 acres across private, federal, and city lands. There are 138 private landowners involved in the project footprint, with 76 receiving treatments funded through the LRP award. The project area lies within the highest wildfire risk class and is immediately adjacent to areas burned in the 2020 Alameda Fire.

92 key collaborators
(1 agreement)

-including-

6 Non-profits

6 Public entities

76 Private landowners

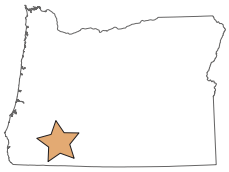
4 Tribes

Above: Thinning and piling in white oak forest on private lands in the hills above Talent, Oregon.

Right: Contractors thinning on private lands near Jacksonville, Oregon.

Both photos taken by Naomi Serio during April 2023 site visit.

2,485 acres thinned and piled (including 500 acres of pile burning)



Program participant experiences

Population description

We conducted 33 interviews with 44 individuals[6] who were involved in one, and in some cases two, of the nine LRP projects. Our interviewee population represented 26 activity areas. The number of interviewees were not equally distributed among projects because our research design focused on activity areas rather than "projects" as a unit of analysis. Thus, larger projects with more activity areas, such as the Central Oregon Shared Stewardship LRP and Wasco County Forest Resilience Project have more representation within our sample (Figure 2). Additionally, some projects were more responsive to interview requests, which also contributed to the uneven distribution.

Sixty-eight percent of interviewees identified as male, and 32 percent identified as female. No one in our sample population identified as non-binary or transgender. Most interviewees worked for non-profit organizations or federal, state, tribal, or local agencies that were involved in one or more LRP projects (Figure 3). Four interviewees were private land owners taking part in the LRP and one was a private contractor for an LRP project. Within these organizations, sixteen interviewees worked as project managers or coordinators, while others were foresters, land managers, or scientists.

Figure 2. Distribution of interviewees by project affiliation.

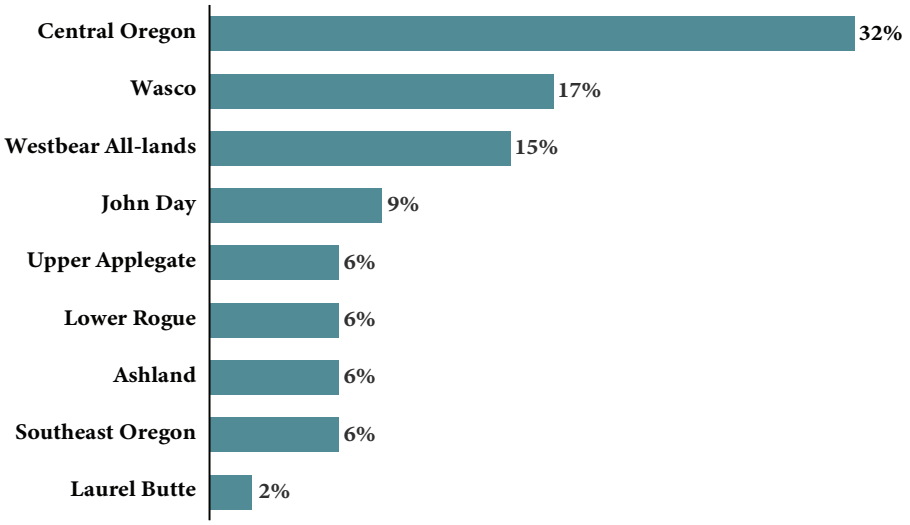
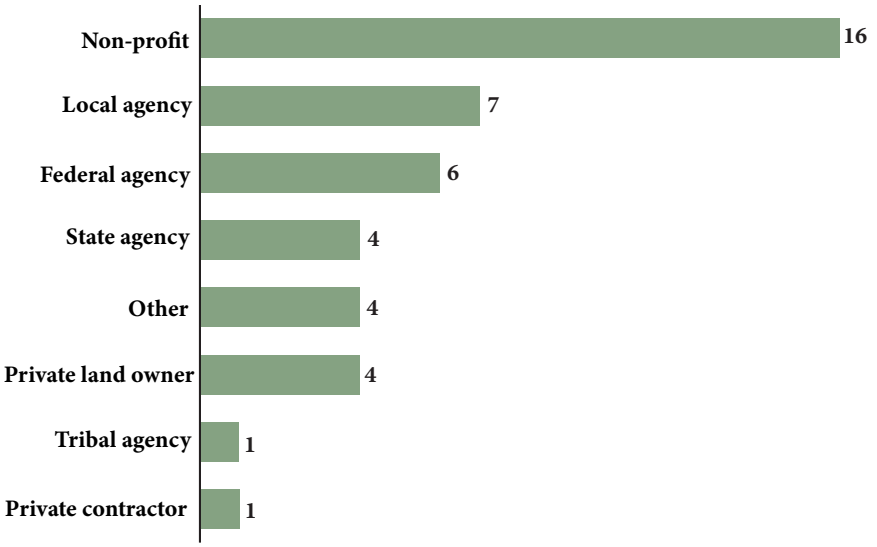


Figure 3. Number of interviewees per organizational affiliation.



6. In some cases, we interviewed two project participants from the same activity area or organization together in the same interview.

Implementation successes

We asked interviewees what went well throughout the project implementation process, and several themes emerged. Many interviewees (n=28) mentioned that **the LRP filled a critical funding gap and was an integral part of their community's restoration strategy.** As one interviewee responded, *"It [the LRP] allowed us to proactively treat areas that we've been trying to fund for over 5 years."* Specifically, they mentioned that the LRP's flexible qualifications allowed several types of land ownerships and ecosystems that often don't qualify for other grant opportunities. For example, some private landowners that participated in the LRP were excluded from applying for the Joint Chief's Landscape Restoration Partnership opportunities due to grant restrictions.

Interviewees discussed how **the LRP was successful in pushing the boundaries, in terms of pace and scale, of landscape restoration work.** For instance, many interviewees indicated that the LRP was the largest restoration project they had ever been involved in, both in terms of acreage and number of collaborators. Two interviewees pointed out their appreciation for the LRP's inclusion of resilience and restoration-based goals, rather than fuels reduction targets alone.

