

# **Restoring Forests and Communities**

Lessons from the  
Collaborative Forest Landscape Restoration Program

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April 22, 2014



Client: National Forest Foundation | Missoula, MT

## Acknowledgements

The authors acknowledge that the assistance of the following people and organizations were essential to development of this report.

We would like to especially thank our adviser Professor Steven Yaffee, Director of Ecosystem Management Initiative and Professor of Natural Resources and Environmental Policy. Dr. Yaffee provided guidance, direction and perspective to our work. His involvement was essential to the formation of this report.

We would also like to acknowledge and thank the National Forest Foundation, particularly Mary Mitsos, Executive Vice President, and Karen DiBari, Director of Conservation Connect, for their insights and effective partnership throughout the process of this report. We would also like to thank Lauren Marshall, National CFLRP program coordinator, for her helpful insights and feedback.

Additionally, we would like to thank the Ecological Restoration Institute at Northern Arizona University and Sustainable Northwest for welcoming our involvement and participation in the Region 2 & 3 CFRLP Workshop and the Region 6 CFLRP Network Collaboratively Advancing Landscape-Scale Restoration conference, respectively.

We are also indebted to our funders, the School of Natural Resources & Environment, the Ecosystem Management Initiative, the Rackham Graduate School, and the National Forest Foundation.

The authors would also like to thank all of the participants from the 13 collaborative groups of the 2012 CFLRP cohort and others who were interviewed and those who greatly informed the research process. These interviewees freely gave of their time and resources to talk with us, and their experiences and understandings of the CFLRP program and its effectiveness were invaluable to this report.

## **Abstract**

The United States Forest Service (USFS) estimates that between 65 and 82 million acres of the National Forest System need restoration. In the agency's view, a science-based restoration program with direction from collaborative multiparty groups is most likely to be effective at achieving ecological, economic, and social benefits. The Collaborative Forest Landscape Restoration Program (CFLRP), established in 2009, is one policy initiative to encourage and support innovative restoration projects that can reduce the risk of large-scale wildfire and benefit rural communities. This report analyzes thirteen CFLRP sites selected in 2012 to explore how collaboration is affecting public lands management. According to our research, CFLRP is having positive effects but is not living up to its full potential. Difficulties of collaboration at a landscape-scale, changes in economic conditions that are undermining the policy's economic assumptions, and the timing and restrictions on funding limit the program's effectiveness. Furthermore, sites are experiencing difficulties establishing and evaluating measures of success for ecological and economic benefits. Thirty-four recommendations include strategies for individual project sites to enhance collaborative leadership, communication and outreach, and restoration and monitoring. The study's recommendations also point to ways to improve, training, and ideas for future policy development and implementation. With enhancements and refinements, the CFLR program can be a productive way for the USFS to pursue an "all-lands" landscape-scale management approach with benefits to forest health and local economies.

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# **I. Introduction**

This report explores the character of the Collaborative Forest Landscape Restoration Program (CFLRP) as viewed through the experiences of the 2012 cohort of National Forests awarded the designation. Developed in conjunction with the National Forest Foundation (NFF), the project aims to identify how CFLRP has changed land management and devise recommendations for existing sites and future initiatives. As the congressionally-chartered nonprofit partner of the United States Forest Service (USFS), NFF seeks to work “with the USFS and partners ...to leverage our best thinking, conservation capacity and community action to measurably improve the health of our National Forests and Grasslands.”<sup>1</sup> As such, NFF is ideally positioned to provide guidance for this research and a conduit for disseminating this information in particular through their web-presence to partners across the country.

The USFS estimates that between 65 and 82 million acres of the National Forest System need restoration. In the agency’s view, a science-based restoration program organized and directed by collaborative multiparty groups is most likely to be effective at achieving ecological, economic, and social benefits.<sup>2</sup> Speaking about initiatives to incorporate collaboration in land management, USFS Chief Tom Tidwell remarked, “The aim of these efforts is to move beyond the conflicts which have characterized forest policy in the past and toward a shared vision that allows environmentalists, forest industry, local communities, and other stakeholders to work collaboratively toward healthier forests and watersheds, safer communities and more vibrant local economies.”<sup>3</sup>

## *CFLRP Goals and Structure*

In creating the Collaborative Forest Landscape Restoration Program, the United States Congress established ambitious goals for individual sites and the program overall without defining specific targets. In doing so, it set out to create a national, policy-driven program for collaboration and ecological restoration while



*Picture 1: Restoration Site in Oregon*

still maintaining flexibility for regional differences in ecosystems and communities.

The stated purpose of CFLRP is to “encourage the collaborative, science-based ecosystem restoration of priority forest landscapes.” Furthermore, these projects should encourage “ecological, economic, and social sustainability” and serve as demonstrations for effective restoration techniques and forest product utilization. In order to achieve these goals, sites should leverage “local resources with national and private resources” and facilitate “the reduction of wildfire management costs.”<sup>4</sup>

These complex and sometimes competing priorities establish the context within which each site must operate. For example, some economic development may come at ecological costs. Collaboratively developed solutions might not reflect the best scientifically based management strategies for restoration. Furthermore, each site must frame its actions such that it will be able to leverage additional resources above and beyond those provided from the program. Each site must evaluate these tradeoffs, develop strategies, and strive to achieve these goals.

The law creates a requirement that project sites must consist of a landscape with a minimum of 50,000 acres of U.S. National Forest lands in need of active restoration, although actual acreage to be treated at each site can be less than this threshold, and sets an expectation that sites are near sufficient infrastructure. Additionally, selection criteria include that each site must: (1) “reduce the risk of uncharacteristic wildfire,” (2) “improve fish and wildlife habitat,” (3) “maintain or improve water quality and watershed function,” (4) address invasive and exotic species, (5) “maintain, decommission, and rehabilitate roads and trails,” (6) “use woody biomass and small-diameter trees,” (7) report annually on progress, and (8) “take into account any applicable community wildfire protection plan.”<sup>5</sup>

Sites are also evaluated on their history of collaboration, including relationships with local and other federal agencies, potential to benefit local economies, and the role of a collaborative process in both creating the proposal and implementing projects. Finally, project sites are selected on the basis of “incorporating the best available science and scientific application tools in ecological restoration strategies.”<sup>6</sup>

A competitive site selection process included collaborative groups and National Forests submitting documents in response to a request for proposals. Under the law, an advisory panel meeting the requirements of the Federal Advisory Committee Act (FACA) and chosen by the Secretary of Agriculture can recommend up to ten projects each fiscal year. The advisory panel can select no more than two projects from any USFS region per cohort. Due to these constraints, CFLR sites represent a wide range of locations and ecosystems. Ten initial projects were selected for funding in 2010. In 2012, ten more projects were selected for CFLR funding with three additional projects later added to the program after originally being designated High Priority Restoration Areas. Their locations are shown in Figure 1.<sup>7</sup>

To fund these projects, the law authorizes up to \$40 million per fiscal year for a period of up to 10 years. Each individual site can receive up to \$4 million per fiscal year. These funds can cover up to half of the cost of restoration, and chosen sites must meet the remainder of restoration costs through regular appropriations, money from partners, and in-kind donations by partners. In total, the projects plan to accomplish approximately 2 million acres of restoration treatments across the United States within the 10-year timespan of the program.

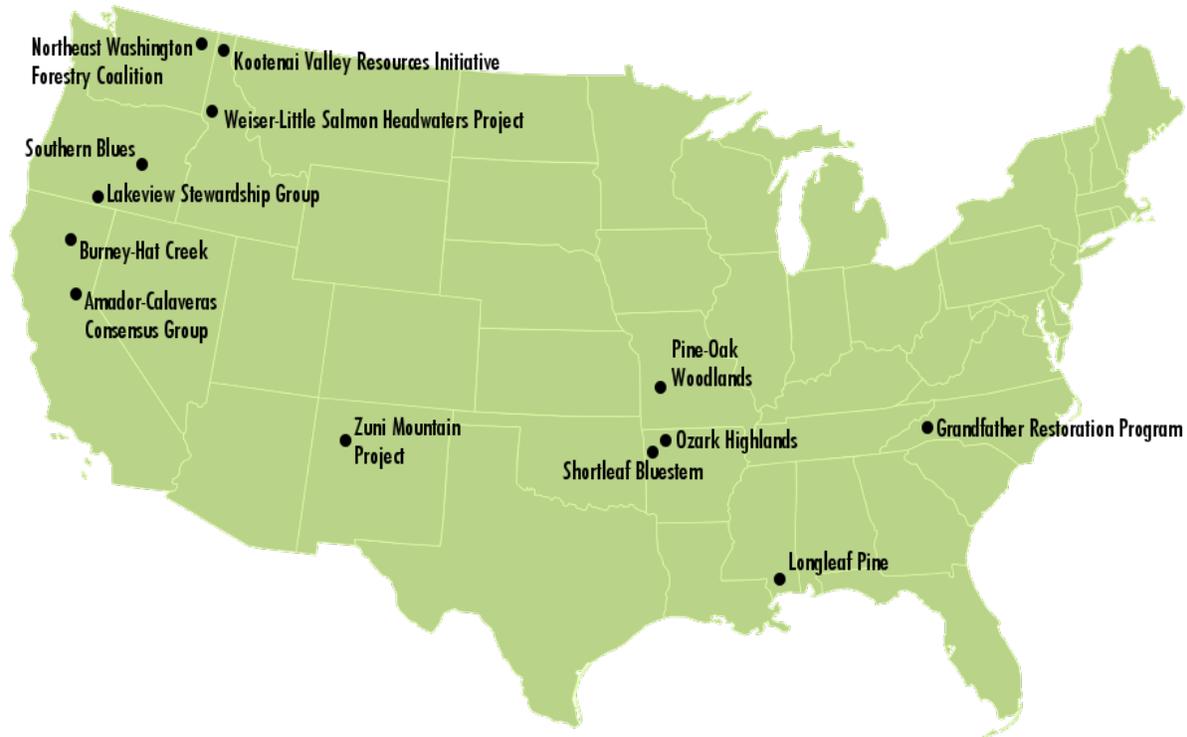


Figure 1: 2012 CFLRP Sites across the United States

Compared to the current cost of fighting wildfires and the number of acres needing treatment across the United States, this program is small. The federal government spent over \$1 billion on wildfires in each fiscal year since 1999.<sup>8</sup> In fiscal year 2008 alone, the year prior to the creation of CFLRP, the government spent \$4.1 billion on wildfires. With roughly a third of the 193 million acres in the National Forest System in need of restoration,<sup>9</sup> this program cannot accomplish the scale of work needed in a timely manner.

Instead, the CFLR funds are intended to supplement other wildfire work, seed innovative projects, and create demonstration projects that can later be replicated on larger scales. The program is designed to serve as a demonstration to provide data to test the effectiveness of particular restoration techniques and of collaboration in land management. The USFS and interested stakeholders can then apply the lessons of CFLRP more broadly to guide accelerated restoration elsewhere on public lands, develop new forest plans, and foster collaborative processes throughout the country.

CFLR projects must complete an annual progress report for each of the 15 years after selection. Together, these reports are compiled into an overview to update the USFS, Congress, and the public on CFLRP progress and effectiveness. Through multiparty monitoring and annual reporting, CFLRP seeks to apply an adaptive management approach to landscape-scale management.

## *Purpose and Need*

Despite their many differences in size, ecology, and collaborative structure, many of the sites face similar challenges as they hope to achieve their goals. The purpose of this report is to build on the

existing foundation of research in into collaborative natural resource management and explore the challenges and emerging strategies presented by the CFLR program. There are significant gaps in understanding on: (1) the effect of an organizing program on collaborative group structures, (2) the effectiveness of the program as a stimulus for local economic growth, (3) the effectiveness of collaboration on implementing restoration techniques, and (4) the effect of moving project planning, implementation, and collaboration to a landscape-scale. This report looks at the varieties of collaborative structures, reasons for formation, and how they influence the ways that groups approach the challenges of ecological restoration and address tradeoffs in the program's objectives. Through analyzing these four broad areas, we provide recommendations to current and future collaborative groups and partners as well as national-level decision-makers that are involved in the implementation of both CFLRP as well as similar programs.

This study takes a unique approach to studying collaborative processes in natural resource management that is essential to understanding the future of institutionalized collaboration. Prior research on the CFLR Program has primarily focused on a subset of sites in the 2010 cohort, often through a regional lens or concentrating on a particular component of the program. Our population of interest, in comparison, is defined by the 2012 cohort, which contains variety in collaborative group history, cultural context, and ecosystems. As the new forest planning rule emphasizes landscape-scale approaches, broader definitions of ecosystem management, and strengthening the role of community engagement through collaborative efforts, there is a need to monitor how the pioneering groups in CFLRP are implementing similar goals and a similar process.

This study examines how these different collaborative groups function within the CFLR Program and the reasons for their formation. In their book *Making Collaboration Work*, Wondolleck and Yaffee suggest that collaborative groups form to (1) build understanding, (2) make wise decisions and build support for them, (3) get work done, and (4) develop agencies, organizations, and communities.<sup>10</sup> The CFLR program is unique, however, in drawing together both structurally formal groups and loose networks of collaborators. Literature on loose networks of landowners provides insight into the unique challenges of these different types of groups. Informal groups have, in some sense, bowed to the need for "flexible, low-pressure arrangements as well as coordination and efficiency."<sup>11</sup> However, formal collaborations appear more adept at gaining resources, organizing projects, and implementing on the ground.<sup>12</sup>

In interviewing stakeholders from across the country, we also had the opportunity to observe both innovative and tried-and-true strategies collaborators are implementing to improve communication and build relationships between stakeholders. Many researchers and practitioners have noted that relationships between agency personnel and stakeholders boil down to questions of trust and communication. Translating agency jargon into language it is useful and meaningful for collaborative participants is an ongoing challenge.<sup>13</sup> Strong leadership can also help collaborative groups overcome some of these challenges.<sup>14</sup> Yet, studies have also shown that situational leadership rather than formal leadership can allow people to play to their strengths with more fluidity.<sup>15</sup> Studies show that organizational development and sustaining collaborative efforts can overwhelm the capacity of these groups.<sup>16</sup>

This report will explore and compare some of the innovative ways the CFLR groups are attempting to solve pervasive challenges around environmental regulation and developing trust and support through collaboration. All of these projects are subject to the National Environmental Policy Act (NEPA), which mandates specific planning processes including wide-ranging transparency and inclusiveness for public participation. This regulation appears in conflict with the status given to

formal collaborative groups through the CFLR Program. There is a need to understand how sites are navigating this potential source of tension. Past research indicates that reliance on formal NEPA processes exacerbates mistrust.<sup>17</sup> Previous studies also indicate that stakeholders often do not believe that they are actually affecting management decisions using that approach.<sup>18</sup> Instead, iterative processes for designing specific management plans can produce high levels community buy-in. Hybrids of these two have been shown to, not surprisingly, lie somewhere in the middle.<sup>19</sup>

This study seeks to understand if CLFRP is affecting the economies of local communities. A major goal of CFLRP is to stimulate economic growth in rural communities and elected officials in Washington, DC, are eager to see restoration economies grow and succeed as a way of creating market-based approaches to social, economic, and ecological goals.<sup>20</sup> Ideally, CFLRP sites can positively affect local communities, while also helping ecological restoration work pay for itself and this study examines how effective groups have been so far in implementing this aspect of the legislation. Preliminary studies in forest and watershed restoration programs show that these programs can positively affect the local economy. One impact is that contractors are developing skills for ecological restoration practices,<sup>21</sup> but many of the social and economic impacts are still unclear.

Likewise, researchers have yet to establish a strong link between collaborative efforts and improved ecosystem health and resiliency and monitoring for these impacts has proven difficult. This report looks at how the CFLR sites are approaching the challenges of ecological restoration and adaptive management in risk-prone environments and sheds light on how differences in fire-regimes, land-ownership, and overall ecology affect the collaborative process and approach to restoration across the country. Monitoring the effects of collaboration on local ecosystems is complex, and would at the very least require scientists to have an ecological baseline before collaboration begins and the ability to compare sites.<sup>22</sup> Monitoring often does not measure variables as they change over space and time, or the unintended consequences of management activities, both of which can better inform adaptive management practices.<sup>23</sup>

CFLRP is also unique in that it targets fire-prone environments. The awareness of risk in these regions greatly affects the sense of interdependency as well as the overall beliefs around forest management practices. Preliminary modeling results of proposed treatments from USFS research scientists suggest treatments in use are likely to decrease both wildfire size and fire-fighting costs.<sup>24</sup> The study by Thompson, et. al. was conducted on a 2010 CLFRP site in Deschutes Oregon, to begin the process of quantifying the effects of treatments. Although these studies are only in their infancy and will need to be more fully calibrated and vetted, prescriptions are being implemented and will provide empirical data to build this model.

Moving to a landscape scale can further exacerbate difficulties around collaboration and restoration, adding complexity to an already challenging process. This study explores how the push to work at a landscape scale has challenged these collaborative groups in new ways. A number of strategies have been proposed to overcome the challenges of working at a landscape scale including starting small and celebrating intermediate successes,<sup>25</sup> using maps to help the discussion of issues affecting the area,<sup>26</sup> and using internet technologies to improve communication and thus improving collaborative capacity.<sup>27</sup> In addition, in their study of private landowner collaborative efforts, Fischer and Charnley suggest that the rural nature of these locations impedes collaboration, as there can be a lack of social interaction and lack of a sense of interdependency. Without these, disparate stakeholders have little incentive to collaborate, and few tools to do it well.<sup>28</sup>

Looking at the results of CFLRP can help policymakers better shape future initiatives and modify this program. CFLRP is unique in that it introduces policy-driven collaboration and institutionalizes local initiatives by having them compete for funds. This can affect both the network of collaborative groups selected for the program as well as collaborative groups not selected. In a similar program in California, competition for funding may have made unfunded Fire Safe Councils disappear.<sup>29</sup> At the same time, formal arrangements, such as memorandums of understanding, served as an important tool for legitimizing Fire Safe Councils.<sup>30</sup> This legitimizing affect can itself be a double-edged sword since there is not a precise role for the collaborative process in specific project design with the USFS.<sup>31</sup> This tension begs the question, as the agency still has ultimate decision-making authority, how will groups respond when project-level decisions deviate from their zone of agreement?<sup>32</sup> Finally, institutionalizing collaborative processes could be helpful in defining purpose as opposed to dispersed grassroots organizations that can struggle with this task.<sup>33</sup> Lessons from the 2012 sites can also inform policymakers considering the expansion of CFLRP and other national policy initiatives around collaboration and land management.

The range of experience in collaboration varies widely between the CFLR sites. Many have long histories of strong existing collaborative groups before becoming part of the CFLR program while others formed partnerships much more recently.<sup>34</sup> This study helps to fill a need to research the experiences and challenges of the collaborative groups and share findings between them. That shared information will help refine best practices for the public-private partnerships unique to the CFLR program.<sup>35</sup>

## Methods

In consultation with our client, National Forest Foundation, we identified a need to research the experiences of all CFLRP sites granted money in the 2012 funding cycle. For this, we planned face-to-face interviews at 12 out of the 13 sites. Sites visits were planned on a regional basis, with groups of two members of the research team visiting 3 to 4 sites per region. Due to travel constraints, participants at the Grandfather Mountain site in North Carolina were interviewed by phone. In all, our research included eight principal phases:

### *1. Development of Research Questions*

The team developed a set of overarching research questions to guide our approach that can be found in Table 1. The questions were designed to address collaborative group history, structure, and process, the challenges collaborative groups are facing in setting ecological and economic goals, and provide insight that would form the basis of conclusions and recommendations. Using these overarching questions as a guide, we developed a set of interview questions designed to translate these ideas into more discrete and approachable language. The interview questions can be found in an appendix to this report.

|   |  |
|---|--|
| <p><b>How are the newer CFLR projects approaching the task of initiating and sustaining collaboration, what challenges are they facing, and how are they dealing with those challenges?</b></p>                               | <p>What is the structure of each collaborative and how does it influence the decision-making process, use of resources, and stakeholder engagement?</p>  |
|   | <p>What are the major challenges facing each collaborative and what strategies are being employed to overcome them?</p>  |
|   | <p>What are the unique geographic, historic, organizational, and social contexts of each collaborative?</p>  |
|   | <p>What means of communication are utilized between agency personnel, involved stakeholders, and the public at large?</p>  |
| <p><b>How are the newer CFLR projects approaching the task of defining ecological, social, and economic measures of success and what challenges are they facing in doing so?</b></p>  | <p>How do the individual sites establish goals for ecological conditions, work plans to achieve those goals, and indicators for monitoring practices?</p>  |
|   | <p>What tools, resources, and knowledge are the collaboratives using to address issues of scale, heterogeneity, and scientific uncertainty within an adaptive management framework?</p>  |
|   | <p>How do collaboratives relate their ecological goals and indicators to the stated national purpose, priorities, and framework of CFLRP?</p>  |
| <p><b>What best practices in collaborative and adaptive management can be inferred from the experiences of other CFLR projects?</b></p>   | <p>How are other collaborative projects, including both the first 10 CFLR projects and collaborative restoration projects outside of the CFLR program, managing their challenges and what strategies have they developed to do so?</p> |
|   | <p>What take-away lessons can be extracted from the first 10 CFLR projects and collaborative restoration projects outside the CFLR program?</p>  |
| <p><b>How has the CFLR National program, as it has been implemented, influenced the ability of project development, management, and continuation?</b></p>   | <p>How does CFLRP influence the capacity of collaboratives to leverage resources, fulfill statutory requirements, and facilitate inter-agency coordination?</p>  |
|   | <p>How has CFLRP influenced collaboratives outside of the CFLRP?</p>   |
|   | <p>How has being a part of CFLRP affected collaboratives?</p>  |
|   | <p>How has CFLRP influenced implementation of other land management and environmental policies?</p>  |
| <p><b>What recommendations can be offered to improve the practice of collaborative, landscape-scale restoration by changing national policies, improving support for management, or shifting project-level practices?</b></p> | <p>How can individual collaboratives apply best practices and lessons learned from the new CFLR sites and additional projects?</p>   |
|   | <p>How can the National Forest Foundation and US Forest Service utilize best practice information in facilitating learning, improving inter-collaborative communication, and program implementation?</p>                               |

Table 1: Research Questions

## ***2. Development of Contact List***

We contacted collaborative group members and USFS personnel for interviews based on contacts provided by the National Forest Foundation, USFS National CFLR Program Coordinator Lauren Marshall, and information from the project proposals. The team also developed contacts and refined research questions through attendance at the Region 6 conference in Hood River, Oregon. The trip was made possible through funding from the Ecosystem Management Initiative at the University of Michigan. This conference included representatives from and presentations about CFLRP sites from both 2010 and 2012 throughout Oregon and Washington. We also introduced our research approach to the regional CFLRP coordinators during their monthly conference call in May 2013.

At many sites, collaborative group coordinators helped organize interviews and field visits and provided us with additional contacts and information. In setting up interviews, we sought to include a diverse mix of perspectives, including USFS personnel, representatives from the wood-products industry, local and national-level environmental non-profits, and prominent community leaders, with the range and composition of these interview varying widely based on who was actively involved in the collaborative group at the time. Researchers interviewed a minimum of three participants at every site for a total of over sixty interviews.

## ***3. Site Visits and Interviews***

Initial in-person interviews were conducted in person at twelve of thirteen sites from the 2012 CFLRP cohort, listed below. Guided by our interview questions, we conducted semi-structured interviews that allowed us to follow lines of questioning based on the answers given by an interviewee. Most interviews lasted approximately one hour and were recorded digitally with verbal consent and supplemented by hand-written notes at all times. In addition, we were able to go on field visits to restoration work being done on the forest at ten of the sites, excluding Ozark Highlands, Burney-Hat Creek, and Grandfather Mountain. The only site not visited in person was Grandfather Mountain.

- Amador-Calaveras Consensus Group Cornerstone Project, Stanislaus National Forest, California
- Burney-Hat Creek Basins Project, Lassen National Forest, California
- Grandfather Restoration Project, Pisgah National Forest, North Carolina
- Kootenai Valley Resource Initiative, Idaho Panhandle National Forests, Idaho
- Lakeview Stewardship Project, Fremont-Winema National Forest, Oregon
- Longleaf Pine Ecosystem Restoration and Hazardous Fuels Reduction, De Soto National Forest, Mississippi
- Northeast Washington Forest Vision 2020, Colville National Forest, Washington
- Ozark Highlands Ecosystem Restoration, Ozark-St. Francis National Forests, Arkansas
- Pine-Oak Woodlands Restoration Project, Mark Twain National Forest, Missouri
- Shortleaf-Bluestem Community Project, Ouachita National Forest, Arkansas and Oklahoma
- Southern Blues Restoration Coalition, Malheur National Forest, Oregon
- Weiser-Little Salmon Headwaters Project, Payette National Forest, Idaho
- Zuni Mountain Project, Cibola National Forest, New Mexico

## ***4. Site-Level Analysis***

Analysis was done first on a site-by-site basis. Recorded interviews were transcribed, and quotes and examples from interviews were aggregated into preliminary summaries to demonstrate overarching concepts, challenges, and successes at that site. When possible, team members also completed brief interview summaries after and between interviews that were included in site-level summaries. This first round of analysis included sorting responses and interpretations into a common format in alignment with our research questions and additional areas of analysis identified as important in the site visits. A peer-review process was incorporated into site-level analysis to integrate the perspective from both researchers present at the site visit. These documents were compiled in an online location that enabled the researchers to have quick access to the information provided by one another.

## ***5. Cross-Case Analysis***

Working across the site-level coding sheets for each research question, we identified a number of initial findings as a group. These findings were refined through review and feedback from our adviser and client and then developed further through an iterative cross-case analysis. We examined and compared information between sites and across regions to get a sense of commonalities and differences. This cross-case analysis formed the foundation of this report and other products of our research. In addition to making these cross-case documents available to each other, every researcher read through and provided feedback to the group on each finding document through a series of meetings.

## ***6. Follow-Up Interviews***

Targeted follow-up interviews were conducted in fall 2013 and spring 2014 to expand our data set to sites where initial interviews were limited and for topics where we needed further information. In particular, additional follow-up was needed on ecological aspects of CFLRP. Interviews included some collaborators at 2010 CFLRP sites as a point of comparison, to assess how two additional years in CFLRP had influenced implementation. Additional literature review was also completed during this phase.

## ***7. Feedback and Review***

We solicited feedback on our initial findings in several ways:

First, we participated in a CFLRP conference for USFS Regions 2 and 3 (Rocky Mountains and Southwest) in Grand Junction, Colorado, made possible through funding support from the Rackham Graduate School at University of Michigan. This conference enabled us to compare what we had seen over the summer with the experiences of some 2010 sites, discuss interesting topics and concerns with our client, share initial findings, and learn from the variety of presentations and workshop sessions.

