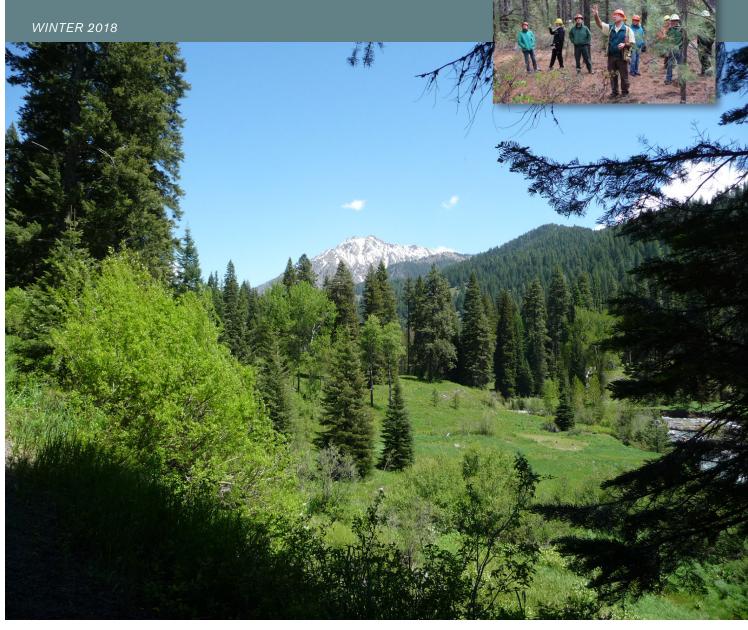
Restoring Resilience at the Landscape Scale:

Lessons Learned from the Blue Mountains Restoration Strategy Team

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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 a Sustainable Environment 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. More information available at: http://ewp.uoregon.edu/about/intro.

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Executive summary

he Pacific Northwest Region of the Forest Service's "Eastside Restoration Strategy" aimed to improve forest health conditions by accelerating the pace and scale of restoration on national forests in eastern Oregon and Washington. As part of this effort, the Regional Office created a dedicated interdisciplinary Blue Mountains Restoration Strategy Team (ID Team) to conduct landscape-level planning across four national forests and innovate strategies to more effectively reach planning decisions. We conducted interviews with 25 key informants, observed meetings, analyzed documents, and worked with an advisory group to understand transferrable insights from the project.

Key lessons learned included:

Project scope, scale, and timing

- The project's focus on innovation and creativity attracted ID Team members to the effort, and ultimately resulted in data and planning tool advancements.
- The project's limited scope (only dry forest vegetation management activities) made some stakeholders unsure about how to engage with or support the work. Collaboratives in the area have historically reached agreement by integrating a broad suite of restoration activities.
- The project crossed multiple administrative and social boundaries and coincided with a major forest plan revision effort, which at times created confusion and delayed the project. Future projects should consider the number and complexity of social boundaries to be crossed and ensure that corresponding planning documents align with project efforts.

ID Team structure and composition

• A new and unfamiliar team structure and unclear roles and decision-making processes constrained ID Team progress. Future projects might benefit from having a single Line Officer acting as decision-maker, responsible for managing expectations, resolving scientific disagreements, and navigating interpersonal conflict. • Hiring specialists throughout the project to fill gaps in expertise or capacity allowed the ID Team to adapt to unexpected needs, such as the need for communications support, GIS support, and NEPA expertise.

Collaboration and public involvement

- Inconsistent communication with external stakeholders led to misinformation and discomfort for stakeholders and ID Team members alike. Standardized communication processes developed early in a project and streamlined through a public relations team member could help maintain effective communication.
- Some forest and district-level staff did not fully understand how multi-forest scale planning linked to local units. Planning efforts may be more successful when local forest units are engaged as partners from the beginning, as they often have site-specific information that can facilitate efficient project implementation.
- Collaborative groups' pre-existing social agreements about forest management were not directly transferrable to larger-scale planning efforts. Scaling up social agreements likely requires continued investments in collaboratives' capacity.
- The narrow scope, large scale, and ambitious timeline of the project meant that collaboratives felt there was little space for them to be meaningfully engaged in the planning process. Some stakeholders wanted to discuss topics outside of the project's scope, and some feared that the rapid timeline of the project would cause the ID Team to overlook important management details.