Additionally, some interviewees (n=5) discussed **the critical role that private landowners played in ensuring successful project implementation**. They emphasized how involved, trusting, and helpful these landowners were, and stressed that the project would not have been possible without these strong relationships. For instance, one interviewee described how, *"the trust that they [private landowners] put into us is really what made the project work. In some cases, we were treating hundreds of acres- maybe a thousand on someone's place. For these working landscapes, that's a lot of trust. They're relying on that grass that we're spraying to run livestock on."*

Nearly all interviewees mentioned aspects of **collaboration and partnership that contributed to project success**. Specifically, some interviewees (n=4) discussed how having a coordinating organization for their project, such as the local forest collaborative or a leading non-profit, was critical to project success. Interviewees found it helpful when these coordinating organizations administered contracting, accounting, and monitoring processes—which they indicated would have been bottlenecks, particularly for federal agencies, without this collaboration. The topic of collaboration is covered in more detail in a separate section below.

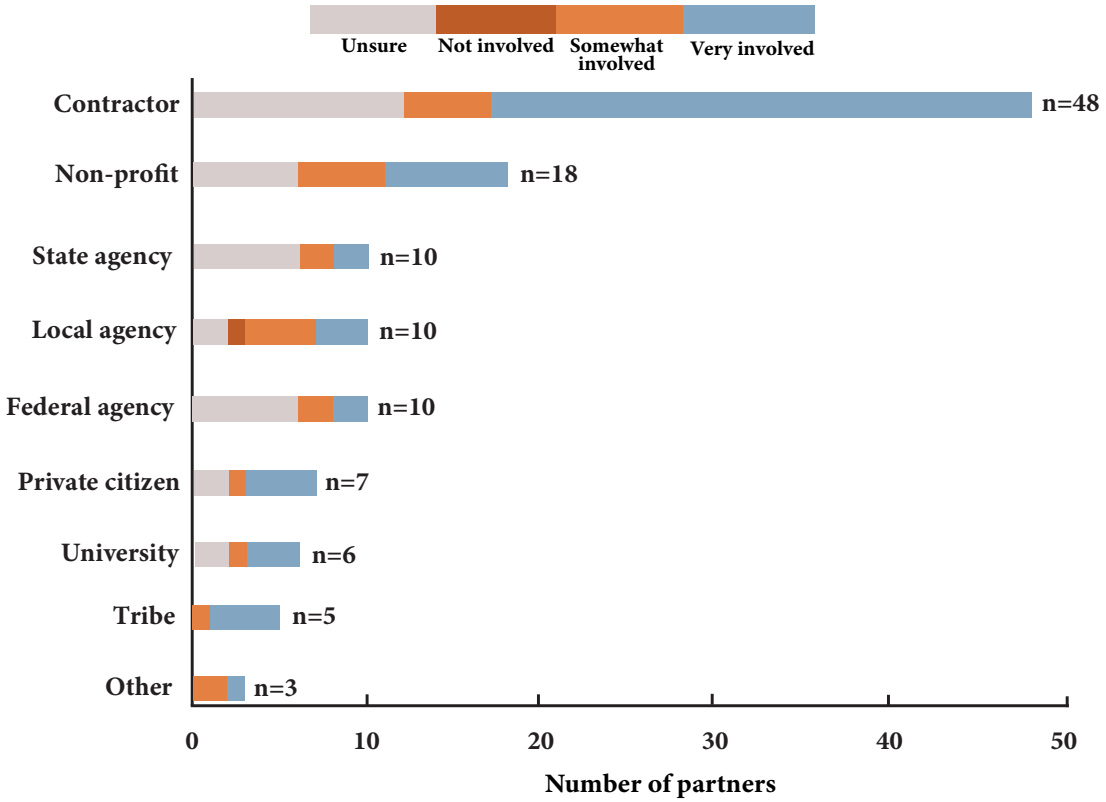
Lastly, many interviewees (n=15) discussed the generally **smooth and successful nature of project implementation**. For example, they identified hiring contractors, monitoring project outcomes, and project billing as processes that went well. Some interviewees described how implementation went nearly as planned and how contractors had effectively and efficiently implemented prescriptions, which in some cases were quite complex. Overall, most interviewees spoke positively about project implementation and expressed that the projects were successful in multiple ways.

Collaboration

Forty-five organizations, excluding contractors, and 177 private landowners were involved in the nine LRP projects, according to project proposals and data obtained from project leads. To further understand the nature of collaboration, we asked interviewees to list partners involved in implementation of their activity area and to indicate their level of involvement on a scale ranging from not involved to very involved. Interviewees mentioned a total of 117 partners, with contractors and non-profits being the most commonly listed partner (Figure 4). Interviewees that listed contractors as partners primarily indicated that they were very involved in implementation or took the lead.

We asked interviewees how, if at all, partnerships and collaboration influenced the pace, scale, or quality of the work accomplishment. Nearly all interviewees (n=39) emphasized **the helpful and critical role that collaboration played in project planning and implementation**. However, some (n=6) mentioned drawbacks to the collaborative nature of the LRP. Specifically, they discussed how including so many organizations in decision-making processes slowed progress and occasionally led to conflict. One interviewee pointed out that partnerships struggled to decide how to share credit for accomplishments resulting from collaborative processes.

Figure 4. Number of partners interviewees mentioned by level of involvement and type.



More positive comments described how **partnerships helped projects gain community acceptance** and provided support by increasing the efforts' public trust and credibility. For instance, one interviewee explained how community members who often distrusted a participating organization decided to support the project when they learned that other organizations, which they were familiar with, were also involved. Many of these interviewees pointed out that partnerships that were created or strengthened through the LRP are planning to collaborate on future grant opportunities. Although many partnerships were pre-existing, interviewees mentioned that the LRP made them more cohesive as a group and allowed them to plan more strategically. For example, an interviewee said, *"The ability to get something on the ground treated, like a large acreage for multiple resource objectives, really brought some life back into members who maybe had gotten a little tired of being part of the collaborative."*

They discussed how involving diverse partners brought different viewpoints to the planning process, encouraged idea-sharing, and allowed partners to leverage each other's expertise. Interviewees emphasized that the scale and pace of work would not have been possible without strong collaboration. As one interviewee highlighted, *"The group discussions with various stakeholders are giving a holistic view and showing the scale of what's getting done. We're able to see what our neighbors are getting accomplished."*