Second, the team gave a public presentation at the School of Natural Resources & Environment at the University of Michigan in late March 2014 that our client, faculty members, and other graduate students attended. This presentation and following discussions offered an additional opportunity for feedback and review.

Finally, our faculty adviser, Dr. Steven Yaffee, and client, National Forest Foundation, reviewed drafts of this report and provided regular feedback on its development. The iterative feedback and review process included both the overall report and individual sections.

## ***8. Development of Recommendations***

Based on our analysis, we developed a suite of recommendations we believe can help collaborative group members and managers learn from the common challenges and the successes of the 2012 CFLRP sites. Using the cross-case findings as a guide, we brainstormed recommendations both as a group and individually while revising the separate sections of the report. These recommendations were refined through an iterative process that included feedback from our faculty adviser, client, and each other. The recommendations are included at the end of the report in six different groupings to emphasize both site- and policy-level ideas.

## **Report Structure**

This report is organized into four sections, the first of which is this introduction. The next two sections include information about the individual case studies and cross-case analysis. The concluding section offers recommendations based upon this research.

### ***Part I: Introduction***

The introduction provides background on CFLRP and the purpose of this research. It includes our research methods, an overview of the case studies, and this framework for the rest of the report.

### ***Part II: Site Summaries***

This section provides brief case summaries of all 13 sites in the 2012 cohort based on our interview data, collaborative group documents, and CFLRP proposals. The lessons from these stories can increase peer learning between the sites and also assist any new applicants to CFLRP if the program expands. By learning about how each project evaluates tradeoffs in the program, manages conflict, and seeks to restore a landscape across ten years, collaborative groups interested in joining CFLRP can learn how to best set themselves up for success in both application for the program and implementation if selected.

## ***Part III: Cross-Case Analysis***

This section discusses the findings of our cross-case analysis as guided by our research questions. This part of the report is divided into several sub-topics for ease of reference and clarity.

### ***A. Collaborative Structures and Context***

This section lays out the background of collaborative group origins and structure. Older sites tended to come together in the face of conflict or gridlock while many younger collaborative processes formed as loosely defined partnerships to benefit from particular opportunities such as grants or funding streams. This difference in reasons for establishing a collaborative process seems to have a correlation with how groups are structured, with more formal systems in place in areas with past conflict. This section also builds on how formality of process structure and the background of collaborative groups set the stage for how groups have changed, with the two most notably changes being gaining CFLRP status and towards project implementation. The more formal groups are shifting from long-term, broad visioning groups to a project-level focus as they strive to remain involved throughout the ten-year lifecycle of CFLRP's implementation. In this way, they are taking on tasks that they previously would not have and members are balancing tradeoffs on a smaller scale than before. In contrast, less formal groups are transforming into information sharing networks. They are focusing on overlapping nonprofit members and scientific expertise of the strategic partnerships to share ideas between nearby CFLRP sites.

### ***B. Partner and Community Engagement***

CFLRP requires the USFS to reach beyond its borders to relate to partners in a collaborative process. Collaborative groups often find success after engaging with their local communities as they develop plans and projects. This section gives some ideas of the challenges and strategies in developing these partner and community relationships.

### ***C. Economic Impacts***

The intent of the CFLR Program is to catalyze both positive economic and ecological change, but the manifestation of that intent is far more complex. This section explores the challenges of the 2012 sites in meeting their stated goals against the backdrop of the current economic realities. The desire for local job growth forces groups to face certain realities and tradeoffs including the tension between accelerating restoration and creating local benefits. Collaborative groups are also seeking to steer contracts to local businesses. One particularly difficult on-going challenge for the program and many individual sites is the idea of jumpstarting a market for woody biomass for energy.

### ***D. Ecological Restoration***

Difficulties around restoration are pervasive in the planning process, implementation, and evaluation of each project. This section considers ways to improve the communication around ecological restoration in order to best utilize scientific knowledge and expertise in the collaborative process and effectively accelerate the pace and scale of restoration. The challenge of addressing complex, landscape scale ecological concepts in a collaborative setting is that there are disconnects between site proposals, individual project goals, and actual work on the ground. One significant difference across sites is in the way that prescribed fire fits into their restoration goals and treatment techniques.

### *E. Working at a Landscape Scale*

Working at a landscape scale impacts ecological decision-making, economic impacts, and the collaborative process. A central requirement for eligibility of a CFLRP site is that the total landscape acreage for project must be at least 50,000 acres, although actual proposed acres for treatment can be smaller. This approach takes the notions of place-based collaboration and ecosystem management and greatly increases the scope of work. The repercussions of such a shift impact all areas of the program.

## *Part IV: Conclusions and Recommendations*

One goal of CFLRP is to demonstrate strategies for collaboration in land management. This section looks at how CFLRP has achieved its other goals from a national perspective has implications beyond the scope of the program as it serves as a model for new initiatives. These policy insights can assist with the implementation of the new Forest Planning Rule, the new Chiefs' Joint Landscape Restoration Partnership (CJLRP) in the USDA, and future policies aimed at landscape scale restoration and collaboration.

The final section offers six groups of recommendations based on the research and analysis throughout the report. The first three clusters use the insight and examples from the 2012 CFLRP sites to outline site-level recommendations. They are organized as Collaborative Process and Leadership, Communication and Outreach, and Restoration and Monitoring. The next groups expand to national observations around how USFS, the National Forest Foundation, and policymakers can improve this program and future initiatives. These sections are Training Opportunities and Developing Resources, Policy for Collaboration and Restoration, and The Future of CFLRP.

## **II. Site Summaries**

## The 2012 CFLRP Cohort

The story of each of these case studies from 2012 CFLRP sites goes far beyond simple numeric indicators of progress made on an annual basis. Each collaborative group, forest, and community represents a unique set of individuals and organizations coming together around a common landscape. By looking at the situations at other project sites, collaborative groups can discover other groups that are facing similar challenges. These stories also tell success stories and give examples of leaders leveraging resources for successful planning and implementation.

The value of the lessons of each site also extends to new applicants to CFLRP. By learning about how each project evaluates tradeoffs in the program, manages conflict, and seeks to restore a landscape across ten years, collaborative groups interested in joining CFLRP can learn how to best set themselves up for success in both application for the program and implementation if selected.

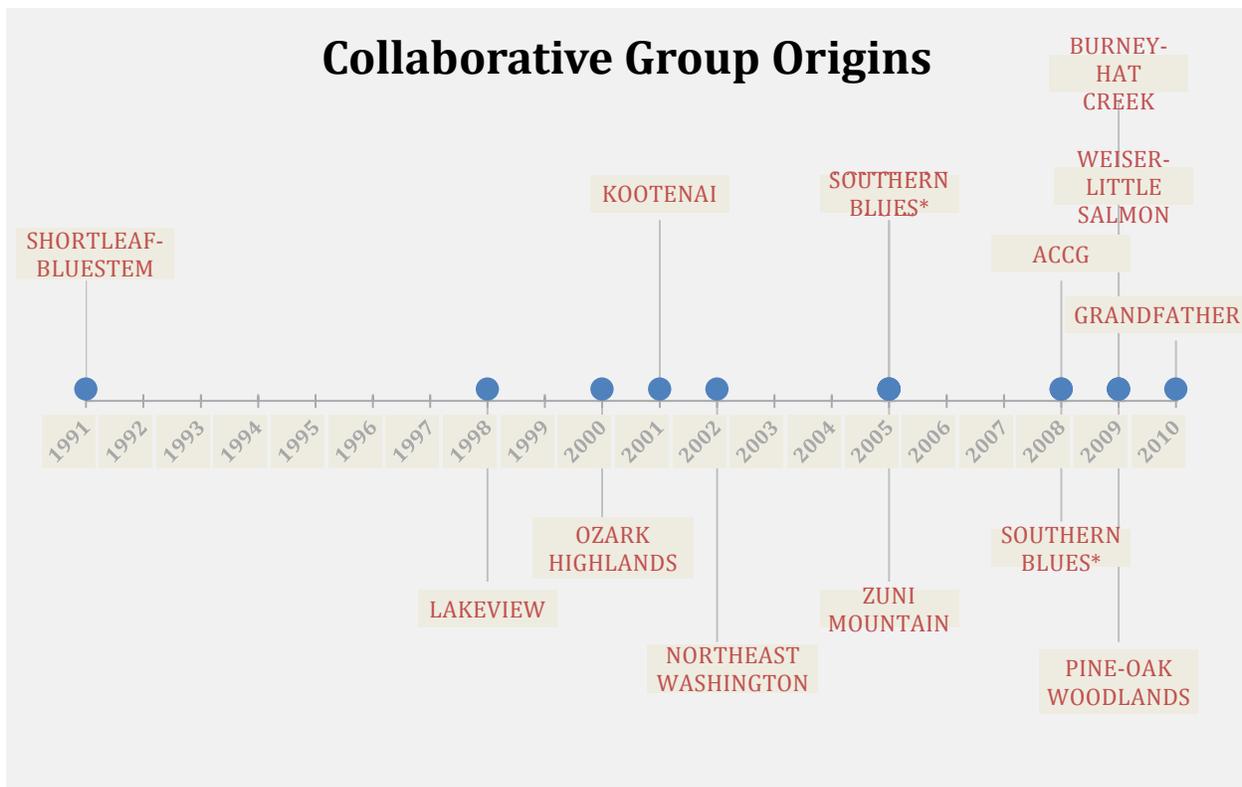


Figure 2: Timeline of origins for collaborative group formation.

The origins of collaboration in an area often set the tone for the structure of a collaborative group or process. Despite all of the case studies being sites that were selected as part of the 2012 CFLRP cohort, these groups and processes all existed in some capacity prior to CFLRP. The timeline in Figure 2 gives an idea of when collaboration first began on a landscape, whether through a formalized group or informal process, as reported by participants at that site. This timeline does not give a sense of the changes in collaboration for some of these groups, such as from long-term loose partnerships to more of a collaborative group in recent years like at the Shortleaf-Bluestem project. It should also be noted that there are two dates for Southern Blues to indicate when the two different collaborative groups at that site originated.

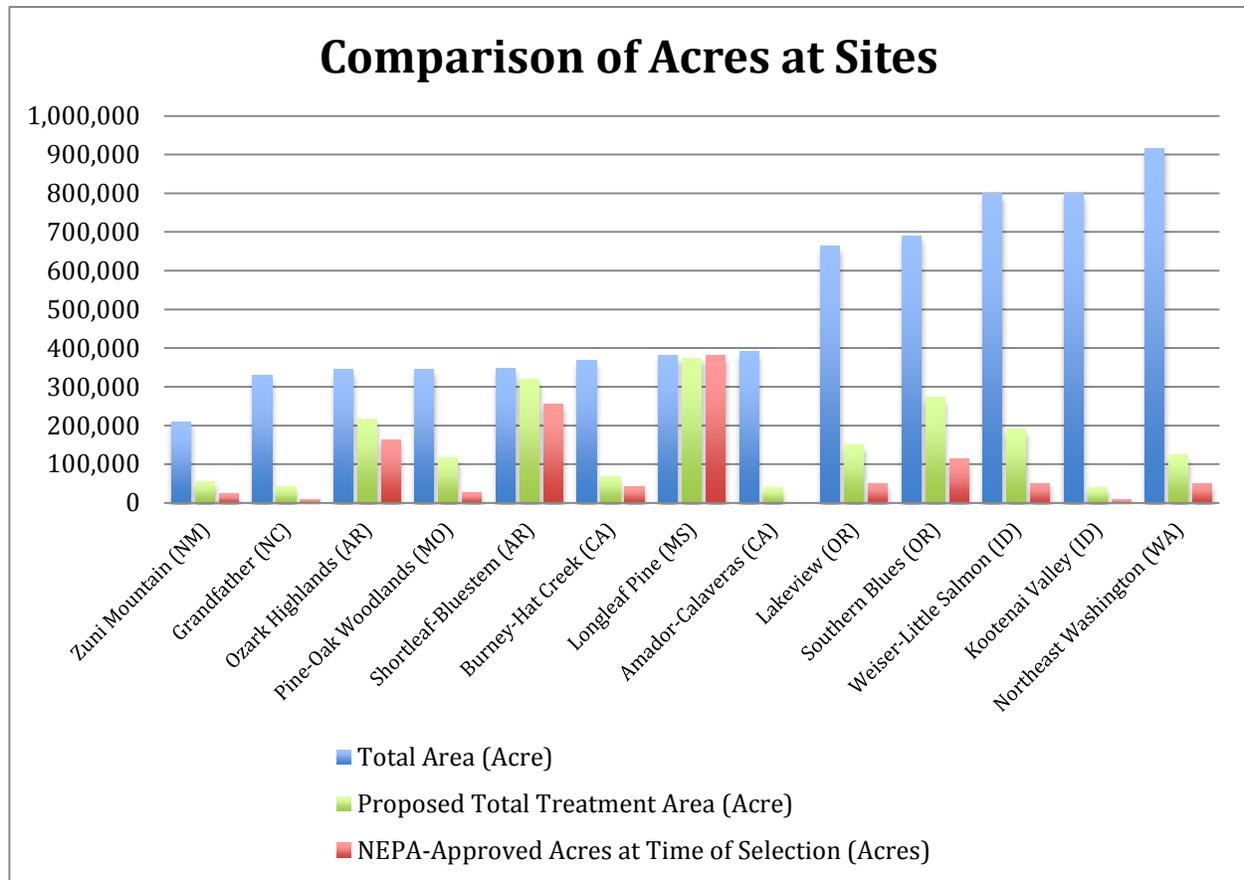


Figure 3: Comparison of landscape acreage, proposed treatment acreage, and NEPA-approved acreage at each of the 2012 project sites.

All projects implemented on National Forest Lands are subject to the National Environmental Policy Act (NEPA), which structures the process of reporting environmental impacts as well as public participation and comment periods on proposed actions. Through the authority of the Administrative Procedures Act, stakeholders are able to appeal Final Decisions on proposed actions in the courts. In addition to the lengthy appeals process, these appeals have extended the planning process as managers create the kind of comprehensive documents demanded as a consequence of this act.

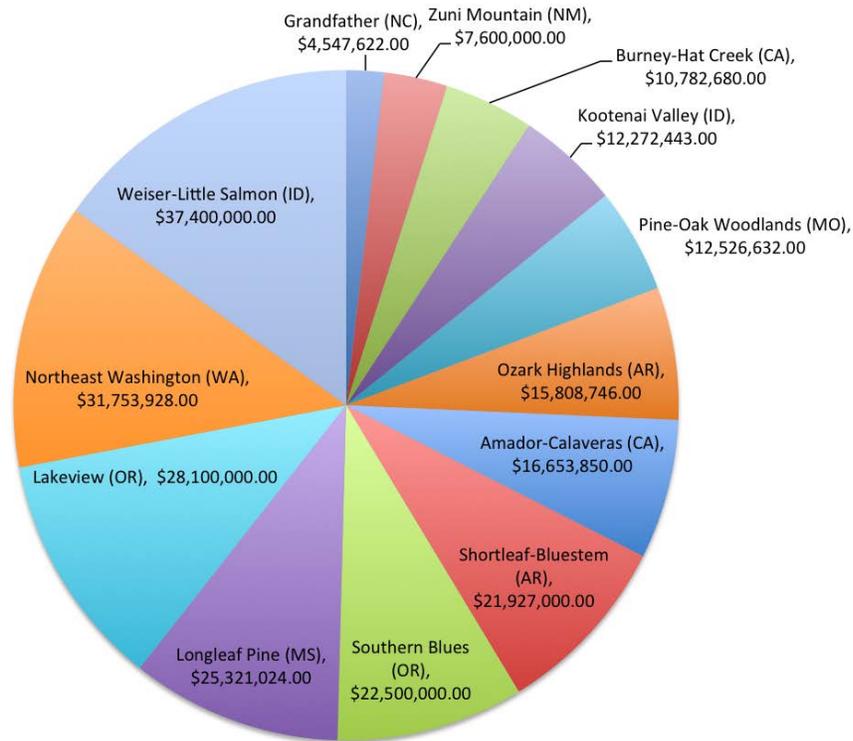
The acres of land approved for restoration work through this planning process at each site is important to understanding how the collaborative processes operate and the type of restoration work each group hopes to accomplish. While each site must include a minimum of 50,000 acres in its landscape to comply with the authorizing legislation, the projects in the 2012 cohort range in landscape size from 200,000 acres to upwards of 900,000 acres. However, simply looking at the total landscape size can be misleading as proposed treatment acres are often much less. Comparing these two figures as well as NEPA-approved acres at the time of selection in Figure 3 shows the marked contrast between many of these groups. The Shortleaf-Bluestem and Longleaf Pine sites actually have the largest proposed treatment areas and highest amount of acres already through NEPA, even though many of the western sites operate on significantly larger landscapes. Reasons for this variation include differences in the types of proposed treatments across ecoregions, varied understanding of how much of a landscape must have gone through NEPA at the time of selection, and regional levels of conflict around forest management decisions.

Sites vary not only in the types of ecosystems they aim to restore, but also in the amount of money requested for the program (Figure 4). Over the ten-year lifespan of the program, projects range in total CFLR funds requested from \$4.5 million at Grandfather Mountain to over \$37 million for Weiser-Little Salmon. The types of proposed treatments and size of treatment area again plays into these numbers, but an understanding of differences in size and requested funds can provide context for each of the case studies.

The information on each case study tells the story beyond these high-level numbers. Each collaborative group is at its core a collection of individual people working with their own organizations and together in a collaborative process. The stories of leadership and the intangibles of collaboration weave throughout the case studies. The case studies include this information and provide some insight into common challenges and unique strategies across the 2012 cohort of CLFRP sites.

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### CFLR Funds Requested For Life of Project (Dollars)



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Figure 4: Total CFLR funds requested by site for the lifetime of the CFLR project.

## Amador-Calaveras Consensus Group Cornerstone Project

Amador and Calaveras counties lie in the foothills of the Sierra Nevada Mountains in California and were originally settled during Gold Rush in the 1850's.<sup>36</sup> The western regions are dominated by low-elevation rangelands and oak woodlands comprised of private ranches, U. S. Bureau of Land Management (BLM) land, and state lands. The mosaic pattern of this landscape incentivizes collaboration. As a collaborative group member said, "If you look at our land pattern, it is so scattered that we can't get anything done unless we work with the neighbors." To the east, yellow pine forests, managed primarily by the USFS and Sierra Pacific Industries (SPI), dominate the higher elevations. The region serves as an important source of fresh water to other parts of the state and provides recreation opportunities, especially to Bay Area residents.

Declines in the forest product industry over the last 20 years have severely hurt the job market in the area, which has, in turn, affected poverty and crime rates, as well as drug use. The need to create economic opportunities within Calaveras County originally brought opposing parties to the table. In addition, there is only one operating sawmill left in the region, which is owned by SPI. Reportedly, SPI is not always willing to, or capable of, processing wood at marketable prices from lands not owned by the company.

The risk of wildfire is pressing given the extensive amount of wildland-urban interface (WUI) areas, and the local Fire Safe Council plays an important role in the surrounding communities, educating landowners and neighbors about important treatments and tools including prescribed fires and disaster preparedness.

### *Collaborative History and Goals*

The Calaveras Consensus Group was formed in 2009, and was championed by Steve Wilensky, who served as a Calaveras County commissioner. In order to expand the influence of the consensus group and recognizing the interdependency of the two counties, the group expanded to include collaborators from Amador County shortly after forming and is now known as the Amador Calaveras Consensus Group (ACCG). Wilensky is a dynamic leader,

### Stanislaus and Eldorado National Forests, California



#### Project Parameters

- Landscape acreage: 390,904
- Proposed treatment acreage: 38,500
- 10-year Funding Request: \$28,100,000
- Year of Collaborative group formation: 2009
- Total number of collaborators: 26
- Primary Forest Type: Yellow Pine, mixed conifer

#### Illustrative Collaborators

- U.S. Bureau of Land Management
- Calaveras Healthy Impact Product Solutions (CHIPS)
- Humbug Creek Farms
- Foothill Conservancy
- Sierra Nevada Conservancy

#### Key Challenges

- Local unemployment
- Threat of wildfire
- Balance of focus between "all-lands" management and Forest Service projects
- Maintaining "triple-bottom-line"
- Contracting for small local businesses

#### Distinct Successes and Strategies

- Strong coordination from USFS
- Well-facilitated beginnings
- Well-developed governance documents
- Innovation in communication through project "scorecards"

community organizer, and local fruit grower. “Steve's leadership has been important to keeping some of the people in the room,” said one stakeholder. His passion for spurring the local economy has allowed him to successfully bring together liberals and conservatives. Wilensky’s vision is to recruit business and industry leaders to work in rebuilding the natural resource economy in the area. He was instrumental in the formation of the group and for maintaining momentum in the early days.

Through grants from the U.S. Department of Agriculture Rural Development program and the National Forest Foundation, the group was able to hire an independent facilitator, Rick Breeze-Martin. The group created a memorandum of agreement (MOA) that all voting members signed which explicitly states the mission and governance procedures of the group. Many credit this key tool for helping to sustain momentum and for keeping people engaged and civil.

Importantly, while SPI employees frequently attend collaborative meetings, they have chosen not to sign, and therefore they are not voting members. Additionally, several important county officials have signed, but they have signed as private citizens rather than as representative of their elected positions. This may be a result of resistance to the collaborative process from the broader community. “Some of the local government officials see collaboration as a threat to their influence and power. They do not like them one bit. Our county board of supervisors here in Amador is one of those,” said an interviewee.

Breeze-Martin also helped to build formal governance and structure for the group by organizing committees, formalizing their consensus process, and establishing a conflict resolution protocol. Under these norms, people who cannot come to an agreement in a meeting are tasked to take their disagreement outside of the group and return the following meeting with a solution agreeable to both parties. Many interviewees note that this particular process has inspired more creative and robust solutions to challenging issues.

After two years with the project, Breeze-Martin stepped down as facilitator due to a lack of funding for his position. In addition, he believed the length of his tenure and his investment in the community was clouding his neutrality. Currently, the group rotates this responsibility. Brandon Sanders, Legislative Affairs Coordinator of the Sierra Nevada Conservancy, provided administrative assistance after Breeze-Martin’s departure, but Sanders was scheduled to scale back his involvement with the group at the end of summer 2013.

Several interviewees report that the goals of the ACCG is taking a “triple bottom line” approach to restoration, attempting to bring ecological, economic, and social interests into each project. In particular, the goal of improving the local economy continues to be an issue on which there is strong consensus.

Early projects were completed mostly on BLM land, with funding secured by Folsom Field Office Manager Bill Haigh. The influx of CFLR dollars has changed the group dramatically as the focus has shifted from a truly “all-lands” approach to now being very USFS centric which is a point of contention for some members. The USFS hired on one full-time person and is looking to hire a second. Kendal Young, the CFLR Coordinator on the Stanislaus National Forest, helps to fit USFS projects to ACCG values, schedule and lead fieldtrips, and lead the development of the monitoring program. The new hire will focus mainly on securing funding for planning and tracking match dollars.

The Amador Calaveras Consensus Group has strong foundations of collaborative processes but continues to struggle with leadership turnover and coordination support, meeting the complex and competing goals of the group and keeping parties invested as the focus of programs inevitably shifts, and the general lack of skilled forest-workers and infrastructure in the community. To combat these and other challenges, this group has developed innovative solutions to increasing understanding, invested in increasing local skills and infrastructure through small wood-products businesses, and effectively communicated with threatening litigators.

### *Key Challenges*

The collaborative group is addressing issues around leadership turnover after the first couple years of the group and finding support for coordination. Some group members are concerned about momentum going forward now that Wilensky is no longer County Commissioner. In addition to the concern about securing funds to fill the role, group members have specifically expressed concern regarding the ability to keep up with those administrative responsibilities.

As with other CFLRP sites, ACCG is seeking ways to balance competing goals from involved stakeholders. Some group members find that “it’s been a constant struggle to keep that triple bottom line at the table.” Local economic development is one of the founding principles of the collaborative group, but there has been tension over the issue of hiring local contractors.

With high unemployment in the area, the collaborative group also has concerns around a loss of skills in the community. Lacking skilled employees also creates challenges for the viability of local businesses. The collaborative group is seeking ways to make small, local businesses more competitive in the forest product market. This process includes raising individual skill-sets (having been underemployed for nearly 20 years, expertise in the workforce no longer exists), working cooperatively to bid on projects, designing projects at the USFS level so that smaller businesses can be more competitive, and exploring the idea of a Master Stewardship Agreement that would secure work for local contractors.

### *Distinct Successes and Strategies*

The group developed a number of interesting tools that they implemented in relation to USFS planning, including a project scorecard used in the first few years of collaboration. The collaborative group used a checklist that the USFS could use to evaluate new projects against the criteria developed by ACCG prior to recommending a proposed action in the NEPA process. This level of collaborative involvement did not happen with any of the shelf-ready projects early in the program, which was a point of contention with some of the collaborative members. Interestingly, the group has since found the scorecard to be too cumbersome and no longer use it, however, the process of making it has increased understanding between agency staff and collaborative members. The group has also developed a support letter they can submit to the USFS that they feel formalizes their approval within the NEPA framework.

The need to build local infrastructure and job-skills has manifested itself in a number of ways including the formation of two groups: The Calaveras Healthy Impact Product Solutions

(CHIPS) and the Amador-Calaveras Cooperative Association for Biomass Utilization (ACCABU). CHIPS focuses on job-training for disadvantaged and marginalized individuals (often post-incarceration), and it looks to combat poverty in the region. It is now playing an important role in both the ACCG and their associated CFLRP project. After the ACCG formed, projects throughout the region were developed specifically for this group. These projects included hand-restoration work in cultural heritage and archeological sites, which had been previously neglected by the USFS. In addition, the BLM was able to procure money to hire CHIPS' crews to complete fuels reduction work on their land. In addition, CHIPS has bought land to open a forest products utilization facility. This site will have a cogeneration plant, a chip plant, and a number of other small forest product businesses. These programs aim to help support small, local contractors that depend on timber from USFS public lands and struggle with the government contracting process. Since our site visit, CHIPS has been awarded a major planning grant from the USFS for their biomass project.

The collaborative group also considers its efforts to reach out to potentially litigious organizations a success. They have worked with groups that may have challenged forest management practices to smooth the way for collaboratively developed recommendations. According to one interviewee, "That broader perspective can be a challenge for local collaboratives."

## Burney-Hat Creek Basins Collaborative Landscape Restoration Project

Burney is a small town located in Shasta County in Northern California.<sup>37</sup> The unincorporated town is comprised of approximately 3,000 people and is fairly isolated, situated over an hour from Redding and over three hours from Sacramento. The town sits at the intersection of the northern tip of the Sierra Nevada Mountains and the southern extent of the volcanic Cascade Mountains. Between the Shasta National Forest to the north and the Lassen National Forest to the south, much of the land in the region is public. Sierra Pacific Industries (SPI) is the major private landowner, and it operates a sawmill and a cogeneration plant in Burney.