Adaptability and documentation

• The ID Team's work benefited greatly from an adaptive management approach. As landscapescale planning is implemented more across the West, documenting the successes and challenges embedded in this project's process and outcomes into transferrable lessons learned is a way to further leverage the ID Team's work.



Background

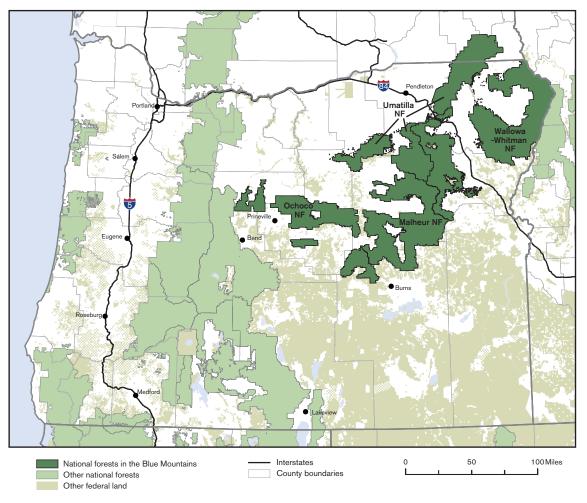
ecades of fire suppression, past timber management practices, and climate change have left over 2.3 million acres of dry forests across the Blue Mountains region of northeastern Oregon and southeastern Washington vulnerable to outbreaks of insects, disease, and wildfires.¹ Despite the Forest Service's ongoing efforts to restore forested acres through vegetation thinning and prescribed burning, the number of dry forest acres in need of restoration treatments is growing larger every year. This is because forest growth now occurs faster than the Forest Service is able to plan and implement restoration projects.² Planning and implementing a single forest restoration project on federally-managed forests typically takes years,³ largely due to the environmental review required under the National Environmental Policy Act (NEPA). New strategies and approaches to conducting restoration project planning under NEPA are necessary to accomplish the forest restoration work needed to bring forests in the Blue Mountains region into more resilient ecological

conditions and create economic opportunities for local communities. $^{\scriptscriptstyle 4}$

In January 2013, the Pacific Northwest Region of the Forest Service ("Regional Office") initiated the Eastside Restoration Strategy⁵ in an effort to address the backlog of dry forest acres needing restoration treatments in eastern Oregon and Washington. This effort sought to improve forest health conditions by "accelerating the pace and scale" of restoration work on national forest lands in the area. As part of the strategy, the Regional Office appointed a Board of Directors consisting of staff from the Regional Office, Oregon Department of Forestry, Pacific Northwest Research Station, and Forest Supervisors from each of the four national forests in the Blue Mountains (Wallowa-Whitman, Umatilla, Ochoco, and Malheur National Forests; see Figure 1, page 3) to oversee the strategy. The Board hired an Eastside Restoration Coordinator who was responsible for a broad portfolio of landscape-scale restoration efforts, including establishing and managing an interdisciplinary team (ID Team)⁶ of specialists. The ID Team's purpose was to help with one specific element of the broader Eastside Restoration Strategy – National Environmental Policy Act (NEPA) planning for large-scale forest restoration in the Blue Mountains region, referred to hereafter as "Blue Mountains Restoration Strategy work." Eight ID Team members, including one Team Lead were hired into fully dedicated positions for the Blue Mountains Restoration Strategy work, meaning that they had no ancillary assignments and were not sent out on fire assignments, details, or other time away. Ancillary assignments have made it difficult for ID teams in other contexts to advance NEPA planning efforts according to planned timelines.⁷ Given the urgency of the restoration need in eastern Oregon, the Regional Office deliberately selected this ID Team structure to facilitate efficient, timely restoration planning. All ID Team members were also hired at the same time in order to limit turnover, which can also slow planning efforts.⁸

The purpose of this report is to document the approach to landscape scale planning taken by the Blue Mountains Restoration Strategy's ID Team effort, and to capture and share lessons learned from this effort. We focus on the years 2013 through 2016, when the ID Team was in development and initiating early work. We characterize the differences between this effort and traditional planning projects in the Pacific Northwest Region, and we explore ID Team structure and functioning from a variety of internal agency and external perspectives. We report on the key lessons learned, with an emphasis on lessons that are transferrable to other planning efforts.