Challenges

We asked interviewees what challenges and bottlenecks arose during the project implementation phase, and several common themes emerged. The most common challenge mentioned (n=17) was **the LRP grant timeline, which posed a challenge for implementation** since it required proposed work to be completed by the end of the state fiscal biennium, giving projects less than two years to administer the funding and complete the work. Two interviewees suggested that ODF could announce the available funding and open applications as soon as possible in the future, so that projects could plan ahead. They additionally suggested that ODF stagger their

various grants initiatives, so that different funding streams did not end on the same date. Interviewees additionally mentioned that many internal administrative processes, as well as processes related to compliance with the National Environmental Protection Act (NEPA), take longer than is feasible within the two-year grant timeline. Interviewees discussed how the short timeline limited the extent to which they could be thoughtful with extensive outreach and ecological considerations. In relation to the short timeline, two interviewees also mentioned concern over long-term maintenance of the treatments, particularly on private lands. One interviewee's comment highlighted this sentiment, *"In 10 years, we'll be right back where we are without maintenance."* They indicated that they saw the projects as more of a "band-aid" than a long-term landscape resilience solution, and suggested funding be allocated for long-term ecological monitoring and maintenance of treatments. Another interviewee described how, *"This is a problem over a century in the making, it's going to require 20 years to tilt the balance in a favorable direction and then ongoing investments in maintenance. The short-term expectation of expenditures is a serious impediment to doing the best possible work."*

Interviewees also discussed **budget and finance related challenges**. Several individuals (n=8) mentioned bottlenecks related to supply-chain issues, labor shortages, or inflation. Specifically, the rise in fuel costs during the 2021-2023 grant timeline caused actual supply and labor costs to be higher than anticipated, and a couple of interviewees indicated they wished they had budgeted for higher costs in the original proposal to account for this issue.

Some interviewees (n=7) mentioned **challenges that impacted their ability to carry out prescribed burning plans**. These issues included strict air quality regulations and short windows of appropriate burning conditions, both of which were especially problematic for projects adjacent to urban areas. Many planned prescribed burns had to be put off due to the USFS 90-day burn pause in 2022[7]. Some project partners were not able to complete their planned prescribed burns by the end of the grant timeline. Interviewees also mentioned the issue of public concern over burning during fire season reducing burn windows; for example, they discussed how the public is often nervous about burns occurring after June 1st, which is when fire season is typically declared. As one interviewee noted, *"The challenge is that we're on the heels of a five-to-seven-year drought, and it's been really challenging to implement prescribed fire both from a public concern perspective, because of recent wildfires and heightened fears over fires getting away, but mainly because we have so many trees dying and being weakened by the drought."*

Organizational challenges were frequently mentioned as additional challenges that slowed implementation. Some interviewees (n=5) discussed how **internal administrative capacity was a challenge for project implementation**, particularly for non-profits. They described having limited grant administrative capacity to respond to project requests, including data requests from ODF and the LRP monitoring team. One interviewee suggested removing the ten percent limit on monitoring and planning, which ODF set for project budgets, to address the capacity bottleneck. Several interviewees (n=8) mentioned that agency regulations, such as those related to threatened and endangered species and culturally sensitive areas, also slowed project implementation processes.

Lastly, a few interviewees (n=6) discussed weather as a challenge for implementation, particularly when paired with the short grant timeline. Many project sites were inaccessible for several months due to the long snow season in 2023, delaying implementation processes.

Some interviewees mentioned **key changes to their project's proposed work resulting from unanticipated challenges**. For example, two interviewees discussed how the Douglas fir (*Pseudotsuga menziesii*) die off in southern Oregon was worse than expected over the project timeline, leading to changes in treatment prescriptions. Two projects were unable to carry out prescribed burn plans due to the agency burn pause previously described. Two interviewees mentioned that their project ended up reducing the amount of acreage originally planned due to unanticipated challenges such as high fuel prices and regulatory setbacks.

Experience working with ODF

We asked interviewees to rate the extent to which ODF program administration recognized and filled needs in partner capacities. **Most interviewees (80 percent) indicated that ODF recognized and filled needs in partner capacities well,** while the rest were unsure (Figure

7. https://www.fs.usda.gov/news/releases/statement-forest-service-chief-randy-moore-announcing-pause-prescribed-fire

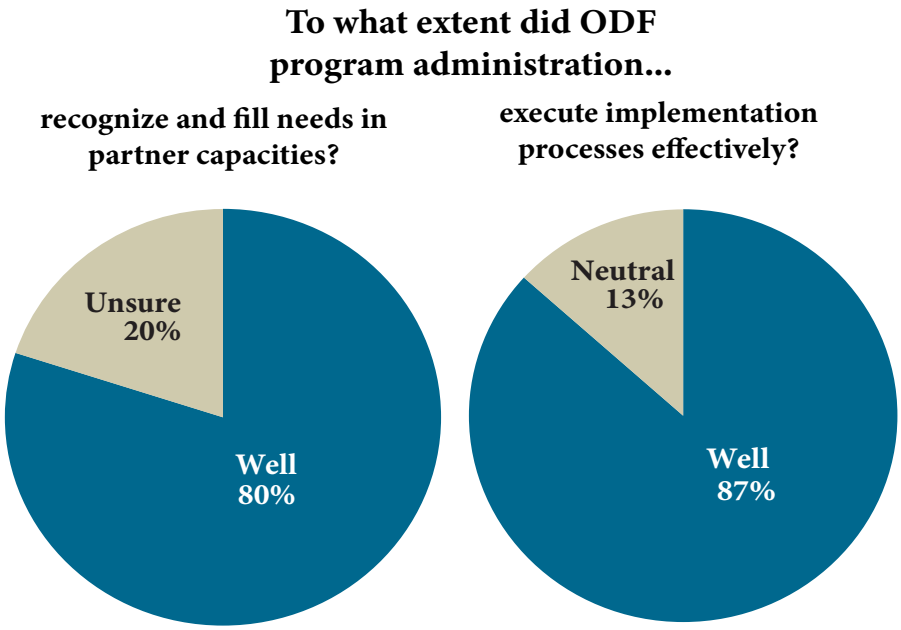
5). We also asked interviewees to rate the extent to which ODF program administration executed implementation processes effectively. Most interviewees (87 percent) indicated that ODF executed processes well, and 13 percent were neutral (Figure 5).