The landscape is diverse: the forests of Sierra mixed conifer, ponderosa pine, true fir, and lodgepole pine grow atop a variety of geomorphologic features that are dotted with the high concentrations of natural springs. A main concern in the region is to increase the forest's resiliency to high-intensity fires, disease, and invasive species as well as to improve the water quality of the Sacramento River watershed.

Collaboration has a long and complicated history in the region, and was notably pioneered by the Quincy Library Group (QLG), which has been meeting consistently for 20 years.<sup>38</sup> While this place-based group is nearly 200 miles away, the QLG has clearly influenced the view of collaboration in the region. QLG was formed in response to the timber wars of the 1990s and has set precedents in the region for the amount of time invested in collaboration and how influential a collaborative can be in decision-making. As a result, the QLG continues to have critics and supporters.

### *Collaborative History and Goals*

The Shasta County Resources Advisory Committee (RAC) provided the push to get the collaborative started with grant programs in 2009. Originally known as the Burney-Hat Community Forest and Watershed Group, the group worked with Jonathan Kusel, Executive Director of the Sierra Institute, to conduct a socioeconomic analysis and stakeholder assessment as a short and long-term visioning exercise. As part of the stakeholder assessment,

### Lassen National Forest, California



#### Project Parameters

- Landscape acreage: 369,036
- Proposed treatment acreage: 69,239
- Funding for life of project: \$10,782,680
- Year of collaborative group formation: 2009
- Total number of collaborators: 12
- Primary Forest Type: Ponderosa Pine, mixed conifer

#### Illustrative Collaborators

- Hat Creek Valley FireSafe Council
- Fall River Resource Conservation District
- Sierra Institute For Community and Environment
- Timber Industry (Warner Enterprises, Inc., Franklin Logging, W.M. Beaty & Assoc., Inc.)
- Pit River Tribe

#### Key Challenges

- Litigation from outside parties
- Inconsistent membership
- High levels of conflict.
- Lack of clear structure or experienced facilitation
- Community reaction to 2012 fire

#### Distinct Successes and Strategies

- Fostering coordination between state and federal agencies
- Outreach to other organizations
- Starting at a small scale to build trust
- Formalizing the collaborative process.

Kusel identified the names of 12 individuals to the local Resource Conservation District, which they used to form the basis for a new collaborative group.

Ecologist Todd Sloat, who has served as facilitator for the Burney-Hat collaborative group, reflects that he was initially skeptical when the RAC approached him. “The truth was the Hat Creek Ranger District was doing awesome work, I had no idea.” He added that in his estimation local private companies also had doubts due to agency budget cuts and their experience with the Quincy Library Group, which led them to respond to the USFS, in his paraphrasing, “You're crazy. You'll never get that kind of involvement, you will get litigated and you will lose.” However, private timber interests have been serving a leadership role since joining the group and have increased their communication with the USFS.

### *Key Challenges*

The informal structure and lack of designated facilitators have recently proven to be roadblocks for the group. Sloat noted that in the early days of the group they “didn't develop any charter or structure to that initially... there weren't a lot of decisions to be made. It was more visioning.” As the group shifted into a more active role because of their involvement with CFLRP, this lack of structure has made it more challenging to make decisions as a group without a formal decision making process.

The group originally used funds to have Kusel from the Sierra Institute as a meeting facilitator, but as funds dried up they shifted to relying on Sloat, an ecologist by trade, to facilitate. Sloat said, “I don't have any training in facilitation, and I think the group really struggled because of that. We needed a really good facilitator.” The group is now bringing in UC Common Ground to facilitate meetings, which may help resolve some of their internal issues.

The collaborative group still finds some points of tension both with individual members and outside groups. Some parties send different members to collaborative group meetings each month, resulting in the need to spend valuable time getting them up to speed instead of working on new tasks. The collaborative group also faces continual challenges navigating the relationship between the Pit River Tribe and the USFS. The Tribe is a part of the collaborative process and has its own interactions with the agency. Lastly, the group continues to have difficulty in reaching out and explaining collaborative decisions about restoration to other organizations. As a result, some of their work occurs in fits and spurts due to appeals and litigation that collaboration has not yet solved.

The close proximity between Lassen Volcanic National Park and CFLRP project areas has created an interesting dynamic in the community. Thanks to a personal relationship from District Ranger Mullen, who used to work for the National Park Service (NPS), the USFS and the NPS were collaborating over fuel treatments on the national park previous to CLFRP. This relationship soured after a fire broke out in the park in the summer of 2012, which the NPS let burn. An interviewee remarked, “That's created some hard feelings because that fire could have easily been contained inside the park entirely. Instead they let it burn. Of course it finally got big, got the Forest Service land, got the private land. It burned up 20% of the big planning unit the Forest Service was already doing.” This fire negatively affected the climate for collaboration in the area in addition to eliminating project acres. Another interviewee commented, “I guess our community was really upset with the Park Service – still not happy with them.”

Some of the collaborative group participants do not have a positive view of CFLRP overall, believing its funds overstretch the local USFS rather than being additive. A group member remarked, “I'd like to see it as new money, not as old money. I think it's generally recognized that there's more funds that are needed to treat the forest, it's burning up faster than it can be treated, basically.” The inability to use CFLRP funding for planning is also a major inhibitor to the group's ability to design and implement projects

The frustrations at this site are enough that many collaborative group members would rather give up the program. If the local National Forest could, they “probably would've just said, ‘Get rid of this crap. I don't want the CFLR anymore.’ And the group was like ‘We agree! It's crap.’ This isn't working the way it's supposed to work,” said an interviewee who continued to say, “And everybody felt a little bit betrayed in a sense from the feds” due to the unrealized expectations of the CFLR program.

### *Distinct Successes and Strategies*

The collaborative group utilizes a community forest model, which serves to resolve community challenges through a restoration economy. Much of its success comes from coordinating the myriad state agencies and landowners to create a unified forest plan on private land. The members are proud of this work and dedicated to it. One example of their desire to focus on coordinating across agencies, work with private landowners, and start small for their projects is a private forest plan that they helped win approval from state agencies. This plan brought together four private landowners through the efforts of the collaborative group. While the work was unrelated to CFLRP, it fits well with the collaborative group's priorities and can serve as a success to help build collaborative momentum.

Strong leadership also plays a significant role in this collaborative group. Although her duties as District Ranger may limit the amount of time she can focus on CFLRP, participants in the collaborative group consider District Ranger Kit Mullen invaluable. After they submitted their proposal, Mullen was promoted to Interim Forest Supervisor of the Inyo National Forest. After they received the CFLRP award, the collaborative group worked desperately to get her back, and they were successful. “It was awesome, because it was exactly what was needed. That consistency with the staff with what we had developed through that collaboration to that point was some great momentum,” said Sloat.

## Grandfather Collaborative Landscape Restoration Project

### Pisgah National Forest, North Carolina



On the western edge of North Carolina, at the southern end of the Appalachian Mountains, lies the Pisgah National Forest, the project area for the Grandfather Restoration collaborative.<sup>39</sup> The xeric, oak, hickory and pine covered landscape is heavily fragmented by private and federal ownership and is heavily visited. Little is done in this small National Forest that escapes the observation of the residential communities that punctuate the landscape.

This ecosystem has experienced intense fire suppression in the past, and the dense, even-aged forests stand witness to the need for fire to return to the landscape. In addition, there is a need to address insect damage to the rare Carolina hemlock, remove invasive species including in Linville Gorge and along Wilson Creek, and protect the important Catawba River, which supplies water to many North Carolinian residents.

### *Collaborative History and Goals*

The Globe Timber Sale, a project proposed for a tract of land near the Blue Ridge Parkway in 2006, caused significant tension between the USFS and the environmental groups and residential members of the community. This controversial sale mobilized the community residents with threatened viewsheds and environmental groups protective of the targeted old-growth stands located in the harvesting area. The conflict over this sale brought stakeholders to the table to negotiate the project. The collaborative group grew from this specific incident to invite broader perspectives and opportunities and opened the door to the CLFR program for the Grandfather group. Josh Kelly of WildLaw, an environmental organization dedicated to educating the public about important legal actions affecting natural resource management, stated, “The catalyst was, both from outside the agency and inside the agency, the desire to

move beyond conflict into a place of productivity and into a place of accomplishing beneficial management on the land and not focusing on disagreement.”

John Crockett, a former USFS District Ranger now working at the Forest Service’s Washington Office, was instrumental in bringing the collaborative together and welcoming new members. Incorporating the insight of numerous organizations, he led the CFLRP proposal development. According to Kelly,

#### Project Parameters

- Landscape acreage: 330,360
- Proposed treatment acreage: 41,685
- Funding for life of project: \$4,547,622
- Year of Collaborative group formation: 2010
- Total number of collaborators: 12
- Primary Forest Type: Oak-Hickory, Pine-Oak, Shortleaf Pine, Hemlock

#### Illustrative Collaborators

- The Nature Conservancy
- The Wilderness Society
- Wildlaw

#### Key Challenges

- Lack of Collaborative Coordinator
- Low U. S. Forest Service capacity
- High U. S. Forest Service turnover
- No involvement from timber industry

#### Distinct Successes and Strategies

- Effective Field Trips
- Good community communication techniques
- Strong partnership with TNC

From my perspective, historically, there were some members of the collaborative like the North Carolina Resource Commission and the Wild Turkey Federation that always had a seat at the table with the Forest Service, always sort of in the insider's club, and the other groups were less on the inside. I think that it had begun to change even before John Crocket had arrived, but John was really refreshing in that he ... was open to working with pretty much anybody, which I think is really wise.

In part because of the conflict over the initial timber sale, the Grandfather Restoration Project has a rich array of highly involved environmental groups that dependably attend each collaborative meeting. With the added insight and help of local academic institutions and the respectful relationship with the USFS, the once reactive Grandfather group is now a proactive body.

The basic goal of the collaborative group, according to Kelly, is now focused on implementing their CFLRP proposal. Little attention is given to other actions. Despite the challenges, the collaborative group believes in its ability to accomplish the projects outlined in their proposal. Kelly said, "I think our project is quite a bit smaller, quite a bit more modest. And in some respect, perhaps, more realistic in our original goals than some of the other CFLR projects."

The group recognizes numerous ecological needs. Hugh Irwin, of The Wilderness Society, said, "A big component is getting fire back on the landscape." In addition to fire, the collaborative group is addressing non-native insect pests, protecting hemlock forests from wooly adelgids, stream restoration and planting native flora. Although they are working mostly at a watershed scale, the collaborative group is still not expecting to see the fruits of their labor on the landscape in the near future. "You know forests are very long lived communities, I don't really think that five years or three years is really enough to learn anything," noted Kelly.

Compared to the ecological work being conducted on the landscape, the collaborative group recognizes that more needs to be done socioeconomically speaking. On the one hand, the project has been effective at providing enough resources to keep the timber industry viable. "I think we're doing pretty well on providing wood products to the local economy," said Kelly. Yet the group recognizes this may be having little impact on the local economy. "One component that we really wanted to try to build and are still kind of working on is the economic development piece and trying to figure out how to build some of the opportunities that may come out of the projects," concluded Irwin.

The implementation of the CLFR Program has catalyzed important dialogue, brought "concentrated focus," added Irwin, prioritized restoration efforts, and has provided funding and leveraging of resources. In terms of monitoring, results are projected to become useable just as CFLR funding runs out. "Any lessons learned will probably have to be done outside the context of CFLR funding in the future," predicted Kelly. He went on to add, "I think that the program is going to increase regardless of CFLR funding, but I think the CFLR funding has allowed us to do three times what we could have done without it."

### *Key Challenges*

The Grandfather Restoration Project is not without its challenges. The chronic lack of a consistent coordinator, low USFS capacity, and high rate of USFS turnover has hindered communication and decreased the efficiency of project implementation. The collaborative group would also welcome more involvement of the local community and any positive involvement by the timber industry.

The lack of a dedicated coordinator has been a stumbling block for this collaborative group. “We really suffered from not having a dedicated coordinator,” said a group member. Numerous staff members have temporarily taken up the position in an effort to keep momentum going, but the added responsibilities of the position have proved too great. However, the group may soon have what they need. According to another group member, “We just recently got a new CLFRP coordinator on board, which is really good, but it has been a challenge with those gaps.”

The lack of a coordinator is a symptom of a greater issue: the strained capacity of the USFS and the high turnover rate. These issues are interconnected, and they negatively impact the efficiency and continuity of the collaborative group-USFS relationship. A group member described this major challenge, “I think lack of coordination. I think major challenges would be lack of Forest Service capacity. It seems like federal agencies like the Forest Service are slowly being depleted. They just don’t have the people.” Another group member also commented, “The FS is short staffed. That’s been a real issue and we’ve also changed district rangers during the life of the CFLRP... but every time you had a [new district ranger] there was a laps of continuity till the new ranger got up to speed around the CFLRP effort.”

The collaborative group benefits from the involvement of its various members, but the timber industry remains unaffiliated with the group. “And on the timber harvest side of things, unfortunately, timber industry representatives were invited to participate in the collaborative and they refused. They flatly refused to participate,” told Kelly. This lack of participation has decreased the effective ability of the collaborative group to assist in the management of the forest and landscape.

### *Distinct Successes and Strategies*

Much of the success of the Grandfather group is due to its ability to bring people together through activities such as fieldtrips. “When you look at something you can usually tend to agree on what you’re seeing,” emphasized Irwin. Kelly added, “Some of our major successes have been to identify areas of agreement on land management amongst the collaborative and the Forest Service. I think CFLR helps by giving us a goal to strive for, to get CFLRP funding for management activities that we had consensus were important.”

The collaborative group values transparent communication between members and with the broader community. The group utilizes various communication methods to inform the public on projects such as prescribed burns. “We’ve had some really good press from local televisions stations and newspapers in general,” said a collaborative group member. Additionally, the collaborative group has teamed with the Blue Ridge Fire Learning Network in an effort to involve and educate the local communities on the role of fire in the ecosystem. Through the use of brochures and first hand education, the collaborative has been successfully addressing some of the hesitations and misconceptions of the community.

Despite the lack of consistent personnel, the Grandfather group is continuing to work, much to the efforts of its members. “I think the fuel of the collaborative is people who care. I think everybody who works on the collaborative cares,” concluded Kelly.

## Kootenai Valley Resource Initiative

The Kootenai Valley Resource Initiative (KVRI), formed in 2001 in Boundary County, Idaho, is located in the northern Idaho panhandle bordering Canada.<sup>40</sup> The county is sparsely populated with only 11,000 people and an unemployment rate in 2009 of 16%. Ecologically, the region is experiencing encroachment of fir forests on lands that were historically comprised of more fire-resilient species such as ponderosa pine and western white pine.

A significant amount of past conflict over natural resource issues in the community led to adversarial relationships between the community and the natural resource management agencies. The Kootenai Tribe has been very active in pursuing ecological work in the region, leading activities aimed at restoring the Kootenai River and its surrounding habitat. At the time of KVRI's founding, the Kootenai Tribe was engaged in litigation with the USFS over implementation of the agency's Roadless Rule. Since then, KVRI has engaged in collaborative efforts with federal agencies including the U.S. Army Corps of Engineers and U.S. Fish & Wildlife Service on fish restoration projects including for white sturgeon recovery and burbot restoration.

### *Collaborative History and Goals*

Given the past conflict, community leaders recognized that the current way of doing things was not working, and they wanted to take a different approach. The Mayor of Bonners Ferry and the Boundary County Commissioner joined efforts with the Tribal Chair of the Kootenai Tribe of Idaho to form the Boundary Economic Development Committee, which works to address economic issues and develop solutions to sustaining local jobs. At the same time, the Tribe was expanding work on water quality issues. The pairing of these two initiatives led to the formation of KVRI.

KVRI is a large collaborative group with many subcommittees, and it addresses a variety of environmental and economic issues in the area. The group has met very consistently, eleven times a year for the past twelve years, with fairly steady board membership. The Bonners Ferry Mayor, a County Commissioner, and the Tribal Chair are the three co-chairs of an 11-member board, which is the decision-making unit for the collaborative group. All

### Idaho Panhandle National Forests, Idaho,



#### Project Parameters

- Landscape acreage: 800,000
- Proposed treatment acreage: 39,430
- Funding for life of project: \$12,272,443
- Year of Collaborative group formation: 2001
- Total number of collaborators: 22
- Primary forest type: Mixed pine

#### Illustrative Collaborators

- Kootenai Tribe of Idaho
- County Supervisor
- Mayor of Bonners Ferry

#### Key Challenges

- Long history of conflict
- Many E & T species
- Large percentage of federal land
- High unemployment rate

#### Distinct Successes and Strategies

- Strong coordination
- Started at a small scale
- Connection with Washington Office of USFS, and Congressional delegation
- Collaborative group focus is diversified

subcommittees engage board members. Since board members are never blindsided by projects and can give input as projects are developed, most subcommittee proposals are approved.

The forestry committee is the group that deals specifically with the USFS and the CFLR project. Unlike other CFLRP groups, which tend to be much more dependent on the USFS for momentum and funding, the USFS and CFLRP component of this working group is a much smaller piece of KVRI's work. The project area is one of the smaller 2012 CFLR projects. In order "to under-promise and over-deliver," according to facilitator Patty Perry, the group intentionally selected a smaller project size. They believe their ability to immediately implement projects with CFLR funds is above average. "If you look at all the other collaboratives that were formed in 2012, I think they will be hard pressed to get the money to the ground that we put on the ground in our first year," noted Perry.

According to many group members, Patty Perry is a highly effective coordinator. She facilitates meetings and provides administrative support for the group. Patty was originally hired by the Kootenai Tribe to work on their water quality initiatives, but she now spends about half of her time on KVRI. She has an assistant whose efforts are allocated to the group a quarter of the time. While group participants are invested and convinced of the value of the work, Patty is no doubt the primary organizing force behind KVRI. Additionally, the Kootenai Tribe of Idaho is also a major source of continuing momentum and potentially funding for the group.

The Tribe is often the leader on environmental issues in the group, and has a major interest in maintaining environmental quality on their lands while fostering a positive relationship with the community. According to Patty Perry,

Several things made [collaboration] important to this tribe. The first is the small land base...for them to be able to exercise their hunting, fishing, and gathering rights they need a healthy ecosystem. They also want to reach out to not have it be just the best place for them to live but for the community as well.... And their whole goal is river restoration.

The land around the river is private, and Tribal leadership believes that to conserve the river "they have to know what the community level of engagement could be and what their tolerance levels are and work together to make that a prosperous venture instead of battling each other," explained Perry. CFLRP funds cannot be used on private land, but the collaborative group still considers finding ways to work on it important to addressing challenges on the landscape.

### *Key Challenges*

The area where KVRI works has a history of conflict around land management. Despite their efforts to engage all stakeholders, KVRI expects outside groups to litigate some of their projects in the future. They continue to ask adversarial groups to come to the table, but they have had little success in trying to open a dialogue regarding the concerns of these external organizations. The group hopes that the significant relationships and support they have built in the community would help them in the event of future litigation.

Like many of the other CFLR projects, KVRI is driven by an interest to boost the local economy and improve the local employment situation. The closing of local sawmills led to an increase in unemployment and a decrease in available funds for local schools and infrastructure. Although

unemployment in the county is not as high as it once was, some of the work force has move to jobs related to natural gas and oil development out of state.

### *Distinct Successes and Strategies*

One strength of KVRI is communicating with the broader local community. According to interviewees, KVRI has an exceptional resource in Sandy Ashworth, the Director of the Boundary County Library District. She is integral to the collaborative community outreach and is focused on the social aspects of the collaborative group's goals. As Ashworth notes,

We were looking at dwindling numbers (community members) and growing needs...If we didn't do something different we were basically going to dry up and blow away. Getting out there and becoming more aware of and understanding what the needs of the community are. It was a lot of listening, making ourselves available and getting out of the building.

While KVRI subcommittees work on a variety of projects, the overarching focus of the group is communication. Communication between federal agencies, the local governments, the Tribe, and the community prior to the collaborative forming was poor. According to Patty Perry,

It used to be that agencies would come to town and they would meet with the Tribe, they'd meet with the USFS if they needed to depending on what it was, they would meet with the county commissioners and then they'd leave town and nobody had the same story. And everybody was at odds because they all thought a deal got cut with somebody else and nobody was on the same page. We just eliminated that. It doesn't happen anymore. This is like, for agencies, a one stop shopping, once a month where they can bring anything they're planning for this area, share it with the community, the newspaper is there, it gets covered it's in the news it's on our website, we produce monthly minutes...Without the commitment from the county, the city, and the Tribe it wouldn't happen.

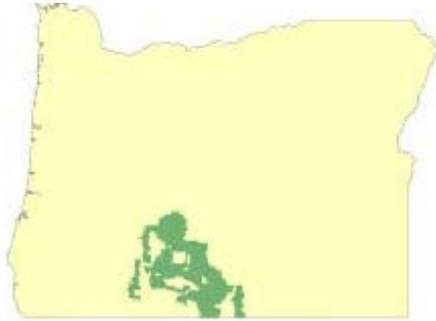
This project site also utilizes unique ecological references. In addition to social and economic goals, KVRI is focused on reducing fire danger to communities and improving water quality. Further influence of the Tribe is seen in KVRI's landscape approach to ecological goals and thinking about outcomes on a seven-generation scale. Interviewing community and Tribal elders to assess what burbot populations were like in the past is one example of the unique ecological strategies and restoration approaches KVRI has taken.

Perry and the KVRI co-chairs have made a significant effort to bring unrepresented or previously combative groups to the table. Idaho Conservation League (ICL) was engaged initially but pulled back due to some miscommunication and conflict with the rest of the group. Perry and County Commissioner Dan Denning flew to the ICL headquarters in Boise, ID to meet with the organization director and rebuild the relationship. Not only did ICL come back to the collaborative group but they also positioned two staff members in nearby Sandpoint, ID to facilitate further engagement on KVRI work and local conservation issues.

KVRI also has a unique connection to their federal legislators, maintaining communication with both senators and at least one of their representatives. Legislative staff attends collaborative group meetings, and members of the collaborative group have travelled to Washington D.C. on multiple occasions to meet with their representatives and advocate for CFLRP.

## Lakeview Collaborative Landscape Restoration Project

### Fremont-Winema National Forests, Oregon



In southeastern Oregon, the town of Lakeview is surrounded by rangelands, mixed juniper-ponderosa forests, and at higher elevations, mixed lodgepole pine and white fir forests.<sup>41</sup> The most urgent restoration need is to decrease the fuel loads within the forest, which will allow for the controlled reintroduction of fire. Since the 1940's the Collins Company has been managing timber and running a sawmill in the region and is a fixture in the local community. The Collins Company prides itself as a pioneering private company in sustainable forestry, and was recognized as early as 1994 for its mixed-age "Well-Managed Forest." Unlike other regions in the northwest, the Lakeview area has not experienced much economic growth, in part due to its regional isolation.

In 1998, during the height of the Timber Wars in the western United States, the Lakeview Stewardship Group (LSG) was formed somewhat by accident. The group came together to discuss the revision of the sustained yield unit policy which and the socioeconomic implications that may come as a result of changes in timber harvesting. To pursue a Forest Stewardship Council certification, the sustained yield unit then became a stewardship unit, which recognized the ecological implications of timber harvesting.

### *Collaborative History and Goals*

Having formed in the late 1990's, the LSG is one of the oldest formal collaborative groups in the 2012 cohort. They have developed a close-knit set of dedicated individuals who believe in the collaborative group's purpose and whose efforts are sustained by their connections to the forest and community of Lakeview. The collaborative group is comprised of various non-profit organizations, local and regional businesses, state and local governments, the Klamath Tribe, local stakeholders, community members and environmental groups. The collaborative maintains a cordial relationship with the USFS. As the USFS assumes the role as final decision maker on projects, the LSG works diligently to provide the USFS with thoughtful recommendations on projects. Although the USFS is never forced to accept the recommendations of the LSG, it recognizes the seriousness at which the LSG operates and the quality of work that they produce. Mutual respect is evident within the working relationship between these two entities.

#### Project Parameters

- Landscape acreage: 662,289
- Proposed treatment acreage: 150,000
- Funding for life of project: \$28,100,000
- Year of Collaborative group formation: 1998
- Total number of collaborators: 13
- Primary forest type: Ponderosa Pine, mixed conifer

#### Illustrative Collaborators

- Lakeview County Resource Initiative
- The Nature Conservancy
- The Collins Company
- Sustainable Northwest
- Local Government Representatives

#### Key Challenges

- Aging collaborative group without a formal structure
- Fire in planned project area
- Downward trend in timber economy
- Planned biomass facility was never built, leaving slash piles in the forest.
- Dispersal of funds by Forest Service does not always align with group's priorities.

#### Distinct Successes and Strategies

- Youth involvement through high school science program
- Explicit recognition of tradeoffs in creating a fire salvage project.
- Recognition that they need to develop institutional memory and recruit new leaders.
- Seeking new sources of renewable energy

The CFLRP proposal covers 662,289 total acres of the Fremont-Winema National Forest, 150,000 acres of which are to receive treatment. A group member expressed the goal of the collaborative group as, “To manage a forest that is ecologically correct and socially accountable to the community.” The collaborative group works to diversify terrestrial ecosystems so as to emulate historic conditions, increase ecosystem resiliency to human and natural disturbances, and support the well-being of the Lakeview community. The long-term strategy proposes an accelerated thinning and prescribed burning program, particularly in areas of low elevation.

The LSG supports the local economy through supplying local timber mills and creating jobs. Although the LSG looks to hire local contractors and employees first, financial stresses make the prospect of hiring more cost-effective migrant workers or outside contractors undeniable.

### *Challenges and Successes*

In the summer of 2012, a large-scale fire burned 93,000 acres of the Fremont-Winema National Forest. The timber industry, hurt badly by the Barry Point Fire, was able to keep its doors open through the efforts of the collaborative group. When the fire destroyed the LSG’s NEPA-ready green timber program, the LSG decided to instigate a salvage initiative in the burned area. Jody Perozzi, of the USFS lamented, “We’ve done everything that we can to minimize the impacts of this (Barry Point Fire) but yet be responsive to some of the social needs. We’re not doing it for ecological reasons and we’re fully aware of that. We’re not trying to hide that fact. We’re doing it because we feel there is a need from an economic and social standpoint.” The LSG’s support for the local community is very apparent and personal.