Approach

This research included semi-structured phone or in-person interviews with 25 key informant stakeholders. Interviewees included Blue Mountains Restoration Strategy Team members, Forest Service personnel, and members from forest collaborative groups (or "collaboratives"). All interviews were confidential and any identifying information has been removed from this report. All interviews were conducted between fall of 2016 and summer of 2017. Interviews were transcribed verbatim and transcripts were qualitatively coded and organized into themes using Dedoose qualitative coding software.

Key research questions that guided this research project included:

- 1. What was different about the Eastside Restoration Strategy compared to traditional planning processes in the region?
- 2. What was different about the Blue Mountains Restoration Strategy ID Team structure and composition? What worked well about the process, and how could it be improved?
- 3. How did the ID Team function internally? What worked well for managing internal dynamics, and what could be improved?

4. How did the ID Team interface with external stakeholders such as the local forests, collaborative groups, and others? What worked well, and what could be improved?

This project also involved document analysis, participant observation, and meetings with an advisory group composed of Forest Service employees and Northwest Fire Science Consortium members. The advisory group reviewed the research questions, and advised on where and how to share research results.

The intent of this report is to 1) describe the creation, structure, intent, and responsibilities of the ID Team for this effort and 2) distill and share common themes and perspectives shared by key individuals at a discrete moment in time. These results should therefore be considered as a qualitative snapshot, and not an exhaustive description of the opinions of all stakeholders involved in Blue Mountains Restoration Strategy, or an evaluation of the final outcomes of the project, which is still underway.

Blue Mountains Restoration Strategy ID Team

When the Blue Mountains Restoration Strategy ID Team was established, the Eastside Restoration Strategy's Board of Directors, Eastside Coordinator, and ID Team Lead (heretofore referred to as "Leadership") tasked the ID Team with working collaboratively with local forest collaboratives, tribes, and other stakeholders to develop landscape-scale NEPA planning documents. Leadership initially envisioned that a coalition representing all local collaboratives in the region could help select and plan projects. In 2015 the ID Team held a joint meeting of the five Blue Mountains collaboratives.⁹ During the meeting, participants advised Forest Supervisors regarding the strengths and weakness of proposed NEPA planning projects, and suggested additional areas of work for the ID Team.¹⁰ The planned coalition of collaboratives disbanded primarily due to disagreements between the ID Team, collaboratives, and forests about how to move forward using this approach. The ID Team then worked with each collaborative individually. In addition to working with collaboratives, ID Team members were also responsible for communicating with their counterparts from local tribes,¹¹ with one ID Team member specifically tasked with building relationships with tribes.

Leadership tasked the ID Team with working at a scale that was exceptionally large, a scope that was exceptionally narrow, and a pace that was exceptionally fast compared to other NEPA planning projects in the region. The ID Team worked on NEPA planning documents for two restoration projects, each of which covered acreages that were more than five to 10 times the average size of other forest restoration projects in the region.¹² The projects also crossed multiple administrative boundaries. They spanned three national forests, including lands linked to three tribes, and involving five collaboratives. Leadership also tasked the ID Team with limiting the scope of their work, by only addressing vegetation and strategic fuel treatment needs, whereas typical planning projects in the region included a variety of other resource concerns



in their scope (e.g., riparian management, aquatic habitat, recreation). Although other NEPA analyses in the region typically took three to four years to complete, the expected timeline to complete the ID Team's first project was one year due to the dedicated capacity of the ID Team and the limited scope of planned activities.

To accomplish these ambitious objectives, Leadership charged the ID Team with exploring new and innovative planning and analysis methods to facilitate efficiencies in NEPA planning,13 and "challenging the planning process status quo at nearly every turn."¹⁴ The ID Team's ultimate responsibility through this project was to identify the limits of what was needed for forest managers to make informed decisions using best available science and modeling methods to speed up the NEPA process.¹⁵ Specifically, at the onset of this project, Leadership asked the ID Team to explore potential NEPA efficiencies, including: condition-based NEPA, post-decision validation, and staged decision-making.¹⁶ Condition-based NEPA refers to the development of a set of management prescriptions, mitigation measures, and constraints that instruct forest managers to use different treatments depending on the conditions they find on the ground (i.e., if you find condition X, implement treatment Y, to result in condition Z). This is different from traditional site-specific NEPA planning analyses, where the particular conditions of each site are identified before NEPA analyses are completed. Post-decision validation refers to postponing some on-the-ground survey and other work that is typically completed before a NEPA analysis is finalized until after the analysis is complete. For example, this could mean completing on-the-ground heritage resource surveys, or surveys for threatened and endangered species, to validate expected conditions on the ground, after an environmental impact statement (EIS) is finalized. Staged decision-making means that the environmental planning process for the whole project area would be completed in one document, but separate Records of Decisions would be prepared for each project within that area and signed by the respective forest supervisor. The intention of this structure is to allow for adaptive management within a planning area, because managers can see the results of each project and revise future projects accordingly.