Additionally, we asked interviewees what went well when communicating with ODF. Many interviewees (n=21) discussed **positive experiences interacting with ODF during project implementation**. They described the communication process as easy, smooth, and simple. Specifically, interviewees appreciated that ODF was responsive to questions and available for problem solving, such as helping projects find contractors. Two interviewees highlighted that they found the in-person ODF project site visits helpful. As one interviewee said, *"Everybody that we talked to at ODF always seemed really willing to help."*

We asked interviewees what challenges they experienced when communicating with ODF. The most common issue interviewees discussed was the reimbursement process. Several individuals (n=9) found that **reimbursements from ODF took longer than anticipated**, which sometimes put organizations in difficult financial positions with their contractors. For instance, one interviewee explained that *"One time there was an eight-week lag for us to get compensated, and we had to lean on a line of credit to pay contractors."* Some interviewees also mentioned that for participating organizations and private landowners, the OregonBuys website, which was used for reimbusements, was difficult to navigate.

Two interviewees discussed how staff turnover at ODF led to some confusion with knowing who to go to for various questions, and one suggested that ODF create a staff organizational chart for project participants to reference. Another individual mentioned that their organization found the award reallocation process challenging. They described how ODF allocated their project's unused funds to the statewide pool, although the project had requested those funds be reallocated to a different agreement within their project. Lastly, one interviewee suggested that it would be helpful for local ODF foresters to be involved in LRP projects, rather than primarily staff at the Salem office.

Figure 5. Interviewees' responses regarding the extent to which ODF program administration filled partner needs and implemented processes effectively.



Perspectives on social and ecological outcomes

– Attitudes towards ecosystem management –

Throughout interviews, interviewees discussed how the **LRP impacted private landowner and community member attitudes towards ecosystem management approaches**. For instance, we asked interviewees if, and how, they thought their LRP project would lead to increased use of prescribed fire in their region. Most interviewees (78 percent) thought that the LRP project they were involved in would increase the use of prescribed fire, and many attributed that to the impact the LRP had on social awareness of prescribed fire. Many interviewees involved in projects that did not implement burning described how prescribed burning was part of the longer-term plan for the project areas. Twenty-two percent of interviewees indicated they did not think their LRP project would lead to increased use of prescribed fire.

Some interviewees (n=5) discussed how their LRP project was **raising awareness among landowners and community members about the importance of prescribed fire** and active land management for fire resilience. One interviewee said, *"People are really welcoming of this effort and want to get involved. They see their neighbor's property treated and they say, 'please do mine too!'"* Another noted that there's been a recent cultural shift in their area, in which the community is beginning to recognize that thinning is not clear cutting, but ecological management.

Innovation

Innovation was one criterion for LRP project selection[4]. We asked interviewees to describe what, if anything, they found to be novel, unique, or innovative about the LRP project they were involved in. Several interviewees (n=9) described how **the scale of the LRP project they were involved in was beyond anything their organization had participated in before**; specifically, they mentioned the large scale of collaboration, funding, and acreage as unique defining qualities of the LRP.

Many interviewees (n=10) said their project's treatments, activities, and methods of engagement were novel, unique, or innovative. For example, one project created a story map to highlight their work and spread awareness about wildfire risk reduction on rangelands. Another project repurposed logs from thinning treatments for stream habitat restoration efforts. A few interviewees (n=3) discussed how the involvement of Tribal Nations, as well the demographic diversity of their crews, were unique aspects of their projects.

In addition, some interviewees (n=4) indicated that some of the **project locations and ecosystems were unique in the context of fuels reduction work and were often excluded from similar programs**. For example, one individual identified the proximity of their project to an urban center as novel. Another described the Oregon white oak ecosystem characterizing their project area as, *"A unique ecosystem that usually gets forgotten about and isn't top priority because it doesn't fit well for commercial work."*

Co-benefits

When we asked interviewees about co-benefits of project treatments, other than fuels reduction, several themes emerged. **Benefits to habitat and wildlife resulting from project treatments** was the commonly mentioned (n=22) co-benefit. Specifically, many individuals working on projects in Oregon white oak (*Quercus garryana*) ecosystems emphasized their vulnerability to conifer encroachment. Treatments that included thinning and encroachment control reduced resource competition for native oaks. Of interviewees who mentioned habitat enhancement, many specifically indicated that treatments would likely improve browsing for deer and elk and benefit spotted owls and migratory birds. A couple of interviewees discussed how their project had improved stream habitat, benefiting aquatic species and overall watershed health. Many interviewees viewed these ecological "co-benefits" as primary objectives, described by one interviewee as, *"We bring to the table that ecological lens. We're not just out there reducing fuels for the sake of reducing fuels, though that's an important aspect. Our prescriptions are very site-specific and meant to enhance habitat for wildlife."*

Two individuals who mentioned potential habitat improvements stressed that **the true impact of these treatments on wildlife would not be clear for several years down the line, and that funding for longer-term ecosystem monitoring associated with fuels reduction treatments was necessary**. One interviewee pointed out

that, *"30 years ago, people were taking wood out of streams to try to make it easier for fish to go upstream, and now they're putting the wood back. I'm hoping we aren't making that same mistake with some of our projects now, but we won't know for a long time."*

A few interviewees (n=3) mentioned **co-benefits specific to rangeland-based projects, which generally focused on invasive annual grass treatment**. They pointed out the benefit to native grasses and shrubs, which will no longer need to compete for resources with invasive annual grasses if treatments are successful. Interviewees explained how these native grasses typically stay green throughout fire season, improving the watershed's ability to absorb and store precipitation, which benefits the habitat in addition to promoting wildfire resilience. One interviewee specifically pointed out that treatments on private rangelands should improve grazing for cattle.

Some interviewees (n=5) mentioned that treatments, particularly those involving fuel breaks or taking place adjacent to roads, **improved evacuation routes and access for firefighters.** This improved access was particularly critical for project areas adjacent to densely packed neighborhoods or critical infrastructure.

A couple of interviewees mentioned that treatments would **enhance landscape aesthetics and recreation opportunities**. One individual highlighted the problem of illegal hunting and fishing within their project boundaries and discussed how the treatments would improve visibility within the forest, allowing for better law enforcement. Lastly, one interviewee shared that their project included co-benefits related to Indigenous cultural revitalization efforts, such as improving access to traditionally important sources of food.