Financial concerns create an impediment for achieving the full potential of this proposal. Implementation of important projects on the ground has been difficult because CFLR funds have been unpredictably dispersed. As a result, many of the available funds are being allocated towards low priority projects, which weaken the financial flow towards projects of greater importance. Additionally, the collaborative group has tabled their biomass project, which has left piles of slash in the woods, because the once-promising biomass market has fallen through. Frustrated, Paul Harlan of the Collins Company said, “We’re still struggling with 150,000-200,000 bone dry tons of material stacked out there deteriorating in piles. Nobody can figure out how to deal with 800lb gorilla in the room.” These piles present a great fire hazard as well as represent lost funds.

The greatest challenge for the collaborative group, however, is sustaining its momentum as it may face the retirement of key members. The LSG depends greatly on several key members. Jody Perozzi said, “I do not know what the future is going to hold. It’s going to take effort to maintain that kind of group and to keep building these relationships.” These individuals have put a lot into the collaborative group and the community at large for many years, but they are soon approaching retirement age. A number of respondents expressed concern as to whether or not the baton of leadership will be successfully passed to a new group of people who will have the same passions and work ethic as those who started and lead the collaborative group today.

### *Distinct Successes and Strategies*

There is a strong desire to provide opportunities for community engagement, education and environmental appreciation, including through a student driven monitoring program. Involvement from The Nature Conservancy has had a significant impact on the development of the collaborative

group's ecological goals, the selection and implementation of projects, and has been essential to the education and engagement of the community. The project includes the expansion of an intensive monitoring program that employs supervised, local Lakeview-area high school graduates. This is an effort to engage to local community in the restoration of the surrounding environment and promote environmental awareness and appreciation that may enhance the well-being of the landscape in the future.

The collaborative group originally planned to use the byproducts of restoration work to create energy from woody biomass, but the planned facility in the community was never built. Now, LCRI, a key part of the collaborative group, is encouraging the use of alternative, renewable energies. The landscape around Lakeview is very conducive to solar, wind and thermal renewable energies. The use and greater dependence on these energies is being encouraged as an alternative to the current dependence on natural gas.

Communication, between the collaborative group and the community and at collaborative group meetings, is well facilitated. Craig Bienz of The Nature Conservancy commented, "We respect each other and the opinions. There is a level of trust. It is very open and honest. We really do try to make sure that everybody is heard." This transparent and supportive environment has been established over time through the intentional building of trust between collaborative group members. A member noted, "The collaboratives need to learn trust is not something that you can educate to, but it is a relationship that you form. And that does take time. That one we can't shortcut you on."

## Longleaf Pine Ecosystem Restoration and Hazardous Fuels Reduction

The De Soto National Forest in southern Mississippi is home to one of the few remaining longleaf pine ecosystems in the south, an ecosystem currently at two percent of its historical range.<sup>42</sup> Logging operations had decimated the region before the federal government purchased the land to create the De Soto National Forest in the 1930s. Faster growing species such as loblolly and slash pine were planted in the longleaf range for timber production. These species, which still dominate the area, allow less light into their understory, negatively affecting the habitat of many threatened and endangered plant and animal species.

In the mid-1990s, local emphasis shifted to restoring longleaf pine to its natural range. This region is characterized by substantial number of private landholdings and patchwork ownership; hence, any effort to restore ecosystems outside of the boundaries of the national forest takes a tremendous amount of outreach. Larger regional initiatives, like the Longleaf Alliance, formed in an effort to educate and provide resources to a variety of landowners and practitioners.

Longleaf pine restoration gained momentum after Hurricane Katrina, which struck the coast in August of 2005. Several studies following the hurricane suggested that longleaf pine in the region survived the storm better than the introduced slash and loblolly pine. As Becky Stowe, Terrestrial Program Manager from The Nature Conservancy (TNC) said, “Longleaf reacts a little better to the windstorms, to hurricanes, that’s a big deal. It’s a little more resistant to insects. You can burn it. So it’s a more sustainable tree because it evolved here.”

### *Collaborative History and Goals*

The collaborative effort that led to CFLR funding began as a response to Hurricane Katrina. With a background in both biology and hazardous fuels, Ron Smith was hired as District Ranger the day after the Hurricane passed. He spent the next few years salvage-logging 260 million board-feet of downed trees putting the harvest of standing timber entirely on hold. “Ron Smith came in and instead of seeing this as a huge catastrophe, he turned it around and really put a positive spin on it. He used Hurricane Katrina to reach out to a lot of groups including what used to be a real foe for them—The Sierra Club—and some other groups like that and asked for their input,” reflected Stowe. Following this

### DeSoto National Forest, Mississippi



#### Project Parameters

- Landscape acreage: 382,000
- Proposed treatment acreage: 374,000
- Funding for life of project: \$25,321,024
- Year of Collaborative group formation: 2005
- Total number of collaborators:
- Primary forest type: Longleaf, Loblolly, Slash pine

#### Illustrative Collaborators

- U. S. Department of Defense
- The Nature Conservancy
- Trust for Mississippi Coastal Plain

#### Key Challenges

- Lack of political clout and relative isolation
- Influx of new residents from the coast who are unfamiliar with fire as a management tool
- Shortage of Longleaf seedlings

#### Distinct Successes and Strategies

- 100% NEPA-ready landscape
- Strong leadership from Forest Service
- Shared office-space of collaborators

salvage operation, Smith and his staff successfully prepared a six-page landscape-scale environmental assessment that covered 90% of the National Forest. Smith's philosophy—"my job is to free up everybody else so they can do their job"—puts him at the center of collaborative activity. Smith set a tone at the District office that continues, and the culture of the De Soto Ranger District is unique, with a strong sense of camaraderie within the office and a general sense of isolation from the Regional Office.

The Longleaf Pine Restoration group utilizes a loose network of strategic partnerships to accomplish restoration goals rather than a more structured collaborative group. Collaborators include The Department of Defense (DOD) has a lease on a large portion of the Forest for Camp Shelby, a military training facility. Camp Shelby has both DOD wildlife biologists and a TNC office located on it. As a result of these shared resources and jurisdictions, the DOD, TNC, and USFS communicate with each other on an as needed basis. The USFS also has close working relationships with additional partners including the Land Trust for the Mississippi Coastal Plain, the Mississippi Forestry Association, and Southern Mississippi University. Agency staff strategically brings in additional partners to fill specific roles but rarely meet in a formal way.

Beyond CLFRP, the overarching goal in this region is fairly simple: restore longleaf pine to its native range. The achievement of this goal is easily measured by analyzing the reported number of new acres that have been planted with longleaf pine. At a finer scale, however, the work on this project is more complex as they restore a suite of ecosystems from lowland bogs and wetlands to upper ridge tops. As Mike Davis from Southern Mississippi University described, "It's that kind of fine nuance that we're excited about with CFLRP to try to bring back that kind of structure, not just up and bottomland but all those intermediate types of forest." With the large-scale NEPA complete and minimal local conflict, USFS personnel here have more capacity to get out into the field and actually do restoration treatments for these varied ecosystems.

In many ways, the work that the USFS is doing is considered the model for private landowners to follow, not just within the context of CFLRP but also more broadly. As local land trust representative Judy Steckler said, "CFLRP has had a positive influence in my thinking because they have set an example of good land management. They have definitely had an effect on some of the decisions our board has made." Through its example in the CFLR project, the USFS is seeing spillover effects in private land management practices. As a result of the increase in longleaf planting on private and public lands, interviewees also reported that seed orchards in the region were having difficulty keeping up with the demand for Longleaf Pine seedlings.

Cost sharing incentives for restoration, mostly originating from America's Longleaf Initiative, bring longleaf pine on roughly even economic terms with loblolly and slash pine for timber production. While high quality timber, longleaf is otherwise costlier to grow and has a longer turn-around time for harvesting. The area benefits from a relatively healthy local timber market, which includes nontraditional forest products. The demand for woody biomass is not substantial at this point, but a new \$25 million wood pellet plant in George County planning to open in 2014 is expected to open that market.

## *Key Challenges*

Many local landowners have a multi-generational history of prescribed fire use and timber management on their families' lands. However, more recent transplants to the area, including many

folks that moved inland after Hurricane Katrina, are more wary of this technique. Extensive outreach campaigns around fire's role in the overall movement towards longleaf restoration are successfully addressing this concern.

The regional 80-acre clear-cut limit can also undermine the pace work by preventing the Forest Service from removing loblolly and slash pine that exceed the limit. The remaining trees are able to encroach upon the land cleared for longleaf.

Strong leadership from the USFS played a central role in success at this site. District Ranger Smith clearly was influential in the successes of this collaborative group and many interviewees echoed his philosophies and spoke highly of his leadership. It is important to note that Smith has since retired, and several people expressed concern over filling his shoes.

### *Distinct Successes and Strategies*

Working with their partners, in particular TNC and the Mississippi Trust for the Coastal Plain, the DeSoto National Forest effectively communicates with the local community. Their strategies include informing local news organizations about burn activities, facilitating landowner field days to teach about longleaf pine restoration, maintaining the use of clear, concise language in technical documents that are for the public's review, and even through the music of a band, "The Blues Rangers," who make appearances at community events and put out albums with songs about burning and other management issues.

The Longleaf Pine Restoration group still faces challenges from limited capacity of human resources. The district lacks a silviculturist and a CFLRP coordinator, and a shortage of certified burn managers in the region to keep up with restoration demand affect the success of longleaf restoration in the region. "There are many landowners, who have a need for fire on their land. They want to make these necessary improvements, but there are not enough providers to meet the demand," said Tamara Campbell, Private Lands Biologist for the Mississippi Department of Wildlife, Fisheries, and Parks.

Strong ties to a local university help facilitate ecological monitoring work. USFS Botanist Tate Thriffley and Mike Davis, a professor at Southern Mississippi University work together to align Davis's work with the multi-party monitoring and adaptive management needs of the Forest. Thriffley and Davis clearly have a strong relationship and Davis has been able to adjust his process and outcomes to meet Thriffley's objectives.

Like several other CFLRP sites, the De Soto has recently received funding through the new Chief's Joint Landscape Restoration Program. The Upper Black Creek Watershed Project was selected to receive an additional \$600,000 in USFS Funds and \$1,165,000 from the NRCS to help improve the watershed that is threatened by pollution, private land-management practices, and non-native invasive species such as cogongrass and feral hogs.<sup>43</sup>

## Northeast Washington Forest Vision 2020 Collaborative Landscape Restoration Project

### Coleville National Forest, Washington



The Northeast Washington Forestry Coalition (NEWFC) is a collaborative group with origins in the northeast portion of Washington State, in the Kettle River Range.<sup>44</sup> The NEWFC proposal for CFLRP designates about 125,000 treatment acres within Colville National Forest over a ten-year period.

The Kettle River Range, which is an important corridor for large mammals between the Cascade and Rocky Mountains, historically featured park-like forest conditions and substantial areas of grasslands and shrubs. Homogenous, closed-canopy forests with dense understory and increasing risks from insects, disease, and high-severity wildfire describe the Kettle River Range today.

#### Project Parameters

- Landscape acreage: 916,283
- Proposed treatment acreage: 124,396
- Funding for life of project: \$31,753,928
- Year of Collaborative group formation: 2002
- Total number of collaborators: 7
- Primary Forest Type:

#### Illustrative Collaborators

- Vaagan Brothers Timber Company
- Kettle Range Conservation Group
- Conservation Northwest
- The Lands Council
- Williamson Consulting

#### Key Challenges

- Misunderstandings with USFS
- Exclusivity of NEWFC
- Turnover of leaders in both USFS and collaborative group
- Forest roads and OHV issues

#### Distinct Successes and Strategies

- Creation of three management zones with collaboratively agreed-upon sideboards
- Working with a new, informal collaborative process
- MOU between Forest Service and collaborative members

Economically, the area has a number of mills and processing plants in addition to a biomass production facility. Unemployment in the surrounding area hovered around 13% at the time of the CFLRP proposal. Those factors drive an economic focus at the site.

Off-Highway Vehicle use in the area is high, also, and is a source of division in the region.

### *Collaborative History and Goals*

In response to timber conflicts in the 1990s, Vaagan Brothers Timber Company, the Kettle Range Conservation Group, and the Lands Council initiated NEWFC in 2002. Dave Heflick, Conservation Associate with Conservation Northwest, accentuated the idea that NEWFC was born through the timber wars. He explained that NEWFC members “had quite a bit of stature” at the start and were able to dissuade organizations that were not collaborating from litigating. He reached out to such organizations and told them CFLRP would mean “trying something new here,” a “negotiated peace settlement” that would result in mutual gains. Early in its history, NEWFC established a Memorandum of Understanding with the Colville National Forest to provide land management recommendations on USFS projects. Since that time, only a single appeal has been filed on projects approved by NEWFC.

The NEWFC board meets monthly. In addition to this central group, there is a task force comprised of two members—Heflick and consulting forester Maurice Williamson. A USFS employee said, despite being “so different,” Heflick and Williamson “understand each other. They know where each other’s coming from, and they work extremely well together.” The task force was formed to cut through collaborative inefficiencies and provide technical expertise around the development of group recommendations. It also functions as an intermediary between the NEWFC board and the Colville National Forest. A task force member recalled an early coalition meeting in which members were trying to hash out rules: “By the time everybody got through their pontification, we got nothing done... so we formed the task force.”

### *Key Challenges*

A primary issue at the site is turnover of vital collaborators and USFS personnel. Departures of USFS personnel have caused some challenges around momentum, with the group having worked with multiple district rangers on individual collaborative projects. Looking forward, Conservation Northwest has directed Heflick to reduce his time spent on NEWFC. This could affect the collaborative group because Heflick is one of two members on the task force, the backbone of the collaborative group.

The collaborative group itself is somewhat in flux due to perceptions of its exclusivity. Some individuals we spoke with at the site indicated that not all stakeholders are interested in joining NEWFC. For example, members of this group might see NEWFC as too timber-centric, powerful, or enmeshed with the Colville National Forest. To address this issue, the Colville has sought to involve a broader cross-section of stakeholders through another collaborative effort, the Deer Jasper project, also within the CFLRP area.

Communication between the Colville and NEWFC is somewhat irregular and challenging. One tension therein is transparency, as NEWFC sometimes requests information that is regulated and that the USFS cannot share, such as contracting selection information. NEWFC’s demands can be a challenge for the staff of the Colville and create tensions in the relationship between the two. A USFS employee questioned, “How much should we be reporting to them, and how much should we be more of a team?”

### *Distinct Successes and Strategies*

Through collaboration and for the purposes of CFLRP, the Colville landscape was divided into three zones: active management, roadless wilderness, and restoration. Most work in the area designated “active management” was completed before CFLRP designation, limiting to some extent the effect the “no new roads” clause in the CFLRP statute has had on the collaborative group. Nonetheless, roads remain a contentious issue at the site.

With help from consultant and PhD student Derek Churchill at the University of Washington, NEWFC’s task force has developed a series of detailed prescriptive guidelines that delineate group expectations for Colville National Forest projects. When these thresholds are not met by the USFS, NEWFC insists upon further collaborative input. The Colville seems generally willing to work within this set of parameters, lending the two-person task force significant influence. Dave Heflick explained the guidelines:

And the objective of the Task Force ... was to develop guidelines for what we're going to do when we encounter old growth, what we're going to do when we encounter dry forest versus mesic or moist forest, what we're going to do or not do in inventoried roadless areas, what we're going to do in terms of road construction. And we developed, over a period of about two years, a whole set of prescriptive guidance documents.

A CFLRP monitoring plan is currently under development, with Vince Archer, Soil Scientist of the USFS Enterprise Program, providing expert assistance. The Colville plans to use 10% of CFLRP funds on monitoring. Heflick said the option to use up to 10% of funds on monitoring was “one really great thing about CFLRP” and indicated that there is “a very comprehensive monitoring plan being developed right now.” Monique Wynecoop a Fire Ecologist from the Colville National Forest explained monitoring from a collaborative perspective:

One of the main challenges that our collaborative group is focusing on right now is taking our monitoring questions and putting everything, from methodology and tools to who is doing what, into layman’s terms so everyone in the group, no matter what their background, can explain what we’re doing clearly.

Another new effort is the collaborative group that has formed around the Deer Jasper project. This new group has a less formal structure and incorporates more perspectives than NEWFC and its task force. According to a USFS employee, “The Deer Jasper group that we had... we did get a lot more comments with our scoping and they were good comments. People were actively engaged in the process.” Because it brings in a more diverse set of stakeholders and perspectives, the Colville indicated an interest in continued engagement with this new group.

## Ozark Highlands Ecosystem Restoration

Northern Arkansas is comprised of rolling forested hills interspersed with glades and hollows.<sup>45</sup> The Nature Conservancy (TNC) has distinguished the area as particularly unique due to its geologic history. The elevated geomorphology of the Ozarks kept the area from being glaciated in the last two million years, and as a result, the region has retained unique biodiversity. Research suggests that the area has a high historic level of human impact, predominantly due to the use of low-intensity fire by indigenous people.<sup>46</sup> The ecosystem exhibits structures that are far from desired conditions, primarily due to a long history of fire suppression. However, foresters and wildfire crews are again practicing the application of low-intensity fires while mitigating threat to the surrounding developed areas. With confidence and a general understanding of fire's historical use on the landscape, the community is comfortable with the use of prescribed fire as an ecological management tool.

The Ozark Highlands region encompasses 451,058 acres, 344,393 acres of which is designated as National Forest. This acreage is spread across the northern part of the state with considerable private landholdings throughout. The goal of the restoration work is to return the landscape to its native mixed-forest/oak-woodland structure with a fire-adapted understory in accordance with survey records from the 1800's. Research suggests ideal conditions would have a fire return rate of 2-15 years.<sup>47</sup> Along with vegetation density problems due to fire suppression, other stressors have changed the landscape including recent droughts, ice-storms, and an outbreak of the native red oak borer.<sup>48</sup> Currently, only 3% of the landscape is open woodlands, and yet modeling has indicated that 60% of the land should be classified as such in order to provide needed habitat for a variety of species including important recreational game species such as elk and turkey. In addition, the USFS is looking to place more large woody debris in the streams to restore habitat for aquatic species.

### *Collaborative History and Goals*

This relatively informal network of partners formed from the Oak Ecosystem Restoration Team, founded in 2000, and the group incorporates members of nearly all relevant state and local agencies. In recent years TNC has been the primary organizer of this group through their Fire Learning Network. With similar ecosystems, goals, and stakeholders, this collaborative group has recently

### Ozark and Saint Francis National Forests



#### Project Parameters

- Landscape acreage: 344,393
- Proposed treatment acreage: 217,892
- Funding for life of project: \$15,808,746
- Year of Collaborative group formation: 2000
- Total number of collaborators: 15
- Primary Forest Type: Mixed oak, pine

#### Illustrative Collaborators

- The Nature Conservancy
- Arkansas Game and Fish Commission
- Arkansas Wildlife Federation
- National Wild Turkey Federation

#### Key Challenges

- Concerns from hunting interests on the effect of fire on game populations.
- Timeframe for work

#### Distinct Successes and Strategies

- Existing and well-established monitoring plan
- Strong coordination from TNC
- Leveraging knowledge and successes from nearby CFLRP sites
- Exceptional youth program

been meeting collectively with the nearby Shortleaf-Bluestem Community Project to discuss and strategize projects across the entire state. In addition, private landowners in the region have been working collaboratively towards restoration since 2002, which includes prescribed fires across boundaries.

The Bearcat Hollow project serves as a showcase of the work of the collaborative group as it combines efforts of the USFS, National Wild Turkey Federation (NWTf), and volunteer work from the Arkansas Wildlife Federation (AWF). Wayne Shewmake, Executive Director of the AWF, leads the volunteer aspect of the program, and is a dynamic and influential leader in the community. Historically, AWF has worked as an advocacy and networking organization for sportsmen. However, for the Bearcat Hollow project, they have partnered with the USFS, Arkansas Game and Fish, and the NWTf under a Stewardship Agreement. As a whole, the project is looking to restore forest openings for wildlife and to plant native grasses and forbs. With heavy machinery work done by contractors through the NWTf, Shewmake follows with hand crews of local university students. This stewardship programming provides an opportunity for local students to volunteer as well as learn about restoration while gaining outdoor leadership skills. This site was selected by the NFF as a treasured landscape through its national conservation campaign.

Projects also include restoration of areas affected by OHV use. Areas of the Forest have seen heavy traffic and severe degradation of areas favored by OHV drivers as a result of misuse. Said one collaborator,

Our project also has a recreation component. We have OHV trails that we included for maintenance and restoration. I think it's the only project that has that and to us it made sense ecologically because many of these trails are adjacent to riparian areas, so in order to protect the resource we need to maintain those trails.

Shewmake and his youth crews have been involved with this effort as well, installing signage, repairing fences, and teaching young adults about responsible OHV use.

The collaborative is continuing to consider ways to share information across agency and organizational boundaries to achieve a true “all-lands” approach. Interviewees discussed the possibility of creating a central database of restoration activities to better align work, but have not yet had the capacity to follow through on this idea.

### *Key Challenges*

While the project has faced little opposition, there has been some pushback from turkey hunters over the increase in prescribed burning who were concerned that the burns were destroying nests and even killing animals. However, recent bird counts have suggested that the opposite might be true. Hunters are beginning to seek recently burned areas as hunting grounds, suggesting that the burning may actually be enhancing turkey hunting. There are current scientific studies being carried out to test these theories using radio telemetry funded in part by the National Wild Turkey Federation.<sup>49</sup>

The site also notes the challenge of accomplishing their 10-year plan in less than 10 years. If the funding does indeed end in 2019, they may not have accomplished all of the work described in their proposal given the shortened time frame since they were awarded funding in 2012.

## *Distinct Successes and Strategies*

The USFS is operating at maximum burn capacity in the Ozark Highlands, taking advantage of the fairly narrow burn window in the fall. As a result, the proposal did not earmark funds for increasing burn acreage but rather is using funds to accomplish mechanical thinning and other restoration work. They are using existing burning as their USFS match. This has proven to be a successful strategy, as it has not pulled funds from other districts to meet the match. In addition, with the funding cycle being somewhat irregular, they can be sure to get their burning done using appropriated dollars rather than the wait-and-see funds of the CFLRP.

The collaborative group also considers its work with local youth organizations to be a success. One interviewee noted, “We feel like what we’re accomplishing here is several things; not only are we benefiting wildlife but we’re also getting these students out here and involved and giving them a hands on opportunity to see the type of work that they may be going into.” This program is recognized as providing an important channel of communication to the community.

Another strength of this collaborative group is monitoring, which is being coordinated primarily by TNC through the Fire Learning Network. TNC had a protocol already in place in northern Arkansas, and was able to apply and extend that work to meet the needs of both the USFS and TNC. Central Hardwoods Joint Venture, involved in all three sites in the Ozark and Ouachita National Forests, is involved with monitoring through bird counts, however they are more active in the collaborative efforts in Southern Missouri than at this site. In addition Arkansas Wildlife Federation is helping to conduct game counts for turkey, deer and elk.

The effect of CFLRP in this region is likely going to be significantly affected by the new Chiefs’ Joint Landscape Restoration Programs. Arkansas was awarded \$1.3 Million in Forest Service funding and \$2.18 Million through the National Resource Conservation Service for the Western Arkansas Woodland Restoration Project. The restoration activities from this new program target water quality and quantity improvements to protect both federally listed species as well as meeting human demands<sup>50</sup>. This has the potential to implement restoration work more fluidly through the wildland-urban interface areas and other rural communities.

## Pine-Oak Woodlands Collaborative Restoration Project

### Mark Twain National Forest, Missouri



The efforts to restore the shortleaf-bluestem ecosystem to its historical range extend across land in 22 states.<sup>51</sup> This landscape has seen substantial reductions in old growth shortleaf pine woodland due to logging and open range grazing. Small diameter, often-diseased red and black oaks now dominate. The primary landscape is known as Current River Hills, and it is located in southern Missouri. It is home to Missouri's largest contiguous forest, three scenic rivers, and diverse wildlife including turkey, summer tanager, eastern tiger salamander, red bat, and ornate box turtle. Doug Ladd, Director of Conservation Science with The Nature Conservancy, remarked, "The Mark Twain encompasses a lot of globally significant and irreplaceable biodiversity." This characteristic has drawn TNC's attention to the region. Two other CFLRP sites – the Ozark Highlands and the Shortleaf-Bluestem, which include national forests in Arkansas and Oklahoma – are located nearby and have similar ecological goals.

#### Project Parameters

- Landscape acreage: 345,710
- Proposed treatment acreage: 2009
- Funding for life of project: \$12,526,632
- Year of Collaborative group formation:
- Total number of collaborators: 11
- Primary Forest Type: Historically shortleaf pine

#### Illustrative Collaborators

- Central Hardwoods Joint Venture
- American Bird Conservatory
- The Nature Conservancy

#### Key Challenges

- Pushback from local leaders on smoke from prescribed fires
- Cultural bias against "collaboration"

#### Distinct Successes and Strategies

- Depth and breadth of monitoring plan
- Strong partnership between TNC and USFS
- Intercolaborative communication

The land-ownership pattern in the region is very patchy as USFS holdings are interspersed with private timber stands. The region has a long history of forest management, including the use of fire as a management tool. "We are a pyric forest," reported Rich Hall, staff officer with the USFS. There are, however, public misconceptions around the goals of restoration. USFS natural resource specialist Brian Davidson reported, "The public has grown up in an altered landscape. Their perception of a healthy forest may be completely different from what research indicates as a healthy condition."

### *Collaborative History and Goals*

Collaboration at this site can be seen at several distinct levels: the long term, informal cooperation of key individuals, a slightly more formal visioning body that meets less frequently, and a variety of broad regional initiatives focused on restoration. Many of the players in these overlapping collaborative groups are the same. In many ways, the core collaborators function as a sub-committee of the larger collaborative groups.

The Nature Conservancy (TNC), Central Hardwood Joint Ventures (CHJV), and the American Bird Conservancy (ABC) are primary partners to the USFS on this project. Appreciatively, TNC provides a significant amount of the scientific analysis influencing the restoration goals, while CHJV and ABC provide administrative capacity and monitoring expertise. A very strong partnership exists between TNC and the USFS district office due, in part, to the personal relationship between the

former USFS forest ecologist (now retired) and Doug Ladd. “For years we’ve established what I consider a very good working relationship with them [the USFS],” explained Doug Ladd. TNC regularly provides the district office with reliable science, and, because of this relationship, TNC was very involved in the 2005 Forest Plan revision process. Many restoration goals were incorporated at that point. Jane Fitzgerald from CHJV concluded, “I think that’s why we’re so far along. People that have known each other for years have been thinking about this for years. The CFLR money was the catalyst to really crystalize a more formal partnership.”

CFLRP funding has allowed this USFS district to increase the scale and number of restoration projects. “The success will be measured by how we accelerate restored acres across our priority landscapes and how that benefits the community and our collaborators” underscored Davidson.