The ID Team was responsible for completing NEPA analyses, but local forest staff were to oversee eventual planning and implementation of on-theground work based on the management prescriptions designated during planning. Thus, local forest staff would be responsible for completing post-decision validation and staged decision-making, and would ultimately make decisions about the projects implemented on their forests under the large-scale EIS. Leadership emphasized the importance of developing flexible prescriptions within the EIS so that local forest staff could accommodate site-specific adjustments during project implementation. This was an unusual model for NEPA planning in this region, but the purpose was to allow local forest staff the ability to incorporate up-to-date information about local conditions during project implementation, and to allow each forest to implement decisions differently in terms of their nature, extent, and timing as each forest supervisor felt was appropriate.

ID Team members were hired based on their area of expertise and because they had previous experience working on large-scale planning projects and interdisciplinary teams, and Leadership thought that this experience would be transferrable. In particular, several ID Team members involved in this project had participated in the Interior Columbia Basin Ecosystem Management Project and the Four Forest Restoration Initiative in Arizona. ID Team members were primarily career Forest Service employees in the second half of their careers, typically at a GS level 12 or higher. This high level of experience was intended to ensure ID Team members had a certain level of career professionalism, expertise, and leadership. The original ID Team included eight positions: an ID Team Lead, Silviculturist, Disturbance Ecologist/Silviculturist, Fish Biologist/Consultation, Wildlife Biologist/ Modeler, Physical Scientist, Botanist/Ecologist, and Social Scientist/Heritage/Communications.

The ID Team worked on the Lower Joseph Creek Restoration Project ("Lower Jo Project"), and the Blue Mountains Forest Resiliency Project ("Resiliency Project"). The Lower Jo Project originated from a collaborative watershed assessment completed by the Wallowa County Natural Resources Advisory Committee (NRAC) and external stakeholders. Wallowa County and the NRAC advanced the Lower Jo Project to the Wallowa Whitman Forest Collaborative, and then the NRAC and collaborative worked together to develop the original project proposal. In 2013, when the ID Team was established, they took over the Lower Jo Project as their first NEPA planning project. The project was selected as the ID Team's first project for two reasons. First, although Wallowa County had invested significant time and resources into the Lower Jo Project, the Wallowa Whitman National Forest did not have the capacity to advance the project or complete an environmental impact analysis. The ID Team could provide additional capacity to move this project forward without significantly burdening the local forest staff. Second, because it was a smaller-scale project it was a good starting point for the ID Team to orient themselves to their planning task and familiarize themselves

with the local context. The purpose of the Lower Jo Project was to, "restore, maintain, and enhance forest resiliency to natural disturbances; protect natural resources at risk to uncharacteristic wildfires and insect and disease outbreaks; contribute to local economic and social vitality; modify fire behavior potential; and improve future forest, and fire management"¹⁷ across a 98,000-acre area of the Wallowa-Whitman National Forest. The ID Team began project analysis in 2013, and a final Record of Decision was signed in March 2017. Project activities will span 10 years and will include: commercial harvest, small tree thinning, manual and mechanical fuels treatments, prescribed fire, and managing roads to enhance public access and address resource concerns.¹⁸ The project objectives are to increase forest resiliency, reduce uncharacteristic wildfire, and reduce insect outbreaks.¹⁹

The Resiliency Project has similar goals to the Lower Jo Project, but is much larger and has experienced more significant difficulties and delays. The Resiliency Project encompasses approximately 600,000 treatment acres within 1,270,000 planning acres across three National Forests and three counties in Washington and Oregon. The final EIS is expected to analyze the impacts of using thinning and fire to actively restore dry forests toward more resilient conditions and facilitate safe and effective wildland fire management. Anticipated outcomes of the project include: greater forest and community resilience to wildfires, more diversified and higher quality wildlife habitat, improved decision-making, jobs and economic benefits to local communities, and more.²⁰