Assessment of on-the-ground accomplishments

Treatments completed

Across all nine LRP projects, **at least 201,000 acres[8] were treated with various restoration treatments** (Table 1). These treatments and activities included thinning, piling, pile burning, invasive species removal, native grass seeding, prescribed burning, fuel breaks, mastication, pruning, encroachment control, chipping, rapid forest assessments for private landowners, and stream restoration. Several projects reported that they will burn piles and carry out prescribed burning plans after the 2021-2023 LRP grant timeline using separate funding.

Over half of the activity areas represented in interviews completed **technical and professional services to support restoration work**. These activities included biological monitoring, a private land assessment, heritage and botany surveys, and mapping. Some of this work, including surveys required for NEPA compliance, was completed in prior years with separate funding.

Project activities were completed across **a range of ecosystems, including rangelands, oak forests, and mixed-conifer forests**. As described in the co-benefits section of this report, interviewees described many of these ecosystems as critical habitat for species such as mule deer, elk, sage-grouse, and spotted owls. Project areas spanned multiple landownerships, including federal, state, county, tribal, and private lands. The planned use of these areas varied greatly and included private ranching lands, hunting areas, recreational parks, conservation areas, and private backyards.

Outreach and engagement

Each LRP project **engaged their local community and surrounding landowners, sharing their accomplishments with the public in a variety of ways**. We asked interviewees to describe any outreach their project conducted to share updates and involve community members. Many interviewees (n=18), discussed field trips, forums, and events their project organized. For instance, one project sponsored an event in which community members picnicked together and learned from guest speakers and wildfire-related film screenings. Interviewees described field trips and site visits that included a broad range of collaborators, including potential contractors, ODF, the legislature, Tribal representatives, forest collaborative members, federal agencies, potential private funders, landowners, homeowners' associations, and other community members. Larger projects with multiple agreements held internal field trips, so that partner organizations could see each other's work first-hand.

Interviews from projects that recruited private landowners described **various methods for landowner outreach**. For

8. Acreage is reported here as of June 23 2023, and does not reflect work reported to ODF after that date.

Table 1. Total acres and activities accomplished by project.

Project	Total acres completed	Activities completed
Ashland Forest All-Lands Restoration	585	Prescribed burning, thinning, piling, pile burning, mastication
Upper Applegate Watershed Landscape Resiliency	350	Thinning, piling
Upper John Day Valley Landscape Resiliency	227,000	Invasive grass treatment, private lands assessment
Laurel Butte Landscape Resiliency	150	Thinning, piling
Lower Rogue Oak Resiliency	732	Thinning, piling, stream restoration, encroachment control, pile burning
Wasco County Forest Resiliency	3,300	Thinning, mastication, oak monitoring, encroachment control, lop and scatter, range seeding, piling, invasives treatment
West Bear All-Lands Restoration	2,000	Thinning, piling, pile burning
Central Oregon Shared Stewardship Landscape Resiliency	6,785	Prescribed burning, thinning, stream restoration, mowing, mastication, chipping, pruning, weed removal, fuel break, piling, pile burning
Southeast Oregon Wildfire Resiliency	32,767	Invasive grass treatment, encroachment control, range seeding

example, projects held workshops and gave presentations to educate landowners about landscape management for wildfire resilience and forest health. Some interviewees described sending postcards to private landowners and speaking on the local radio to share the opportunity and describe how landowners could involve their property in the project. Many interviewees (n=15) indicated that their project **shared updates to the community through newsletters, social media posts, newspaper articles, text alerts, and in one case, a story map**. Newsletters usually served as general updates to share project progress and goals. Social media posts and opt-in text alerts were real-time notifications indicating that work, such as prescribed burning, was being done in the area. One interviewee described how these alerts helped the public be more comfortable with prescribed burning:

"It's really helped people not panic when they see smoke."

While every project conducted some sort of outreach, in some cases, projects completed outreach for activities funded by LRP prior to the grant timeline with funding from other sources.

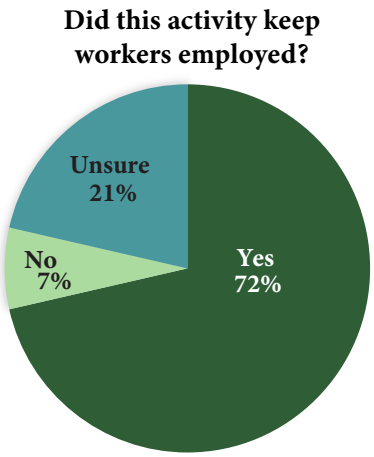
Economic aspects of the LRP

Work crews

We asked interviewees if the LRP project they were involved in kept workers employed who may otherwise have not had work. Most interviewees (71 percent) indicated that they believed their project kept workers employed who may have otherwise had trouble finding work, a few (seven percent) indicated that it did not, as

there was plenty of other work available, and some (21 percent) were unsure (Figure 6). We additionally asked interviewees to estimate the number of people working on the ground, on average, throughout the grant period. In total, they **estimated 324 workers were employed for some portion of the project timeline in the field across the nine projects**, although interviewees stressed that the number varied greatly throughout the grant period. The average number of workers reported by interviewees for each crew was 13.

Figure 6. Interviewee responses regarding whether their LRP project kept workers employed who would have otherwise had trouble finding work.



Contractors

At least **thirty-eight contractors[9] conducted activities for LRP projects across the state**- all but one of these contractors were based in Oregon. In addition, two LRP projects employed youth crews and one utilized internal work crews from the project's leading organization.

We asked interviewees if they had trouble finding contractors for the project they were involved in. Many (n=21) interviewees reported they did not have issues finding contractors, a few (n=6) reported that they did, and the rest were not sure. Of the interviewees that did not have challenges finding contractors, some (n=9) attributed this to the fact that their organization had pre-existing relationships with the contractors they hired. Some indicated that they found the process easier because their projects were located in areas with large pools of contractors, and others mentioned that ODF helped them identify contractors.

Some interviewees (n=6) discussed the difficulty they had finding contractors, either because local crews did not exist or they were busy with other projects. A few interviewees specifically discussed how the recent influx in fuels reduction and restoration funding has led to high demand for contractors, resulting in a shortage in some parts of the state. One interviewee mentioned problems retaining contractor crews from June through December, due to fire season and the fact that some crews in Southwest Oregon travel to California to respond to fires as late as December.