The broader Missouri Pine Oak Woodland Restoration Project (MOPWR), the collaborative group technically associated with the CFLR Project, was formed in 2009. It used a consensus-driven process to identify high-priority areas for pine-oak woodland restoration that led to the CFLRP proposal. MoPWR has approximately 30 members from a broad range of agencies and nonprofits. Notably, there is not a representative from the wood products industry.

### *Key Challenges*

The lumber market in the area is robust, but the market is primarily for red and black oak. White oak, shortleaf pine, and small round wood do not have near the same economic viability, yet these species are the ones being restored. “I think we may have been a little glib in CFLRP about how easy it was going to be to establish economically effective markets for small round-wood and pre-commercial material,” said Ladd. The USFS feels that the larger problem is processing biomass. There are no processing plants close to the forest, and the cost of transporting the product generally exceeds its value.

Collaborative efforts have not always been well received by the public. A previous attempt at collaboration between several state and federal agencies was met with such rancor from the local population that the initiative was quickly dropped. One interviewee noted the general skepticism with environmental concerns such as climate change and suggested that framing problems in those terms can be toxic when building relationships with local citizens.

Currently, restoration is done through prescribed burning, and projects are generally focused on maintaining timber stands, but there has been some local pushback. This region does not face the large, severe fires common to western forests, and there is a history of locals using prescribed burns on private land. As such, fire does not have the stigma in this area that it does in the west, and local communities are amenable to the USFS’s use of fire. However, there have been instances of pushback from the community related to the scale of burns, one instance, at least, based on political motivations. In addition, there is some concern over how large-scale burns will affect the economic viability of timber. One problem posed by the reduced risk of large-scale fire in the project area is demonstrating the reduction of fire costs for reporting on CFLRP.

### *Distinct Successes and Strategies*

The group is just starting to develop monitoring plans, based largely on the current capacity of involved organizations and existing vegetation plots.<sup>52</sup> In addition to what is already in place, new

monitoring being developed seems to be mostly on bird populations as a result of ABC taking the lead. USFS Staff Officer, Rich Hall explained, “The monitoring component is very robust... that component, it is different, and it is significantly better.”

This group benefits from communication with the Shortleaf-Bluestem and Ozark Highlands collaborative groups. Having similar ecology allows these groups to discuss issues of ecological goals, project design, and multiparty monitoring programs. The bird-monitoring program that was developed by this group will also be used by the Shortleaf-Bluestem and Ozark Highlands collaborative groups.

## Shortleaf-Bluestem Community Collaborative Landscape Restoration Project

The Shortleaf-Bluestem Community CFLR project in the Ouachita National Forest contains 348,482 acres that cross the border between Oklahoma and Arkansas.<sup>53</sup>

Commercial harvest practices and fire-suppression have increased trees-per-acre but decreased diameter size. This has led to dense forests dominated by woody vegetation. In order to achieve the desired conditions of open park-like stands of shortleaf pine and bluestem, managers prescribe periodic thinning and frequent, low-intensity, burns.

The involvement of environmental groups in forest management practices was precipitated by the decline of the red cockaded woodpecker (RCW), which was listed as an endangered species in 1970.<sup>54</sup> By the early 1990s, the forest was down to 10-12 remnant breeding pairs, but through the recovery efforts of the last twenty years, which includes translocation, the forest now boasts up to 60-62 pairs. Suitable habitat for the RCWs includes retaining older, more established trees, and maintaining flyways. In general, when trees are harvested in the region, harvesters are using a shelterwood/seed tree technique, and they intentionally leave behind some native hardwoods as well. This leaves a mixed-species and mixed-age forest, which the collaborative believes is both healthier and more aesthetically appealing. This harvesting technique is referred to as the “modified even-age management system” with a desired rotation age of 120 years. One specific lumber company does not dominate the region, but rather, there is a network of smaller lumber mills. This group is exceedingly proud of the large-diameter high-grade wood coming out of the forest and into the local mill.

### *Collaborative History and Goals*

The collaborative group responsible for submitting the proposal is known as the Ouachita Mountains Shortleaf-Bluestem Alliance and is dominated by State agencies from Arkansas and Oklahoma as well as national environmental organizations. In addition, a strong partnership exists between The Nature Conservancy and the USFS. Doug Ladd of The Nature Conservancy (TNC) was integral to the collaborative group’s effort to outline the desired future conditions, a direct response to the listing of the red cockaded woodpecker as an endangered species. Along with state and federal agency personnel, they developed the habitat criteria for RCWs in the mid-1990’s, and have been working together closely ever since.

### **Ouachita National Forest, Arkansas and Oklahoma**



#### Project Parameters

- Landscape acreage: 348,482
- Proposed treatment acreage: 320,000
- Funding for life of project: \$21,927,000
- Year of Collaborative group formation: 1991
- Total number of collaborators:
- Primary Forest Type: Shortleaf pine and bluestem

#### Illustrative Collaborators

- The Nature Conservancy
- Arkansas Wildlife Federation
- National Wild Turkey Federation

#### Key Challenges

- Communicating with turkey hunters
- Declining timber value
- Difficulties with stewardship contracting
- Unpredictability of funding

#### Distinct Successes and Strategies

- Strong partner engagement in multiparty monitoring
- Strong youth program
- NEPA-approved acreage
- Meeting with other collaborative groups

The collaborators report hosting interested parties from the local and national level nearly once per month on the well-developed “Pine-Bluestem Buffalo Road Tour.” They have a well-practiced set of talking points about the work being done in the field and report. Orchestrated by Mitzi Cole, District Ranger, these field trips hit seven spots throughout the forest, and they are designed to highlight the work that has been accomplished for the last 20 or more years. While not a collaborative meeting, as they do not use these gatherings to discuss new resource management issues, these field trips have provided an opportunity for individuals to meet and share a meal in the forest, build relationships, and provide education and advocacy opportunities.

Some economic modeling has been done to calculate the opportunity cost of increasing the rotation age of forests to 120 years. However, recently, the lumber mill received a contract to supply the beams needed to rebuild one of the boardwalks destroyed by Hurricane Sandy on the New York/New Jersey coast.

### *Key Challenges*

In general, this project has been well supported for quite a while and seems to have no major conflicts. The partnership has attracted attention and support from many people including that of a county judge. TNC, along with everyone involved, very much wants to see this program succeed and expressed a high level of support for the work and the program in interviews and site-visits.

The restoration work is dominated by the task of restoring fire to the landscape on a large scale, but declining value of timber can prove a challenge. The general prescriptions for these forests after a harvest or replanting are to: 1) commercially thin; 2) hand thin mid-story and let it “cure” on the ground; 3) burn at least three times with short return rates. Steps two and three used to be supported by K-V funds, or funds from timber sales receipts, but with the decline in the value of timber, they have not been able to keep up with the acreage that needs treatment.

Although CFLRP funding has largely increased the group’s capacity, decreased funding from sequestration and unpredictable dispersal of the funds inhibit the group’s ability to achieve their stated goals for prescribed burn acreage. With the CFLRP dollars, the USFS plans to double its yearly prescribed burning from 50,000 to 100,000 acres, adding an additional seasonal fire crew and expanding the timing of burns beyond the dormant cycle (fall-winter) into the growth cycle (spring-summer). In 2013, the goal was to burn approximately 58,000 acres. In order to achieve their objectives, the fire crews need to be burning 4000-5000 acres per day when the conditions are right. While the crews typically operated with only one to two dozen firefighters and a helicopter before CFLRP, they still did not have the personnel to achieve this ambitious goal.

In this forest, USFS personnel report that stewardship contracting has not been an effective tool in this region. It unclear why this technique falls short, but it may be due to the ability of single contractors to complete the different management techniques required for stewardship contracts, or due to the relative high value of saw-timber that is still being harvested on the forest.

A major challenge for this collaborative is attempting to communicate with turkey hunters that prescribed burning can be good for the turkey population, though there may not yet be scientific consensus on this. Interestingly, Arkansas natives may believe that turkey populations are down and

that the USFS was to blame. They may also believe that USFS is treating the forest more like a commodity and less as an ecosystem by cutting so many trees down.

### *Distinct Successes and Strategies*

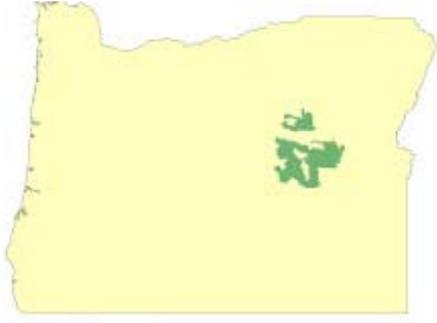
In recent years, the collaborative has met more formally with the Ozark Highlands CFLRP site through the networking of TNC's Fire Learning Network. With similar ecology, restoration techniques and stakeholders, this measure of efficiency has proven to be a welcome change for collaborators that may have to travel long-distances for redundant meetings. The region is also largely NEPA-ready, so there is little fear of conflict or litigation from outside parties.

In order to achieve the multiparty monitoring objective of the CFLR Program, TNC is doing vegetation work with plots throughout the region, and they may also be conducting some of the economic monitoring as well. In addition, the Southern Research Station is conducting a lot of research on the effects of fire on a variety of species including amphibians, butterflies, and native flowering plants. The research station is also working on a study that suggests that smoke emissions from fires within forests already in the desired conditions are much less than smoke emissions from fires in fire-suppressed forests.

This site is also trying to integrate a youth outreach program similar to what the Ozark Highlands Project is doing through a group called "Native Expeditions." USFS personnel are actively fostering a relationship with the executive director of this organization and creating opportunities for both educational and service-oriented youth programming. This could provide match and leverage opportunities, but the program is still in its infancy. In addition, Native Expeditions is looking to help update and improve the Buffalo Road Tour as they provide expertise and capacity in virtual education tools.<sup>55</sup>

## Southern Blues Restoration Coalition Collaborative Landscape Restoration Project

### Malheur National Forest, Oregon



The Blue Mountains, where the Southern Blues project site is focused, range from Southeast Washington to Northwest Oregon.<sup>56</sup> The Bureau of Land Management and the USFS own a large portion of the land within this region. The landscape is dominated by ponderosa pine, which was heavily logged through most of the 20<sup>th</sup> century until the Timber Wars of the 1990s. Since then, the Northwest Forest Plan imposed a 21-inch rule on eastern Oregon, eliminating the possibility of harvesting trees above that diameter and fundamentally altering the timber-dependent economy of the area. In addition, fire-suppression has left the forests at high risk of stand-replacing fires rather than the expected low-intensity fires typical of the ideal condition class.

#### Project Parameters

- Landscape acreage: 662,289
- Proposed treatment acreage: 271,980
- Funding for life of project: \$28,100,000
- Year of collaborative group formation: 2005, 2008
- Total number of collaborators: 23
- Primary Forest Type: Ponderosa pine, douglas fir

#### Illustrative Collaborators

- Sustainable Northwest
- Malheur Lumber Company
- Western Environmental Law Center
- Local forest contractors (i.e. Grayback Forestry Inc.)
- Oregon Wild

#### Key Challenges

- Maintaining local mill in light of 21-inch rule
- Sustaining collaboration
- Controversy over post-fire salvage logging
- Effectively accelerating restoration with limited funding

#### Distinct Successes and Strategies

- Increasing timber output from public land
- Potential use of "decision-trees"
- Using the collaborative process to find acceptable salvage plan
- Becoming a 501(c)3

The town of John Day, home to the Blue Mountains Forest Partners, one of the two collaborative groups involved in the Southern Blues CFLR project, has roughly 1,700 residents. This small town exudes a refreshing sense of community, and the personal relationship between the USFS and the community is evident. The Southern Blues project is bound together by a strong sense of community, driven by a sense of necessity for both industry and ecological conservation, and motivated to find efficient solutions that all partners can see and agree on.

### *Collaborative History and Goals*

The feeling of imminent catastrophe and economic hardship inspired collaboration at this site. A USFS employee that works on partnerships explained, "The timber community was in crisis and there was scarcity of material. The flip side of the coin, the conservation community witnessed the severe wildfire seasons...and saw scarcity from the perspective of losing ecosystem. Those things being equal helped bring those two factions together and be willing to sit down at the table and begin to talk."

Comprised of two separate place-based collaborative groups, the Southern Blues site in Eastern Oregon benefits from a strong working relationship between the USFS and local partners and from the lessons learned from successes prior to CFLRP. The long-term, consistent membership of the group has created a harmonious atmosphere in which the USFS

seriously considers collaborative recommendations. This has allowed those who would otherwise be in opposition to work hand-in-hand.

Blue Mountain Forest Partners, the collaborative based in John Day that drives much of the CFLR work, has been around for eight years. Low turnover of members has enabled a strong sense of trust to develop. Fuels specialist Roy Walker, who serves as the USFS point person for the CFLR project, recollected that at meetings he occasionally would step out of his role with the agency. “I have been a part of the community for 30 years. You kind of forget that you're also that,” he said. This blended sense of identity fosters a truly collaborative environment.

The Harney County Restoration Collaborative, founded in 2008, exists at the southern most extent of the project area. In its formation, this collaborative group benefitted greatly from the assistance of intermediaries such as The Nature Conservancy and the Oregon governor’s office. It is identifying and filling key positions and is beginning to raise some of its own funds.

The different decision-making processes of the two collaborative groups involved in the CFLR site result in different group dynamics. In order to move forward with projects, the Harney County Restoration Collaborative requires a 100% consensus between all members for decisions. Blue Mountain Forest Partners strives for consensus but will take a majority vote when it cannot be reached. It can sometimes be both more contentious and “a little more aggressive in their approach,” according to one USFS employee, than the Harney County Restoration Collaborative.

Strong meeting facilitation, provided initially through funds from NFF and Sustainable Northwest, set the Blue Mountain Forest Partners on a path to success where past efforts to integrate local stakeholders had failed. Mike Billman, the former timber manager of the Malheur Lumber Company, explained that while members initially grouped only with other likeminded individuals at meetings, that separation is no longer seen today. If an observer of a current meeting were to try and identify the different sections, “You really wouldn't know. We're intermixed. We're laughing. We're talking. It's really a change. It's a great atmosphere,” he added.

Momentum from this strong working relationship energizes the current work on the forest. Roy Walker noted, “Since the collaboration, I mean our very first project, each one builds. We're being more creative, and we're getting more acres covered. So it's been huge.” They seek to work on almost 700,000 acres with 270,000 acres of treatment over the life of the CFLR project.

For the 2010 funding cycle, the USFS developed their unsuccessful proposal largely on their own. In 2012, they changed their approach. A USFS employee observed, “We turned it over to our partners and said, ‘Here, we think you can do a better job of telling the story than we did.’ And so Susan Jane Brown with the Western Environmental Law Center took the lead for the collaboratives, and they wrote the proposal with some minimal input from us, and that in large part is why it was selected the second time around.” He then added, “We take very seriously the value of what our collaboratives are doing, and we always see great value of what they propose to us.”

Collaborative group members value the working relationship and find common ground where there would otherwise be conflict. A few years ago, a fire on the Malheur resulted in litigation that to this day blocks any potential salvage logging in that area. Due to collaboration, the response to a more recent fire tells a different story. Billman recalled, “What happened is we pulled together a subset from our collaborative, and we'd already gained enough trust among us that we could together on this. And this subset included a couple of the furthest left environmental folks that we had, which

was amazing. So the idea was for tradeoffs in the one in order to get some off the other. And we pulled it off.” Furthermore, the members of this subset reached out to other organizations in order explain the decision and guide it through the approval process.

### *Key Challenges*

A primary challenge in the area is a decline in the timber industry compared to historic levels. The town previously had three different mills working multiple shifts, but now the Malheur Lumber Company runs a one-shift operation as the only mill in town. Through collaboration, the mill has created strong, positive working relationships with environmentalists that have helped keep the mill open in hard times. Regarding a salvage deal made possible through collaboration, Billman said, “I honestly believe that agreement saved us. So there’s a real life example of what this has done for us.” While many mills in Oregon are closing, this mill and community are experiencing the opportunities for growth provided by the collaborative group and process.

The groups also have concerns about membership and participation. Some members are simply losing interest and drifting away. The stresses of membership decline have become more apparent as the group begins to accelerate activity on the forest.

### *Distinct Successes and Strategies*

Going forward, the Malheur National Forest and its partners seek to sustain collaboration and create a framework for qualitative partner input. They utilize fieldtrips and have developed a feedback form to give the USFS their opinion on treatment techniques. “Meetings inside don’t do anything for you like a field trip does. There is something about getting out, on the ground, looking at it, and talking about it where you can find agreement,” noted Billman.

To further institutionalize and sustain its work, the Blue Mountain Forest Partners are seeking nonprofit status to assist with grants and maintain a greater control over funds. They consider this status one of the next milestone of success.

This group is developing decision-trees to respond to particular types of issues in the future such as salvage. They are exploring ways to set up guidelines to allow for accelerated work without having to fully examine each issue. “If we can just reach a plateau where activities really are streamlined and we’re not having to come to the table so much, we’ve got our guidelines developed, our zones of agreement, where the agency can take those and implement with less input from us. So therefore do more with less effort out of us... And we’re getting there,” noted Billman.

The Malheur National Forest and local communities are already benefiting from collaboration and CFLRP. Regarding timber, Billman said that collaboration is resulting in the forest looking to triple its program even in the face of declining budgets. This development is a testament to the effort that has been put in from this collaborative group. Ecological programs are also receiving more funding than previously. Fuels specialist Roy Walker of the USFS said, “The other projects for wildlife, watershed, fisheries – while they may not be getting a lot of funds, it’s much better than they’ve been in the past.” From an ecological perspective, even modest increases for funding in these areas are a success.

## Weiser-Little Salmon Headwaters Collaborative Landscape Restoration Project

Payette National Forest is located in an agricultural region of west central Idaho.<sup>57</sup> The region contains the headwaters of the Weiser and Little Salmon rivers, which provide benefits to flora and fauna and offer ample recreation opportunities.

Forests in the region are predominantly dry ponderosa pine. Past fire suppression and dry conditions have resulted in increased vulnerability to fire, ecosystem degradation, and variation from historical standards. Stands in the forests tend to be dense and even-aged in composition because of an altered fire regime and long-term livestock grazing practices.

Valley County, contiguous to CFLRP treatment, is recognized for its recreation opportunities, including those on the Weiser and Little Salmon Rivers. Restoration goals at the site often center on increasing critical habitat for Chinook salmon and steelhead trout.

Along with restoring watershed condition, there also is a strong interest in sustaining local economies at the site. In Valley County, 90% of lands are federal. Agency decisions can have significant impact on the local economy as such. Unemployment in the area is high.

Predictably, restoration goals and recreation goals are often pitted against each other at the site, especially in the context of roads.

### *Collaborative History and Goals*

The Payette Forest Coalition is a younger collaborative group. In June 2009, the Woody Biomass Utilization Partnership—a project of 4 counties in Southwest Idaho—and the Rocky Mountain Elk Foundation invited a broad range of stakeholders for a meeting at the Council Ranger District to address plans for an Adams County biomass power plant. After some discussion, plans for the plant were scrapped because timber supply was deemed insufficient. Despite this setback, collaboration between those at the initial meeting continued and Payette Forest Coalition (PFC) was formed. PFC submitted a proposal to CFLRP in 2010 but was not selected. Its successful 2012 application included an increased scale of treatment, from 100,000 to 190,000 acres.

### Payette National Forest, Idaho



#### Project Parameters

- Landscape acreage: 798,900
- Proposed treatment acreage: 190,000
- Funding for life of project: \$37,400,000
- Year of Collaborative group formation: 2009
- Total number of collaborators: 32
- Primary Forest Type: Ponderosa Pine

#### Illustrative Collaborators

- Woody Biomass Utilization Project
- Rocky Mountain Elk Foundation
- Adams County

#### Key Challenges

- Turnover in collaborators inside and outside the agency
- Trust that recommendations are influencing USFS planning and decision making
- Slow pace of collaboration

#### Distinct Successes and Strategies

- Online presence
- Developing monitoring plans
- Decreased litigation

The coalition is organized with a steering committee and subcommittees on vegetation, roads and recreation, and monitoring. The coalition uses a “consensus minus one” decision rule that has proved effective in preventing standstills. Members with dissenting opinions are expected to explain the rationale behind their vote. When membership is more divided on issues, the steering committee can formulate recommendations and then bring them back to the rest of the coalition for a vote.

Up to 20 collaborators regularly attend meetings, with more participating through the website Spatial Interest, where minutes are posted and there is a forum for discussion and providing input. Because the membership is so spread out, involvement through the website has been crucial. Rick Tholen, a Payette Forest Coalition member, estimated a third of the coalition is volunteer and underscored that, “They’re not going to make every meeting, and they need to feel like they can stay involved.”

### *Key Challenges*

Tensions between different interests are clear at this site, and at times have resulted in questions over the collaborative group’s influence on USFS decision-making. Confusion over requirements in the CFLRP statute and with the Forest Plan has exacerbated those tensions. On one occasion, the Payette Forest Coalition had negotiated a set of recommendations that included 25 miles of road decommissioning, which was short of forest plan requirements. The U.S. Fish & Wildlife Service informed the USFS that more miles had to be decommissioned to fulfill a requirement concerning bull trout. The Payette National Forest chose to accept the remainder of the negotiated set of recommendations but increased miles decommissioned to almost 100, upsetting collaborators. This series of events brought up some concerns over the potential for the USFS giving little weight to collaborative group recommendations, with the collaborative group acting as little more than a “rubber stamp.”

Some USFS personnel that had worked on collaborations in the past and were interacting with the collaborative group left their posts at the same time as the bull trout event, complicating communications and trust. Rick Tholen from Payette Forest Coalition noted, “Turnover within the USFS, particularly at the leadership level, has a chance to really disrupt these groups and be a real problem.” Perhaps because of agency turnover and some internal changes—a new facilitator and a member from an environmental organization leaving—Payette Forest Coalition recently had a regrouping meeting. Some see the departure of the collaborator from the environmental organization as leaving an imbalance on the coalition. Environmental interests, it seems, are underrepresented. Jake Strohmeyer from Payette National Forest explained, “If you get too much movement on one side of the interest groups, it really sets us up to not be successful in the long run,” as such groups “help balance the end product” and also “help garner support from the other environmental groups that aren’t necessarily directly involved.”

Some concerns were raised that collaboration is going at too slow of a pace overall, and many want to see more aggressive, rather than conservative, recommendations. One interviewee from the USFS said it would be worthwhile for the collaborative group to “get back to that bigger landscape-level look.” Agency personnel have heard that the collaborative group feels ID teams are not involved enough, making implementation more difficult. Another difficulty is that treatments are split across both the Council and New Meadows ranger districts.

## *Distinct Successes and Strategies*

Overall, the relationship between Payette National Forest and Payette Forest Coalition is less established but up-and-coming because of some of its strategies. Payette National Forest has divvied up CFLRP roles within the past year, for example. Other strong points include the use of Spatial Interest—the online record of collaboration and forum for members—and an annual conference that Payette Forest Coalition member Idaho Conservation League holds that opens up conversation with other coalitions.

The next big step for the group is monitoring, with Payette Forest Coalition member Dennis Murphy concluding that "monitoring is a collaborative role which merits greater emphasis for the group." The Payette Forest Coalition strategy will build on baseline USFS monitoring and Washington Office reporting requirements for CFLRP. The group will recommend priorities to the Forest Service for allocation of their monitoring funds. In spring of 2014, the group published a draft version of monitoring results through the first two years of implementation.

Reducing appeals and litigation has been a main goal and point of success for the collaborative group. The group has delivered one set of recommendations to the USFS in the 50,000-acre Mill Creek Council Mountain project, now in the implementation phase. The Forest Service recently awarded stewardship contracts, and restoration treatments are underway. The Payette National Forest did not experience any lawsuits or major appeals with the project, which USFS employee Jake Strohmeyer says "just doesn't happen anymore" for a "50,000 acre vegetation management project." Two other projects are in progress or on the agenda.

## Zuni Mountain Collaborative Landscape Restoration Project

### Cibola National Forest, New Mexico



Efforts will be completed as part of the Zuni Mountain CFLRP Project on both piñon-juniper and ponderosa pine forest types in West Central New Mexico.<sup>58</sup> Broad desert scrublands and volcanic plateaus with isolated mountains and mesas characterize the region. Like the terrain, the Cibola National Forest is noncontiguous and highly dispersed. The higher elevations sustain timber-producing stands in project areas, 60-70% of which is at risk for active crown fire, and 10-20% is at risk of passive crown fire. High-intensity crown fire constitutes the highest risk to the health, resilience, and function of the Zuni Mountain landscape. This landscape supports many species of flora and fauna, one of which is the state-endangered and endemic Zuni bluehead sucker, which is currently proposed for federal listing.

#### Project Parameters

- Landscape acreage: 210,000
- Proposed treatment acreage: 56,000
- Funding for life of project: \$7,600,000
- Year of Collaborative group formation: 2005
- Total number of collaborators: 25
- Primary Forest Type: Ponderosa pine, pinon-juniper

#### Illustrative Collaborators

- Forest Guild
- Mt. Taylor Manufacturing
- National Wild Turkey Federation
- Zuni pueblo
- New Mexico state agencies

#### Key Challenges

- Creating useable small diameter wood products that have demand
- Endangered fish: blueheaded sucker
- Local unemployment

#### Distinct Successes and Strategies

- Small project area
- Partnership with state agencies to avoid duplication and strengthen monitoring.
- CFRP grants to industry and nonprofits
- Demand for fuelwood from pueblos
- Annual science priorities meeting

The Zuni Mountain landscape is of cultural importance to several Native American pueblos and tribes including the Laguna, Acoma, Zuni Pueblos, the Navajo Nation and the Ramah Navajo Chapter. Outside of the pueblos, the sparse population is concentrated in two railway towns founded in the 1880's: Gallup (population 21,000) and Grants (population 9,000). Gallup was known for its mining operations, while Grants was a timber town.

In general, the USFS in New Mexico is uniquely positioned to achieve forest restoration work because of the pre-existing Collaborative Forest Restoration Program (CFRP). This program provides grants to other organizations and companies that are working to achieve forest restoration.

### *Collaborative History and Goals*

Strong and dynamic group leaders, modest project scale, and effective utilization of funds from the New Mexico-specific Collaborative Forest Restoration Program define the greatest assets of the Zuni Mountain group at Cibola National Forest. One individual estimated that CFLRP only takes up somewhere between a third and a half of their focus when combined with CFRP and other initiatives. While the project site includes a collaborative group, its more informal structure operates mostly as an information-sharing body. As a result, USFS employees tend to work with individual collaborators more than with the group as a whole on projects.

Reflecting on the origins of their partnerships, a USFS employee remarked, “The Forest Guild’s 2005 CFRP created the WIN group. Obviously that team was really focused on establishing capacity.” WIN, or Wood Industries Network, is a loosely knit group that does not regularly meet or make decisions together. The group primarily gathers for information sharing. WIN member Matt Allen of the local lumber mill, Mt. Taylor Manufacturing, explained, “When we have a meeting, which only occurs sporadically, the normal attendees usually include me, a county representative or two, the Forest Guild, the USFS and New Mexico State Forestry. We compare notes so everyone understands where we are on the project and what is going on.”