At the time that this document was published (December 2018), the ID Team had a revised structure and was still working on developing planning documents for the Resiliency Project. The number of dedicated ID Team members had reduced from eight to four, with the ID Team Lead, Program Specialist, Wildlife Biologist, and Silviculturalist positions still filled. Additional non-dedicated ID Team members were available to assist as-needed through contracts or through internal USFS agreements. Local forest staff were working with collaboratives to identify potential project areas and initial actions within the Resiliency Project area in anticipation of the completion of a final EIS. A draft EIS for the Resiliency Project is anticipated in early 2019, and final EIS expected before summer 2019.²¹





Findings

In this section, we discuss key themes that emerged during the interviews we conducted with stakeholders. Interviewees discussed challenges, successes, and lessons learned related to the internal structure and focus of ID Teams and external relationships with local forests, collaboratives, and other stakeholders. The findings presented below focus on what worked well and what could be improved in the Blue Mountains Restoration Strategy ID Team's landscape-scale planning process.

ID Team structure and focus

The limited scope of restoration activities made some stakeholders unsupportive because they did not feel that the effort addressed the full suite of restoration activities needed across the landscape. Leadership instructed the ID Team to work on only dry vegetation management activities because of the project's large scale, ambitious project timeline, and stakeholders' prior social agreement around dry forest treatments. Interviewees both internal and external to the ID Team noted how the project's narrow focus led to tensions with collaboratives and forests, who have historically reached agreement in NEPA planning projects by integrating a broad suite of restoration activities that represented stakeholders' diverse interests. Some interviewees felt that narrowing the project scope subverted prior social agreements among stakeholder groups.

The project's focus on innovation and creativity attracted ID Team members to the effort, and ultimately resulted in data and planning tool advancements. Some advancements that interviewees identified included: climate-informed vegetation modeling, fire risk assessments in project planning, the creation of a "Science Camp" to engage the scientific community in the team's NEPA planning process, NETMAP modeling for soil and water evaluations, MAXENT modeling to identify goshawk habitat.

A new and unfamiliar team structure, function, and unclear roles constrained the ID Team's progress. The Blue Mountains Restoration Strategy's ID Team structure was different than prior interdisciplinary teams on which team members had worked, and some roles were not well-defined. It was unfamiliar to many members to have a Board of Directors with final decision-making authority instead of a Line Officer. It was also difficult for ID Team members to distinguish the authorities held by each of their two leaders (ID Team Lead and Eastside Coordinator), the chain of command, and who could make decisions when Leadership or ID Team members were not in agreement. Furthermore, some ID Team members did not clearly understand their own roles on the team, and some wanted clearer expectations about deliverables and timelines, and greater oversight. Interviewees suggested that having a single decision-maker, such as a Line Officer, responsible for managing expectations, resolving scientific disagreements, and navigating interpersonal conflict would have improved ID Team function.

Greater conflict management expertise in the ID Team Lead role was needed to help resolve disagreements among ID Team members. The general lack of cohesion around roles and expectations led to misunderstandings about who made final decisions and what to do when the group could not reach consensus. Disagreements often went unmediated and unresolved, sometimes resulting in interpersonal conflict. This pattern was at odds with the expectation that hiring ID Team members at higher grade levels would reduce the need for direct supervision and management. ID Team members noted that ID Team dynamics improved after a change in leadership; they believed that this improvement was a result of more clearly defined expectations about interpersonal communication norms.

Hiring specialists throughout the project to fill gaps in expertise or capacity allowed the ID Team to adapt to unexpected needs. As the project developed, the ID Team needed additional assistance. Originally, the Social Scientist was tasked with completing all social science and heritage work, and conducting all communication efforts. Leadership realized this was too much for one person, and hired a Public Affairs Officer and Writer/ Editor after 18 months. This communications specialist added needed capacity to the ID Team and wrote blogs, briefing papers, and newsletters about the project. They also engaged with the public, the media, and they streamlined internal ID Team communications. A need for additional GIS expertise also emerged as the project progressed. Leadership added a part-time GIS professional to manage ID Team members' datasets and provide analysis support. Some interviewees also noted that the ID Team Lead and most members of the original ID Team did not have a detailed understanding of NEPA processes, which made it difficult for the ID Team to identify where and how they could innovate but still comply with the requirements of NEPA. Leadership changes brought additional NEPA expertise to the ID Team. The ability to hire these specialists as the project progressed was key for adjusting to unexpected needs.