Investments

We asked interviewees if any LRP grant funds were invested in resources, such as development of new infrastructure, that would be useful for future fuels reduction and landscape restoration projects. A couple of interviewees mentioned investments in large pieces of equipment, such as a utility all-terrain vehicle, and a large piece of equipment (an excavator) to use for making fuel breaks. Others mentioned investments in workforce training or development of new methods, such as a monitoring protocol that one interviewee described as a useful investment for future projects.

Evaluating Wildfire Risk Outcomes

As detailed in the LRP program-wide monitoring plan[1], we originally intended to provide a quantitative evaluation of wildfire risk reduction outcomes. As proposed, the outcome indicators would have contributed to a better understanding of whether LRP-funded activities were implemented in the optimal locations and at sufficient scale to achieve measurable risk reduction for nearby structures. Specifically, we proposed to evaluate the percent change in wildfire exposure to structures that could be attributed to LRP-funded activities. We also proposed to evaluate how the spatial arrangement of LRP-funded activities related to social vulnerability characteristics. Spatially explicit and quantitative estimates of exposure

9. Total number of contractors is based on number reported by interviewees and may not be complete.

reduction would have been useful to the project partners themselves, who might use it to refine their strategies or plan next steps. The outcome indicators would have similarly benefited LRP administrators who might have used them to inform future iterations of the program.

However, conducting a wildfire risk outcome assessment requires specific spatial data that was not collected or reported in most LRP projects . At a minimum, the outcome assessment would have required spatially explicit descriptions of where LRP-funded activities took place and what kind of activities were conducted (e.g., mechanical treatments, prescribed burning, piling, etc.). To accurately assess outcomes, the spatial data would need to specify all activities that had been completed to-date. In addition to tracking activity locations and descriptions, an outcome assessment would benefit from an evaluation of pre- and post-treatment fuel conditions. For both activity tracking and reporting fuel conditions, it is ideal for all projects to use the same methods for collecting and reporting data. In reality, most LRP projects had tabular data tracking their accomplishments but few had spatial data. Spatial data that was available was often incomplete and did not reflect the full scope of activities that had taken place.

As part of the requirements of the LRP funding, each awarded project was required to use a portion of their award amount (no more than ten percent) to monitor outcomes. However, there was no unified guidance provided by ODF or anyone else on what to monitor, what data to collect and how, and how or when to report findings. As a result, each project collected data according to their project needs and capacity. Accordingly, the data collected to date and methods for collecting it varied widely across projects and even within projects where multiple partners were responsible for monitoring. This experience in trying to evaluate wildfire risk reduction and improved forest resiliency shows how challenging it can be, especially for a new program, to coordinate monitoring and data collection across multiple projects each with different methods and goals.

In the future, evaluating quantitative wildfire risk reduction and improved resiliency will be essential to better understand the impact that LRP is making across the state and identify areas for improvement for future funding cycles. We propose two ways for future efforts to better evaluate the impact of LRP funding on risk reduction and resiliency:

1. Third-party monitoring of LRP project wildfire risk reduction outcomes coordinated by ODF would ensure consistent and sufficient data collection and analysis across diverse projects. A third-party monitoring group with the capacity to collect and analyze detailed spatial activity data would ensure that all LRP projects are able to contribute and that results are analyzed in a way that supports future decisions about LRP as a whole.
2. A clear set of expectations and plans for monitoring (a monitoring protocol) from the time of the award would help ensure that each LRP project has the time to develop a monitoring plan that not only meets their own unique needs but will also support efforts to evaluate outcomes across all LRP projects. We suggest that this monitoring protocol should include instructions detailing the specific spatial data and data formats to be collected for each project activity as well as setting requirements of where and when to report that data.

Conclusion

The Oregon Department of Forestry's Landscape Resiliency Program resulted in approximately 201,000 acres of cross-boundary fuels reduction and landscape restoration work across nine projects. A variety of federal, state, local, and non-profit organizations implemented successful engagement with private landowners and strengthened existing collaborations. Our results indicate that the program fills a critical funding gap and served as an integral part of program participants' restoration strategies. Results additionally identified that interviewees found the two-year grant timeline too short, leading to rushed implementation. **We suggest ODF give future applicants as much time as possible to prepare project plans prior to the selection process**. If possible, ODF should consider **a longer-term model for the LRP that extends beyond the single biennium**. Some organizations involved in the LRP struggled with the capacity to administer and coordinate grant activities. We suggest that ODF **remove or amend the ten percent limit for monitoring funding**, to help fill capacity burdens with data collection. Lastly, we sug-

gest that ODF communicate **clear expectations with projects regarding data sharing for program-wide monitoring efforts** to help improve transparency and monitoring efficacy. Overall, qualitative and quantitative monitoring indicated significant social, economic, and ecological benefits of the LRP. Interviewees emphasized that many of the challenges associated with program implementation were typical for the first round of any new grant program and they overwhelmingly felt the program filled a critical need across the state.

Juniper stand within Southeast Oregon Wildfire Resiliency Project prior to treatment. Credit: High Desert Partnership

Appendix A: Activity Area Interview Protocol

Basic Questions:

(1) Project name_____

  (a) Activity area name _____

(2) Interviewee name: _____

(3) Is there anything you'd like to share with us about your identity?

  (a) What is your gender identity?

- ☐ Prefer not to share
- ☐ Non-binary
- ☐ Female
- ☐ Male
- ☐ Self-describe: _____

(4) Organizational affiliation

- ☐ Federal agency
- ☐ State agency
- ☐ Local agency/government
- ☐ Non-profit organization
- ☐ Property owner
- ☐ Contractor
- ☐ Other: _____

  (a) What is the name of your organization(s)? _____

(5) Job description/specialty

- ☐ Natural resources scientist
- ☐ Other type of researcher
- ☐ Forester/Fuels manager
- ☐ Other type of natural resources/land management technician
- ☐ Planner
- ☐ Program manager/coordinator
- ☐ Business administrator
- ☐ Educator
- ☐ Other: _____

1) What are the activities that were undertaken in the specified location and what was the acreage for each (select all that apply)?

- ☐ Broadcast burning

- ☐ Burning of piled material
- ☐ Chipping fuels
- ☐ Compacting/crushing fuels
- ☐ Fuel break
- ☐ Fuel inventory
- ☐ Grazing and range management for hazardous fuels reduction
- ☐ Jackpot burning-scattered concentrations
- ☐ Piling of fuels- hand or machine
- ☐ Post-treatment exam fuels management
- ☐ Pruning to raise canopy height and discourage crown fire
- ☐ Range seeding and planting
- ☐ Rearrangement of fuels
- ☐ Hand thinning for hazardous fuels reduction
- ☐ Machine thinning for hazardous fuels reduction
- ☐ Tree encroachment control
- ☐ Underburn-low intensity
- ☐ Pre-commercial thinning
- ☐ Commercial timber sale
- ☐ Salvage timber sale

1a) Is the activity complete?