The USFS touts their collaborative group meetings as another opportunity for different interested parties to speak to each other and partners alike. One USFS employee reflected, “Matt was talking about his CFRP [grant] and then Jeremy was talking about his CFRP [grant] and the next thing they’re engaged in this conversation about, we need to talk about partnering to do this, in these mountains. I just let them go for about 20 minutes and they said, ‘We’re sorry’ and I said, ‘No, this is why we’re here.’” The Washington Office recognized the group’s various strategic successes, including working collaboratively with its partners, by making it one of the early adopters for the new Forest Planning Rule.

A few strong personalities drive the work and the process of the Zuni Mountain group. First and foremost, Eytan Krasilovsky, of the Forest Guild, is involved in both this site and the 2010 CFLRP New Mexico site at Jemez. His group serves as the primary USFS partner and is the link to many of its other nonprofit and industry partners. The Forest Guild also took the lead on developing the CFLRP proposal. One interviewee remarked, “The Guild was responsible for a lot of the writing, but the Forest was responsible for a lot of the sideboards – the parameters that they wanted to do. Most things were talked about in a casual sort of way.”

Another strong leader for the group is Matt Allen. His company has retooled to take on restoration work, including strategically partnering with the National Wild Turkey Federation (NWTf) on stewardship contracts. At the same time, he is critical of the approach of the federal government. “I can’t invest in [infrastructure] with a government that *appropriates* funding for the work, but then may not actually fund it. Their funding needs to be guaranteed for enough time that a business is assuring funding will be provided. They need to plan and guarantee funding for at least ten years for a company to be involved. Otherwise, the risk is simply too great,” said Allen. Despite these frustrations, Allen still finds restoration work a central part of his business.

For social and economic impacts, the project focuses considerable attention on secondary economic impacts and works with local impoverished communities. In addition to counting the value coming off the Cibola National Forest, the site also considers the impacts of incoming logging crews and contractors on the local economy.

## *Key Challenges*

The concept of multiparty monitoring is not new at the Cibola as it is a component of CFRP. Regarding the collaborative process, a USFS employee said, “I think for our agency to really be successful we need to quit being out in front saying this is the best for the public and stuff, and we need to lead through facilitation. We need to get the right people at the table and be in the Forest Service, be in the audience.” Expanding that mentality into monitoring, the USFS is undertaking

social monitoring but also plans to use a third-party monitoring liaison from the Forest Guild for ecological monitoring in an effort to increase transparency. The shift to a more facilitative role in monitoring is somewhat of a challenge as it goes against the grain of the historical role of the USFS.

One challenge is in the market for wood products. There is simply not a large demand for wood products from restoration treatments on the Cibola. The wood products are smaller than Pacific Northwest timber and they are not as valuable as eastern hardwoods. The people from the local pueblos collect much of the small diameter wood for fuel. The USFS receives some revenue from this through firewood collection permits, but the local industry does not benefit. They need a market.

### *Distinct Successes and Strategies*

The project benefits heavily from the use of CFRP funds. CFRP, the federal program that started the collaboration and that serves as somewhat of a predecessor for CFLRP, exists only in New Mexico. Its grants can be used for a wide range of projects. Examples include a grant to Matt Allen for infrastructure improvements and another to NWTF for project planning in the CFLRP project area. The USFS cannot use CFLRP funds for such projects. In many ways, the Cibola views CFLRP simply as a supplementary source of funding to these initiatives. One USFS employee couched it under added capacity when he said, “We recognize that we needed to continue this concept of making an investment to get acres restored.” They also consider CFLRP an opportunity for more of a focus on fire restoration.

Another unique success of this site is an annual meeting that the USFS hosts to discuss assessment priorities with stakeholders. By incorporating their feedback, the Cibola knows that it is looking at areas that stakeholders consider high priority. Through the meetings, for example, Cibola identified a need to focus on monitoring the Zuni bluehead sucker downstream from the areas where they are working. An added benefit of the meetings is that stakeholders know what type of scientific work is being done on the forest. The Cibola has also partnered with New Mexico Environmental Department, who is already doing much of the monitoring work that they need, in an effort to avoid redundancy. One stakeholder reflected, “We’re installing monitoring across boundaries.” This approach enables a proactive stance on issues around the fish, with stakeholders commenting “But we’re ahead of the ball, we’re talking about buffers and habitat and we’re doing monitoring that assesses, have we disturbed a lot of soil where the habitat is and does it exceed some threshold?”

The collaborative group’s focus on supporting local pueblos in a variety of ways is seen as a success. Direct employment, particularly at Mt. Taylor Lumber Company, provides stable, skilled-labor jobs to the region. Allen said, “My crew is primarily Navajo, and the unemployment rate on the nation is very high. I’m fond of them. They’re good people.” Additionally, the USFS plans to work with the Bureau of Indian Affairs to help train a saw crew from the local pueblo. A third positive influence on tribal communities is seen in firewood permits. Local residents collect much of the small diameter wood, which is considered a byproduct of the project, and use it to heat their homes.

With a modest-sized CFLR area, the Cibola created a context where the work is not a burden on the rest of the forest. The Cibola made only modest requests for their CFLR area, according to Fox. “We put in a proposal that asked for only \$800,000,” based off the investment that they would otherwise be “putting into this project annually.” The site includes only two NEPA project areas, one already planned and another waiting on a CFRP grant-stimulated 17,000-acre survey by NWTF. The Cibola considers their conservative request to be part of a strategy to deal with its noncontiguous ranger

districts. Fox said, “Unlike other places, we can't build capacity in one general area and have it service multiple districts.” By not requesting too much in CFLR funding, the Cibola felt that they could continue to build up capacity in the other districts instead of focusing resources on a single project.

## **III. Cross-Case Analysis**

## A. Collaborative Group Contexts and Structures

*What is the structure of each collaborative group, what factors influence that structure, and how does this structure affect the implementation of CFLRP?*

This section explores the spectrum of collaborative structures, the factors that influence these structures, and the impacts they have on how collaborative groups function both within CFLRP and, more generally, over long-term collaboration. In addition, this section provides observations of strategies different collaborative groups are implementing to overcome the inevitable challenges of long-term collaboration.

The nuances of people, place, and events uniquely shape each collaborative group and process. As a result, every story of collaboration tends to look a bit different. The site storylines provide an overview of many of the unique aspects of the various groups; these dimensions have the most impact on how each of the groups function and the type of work they undertake. The 13 groups in the 2012 CFLRP cohort vary widely with respect to the formality of their processes. Several factors often align to determine collaborative structure – reasons for collaborative formation, percentage of public land, and regional differences in community dynamic. Determining which aspect drives the form that a collaborative group or process takes proves difficult, but the relationship between each of these factors and structure is clear. Describing these aspects forms a foundation from which deeper analysis as to how these different types of collaborative groups or function may evolve over time and the effects of being swept into an institutionalized national network.

### *Varieties of Structure*

In establishing the Collaborative Forest Restoration Program, the Omnibus Public Lands Act of 2009 refers to the presence of “collaborative processes”. It provides some guidance about legal restrictions for the process, but does little to define what collaboration involves. Even though CFLRP labeled 23 different groups around the country with the same “collaborative” term, their structures and procedures vary greatly in their relative formality. In addition, USFS employees are somewhat constrained by FACA and must be careful to continue to engage stakeholders from outside the collaborative group.

On the spectrum of collaborative group formality, more formal groups tend to have regular meetings, clearly delineated structures and positions, and explicit decision-making rules such as majority voting or unanimous consensus. These groups also may have written charters that define their operations, signed memorandums of understanding with each other or the Forest Service, or trained facilitators and paid administrators. Some of these groups, such as the Blue Mountain Forest Partners in Oregon, have gone so far as to create 501(c)3 nonprofit organizations in order to deal with grants and money held by the group.

Groups that are relatively informal meet as needed and often infrequently. They typically have loosely defined membership and might be comprised of individual partners rather than a structured

group. The more informal partnerships might not even use “collaborative” as a noun but instead think of themselves as simply working collaboratively with the USFS on particular projects.

Figure 5 displays this spectrum graphically, using the presence of facilitation and governance documents and meeting frequency as coarse measures of formality. The placement of these groups is relative and certainly not fixed over time. For example, the Lakeview Stewardship Group, which has been meeting consistently for many years, lacks formal governance documents, making it a relative outlier. However, as leadership turnover threatens the continuation of the group, members of the collaborative may seek to create this kind of institutional memory.

While some groups are more formal than others, this statement does not mean that they are better or more effective. Moving towards greater formality is not necessarily the same as moving toward greater effectiveness. Collaborative groups need to reflect their context and history in order to accomplish their goals and these differences are reflected in their varying structures.

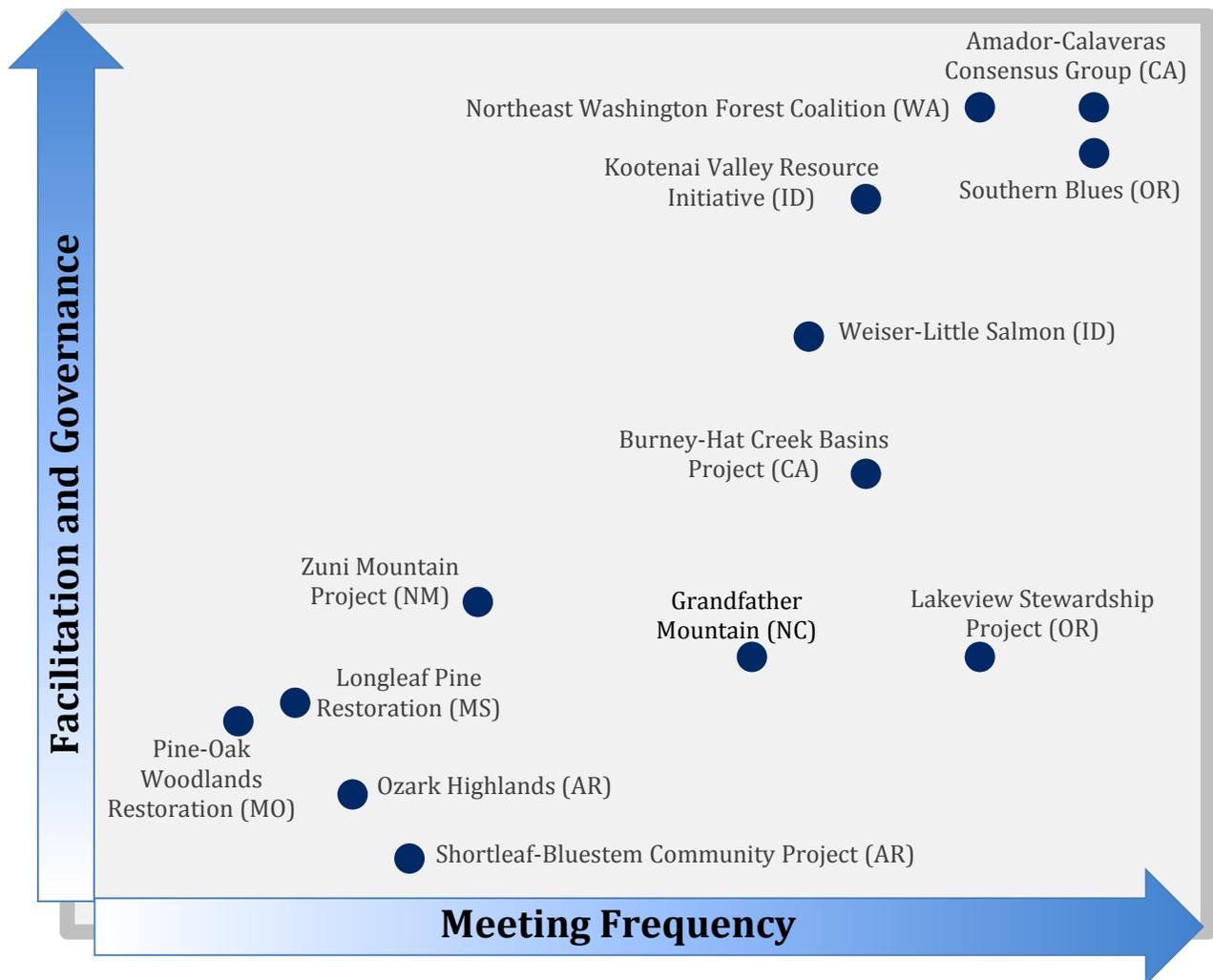


Figure 5: Relative Formalities of 2012 CFLRP Cohort

### *More Formal Collaboration*

More formal structures provide a more controlled environment for discussing high conflict issues. They also tend to create a sense of broad support for decisions made by the group when it effectively engages. They are comprised of diverse stakeholders, and their structures help groups weather turnover in participants by relying more on the process than on certain individuals. Drawbacks include greater needs for facilitation and administration, a higher bar for time commitment of members, and the potential for decisions to become bogged down in complex processes that can rival even the federal bureaucracy.

The Amador-Calaveras Consensus Group is a prime example of a highly formal, highly developed collaborative group. This group created a memorandum of agreement between its members in the 2011. It includes several subcommittees that handle the wide variety of its work. Early on, this group hired a facilitator to help them build a decision-making process and develop rules to govern the collaborative. Now that they are more established, the members rotate through facilitation duties and only bring an independent facilitator as needed.

One of two groups working as a part of the Southern Blues site in Oregon, the Blue Mountain Forest Partners were born out of a sense of crisis caused by wildfires and the Timber Wars. The timber industry in eastern Oregon felt the pinch of a “21-Inch Rule” in the Pacific Northwest Forest Plan that restricted the harvesting of large trees and changed what was available to local mills for processing. After several failed attempts to bring stakeholders together, this group coalesced when members found that while many of them had different backgrounds and priorities, they ultimately had similar goals for the area. Due to the history of conflict in the region, a more formal structure made sense. This group used facilitators throughout most of its lifespan—now close to ten years—and created a majority rule decision-making process. One participant describes the effect of this decision-making process as one that focuses on “different degrees of consent” rather than a unanimous consensus format that could try to gloss over differences and limit the amount of work the group is willing to accomplish. The participant said that they are able to be more progressive in their recommendations as a result.

### *More Informal Collaboration*

Informal collaborative groups or processes are perceived as less threatening in areas where the public at large may view formal collaboration and cooperation between government agencies as an anathema. A pronounced example exists in the Pine-Oak Woodlands Project. While there are many highly functional relationships that cross the borders between agencies, nonprofits and industry, the group functions as a loose cooperative of individuals from groups such as The Nature Conservancy and Central Hardwoods Joint Venture, a nonprofit focused on wildlife.

It is important to note how collaborative groups, and government agencies in general, are perceived in this region. A previous attempt at a more formal interagency collaborative was met with deep distrust by the community and heated rhetoric about government taking of property. The difficulty here surrounded not a specific issue, but rather the notion of working with the government itself. Given this context, the Pine-Oak collaborative group may be as structured as would be acceptable to the community and may benefit from keeping a lower profile.

An informal structure allows collaborators to focus on building capacity rather than internal processes. The Longleaf Pine collaborative group has a more informal structure. They do not have formal meetings with facilitators or written government documents. However, there are many fruitful partnerships between the USFS, environmental nonprofits, industry partners, and other agencies. Since forming, the collaborators have met a number of times and a few of the main stakeholders continue to be active including The Nature Conservancy, Army National Guard personnel at Camp Shelby, and Mike Davis from Southern Mississippi University. They work closely with the USFS to work on National Forest land. This group has, deliberately or not, chosen to stay away from a more formal collaborative structure. As a result, the group expends less energy on meetings and structure. Instead, the partners focus more resources maintaining the momentum of the actual restoration work.

Agency members at this site also use the word “collaboration” internally to describe their cooperative work within the office. Group members meet one or two times a year as a whole to discuss strategies for threatened and endangered species and other issues of concern. In addition, the agency does considerable outreach to the community, organizing river cleanups, attending community events and picnics, and holding workshops for landowners interested in emulating their management techniques. These various meetings, while fairly ad hoc, combine to meet many of the same tasks accomplished by a more formal collaborative group.

Another less structured collaborative is the Zuni Mountain Project in New Mexico. This group, while more informal, has some formal aspects and shows how the formality of structure exists on a continuum. Here, the USFS works with individual groups as “collaborators” rather than as part of a decision-making collaborative group. These stakeholders occasionally come together as part of the Wood Industries Network, developed by a grant from the state-specific Collaborative Forest Restoration Program (CFRP) in 2005, but their meetings are more for information sharing than for coming up with projects or proposals. Once a year, they meet to provide input to the USFS on priorities for assessment and monitoring in the coming year. Their advice is not a group decision but simply an opportunity to provide input to USFS decision-makers.

Informal groups pose a much smaller administrative burden. The Ozark Highlands and Shortleaf-Bluestem groups are examples of this type of efficiency. So much overlap exists between collaborators in the two CFLRP sites that it seemed logical to bring the groups together. The combined group functions as one large network that meets twice a year to discuss progress and vision for the future. As such, the two collaborative groups are able to rely on one key person from The Nature Conservancy to handle logistics. While each of these events requires nearly a week of planning, the fact that these collaborative groups only meet twice a year lifts a tremendous burden from any one individual or organization.



*Picture 2: Collaboration at the Shortleaf-Bluestem Project Site*

Formal groups may not be able to find this administrative efficiency as the norms of the individual collaborative groups may prohibit these kinds of combinations. At the Southern Blues site, the two groups have resisted working as one larger collaborative because their internal formal processes are significantly different than the processes they use as a whole. As one interviewee reported:

There is no charter, there is no decision-making process that they specifically use when they are working together as the Southern Blues Restoration Coalition. So most of the stuff that they have worked on together is at a 30,000 foot level versus being down at the ground level when they're working individually.

## *Factors that Influence Structure*

Clearly, the formality of these collaborative efforts varies widely. While some are, or strive to be, a formal collaborative group in the textbook sense, other groups have neither felt the need to establish such structures or felt that the burdens of process established by formal structures actually act as a barrier to achieve the group's goals. Thus structure is a product of the circumstance in which each group formed.

How collaborative groups came together is the first important factor affecting structure. This precipitating event or setting establishes the tone for group interactions and plays a guiding role in the process even after initial reasons for collaboration fade. While all situations are unique, the 2012 CFLR sites tend to fall into one of two groups. A number of collaborative groups formed in response to conflict, a sense of gridlock, or a realization of interdependence in addressing problems for a specific place or landscape. The other groups have come together to benefit from an opportunity such as a grant, a specific funding stream, or a chance to increase capacity through strategic partnerships. These origins affect the need for formal structures and the sense of common cause within the collaborative groups.

Collaborative processes also appear to vary based on the landownership patterns in the region, which can affect the interdependency of industry and other stakeholders on management of public lands. In addition, the cultural acceptance of collaboration as a tool and general wariness of government affect the framing and membership of collaborative groups.

The relationship between the USFS and the surrounding community, including the collaborative group, is intricately interwoven with all of these factors. In addition, the agency retains decision-making authority over proposed actions on the National Forest lands, which sets up potential power struggles when collaborative groups are legitimized through legislation such as CFLRP. This tension can erode trust between stakeholders and the USFS and is further complicated when collaborators perceive that the funds for CFLRP are merely a stop-gap for dwindling budgets or if higher level agency personnel are not supportive of the project. As formal collaboration can be used as a tool to build trust and understanding, while also providing a structured way to deal with differences of viewpoints, these structures tend to be more common in areas with higher levels of conflict.

## *Conflict-Driven Collaboration*

Respondents at several sites commented that their group came together in response to the "Timber Wars" of the 1990s or as a reaction to a need for community development in the face of timber mills

closing. In both cases, there was a sense of gridlock and a mounting crisis due to local economic depressions or dramatic increases in fire risk.

In some cases, this sense of crisis is universal and aligned. The Calaveras Consensus Group, which later became ACCG, originally formed because of a “breakdown in social structure” following the closure of local lumber mills, according to one respondent. Many collaborative group members echoed this sentiment with comments such as “No one was happy with the status quo,” and the area needed an economic “shot in the arm.” These partners rallied around the notion of a common need to address a problem in the community and landscape caused by mill closure. No group could solve this problem on its own, so they joined together with the hopes of finding integrated solutions to the problem.

The perception of this crisis need not be the same from all sides. At the Southern Blues project, environmentalists saw a crisis in losing ecosystems to catastrophic wildfire, and lumber companies saw a crisis from lower outputs of timber. Regardless of this significant gap in the perceptions of the problem, stakeholders came together to overcome these frustrations and concerns through collaboration.

### *Opportunity-Driven Collaboration*

Another set of sites formed more around the idea of “getting work done.” These typically younger sites did not emerge out of crisis or gridlock but instead sought to benefit from particular opportunities: to capitalize on grant opportunities, such as the CFR Program in New Mexico, receive funds from specific sources like CFLRP, or strategically increase capacity such as sharing scientific expertise or monitoring data. The prospect of gaining CFLR funding even spurred some of these groups to crystalize partnerships or caused a group that had come together to respond to a particular event to shift to a more clear focus on planning and future work.

A report by The Nature Conservancy about the uniqueness of the Ozarks ecoregion served as the reason to create strategic partnerships in Arkansas and Missouri rather than perpetuate the gridlock or longstanding conflict. Here, the forests sought to benefit from collaboration to increase work by adding the scientific capacity of The Nature Conservancy. Despite being a western site, the Burney-Hat Creek Basins Project in California also belongs to opportunity-driven collaboration. A grant from a local Resources Advisory Council served as an impetus for the group coming together.

The case of the Longleaf Pine collaborative group presents somewhat of a hybrid of the two cases for forming, demonstrating that, as with many factors around collaboration, the system of organization can be better understood as a spectrum rather than discrete points. Hurricane Katrina in 2005 left much of the Gulf Coast in urgent need of rehabilitation. The De Soto National Forest needed to find ways to streamline the approval process for clearing hazard trees and the reestablishment of resilient ecosystems like bogs and species like longleaf pine. In addition to utilizing categorical exclusions to NEPA,<sup>59</sup> District Ranger Ron Smith reached out to local nonprofit organizations to get their input and buy-in outside of the traditional public comment and approval process. As one interviewee noted, “Ron Smith came in and instead of seeing this as a huge catastrophe, he turned it around and really put a positive spin on it. He used Hurricane Katrina to reach out to a lot of groups including what used to be a real foe for them.”

Even though the Longleaf Pine group is not without conflict, including recent issues regarding off-highway vehicle use and roads tied to confusion around the CFLRP work, the general acceptance of management allowed the collaborators to attempt to solve the problem of post-storm rehabilitation while focusing on new opportunities. Now, the collaborative centers on strategic partnerships with the Army National Guard at adjacent Camp Shelby and capacity-building relationships with The Nature Conservancy and America’s Longleaf Restoration Initiative.

Another slightly anomalous group is the Grandfather Mountain Restoration initiative. This collaborative group formed in response to one specific timber sale, the “Globe Project” rather than a long history of gridlock. Said one interviewee, “all of environmental organizations that were uncomfortable with the Globe project now have a seat at the table of the Grandfather collaborative and we know what the Forest Service is planning to do. And the FS is asking us for suggestions. We’re at a place where we can be proactive rather than reactionary.” While the group clearly formed out of conflict, they have not had to reckon with deep-seated disagreements in the way that many of the western sites have. This situation has allowed the group to meet less frequently, as there is less need to foster relationships between contentious members. This lower conflict situation is partly a result of a collaboration that is not particularly broad, so the group lacks industry members and community organizations.

Like the spectrum of formality, these different origins exist on a continuum with many factors influencing group formation. Figure 5 shows the three primary reasons for collaborative formation and a general sense of where each of the CFLR sites exist on this plane.

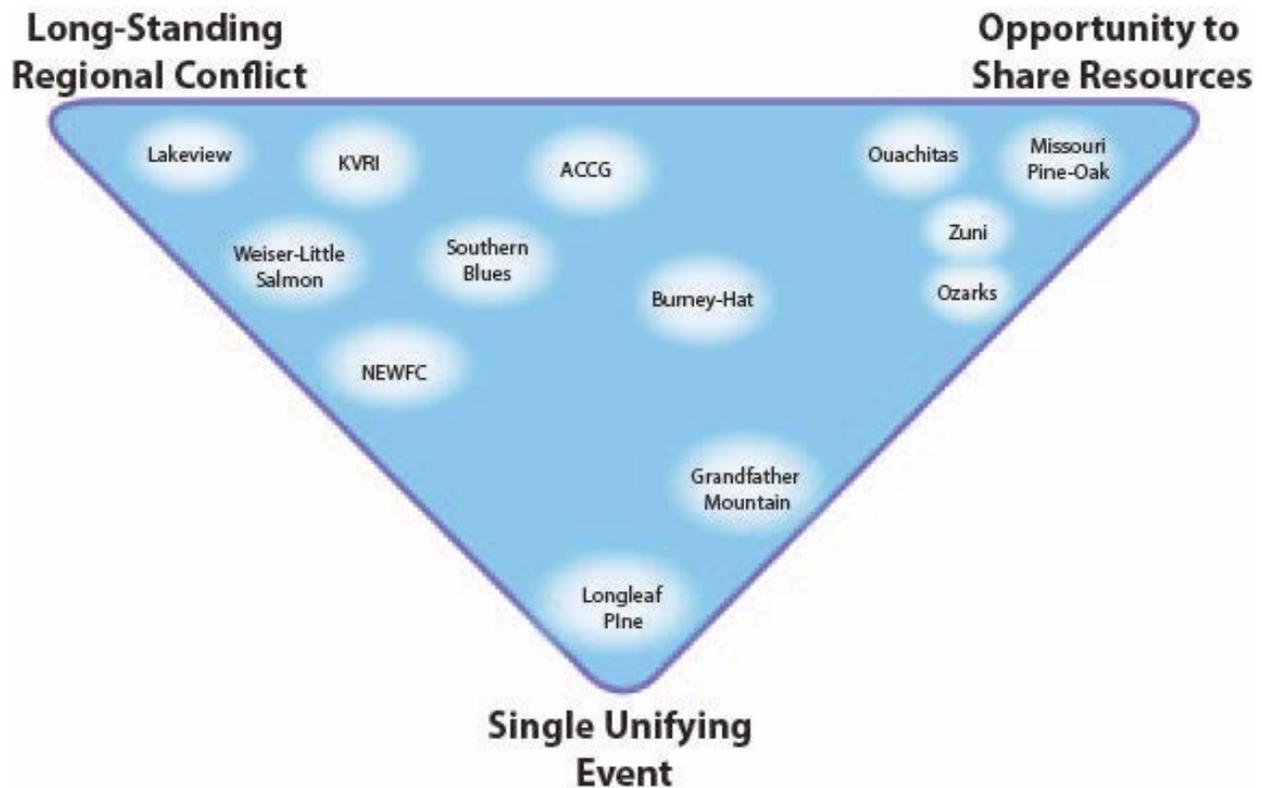


Figure 6: A visual representation of the reasons for collaborative group formation.