Collaboration and stakeholder involvement

Forest and district-level staff did not fully understand how the ID Team's multi-forest, landscapescale plan linked to the local units. Landscapescale planning was new in northeastern Oregon, and some local forests were concerned that it would add to their staff's workload. Traditional planning efforts and ID Teams typically engage District Rangers and their staff in the NEPA planning process, but this ID Team was funded and directed by the Regional Office, and staff from local units perceived that it worked in isolation. Furthermore, local forest staff were concerned because they felt the objectives of the ID Team were sometimes misaligned with their own, yet local forests were ultimately responsible for implementation of the ID Team's plans. The primary objective at the forest level was to accomplish on-the-ground work while minimizing litigation, whereas the ID Team's objective was to innovate and push the boundaries of NEPA, putting them at risk of objections and litigation. The ID Team's limited engagement with local forest staff early on, along with staff turnover in the involved forests, intensified concerns about the eventual implementation of planned projects. Forest and district-level staff were concerned that the forests would have inadequate staffing to implement the plans, or that prescriptions in the plans would interfere with priorities set by local units. In addition, three of the four forests in the Blue Mountains (Umatilla, Malheur, and Wallowa-Whitman National Forests) were in the process of updating their over-arching forest plans. This led to uncertainty among local forest staff and collaboratives about whether or not the work proposed in the ID Team's final plans would be allowed after the forest plan revision was completed, and how this would affect the forests' staff or their work.

The narrow scope, large scale, and ambitious timeline of the project led some collaborative group members to feel that there was little space for them to be meaningfully engaged in the planning process. In many cases, stakeholders wanted to discuss a broader scope of management topics that were outside of the ID Team's dry forest vegetation treatment scope, such as watershed treatments or road management. Furthermore, some stakeholders did not want to work at such a large scale, and feared that the rapid timeline of the project would cause them to overlook important management details. Frustrations about the scope, scale, and timeline of the project led some stakeholders to disengage with the ID Team's planning process. They opted to provide input on the proposed work once their local forest was preparing for project implementation.

Inconsistent communication processes with external stakeholders led to misinformation and discomfort for stakeholders and ID Team members alike. At the onset of the project, ID Team members

were tasked with attending forest collaborative and other stakeholder meetings to give presentations about the project. This was challenging because ID Team members were not trained in communication or public relations, and Leadership did not establish standardized communication processes to guide ID Team members' public engagement. This meant that stakeholders heard incomplete and inconsistent information about the intent and content of the project, and how the ID Team would receive stakeholder input. Interviewees commented that the language that the local forests, the collaboratives, and the ID Team used differed, which caused additional confusion. In some cases, field trips provided an opportunity for ID Team members, local forest staff, and collaboratives to build rapport and develop mutual understanding. ID Team and local forest leads also established structured, standing meetings in an effort to promote better communication, coordination, and timely decision-making. The ID Team also now works more directly with district- and forest-level specialists.

Aligning stakeholder interests and planning efforts across boundaries was more complex than Leadership anticipated. Working across multiple national forests and collaboratives' "zones of agreement"22 created a complex situation for the ID Team to operate in, particularly given their limited training in communications and social sciences. Disagreement between stakeholders and the planning efforts started early in the project when the ID Team's work did not follow all of the collaboratives' hard-fought agreements around certain topics. At the same time, collaboratives were concerned that the ID Team would misinterpret the full intent, purpose, and applicability of the agreements that the ID Team did integrate into their projects. This was exacerbated by the ID Team's attempts to scale up preexisting zones of agreement to a broader landscape before stakeholders felt comfortable reaching agreement at such a scale. These challenges became particularly difficult for the ID Team when moving from the Lower Jo Project to the Resiliency Project, which spanned a landscape with even more jurisdictional boundaries, stakeholder groups, and points of engagement.