2) Is the activity a commercial sale or preparation for an anticipated future commercial thinning?
   - ☐ Yes
   - ☐ No
     - ☐ If it is commercial, what is the volume to be sold (estimated board feet)?

     - ☐ Who is doing the harvesting work? (Contractor and contact info/business location).

     - ☐ Where is the timber going to be milled/processed?

☐ If known, what products will be made?

3) What are the land ownership(s) types for this activity area? Select all that apply.
   - ☐ US Forest Services
   - ☐ US Fish and Wildlife
   - ☐ Bureau of Land Management
   - ☐ National Park Services
   - ☐ State Parks
   - ☐ Tribal Reservation (BIA)
   - ☐ Tribal (non-reservation)
   - ☐ Oregon Department of Forestry
   - ☐ County Public lands
   - ☐ Private (non-commercial)
   - ☐ Private commercial (working lands)
   - ☐ Homeowners' association
   - ☐ Commercial resort
   - ☐ Municipal
   - ☐ Other, please describe

4) Please list of all partners directly involved in this activity, including all contractors and sub-contractors and business locations (or who we could contact for this information).

Partner name:	Partner type: ☐ Non-profit ☐ Sub-contractor ☐ Local government ☐ State government ☐ Federal ☐ Private citizen ☐ Tribe	Please estimate their involvement with seeing the activity through from start to finish: ☐ Not involved ☐ Somewhat involved ☐ Not sure ☐ Very involved ☐ Took the lead

5) What are the primary planned use(s) for the area? Select all that apply.
   - ☐ Recreation, please describe
   - ☐ Habitat, please describe
   - ☐ Timber production, please describe species
   - ☐ Scenery/Aesthetics

   a) Are there other co-benefits involved with the activity area? (e.g., habitat enhancement, recreational enhancement)

6) Was there any outreach (e.g., information sharing with those outside of the implementation and planning efforts) conducted that specifically included this activity and/or this specific activity area?
   - ☐ No
   - ☐ Yes
     a) If so, please describe: _____ (What kind of outreach? Field trips? Informational dissemination?)

7) Has this activity area received (or will receive) funding as part of another program like the Joint Chiefs or Collaborative Forest Landscape Restoration Program CFLRP?
   - ☐ No
   - ☐ Yes, please describe:

8) What are the total direct funds invested in the activity area by ODF?

9) How many agreements with contractors were involved in this activity?

10) Are there any match or in-kind investments from stakeholders?

Funder	Amount

11) If known, what is the estimated number of people working in the field on this activity area?

a) Did this activity keep workers employed in this industry that might otherwise have needed to find other employment?
   - ☐ No
   - ☐ Yes
   - ☐ Don't know

12) Were there any technical or professional services directly supporting the specific activity? (e.g., mapping, heritage or biological surveys, timber marking, etc.).
   - ☐ No
   - ☐ Yes
   - a) If yes, please describe type
   - b) What amount and % of funding went to those services?

13) [If activity is not a Rx burn or burn prep] Do you think this activity will increase or accelerate the use of Rx fire on this landscape?
   - ☐ No
   - ☐ Yes
   - a) If yes, why? (i.e., fuels reduction, road/infrastructure construction, cross-boundary relationships built?)

14) Was there development of infrastructure or acquisition of new equipment for this activity that will enable future activities?
   - ☐ No
   - ☐ Yes
   - a) If so, who purchased it?
   - b) And with what funds?

15) What, if anything, do you think worked well or went smoothly during this project?

a) Did partnerships increase scale or pace of the work? (If so, how?)

b) Were there aspects - other than funding -of being part of the overall project that enhanced the quality of this work? (If so, how?)

16) If you think about this entire process, and all the people and organizations you interacted with through this process, what did you find to be a bottleneck?

a) Is there anything you know now that you wish you could have told yourself at the beginning of this project?

b) Was it difficult to find contractors to do this work?

☐ No

☐ Yes

c) In your opinion, why or why not?

d) Were there other factors that slowed progress? E.g., supply chain issues, labor shortages, regulatory issues, navigating challenges with other stakeholders

17) Were there any key changes in the project area or changes to the work being done since it was originally planned? (For example, have there been any changes on landscape such as large disturbances or other factors that led to sudden changes in contractor or equipment availability?)

18) Is there anything else you think is important to know about this activity area in order to really tell the story of this effort?

19) Was this activity an integral part of your group/community's restoration strategy? If so, how?

a) What (if anything) did you find to be particularly novel, innovative or unique about this activity?

20) Is there anything else we should know that we haven't covered?

Appendix B: Project Lead Interview Protocol

Basic Questions:

(1) LRP project name: _____

(2) Interviewee name: _____

(3) Is there anything you'd like to share with us about your identity?
   (a) What is your gender identity?
   - ☐ Prefer not to share
   - ☐ Non-binary
   - ☐ Female
   - ☐ Male
   - ☐ Self-describe: _____

(4) Organizational affiliation
   - ☐ Federal agency
   - ☐ State agency
   - ☐ Local agency/government
   - ☐ Non-profit organization
   - ☐ Property owner
   - ☐ Contractor
   - ☐ Other: _____

   (a) What is the name of your organization(s)? _____

(5) Job description/specialty
   - ☐ Natural resources scientist
   - ☐ Other type of researcher
   - ☐ Forester/Fuels manager
   - ☐ Other type of natural resources/land management technician
   - ☐ Planner
   - ☐ Program manager/coordinator
   - ☐ Business administrator
   - ☐ Educator
   - ☐ Other: _____

Activity Area Questions:

(1) We were provided with the activity areas for the LRP project you are involved with. Upon review, is this information accurate?
   - ☐ Yes
   - ☐ No

☐ Please provide corrections or additions

(2) Are there any activity areas missing?
- ☐ Yes
- ☐ No

(3) Who is best/lead contact for each activity area?