## Percentage of Public Land

In areas where the USFS and other government agencies control a large percentage of the land, the surrounding communities have a highly vested interest in the management of those lands and collaborative groups tend to have more formal collaborative structures. The range of land ownership in the counties surrounding the National Forests associated with CFLRP sites can be seen in Figure 6. Communities depend upon public lands for their economic livelihood, fire management can have dramatic effects, and productivity of forests can affect the local tax base. As a result, timber industry players are more dependent upon the National Forests and local communities are more strongly invested in influencing management decisions. These factors, typically the case in the West, make forest management a way of life and determine many aspects of a community. The higher stakes result in community partners seeking a government-like means to be involved and the timber industry seeking to play a greater role in a more certain body.

Where there are fewer public lands and greater private timber holdings, stakes are lower. In these areas, typically in the East, the timber industry can set its course without relying on the USFS and are less likely to join collaborative groups. Furthermore, a smaller number of community members feel the need to get involved with forest management. Typically from environmental nonprofits, these individuals get involved to build capacity and ensure that work happens on the National Forest to match their particular interests. For instance, the Central Hardwoods Joint Venture in Missouri

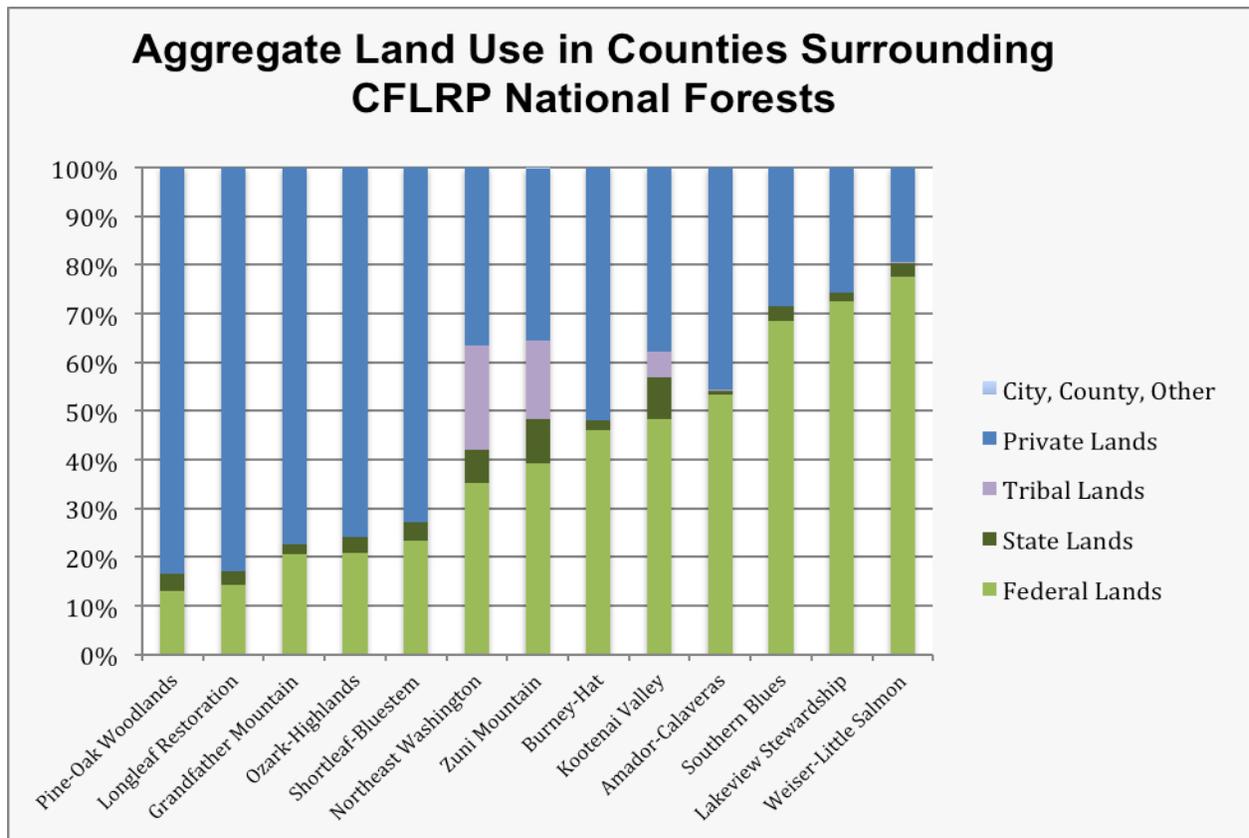


Figure 7: Land ownership patterns in counties surrounding National Forests. Data acquired using EPS-HDT plugin. Includes all counties containing National Forest land regardless of whether or not CFLRP is being implemented there.

pushes the collaborative group to focus on bird issues, and work at the De Soto National Forest in Mississippi aligns with the priorities of America's Longleaf Restoration Initiative.

### *The Acceptance of Collaboration*

The formality of collaborative groups, or the framing of those groups to the public, is affected by social acceptance of collaboration as a tool. Many interviewees expressed some level of exasperation at the number of local collaborative groups and frequency of meetings. Similarly, collaboration with agencies is seen by some as expanding the role of government, and is rejected for political reasons. While on the surface, there appear to be regional trends in these perspectives, with high concentrations of formal collaborative groups in the Northwest, the data suggests that these underlying sentiments are more universal.

Certainly the northwest is stacked with formal collaborative efforts and stakeholder groups, perhaps to the point of saturation. As one collaborator noted:

In years past, the Forest Service had tried pulling together stakeholder groups, and you'd go. And they would never last. I mean, you'd have one or two meetings and 'poof,' they're done. So I had in my own mind decided that I wasn't going to go to anymore of those because it's a waste of time, I've been to a number of them. So when this started I was like "yeah, another stakeholder group," and poo-poo'ed it. So I didn't actually get involved until about six months after it was going. And then, you know, you hear about it and you're like "they're still going? Fine, I'll go."

Similarly, the combination of the two collaborative groups in Arkansas suggests the saturation of collaborative efforts and the need to create efficiencies for key stakeholders, which are happening through shared resources and meetings among the collaborative groups.

In the Southeast, "collaboration" often referred to local coordination, such as between different units in a Forest Service office. These two definitions of the word "collaboration" on the surface point to a vastly different climate for formal or informal collaboration. Indeed, in Missouri a proposal for a collaborative effort was actually buried in the lot behind an agency building by frustrated and witty personnel due to public anti-government backlash rooted in conservative, small-government political views.

According to several interviewees, similar sentiments regarding collaboration were observed in other parts of the country. An interviewee at a western site reported significant pushback from local citizens who have an unfavorable view of state and federal agencies and collaboration in general.

It's ironic because what's happening with the CFLRP is we are doing things in the National Forest that they [local citizens] have been saying need to be done for 20 years... They're not big on restoration—we're getting restoration done—but there are trees coming out of the forest, there's fuel reduction going on, they should be happy about this. But instead they just can't come to grips with it being done in a collaborative way.

As these sentiments are somewhat universal, the regional differences in the acceptance of "collaboration" as a tool seem to be potentially more closely tied to the need to provide influence on public land as outlined above rather than an overarching disdain for collaboration.

## Relationship of Forest Service to the Collaborative Group

As CFLRP is a program funded and implemented through the USFS, agency staff does not come to the table on equal footing with other stakeholders. The central planning and implementation role of the USFS can create a perception of imbalance in power between agency staff and other stakeholders. Depending on the history of conflict in the area, this imbalance may result in a tension between partners and the USFS. The expectations of some collaborative group partners regarding who would make decisions in CFLRP have also resulted in some participants becoming frustrated with the program.

The imbalance of power between stakeholders and agency staff can be a barrier to trust. Since all projects must still go through the NEPA process before implementation regardless of collaboration, power clearly resides with the USFS. Figure 7 shows the percentage of proposed acres for treatment in a landscape had already gone through the NEPA process prior to CFLRP designation at each site.

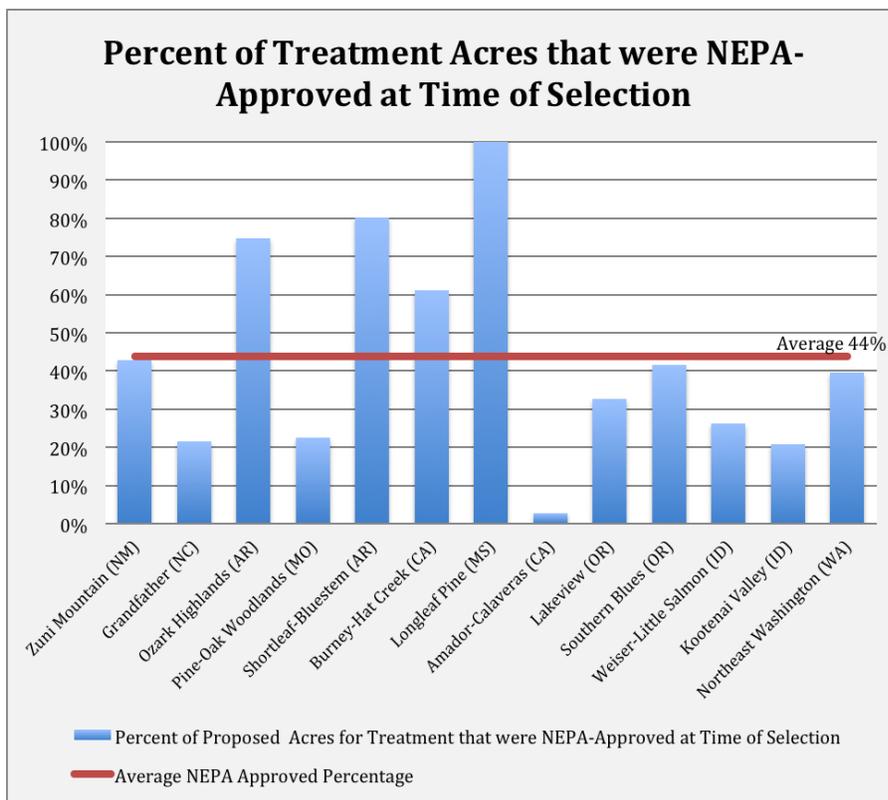


Figure 8: Percentage of proposed acres for treatment that were NEPA approved at time of selection.

As a result of NEPA regulation, most of the work implemented so far at CFLRP sites comes from projects that have already passed through the NEPA process, colloquially known as “shelf stock.” Some stakeholders feel frustration with these projects being counted as CFLR work if they are not truly the results of these collaborative groups. The need for implementation of projects planned before the formation of the collaborative group undoubtedly has some impact on the ability of these groups to build trust between the stakeholders and the USFS as project planners and implementers.

The Amador-Calaveras Consensus Group experienced some skepticism of approving shelf stock, but ultimately gave their approval. As an interviewee recounted, “There was some stress amongst some, saying ‘Wait a minute, we don’t know anything about these projects, and we’re signing off on them, giving some level of support for them’ and we worked through that. We said, ‘we totally understand your discomfort with this, but what we will do for (future) projects is we will commit to working closely with you, but you’re going to have to trust that we’ll develop that relationship.’”

Another dimension of the power imbalance between the agency and collaborative groups is the control over implementation and funding. Given that CFLRP is a program that operates within and is funded through the USFS, collaborative groups don't have access to funds from the program, and ultimately have little influence over how it is spent. One stakeholder at a western collaborative said "There was also a struggle, and it's in the same context, with who gets this money, what is it for, and where do we get to use it?" While it is intuitive that Department of Agriculture funds for restoration on National Forest lands would be dispersed to and managed by the USFS, initial confusion on this point can contribute to the tension between the collaborative groups and the agency.

|                             | Originally initiated by USFS? | Collaborative influence on USFS | USFS level of involvement |
|-----------------------------|-------------------------------|---------------------------------|---------------------------|
| <b>Amador-Calaveras</b>     |                               | + + +                           | + + + +                   |
| <b>Burney Hat</b>           | ✓                             | +                               | + + + +                   |
| <b>Grandfather</b>          | ✓                             | + +                             | + + + + +                 |
| <b>Kootenai Valley</b>      | ✓                             | + + +                           | + + +                     |
| <b>Lakeview</b>             |                               | + + +                           | + + + + +                 |
| <b>Longleaf Pine</b>        | ✓                             | +                               | + + + + +                 |
| <b>Northeast Washington</b> |                               | + + + + +                       | + +                       |
| <b>Shortleaf-Bluestem</b>   | ✓                             | +                               | + + + + +                 |
| <b>Ozark Highlands</b>      | ✓                             | +                               | + + + + +                 |
| <b>Pine-Oak Woodlands</b>   | ✓                             | +                               | + + + + +                 |
| <b>Southern Blues</b>       | ✓                             | + + + + +                       | + + + + +                 |
| <b>Weiser Little Salmon</b> |                               | + + +                           | + + +                     |
| <b>Zuni Mountain</b>        |                               | +                               | + + +                     |

Table 2: Shows if collaboration was initiated by the USFS, the level of collaborative influence on the USFS planning relative to the other 2012 CFLRP groups, and the level of USFS involvement in the collaborative group processes, relative to other collaborative groups. Check marks indicate that the USFS was the principle convener of the collaborative. Plusses indicate the strength of the influence or involvement based on our interviews and perceptions on a scale of 1-5.

The relationship between collaborative groups and the USFS is shaped by many of the earlier discussed factors that influence the way collaborative groups form and structure themselves, such as history of conflict. There is additional interplay between how involved the agency is in the collaborative process with the origins of the group and how much influence the collaborative has on USFS project planning. Table 2 shows the role of the agency in initiating the collaborative process, perceptions of the level of influence the collaborative has had on the USFS project planning according to interviewees, relative to other groups, and the level of involvement the USFS has in the collaborative process, also reported by interviewees and relative to other groups. This suggests that if

the USFS initiated the process, they stay involved as a major player and is probably reflective of those sites being agency-centric.

Groups with low levels of trust in the USFS pre-collaboration tend to continue to distrust the agency through the collaborative process, especially if they view the planning and implementation processes as opaque. Some stakeholders in CFLR sites across the West are concerned particularly about being a “rubberstamp” for the USFS to obtain social license to manage the lands in a way that the collaborative groups feel is not in line with their goals. As one collaborative group member at a western site summarized:

I know the other people would like to be much more optimistic, but I’ve seen examples recently that tell me the Forest Service is just doing what the Forest Service wants to do. And where it’s consistent with what our group gets consensus on, then they’re plenty willing to implement it. Where it isn’t, I’m not convinced they will.

Sharing an understanding of the role of the collaborative group in the USFS planning process and the role of the USFS staff in the collaborative group can increase understanding and improve the function of collaborative groups. However, this shared understanding takes time to create, and differences in understanding of responsibilities and roles can lead to further conflict and mistrust. Joining the CFLR program has led some groups to shift goals and focus to USFS lands, which has led to some stakeholders feeling that the original intent of the collaborative group is neglected.

In addition to feeling an imbalance in power and a lack of cooperation in this circumstance, USFS staff members sometimes feel concern over potential violation of FACA or NEPA regulations. This can create a backlash of agency opacity in response to collaborative groups seeking more involvement as decision makers. In circumstances where agency decisions do not integrate with collaborative group plans or demands, further breakdowns in trust and communication occur, as noted by an interviewee who said, “Whether or not they’re intentionally manipulating or not-- if they (USFS) fail to implement the recommendations of the collaborative over time, that’s a huge risk to collaboration.”

Openness around the decision-making process, information sharing, and how the agency will use collaborative group input can help overcome potential difficulties from power imbalance. Rather than having a planning group and an agency in conflict, these ideas can assist in creating an atmosphere where stakeholders and the agency can actually collaborate together on planning and projects.

### *Role of Structure in Ongoing Support for Collaborative Groups*

In analyzing the structures and contexts of these collaborative groups, it is often difficult to untangle the cause and effect of the various components. However, there are strong correlations between history of conflict, the high percentage of federal lands, strained USFS-collaborative relationships, and highly formal conflict-driven collaborations. As this program potentially expands, and the desire for local governance measures increases, it’s possible for collaborative groups of new forms to appear within the program. Formal groups could spring up out of regions that have little conflict, and likewise, informal “opportunity-induced” groups may appear from areas with considerable past conflict. Understanding the strengths, weaknesses, and capabilities of these two forms becomes increasingly important as more national programs incorporate collaboration as a requirement for

assistance or incentives. Support for these two types of group forms and capacity-building efforts may look very different as this program continues.

Similarly, some of the groups that are more informal are now being faced with more conflict in the region. At the Longleaf Pine site, new conflict is brewing over road closures and in Missouri, the timber industry is beginning to be concerned that the focus on restoring Shortleaf Pine more broadly will affect the availability of red and black oak, which are more profitable for timber. As conflict arises, these groups may choose to use a more formal process and would thus move up this spectrum.

In contrast, groups that are highly formal and meet frequently can suffer from fatigue or an overabundance of collaborative processes. These groups may be looking for a way to scale back the involvement of stakeholders and meeting frequency. External perceptions of the collaborative group may also affect their effectiveness, creating a desire for more informal approaches. For instance, at NEWFC some stakeholders view the collaborative group as overly-timber centric, exclusive of broad viewpoints, and occupying a special relationship with USFS. To counter this perception, staff at the Colville brought together a new, informal collaborative process to work on the Deer Jasper project, part of the forest's CFLRP area. In this process, NEWFC plays the role of stakeholder organization in a collaborative process. This example shows how in some ways, formal collaborative groups can become a burden or impediment to progress and informal collaborative processes may possess an advantage.

## *The Interaction of Collaboration and Policy*

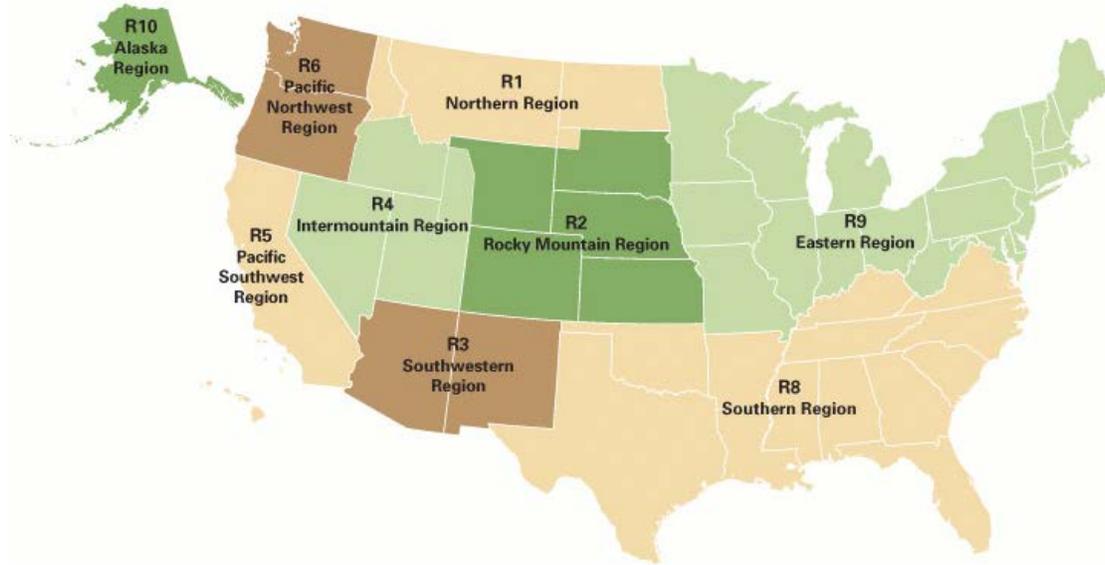
CFLRP has inspired two kinds of change within collaborative groups. The first is gaining the designation itself, which institutionalized the collaborative groups, promised funding for restoration projects, and legitimized collaborative efforts. Groups reacted differently to this change and individual's perceptions of the program were largely based on whether they believed the funding was truly additive, or if they felt like they were effectively influencing the USFS planning process.

The second change in collaborative groups is moving from project planning to implementation. Each of the 2012 CFLR sites meet the basic standards outlined in the Omnibus Public Lands Act of 2009 for being developed by "diverse interests" and being reasonably "transparent and non-exclusive." However, project sites should be "developed and *implemented* [emphasis added] through a collaborative process." Congress intended for collaboration of some kind to continue throughout the length of the program and for collaboration in implementation. This language does not require the same collaborative process, a minimum bar for collaborative process functionality, or even a consistent collaborative process in implementation. It does, however, imply that collaboration play a role beyond simply submitting a proposal.

As groups age they continue to evolve, and many may disband or fade into less active roles over time. Many of the collaborative groups in the 2012 cohort functioned primarily as a visioning body and provide minimal and periodic reviews of ecological, social, and economic goals; others were looking to have ongoing influence at more frequent intervals. Not surprisingly, the expectations held by different collaborative groups for their influence lies on a spectrum between these two points. Comparing these expectations to the relative formality of the groups suggests that how collaborative groups evolve over time may depend on the reason they were formed in the first place and the formality of their structure.

## *Gaining CFLRP designation*

The intention of the CFLRP was to provide additional funds to forests that met the requirements of the program. However, at many sites, individuals perceive these funds as stopgaps to budget-cuts in a national forest's existing appropriations rather than as additive funds. As an extension, collaborators at these sites feel that being a part of the program has not accelerated restoration work as they expected. The perception of these funds influences group opinion of CFLRP's overall effectiveness and can erode their trust that the Forest Service is collaborating in good faith.



*Figure 9: Regions of the U. S. Forest Service<sup>60</sup>*

Due to the decentralized nature of the USFS organization, the dispersal of funds for each project site goes through and is determined by regional offices (Figure 9). As a result, the relationship between each project site and its regional offices largely determines if the funds are “new money” or money that has simply been reallocated from elsewhere. Similarly, it also determines if the money is being used for the expected results and projects that each collaborative wanted to undertake or if forests are simply using the funds to plug budgetary gaps.

The collaborative groups in USFS Region 5 feel frustrated because they think that the CFLR funds are simply reshuffled dollars. One interviewee commented, “Everybody felt a little bit betrayed—in a sense—from the feds because, one, it's probably our mistake for realizing that it wasn't new money.” Partners at these sites feel there is some disconnect between the local interest in collaboration and the support from the regional office, which they think is somewhat disengaged on the issue.

While the USFS Region 6 office seems to be engaged in CFLRP, the sites have mixed views of whether or not the funds are doing what they hoped. The view of one site is captured in a comment from an interviewee: “The luster of the program has worn off because it is not getting done what people assumed it would do, number one. And number two, this whole thing getting back to timing of contract and everything else.” At another site, collaborative group partners believed that they could effectively use their CFLRP designation as leverage in seeking additional money from the

regional office. While this CFLRP designation may help their forest, it begs the question of what impacts occur elsewhere in the Region when funds are allocated.

The Kootenai site in USFS Region 1 feels disconnected from the regional office due to geographic distance. There, the collaborative group fills the gap by forming strong relationships with its local congressional delegation and their staffers. One interviewee remarked, “I think we’re very fortunate that we have a congressional delegation that is very engaged, they’re very interested in what we’re doing. They want to help however they can.” They rely on these individuals to tell their group’s story in order to secure sufficient funding from Washington, DC.

The Zuni Mountain collaborative group presents a special case in USFS Region 3. There, the Cibola National Forest and its partners depend upon the New Mexico-specific Collaborative Forest Restoration Program (CFRP) for funds. They view CFLR funds as complimentary to the diverse set of investments from CFRP rather than central to the work they hope to do. Despite serving in many ways as the model for CFLRP, funds from CFRP can be used for a wider range of purposes including planning and grants for investing in infrastructure.

Three CFLRP sites in the southeast Forest Service Region 8 feel as though they are receiving extra funding, but not necessarily because they are getting attention for CFLRP. Instead, the region appears to be funneling money to existing project priorities, such as longleaf pine restoration. “They were already doing that. They already wanted to do that. That was always a goal, but there was just lack of funds to do it,” said one interviewee. USFS personnel working with the Longleaf Pine collaborative group expressed a feeling of independence from the regional office. There has always been very little dialogue overall regarding the CFLR Program from the very beginning. In addition, these personnel have noticed a change in the work occurring on the ground in the site. An interviewee remarked that CFLRP has “accelerated the amount [of acres]. It has bumped up the amount we’re doing.”

Like the Longleaf Pine collaborative group, the restoration efforts outlined in the CFLR proposal of the sites in Arkansas support the direction already being taken by land managers. The USFS has been steadily increasing the pace and scale of acres burned for the last ten years and was actively looking for a way to increase this capacity. In the Ouachita National Forest, CFLR funds have doubled the capacity for prescribed burns, and in the Ozark-St. Francis National Forest, funds are being used through a stewardship contract with the National Wild Turkey Federation to complete a wide range of habitat improvement objectives. Here, none of the interviewees expressed any question as to whether the funds were additive. Rather, they expressed minor trepidation about having enough personnel to spend the money and get the acres burned.

The Pine-Oak Woodlands project in USFS Region 9 has also added more resources to the restoration efforts. Interviewees expressed confidence that this program was “a significant source of money to get the habitat done, which is a great motivator. Not just for the forest but for other people.” As a collaborator with projects throughout the Ozark ecoregion, an interviewee also noted that working across jurisdictional boundaries has created some challenges. Both the Region 8-Region 9 border and the state boundary cut across the larger management area targeted by many of the involved nonprofits.

Clearly there is a wide range of perceptions on the use of these funds. These perceptions significantly affect how different collaborative groups view both the success of the program and the value of investing time and energy into this project. It is apparent from the interviews that collaborators are

eager to make progress in good faith and are thus frustrated when they perceive that their increased efforts lead to business-as-usual outcomes

### *The Shift towards Project Implementation*

As discussed in previous sections, collaborative groups in the 2012 Cohort largely fall into two categories, formal and informal. As funds become available and groups are faced with implementation, these two types of collaborative groups appear to function very differently. Formal collaborative groups tend to move towards project-level *decision-making* while informal groups tend to use the network to share information and *build capacity*.

The amount of a proposed treatment areas in a landscape that still need approval through the NEPA process can also determine if a group takes on a project-level decision making approach. At CFLRP sites where only a small percentage of proposed treatment acres have gone through the process, such as ACCG or KVRI, collaborative groups have more opportunities to provide project-level input. There, the collaborative groups not only have a high probability of influencing management plans, but the USFS is more likely to need build broad support and create a robust plan to avoid potential litigation and keep the process of restoration moving forward. The collaborative process can help with these objectives.