Implications

The experience of the Blue Mountains Restoration Strategy ID Team provides significant insights into how to plan effectively at the landscape scale. This project demonstrated the importance of developing a socially-appropriate scope, scale, and timeline for projects; an effective ID Team structure and function; and strategic and consistent engagement with stakeholders. It also shows the important role of adaptability and documentation in experimental projects.

Project scope, scale, and timeline

Large-scale planning projects are a promising strategy for addressing the growing restoration need across the West. The planning projects that this ID Team undertook were ambitious attempts to address the backlog of restoration work needed in the Blue Mountains, and were unlike previous projects in the region. However, the scope, scale, and timeline of this project led to significant challenges that should be considered when planning

future projects. For example, limiting the project to only a narrow scope of activities in order to meet an ambitious project scale and timeline created public relations challenges that the ID Team is continuing to address. This is in part due to the fact that the projects crossed multiple administrative and social boundaries. Future projects could attempt to limit the boundaries they cross, involve all local stakeholders in the earliest stages of goal-setting, and realistically assess whether or not the multiple stakeholders involved will be able to come to agreement about management prescriptions at the scale and desired timeline of the project. These projects also experienced problems related to timing. The amount of time allocated for planning was not sufficient, and the project overlapped temporally with a major forest plan revision effort. Future efforts should expect longer planning timeframes and ensure that over-arching planning documents (i.e., forest plan, travel management plan, resource management plan) are in place prior to project development.

ID Team structure and function

Although this ID Team was deliberately structured to avoid known ID Team challenges (e.g. ancillary assignments, turnover), the ID Team still encountered obstacles. This suggests that while developing an informed and effective team structure is necessary, it does not guarantee the ID Team's success. Strong leadership and conflict management skills were also essential. Fortunately, in these projects, Leadership was able to adapt to challenges that the ID Team encountered by finding ways to restructure or support the ID Team. For instance, Leadership identified and responded to the need for additional communications, GIS, and NEPA support, which improved ID Team function and internal and external communications. Changes to the ID Team's leadership structure, composition, and size helped to clarify roles and expectations, improve communication, and resolve conflicts in order to advance the ID Team's work. Future projects might benefit from having a Line Officer who is responsible for project oversight and decision-making, a small group of dedicated ID Team members (i.e., four or five) with clearly defined roles and responsibilities, and the ability to hire specialists to meet identified capacity gaps as the project progresses.

Collaboration and public involvement

Innovative planning requires new models for engaging stakeholders. In this project, it was difficult for collaboratives, forests, and the ID Team to find agreement since landscape scale planning was such a new concept for many involved stakeholders, and direction for this project came top-down from the Regional Office, which was different from what local stakeholders were used to. Committing time upfront to solicit input and engage stakeholders in setting shared goals and objectives for the project could have improved stakeholder and partner buy-in and engagement. Deliberate outreach efforts were needed to highlight the shared objectives that the planning effort would help address. Collaboratives and forest staff did not fully understand the planning processes of the ID Team. Targeted communication about the process, desired end results, and intent of the work could have further improved relationships. A firmer understanding of the project might also have made stakeholders more amenable to the experimental and adaptive nature of the planning efforts.

The ID Team intended to use and rely on existing relationships that the local forests had developed over many years (i.e., with collaboratives, tribes, state and local government), but the ID Team struggled to build strong relationships with the forests. Strong relationships and consistent communication with forests, especially with local units, is foundational in planning projects, particularly when they are experimental. Local forest units often have site-specific information that can facilitate efficient project implementation. Planning efforts may be more successful when local forest units are engaged as partners from the beginning.

Pre-existing social agreements about forest management were not directly transferrable to largerscale planning efforts. Aligning the ID Team's landscape-scale work with ongoing local-scale collaborative efforts took more time and effort than expected and was not always possible given the scale mismatch between the collaboratives' work and the ID Team's work. Large landscape planning likely requires continued investments in collaboratives' capacity, specifically to help interested groups scale up their zones of agreement to help support landscape-scale projects.

Adaptability and documentation

The ID Team's work benefited greatly from Leadership's ability and willingness to adapt ID Team composition, timelines, expectations, public engagement, and communication strategies. As landscape-scale planning becomes more commonplace across the West, documenting the successes and challenges embedded in this project's process and outcomes into transferrable lessons learned is a way to further leverage this ID Team's work.

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