(4) To what extent did ODF program administration…

	Poorly	Neither poorly nor well	Well	Unsure
Recognize and fill needs in partner capacities?	☐	☐	☐	☐
Execute implementation processes efficiently?	☐	☐	☐	☐

(5) Please describe any **challenges or bottlenecks** in the communication process with ODF from project selection through implementation.

(6) Please describe any **opportunities for improving** communication between ODF program administration and project partners.

(7) What went well with communication between ODF program administration and project partners?

Appendix C: Qualitative Codebook

LRP Implementation and Outcomes Interview Codebook for Open-Ended Questions

1. **ODF communication challenges**: Describes challenges or bottlenecks with regard to working with and communicating with ODF. Includes reallocation requests, reimbursement), etc. Includes relevant answers to Project Lead Protocol questions 5.
    a) **Reimbursements:** Describes issues with reimbursements, such as taking a long time to get money back to contractors. Includes problems with OregonBuys.

2. **ODF communication suggestions**: Describes suggested areas for improvement related to ODF's communication. Includes relevant answers to Project Lead Protocol questions 6.

3. **ODF communication successes:** Describes positive experiences in communication process with ODF. Includes relevant answers to Project Lead Protocol question 7.

4. **Co-benefits:** Describes benefits of project activities aside from primary objective of wildfire risk reduction (habitat enhancement, aesthetics, recreation, access). Includes relevant answers to Activity Area Protocol question 5a.
    a) **Habitat:** mentions habitat enhancement or protection resulting from activities, including general mentions of "forest health."
    b) **Access:** mentions improved access to the area for firefighting, etc.
    c) **Awareness:** mentions how the project is spreading awareness about forest management and fire resilience to the public or stakeholders.

5. **Outreach:** Describes outreach efforts related to project, such as field trips, newsletters, or meetings with stakeholders or the public. Includes relevant answers to Activity Area Protocol question 6.
    a) **Field trips:** Describes any in-person event or field trip related to outreach on project. Includes meetings like community forums, presentations, etc.
    b) **Newsletters:** Describes any newsletter or alert related to project, includes alerting people door to door about activities, text alerts, or websites.

6. **Funding:** Describes qualitative description of additional funding sources contributing to activity areas or elaborates on match and in-kind investments. Includes relevant answers to Activity Area Protocol questions 7 and 10.

7. **Technical Services:** Describes any technical or professional services directly supporting project activities, such as mapping, heritage or biological surveys, etc. Includes relevant answers to Activity Area Protocol question 12.

8. **Rx Fire:** Describes if, and how, the project may or may not contribute to increased use of prescribed fire in the region. Includes relevant answers to Activity Area Protocol question 13a. Does not include problems implementing prescribed fire, which belongs in the "burn window" child code under "challenges."

9. **Successes:** Describes aspects of the project that went well or worked smoothly. Includes relevant answers to Activity Area Protocol question 15.
    a) **Integral:** Describes how the LRP funding and project has been an integral part of their group's strategy. Includes anything that indicates the LRP filled a critical gap or that the activities would not have happened without this grant.
    b) **Landowners:** Mentions successful involvement of landowners or describes how helpful landowners were during implementation process.
    c) **Coordination:** Describes how having a coordinating body, such as the local forest collaborative, ODF, or leading non-profit, has contributed to easier implementation.
    d) **Smooth implementation:** Describes any implementation processes that went quickly or smoothly. Uses words like "efficient" or "effective" to generally describe how implementation went.

10. **Innovative:** Describes aspects of the project noted as innovative, unique, or novel. Includes relevant answers to Activity Area Protocol question 19a.
    a) **Scale:** Describes how the scale of collaboration, funding, or acres is unique or goes beyond what they have done before.
    b) **Novel activities:** Describes how the treatment itself or other supporting activities are unique or goes beyond what they have done before (e.g., the story map or use of slash for stream restoration).
    c) **Place:** Describes how activity area is unique due to the place being unique (e.g., unique ecosystem, proximity to urban center, etc.)

11. **Challenges:** Describes aspects of the project that were bottlenecks or challenges. Includes relevant answers to Activity Area Protocol question 16 and 16d.
    a) **Economy/labor/supply chain:** Describes challenges related to the economy, such as labor shortages, supply chain issues, or inflation that impacted project implementation.
    b) **Short timeframe:** Describes the challenge of the short grant timeline and the need to spend all money before June 2023.
    c) **Weather:** Describes challenges navigating field work with the weather.
    d) **Burn windows:** Describes challenges relating to navigating burn windows, smoke regulations, burn pauses, or social acceptance of burns.
    e) **Maintenance:** Describes the problem of treatment maintenance, such as concern that treatments will be ineffective without longer-term maintenance.
    f) **Capacity:** Describes internal capacity-related problems, such as the lack of time or staff to administer the funding or respond to monitoring requests. Does not include contractor capacity.

    g) **Regulations:** Describes bottlenecks related to regulations, such as NEPA permitting. Does not include mentions of burn windows and burn regulations, which should go under "burn windows" code.

12. **Contractors:** Describes search for contractors, working with contractors, etc. Includes relevant answers to Activity Area Protocol question 16b.
    a) **Contractor successes:** Mentions reasons it was easy to find contractors (pre-existing relationships, strong contractor pool in area, ODF helped), or things that went well with contractors throughout the process.
    b) **Contractor challenges:** Mentions reasons it was difficult to find contractors, or difficulties they had with contractors throughout the process. Doesn't include issues with reimbursement or labor shortages, which have their own child code under the Challenges parent code.
13. **Key Project Changes:** Describes aspect of the project implementation that ended up differing from original proposal. Includes relevant answers to Activity Area Protocol question 17.

14. **Infrastructure:** Describes investments in infrastructure or substantial equipment that will allow for future work. Includes relevant answers to Activity Area Protocol question 14.

15. **Partnerships:** Describes benefits or drawbacks of the partnership and collaborative aspects of LRP. Includes relevant answers to Activity Area Protocol question 15a.
    a) **Partnership successes:** Describes positive aspects of collaboration, such as how partnerships increased the scope of work.
    b) **Partnership challenges:** Describes negative aspects of collaboration, such as having "too many cooks in the kitchen."

16. **Activities:** Qualitative answers regarding what activities were undertaken. This is the text response portion, but not the multiple choice portion, of Activity Area Protocol question 1.

17. **Planned use:** Qualitative answers regarding the planned use of the area. This is the text response portion, but not the multiple choice portion, of Activity Area Protocol question 3.