### *Decision-Making*

In more long-standing and formal collaborative groups, the groups are interpreting the requirement for a collaborative process in implementation to take on more project-level decisions. While the USFS still retains final decision-making authority, these groups are shifting from drafting long-term, broad visioning documents and instead evaluating the types of decisions and tradeoffs that occur at the individual project level throughout the life of CFLRP. Many of the collaborative groups at the western sites, with Burney-Hat as a noticeable exception, are long-running groups that have a history of working with the USFS prior to CFLRP.

Previously, many of these collaborative groups operated mostly in the realm of visioning by creating ten-year planning documents or broadly agreed-upon principles. With CFLRP, these groups now feel a unique sense of ownership over these landscapes as a result of being recognized through the CFLR Program. With this change, the collaborative groups are taking on new roles more akin to decision makers or bureaucratic agencies. They are looking at specific proposals, recommending where to work, evaluating work that has been done, and acting as government agency-like approvers for USFS activities.

Many sites selected for the 2012 cohort were rejected in the 2010 selection process and modified their proposals and process in the intervening time (Table 3). For the Southern Blues, the shift towards project-level influence from the collaborative group came after the collaborative group's 2010 CFLRP proposal was denied. For the 2010 round of CFLRP proposals, the USFS took the lead on their unsuccessful bid. For 2012, the proposal was turned over to the collaborative group. As a result, the USFS is now highly dependent upon their collaborators to generate ideas and look to them provide recommendations based on socioeconomic impacts of proposed projects. This stronger sense of interdependence is seen through their project, as the group reviews techniques that are being used and makes specific recommendations. "That's what they do, they make proposals to us and then we

have an iterative process back and forth about that proposal until they get their proposal refined for a final product,” said a USFS employee.

| Site Name            | Submitted 2010 Proposal | Formality Before CFLRP | Increase/Decrease/No Change since CFLR Designation |
|----------------------|-------------------------|------------------------|--|
| Amador-Calaveras     |                         | + + +                  | no change  |
| Burney-Hat           |                         | + +                    | ↑  |
| Grandfather          |                         | + +                    | no change  |
| Kootenai Valley      |                         | + + +                  | no change  |
| Lakeview             | ✓                       | + + +                  | no change  |
| Longleaf Pine        | ✓                       | +                      | ↑  |
| Northeast Washington | ✓                       | + + +                  | ↓  |
| Ozark Highlands      | ✓                       | +                      | ↑  |
| Pine-Oak Woodlands   | ✓                       | +                      | ↑  |
| Shortleaf-Bluestem   | ✓                       | +                      | ↑  |
| Southern Blues       | ✓                       | + + +                  | no change  |
| Weiser-Little Salmon |                         | + + +                  | no change  |
| Zuni Mountain        |                         | + +                    | no change  |

Table 3: 2012 CFLRP Sites that submitted proposals in 2010 and the effect of this action on their relative formality. Check marks indicate that the site submitted a proposal in 2010. Plusses indicate the relative formality of the collaborative groups prior to CFLRP designation on a scale from 1-3. Arrows indicate increase or decrease in formality since CFLRP designation.

The CFLR Program and its funding has also created an internal credibility and assertiveness to the collaborative process that may not have previously existed within some groups. A USFS employee at the Weiser-Little Salmon said:

[CFLRP designation] also changed in terms of the conversation between the USFS and the [Payette Forest Coalition] as well. Now, because we have money, we spend more time kind of talking with them about what we spent this money on and what we’re doing.

Like the Southern Blues group, this relationship developed through the experience of not winning 2010 funding and having to change their approach to collaborative proposal development. Again, this represents a shift to more of a decision-making role for the collaborative group.

Groups with long-standing relationships with their respective National Forests are more equipped to make these kinds of project level recommendations because of established language, rapport, and understanding of the tradeoffs. The Lakeview Stewardship Group has been working with the USFS for a long time. However, the perception is that CFLRP has forced people to become sharper, more

specific and articulate when making requests to the USFS. The more formalized relationship has also forced the group to make some difficult choices, including accepting salvage, in order to find a way to undertake some of the work that they wanted to do. In this capacity, the collaborative group was forced to make a tradeoff in decision-making that they would not have had to do without the CFLRP relationship.

Formal collaborative groups may expect to play a stronger decision-making role and become disappointed or frustrated when this expectation is not met. At ACCG, the CFLR Program forced the group to grapple with specifics rather than theoretical or general principles. This group thought that CFLRP would turn them into a decision-making body with formal approval powers, including the choices on who was to receive contracts. One interviewee remarked on their disappointment with the USFS response:

The USFS spends a lot of time and taxpayer dollars working and talking with us. In the end do they just make us feel good and do what they wanted to do anyway? Or did they look and say 'Well that's a great idea. I think we're going to do it that way.' I can't tell.

As the project has proceeded, the USFS and ACCG are working on ensuring that the group's preferences are effectively heard. Currently, the collaborative members are unsure of whether they actually influence the USFS decision-making process as they expected they would.

### *Building Capacity*

Many informal collaborative groups are in the process of becoming more focused on information sharing and building capacity. Informal groups tend to form where there is less history of conflict around natural resource management. Scientific experts tend to comprise many of the interested parties in these groups. As a result, the collaborative groups focus more on working in specific areas and sharing technical information. For example, Eytan Krasilovsky of the Forest Guild is largely focused on building a monitoring program and spends little time organizing meetings for any other purpose. This process has included working with several agencies to identify existing monitoring programs, establish overlaps and gaps, and outline the best methods to move forward.

The Shortleaf-Bluestem and Ozark Highlands sites are engaged with monitoring programs that incorporate fieldwork and expertise from a wide variety of organizations. Agencies and organizations are actively seeking new ways to share knowledge and resources across boundaries to achieve the goal of a landscape-scale approach, but have yet to implement such a plan as it would require additional capacity and expertise in data management. Despite this setback, one interviewee noted,

The biggest thing I think I have learned from this whole thing is the opportunities that are out there by getting involved with these other organizations it has offered me lots of opportunity to meet a lot of great people and to gain a lot of extra knowledge.

Meeting only twice a year, their focus has been on coordinating efforts. Nonprofit partners such as The Nature Conservancy, National Wild Turkey Federation and Joint Ventures Hardwood Coalition are stakeholders at these meetings and are heavily invested in both the restoration efforts and the monitoring program.

At the Longleaf Pine site, collaboration outside of the agency is mainly focused on the monitoring activities of The Nature Conservancy and Southern Mississippi University and building capacity with

the Department of Defense. With few inputs from the community and little conflict in the region, the collaborators spend little time on internal processes or formal decision-making procedures. The focus of these collaborative group relationships is on increasing capacity, making sure monitoring data are useful for the USFS, and serving as a communication opportunity for the USFS. One interviewee commented that at meetings, “It was mainly them [the USFS] presenting,” rather than the group trying to provide collective feedback.

## *Strategies for Change*

As collaborative groups age, they begin to face new challenges around collaborative fatigue, leadership turnover, repurposing after accomplishing their stated goals, and dealing with limitations of time and resources. The structure and history of each collaborative group affects how they have reacted to this new program as well as how they have changed over time. The institutionalization of collaboration through CFLRP also changes how these groups approach their work and affects how collaborative groups change over time.

Many collaborative groups are dealing with the challenge of turnover of key members. This is particularly relevant in working with the USFS, which as an agency, tends to move employees frequently. However, there are clear examples of leadership turnover in the Non-Profit community as well. As one interviewee noted:

It’s really important to have strong members on each of those sides. There’s been a little bit of fear because we lost...the representative from...[a national environmental group] and they haven’t really back-filled them yet. And if you get too much movement on one side of the interest groups, it really sets us up to not be successful in the long run. By having those environmental groups part of this, they help balance the end product. They also help garner support from the other environmental groups that aren’t necessarily directly involved with it.



*Picture 3: A USFS employee proudly showcases a restored pitcher-plant bog.*

Losing key voices can change the balance of power at the table and collaborative groups are keen to ensure some kind of continuity.

Similarly, the Lakeview Stewardship Group is grappling with the challenge of leadership turnover. Some of its key members, and prominent community members, who have been involved since the late nineties are nearing the point where they may want to retire from their role in the collaborative group. Even though the group has been in existence for a long time, it never established a charter or decision-

making rule to govern its proceedings. The members are now grappling with this process, one that typically occurs in the forming stages of a collaborative group, in order to create a way to pass down knowledge of what works and how it works. Formal collaborative processes rely more on their structure than specific individuals. Finding ways to enshrine information, either through websites or governing documents, can assist in difficult periods of group transition.

Collaborative groups have developed a number of strategies to deal with this reality including developing institutional memory, finding long-term support for collaborative coordinators, and creating redundancy in representation. In addition, some groups are experimenting with establishing sideboards to create efficiencies, as well as undergoing exercises to find new purposes and fresh agreements in governing documents.

### *“Super-collaboratives” and Collaborative Networks*

At many of the sites, the collaborative group listed in the CFLRP proposal is just one of several overlapping or interwoven collaborative groups working in a region. Initiatives from the national level all the way down to individual watersheds often have their own groups, often with redundant membership. As a strategy for increased efficiency as well as for working at a broader scale, many groups have considered so called “super-collaboratives” by combining the efforts and meetings of several collaborative groups and have displayed varying degrees of success. This approach can help alleviate the burden and fatigue associated with too many meetings and too many collaborative groups. The Arkansas sites are an excellent example of how to effectively combine groups to share resources and align monitoring plans.

However, combining two more formal collaborative groups often poses more of a clash of cultures. Two separate collaborative groups make up the Southern Blues CLFR site in Oregon. While these two groups have significant overlap in membership and they both work on the same National Forest and CFLR site, they have resisted attempts to combine their efforts. They have different decision-making rules, with Blue Mountain Forest Partners using majority voting and Harney County Restoration Group using consensus. Each group also has its own written governing documents and formal structure. As a result, the two groups remain separate and work together informally on a consensus basis only when they need to come together on CFLR. For the most part, they look at individual projects separately.

### *Collaborative Group Focus on CFLRP*

Another important difference between collaborative groups is how each group views CFLRP within the context of its broader objectives. All of these collaborative groups existed prior to applying for CLFR funding. However, some have made this project their primary mission while others consider it to be simply one component of the overall purpose of the collaborative effort. As a result the perceived success or failure of the CFLRP component of these collaborative groups can strongly influence the group and individual member morale and feelings of success in collaborative efforts overall. For formal groups that are highly invested in CFLRP, failure or even significant challenges in the program could significantly undermine the stability and morale of the group. In contrast, groups that have diversified interests can use successes in other parts of their organization to sustain momentum over time.

The Kootenai Valley Resources Initiative is both a highly formal collaborative group and one that is involved in a multitude of projects. This group does not consider its success or failure to hang on CFLRP work. Instead, CFLRP funding has drawn its focus more toward forestry when the group previously had less interest in the area. They have responded by increasing their capacity and bringing in new partners with expertise in forest management.

From a different angle, ACCG and Lakeview also have highly diversified collaborative projects. The challenge of CFLRP, has been that the funding for and national attention on CFLRP has drawn the groups' focus more towards the CFLRP work and away from other projects. Some members of these groups express frustration and the feeling of needing to focus on just one project. While it may be healthy for a collaborative group to be large enough and diverse enough to absorb the ups and downs of the CFLR Program, it may not be feasible for capacity-limited groups.

In contrast, the Grandfather Restoration Project considers implementation of CFLRP to be its primary mission. The group came together in response to frustrations over the Globe Timber Sale, which involved a tract near the scenic Blue Ridge Parkway. One respondent observes that, for collaboration, "The catalyst was, both from outside the agency and inside the agency, the desire to move beyond conflict into a place of productivity and into a place of accomplishing beneficial management on the land and not focusing on disagreement." For this group, that place of productivity became their involvement in CFLRP and is now the primary focus and mission of the group.

### *Institutional Memory*

Many collaborative groups have established techniques for improving communication and transparency including public websites that capture meeting minutes, radio announcements, and access to planning documents through the public library (*see partner and community engagement*). Some of these strategies are also being used to develop a bank of knowledge for the group that can be used to overcome the loss of experience when leaders within the group leave. Collaborative groups often rely upon the dedication and hard work of a few central individuals. When these people move on, many groups fold simply because they do not have structures in place or sufficient resources to recall information and continue their work. By capturing the work of a collaborative group, these sites can serve as a form of institutional memory that is critical to maintaining momentum.

To some degree, bylaws, charters, and other documents can become less necessary as collaborative norms and processes become institutionalized. However, these documents can also serve as a means of institutional memory to assist with the difficulty of transitioning to a new set of involved individuals. For example, the Kootenai Valley Resource Initiative uses these documents to bring new members up to speed. As a USFS employee noted:

It is our job, as the collaborative, when we get a new member, to take that book, take the powerpoint, sit down, give the background, why we're here, the way things were, the way we want them to be and whoever is coming in new to the group.

The collaboratively developed website Spatial Interest in Weiser-Little Salmon and KVRI's use of the local public library are also examples of mechanisms to establish institutional memory. Spatial Interest, used by the Payette Forest Coalition, is particularly relevant as it contains a collection of information in planning drafts and documents online, as well as a record of decision processes

through discussion threads. On the other hand, the public library can only effectively fill this roll if it serves as a repository, rather than a revolving door of the most current information and projects.

## *Redundancy*

In some places, collaborative groups with a strong sense of inclusivity and high levels of participation from stakeholders have essentially built in redundancies for their groups. This approach insulates the group from imbalances that can occur due to personnel turnover. Small, capacity-limited organizations are unlikely to be able to accomplish this; however, it is a strategy that may be particularly helpful with agency turnover.

At the Weiser-Little Salmon site, a member of the USFS pointed to this strategy, saying, “We try to keep as many people involved with it and going, so I don’t think one day you’re going to lose everybody that was involved with it because they all took different jobs. There are enough different people in there.” Similarly, a group member reported, “Not all players have moved at one time. When we had a new ranger, we had consistency with the forest supervisor.” This simple redundancy in the U. S. Forest Service personnel created stability for the group and helped smooth the transition between personnel shifts. In reference to District Ranger Kit Mullen, one Burney-Hat collaborator said:

That consistency with the staff with what we had developed through that collaboration to that point was some great momentum and we needed to continue it in order to be successful to secure the dollars. And so she came back, and is a great grant writer, and worked long hours to get this thing out and... we're on our way.

## *“Sideboards” and Decision Trees*

As a response to the limited capacity of collaborative members and the need for a certain degree of agency autonomy, a few groups are beginning to show signs of stepping back from project-level work. They are instead creating broad directives or criteria that, if met by a USFS project, will efficiently give the USFS the go-ahead from the collaborative group. These sideboards allow some degree of flexibility for project-level prescriptions, but meet the agreed-upon principles vetted by a collaborative group through a visioning process.

The Northeast Washington Forest Coalition, or NEWFC, has tried the approach of setting collaborative group thresholds and had good results. As a small group with significant scientific expertise, their sideboards for the USFS “got fairly prescriptive,” reported an interviewee. They developed three different zones and created specific recommendations based on the purpose of each region. These zones included a restoration zone, a roadless area, and areas that would be more actively managed with the notion of keeping the industry viable. The prescriptions included “guidance for thinning, what size of trees would be removed, how much density would be removed...it was fairly complex,” as noted by an interviewee. While they included aspects that were uncomfortable for all parties, the recommendations have endured for the last six or seven years.

Yet these specific management prescriptions have proven difficult as they do not always align with the requirements of CLFRP. NEWFC was viewed as too timber oriented, and the group didn't adequately represent the broader stakeholder community and their viewpoints. Only recently, with the addition of the new collaborative group built by the Colville National Forest for the Deer Jasper

project and potential future work, have these recommendations come back into question. This approach suggests that for this strategy to work, guidelines need to have a broad base of support, and an effort must be made to ensure that the guidelines comply with other policies and programs.

A collaborative group at the Southern Blues is developing “decision trees” to maximize their efficiency and give their feedback in particular scenarios without having to meet face-to-face. The concept is to find zones of agreement based on previous projects that will express approval of the collaborative group in future situations. These decision trees may also indicate individuals or groups to contact regarding specific issues. This process would create efficiencies around issues that the collaborative group has dealt with in the past, such as through a deal reached on fire salvage. A group member reported, “We actually have a subcommittee of collaborative members that are trying to come up with a decision tree on how the collaborative might deal with post-fire salvage in the future.”

Likewise, ACCG developed a sort of scorecard that is used by both the USFS and the collaborative group to evaluate whether or not a proposed project meets the goals of the collaborative group. While the group has since decided that the tool is too cumbersome to be used on a regular basis, the development of the scorecard helped the collaborative group explore their goals specifically in relation to the plan at hand and look for concrete ways to improve a given plan rather than dealing in more abstract ideas. It helped build a common understanding between the USFS and the collaborative group. An interviewee from the USFS described the process:

We self-rate our projects relative to our principles (rating 0-5) and then we bring that to [the collaborative group] and show them our interpretation of where we meet these different things. And then we have discussions on that. And this is all before NEPA, it is not a public meeting at this point. A collaborative group member spoke highly of this new strategy, saying, “The project form is something good [ACCG] developed that’s applicable to all projects. It’s a tool that will help [the group] review projects more quickly as they come up.

Collaborative group members reported that it felt like the form led to good discussion and improvements in projects. In particular, the form focused discussion on agreed-upon principles. A group member noted, “With a diverse group of people at the table who represent different aspects and points of view in the community, people would suggest changes to projects to meet their needs” such as jobs or other benefits to locals. Thus, the review form seems to streamline discussion.

In many ways, the process of setting “undesirable conditions” identified by the Uncompaghre group in the 2010 cohort is following a similar concept. Rather than trying to create sideboards around desired future conditions, this group is taking the approach of defining the undesirable conditions that they want to move away from. This approach fundamentally changes the framework that the collaborative group must create and avoids the pitfalls of setting specific goals that may be unrealistic given economic or environmental pressures.

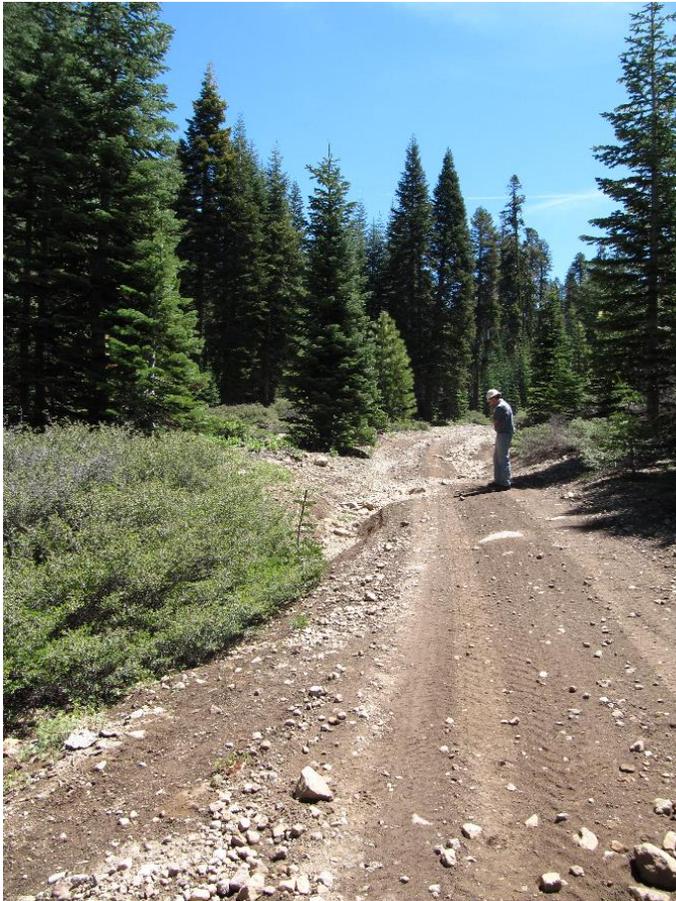
It is too soon to tell if the approach of creating sideboards will be broadly successful, but it represents an important adjustment in the role of collaborative groups in decision-making and a coming-to-terms with the limits of all parties involved.

## *Communication between Collaborative Groups*

By designating individual sites as part of the CFLRP, the Department of Agriculture created a new network of collaborative groups belonging to a common program. This interconnected network has been a valuable resource for individual sites and restoration more broadly through conferences and communication between CFLRP sites.

Collaborative groups that communicate and share knowledge often have similar collaborative structures or common nonprofit partners. The strongest example of this can be found in the Arkansas and Missouri sites. These projects are using outreach and multiparty monitoring that span project sites. These groups are in direct communication, a link that is facilitated by individuals from common partners in The Nature Conservancy. They also benefit from a geographical proximity and similar ecosystems that make sharing easier, but the common partner serves as the key factor to facilitating this cross-site communication. Importantly, these groups work across two different Forest Service regions and create a valuable connection that might not have existed otherwise.

The ability for sites to learn from each other can be limited by the unique context of each site, however. California sites sought advice of groups in the state from the 2010 cohort on a variety of topics, including monitoring indicators. This effort proved to be a fruitless venture as local differences and incompleteness in certain areas, such as social and economic indicators, prevented



*Picture 4: Washout on the Stanislaus National Forest.*

the effective applicability of one plan to another context. One stakeholder remarked, “[Their] plan wasn’t a good fit and it was better to ‘start from scratch,’ because [their] plan was fairly customized to that group.”

The uniqueness of each collaborative structure and context, more so than the differences in ecological factors, can be a barrier to effective communication and sharing of information. One participant commented, “Yeah, I think more networking would definitely be good. I think part of the challenge of that though is that the collaboratives are so different. When we go to these workshops and hear what other groups are doing, how they’re doing things and who’s on their collaboratives and their functional dynamics, it’s all quite different.”

Collaborative groups also tend to have greater buy-in for tools that they develop themselves. When individuals get ideas from conferences or contacts with other project sites, they should use these concepts to help guide the development of

tools or processes through their own collaborative group rather than presenting them as something that another project site is doing. This reaction is particularly strong in more formally structured collaborative groups that place a strong value on their individual norms and processes. Individuals hoping to apply lessons from other sites should be conscious of this inclination of collaborative groups.

The desire to learn and communicate with other collaborative groups is widespread, however. High levels of participation in webinars and regional conferences demonstrate the desire to share and learn from other similar groups. For collaborative groups that are geographically close to one another, the strategic engagement of individuals from overlapping nonprofit partners may prove effective. Collaborative groups could be paired based on structural or situational similarities rather than ecological similarities. This strategic networking would be a valuable enterprise to provide greater opportunities for inter-collaborative communication.

## B. Partner and Community Engagement

### *How are CFLR sites involving collaborative partners and engaging with their local communities?*

The strength of the relationships between stakeholders, partners and the greater community affects collaborative groups. To answer the questions of how CFLR sites are involving collaborative group partners and engaging their local communities, this section will explore the role of nonprofit organizations as collaborative partners, how collaborative groups are engaging with youth and their local communities, and the myriad methods, reasons for, and importance of external communication from different collaborative groups. These efforts fuel the capacity of groups to achieve their goals.

Table 4 shows the diverse array of partners involved at each site—information that was self-reported by each group.<sup>61</sup> However, not all of the organizations involved at each site are represented. For example, Sierra Pacific Industries, a timber company based in Anderson, California, is involved with the Amador-Calaveras collaborative group but has not officially signed as a member. More examples like this indicate that the stories behind the involvement of partners with the collaborative groups are more nuanced than originally reported.

|                      | State Agency | Federal Agency | State/Local Nonprofit | National/ Multi-State Nonprofit | Forest Products Industry | Govt. | University/ Research | Tribal/ Pueblo |
|----------------------|--------------|----------------|-----------------------|---------------------------------|--------------------------|-------|----------------------|----------------|
| Longleaf Pine        | ✓            | ✓              | ✓                     | ✓                               |                          |       | ✓                    |                |
| Zuni Mountain        | ✓            | ✓              | ✓                     | ✓                               | ✓                        | ✓     | ✓                    | ✓              |
| Pine-Oak Woodlands   | ✓            | ✓              | ✓                     | ✓                               |                          | ✓     |                      |                |
| Burney-Hat Creek     |              | ✓              | ✓                     |                                 | ✓                        |       |                      | ✓              |
| Shortleaf-Bluestem   | ✓            | ✓              | ✓                     | ✓                               | ✓                        |       | ✓                    |                |
| Kootenai Valley      | ✓            | ✓              | ✓                     | ✓                               |                          | ✓     |                      | ✓              |
| Southern Blues       |              | ✓              | ✓                     |                                 | ✓                        | ✓     |                      |                |
| Northeast Washington | ✓            | ✓              | ✓                     | ✓                               | ✓                        |       |                      | ✓              |
| Ozark Highlands      | ✓            | ✓              | ✓                     | ✓                               | ✓                        |       | ✓                    |                |
| Lakeview             | ✓            | ✓              | ✓                     | ✓                               | ✓                        | ✓     |                      |                |
| Weiser-Little Salmon | ✓            | ✓              | ✓                     | ✓                               | ✓                        | ✓     |                      |                |
| Amador-Calaveras     | ✓            | ✓              | ✓                     | ✓                               |                          |       |                      |                |
| Grandfather          | ✓            | ✓              | ✓                     | ✓                               |                          |       |                      |                |

*Table 4: Partner groups represented at each of the 13 CFLRP sites from 2012. Checks indicate presence of at least one partner in corresponding category.*

## *The Role of Nonprofit Partners*

Nonprofit partners play a vital role in coordinating collaborative activities, building bridges among stakeholders, and developing monitoring approaches. They can fill roles that the USFS often cannot due to either capacity issues or funding restrictions.

### *Building Bridges between Sites*

Nonprofit partners can act as bridges between sites and help facilitate communication that would not exist otherwise. They can also facilitate inter-collaborative communication in webinars and conferences. Recognizing the value of partnerships for nonprofits, one participant from a national nonprofit working at several sites acknowledged the responsibility to connect collaborative groups when he said, “It’s incumbent upon us to always promote the partnership.”

Nonprofits are connectors. Inter-collaborative group communication occurs through organizations with a strong regional presence. For example, collaborative groups in Arkansas and Missouri share the input and the involvement of The Nature Conservancy and Central Hardwood Joint Ventures in their efforts to restore shortleaf-bluestem. One individual at a non-profit expressed, “My role mainly was pulling all the partners together to get buy-in.” Without this connector, many of the collaborators would not be at the table.

Nonprofit partners have been successful in bringing together different collaborative groups by creating opportunities for information exchange on the web or in person. Numerous groups are participating in webinars and networking conferences as a means to learn from the experiences of other collaborative groups and to share knowledge and strategies. For example, Sustainable Northwest organized the Hood River conference to bring together the NEWFC, Lakeview and Southern Blues collaborative groups, and representation of the 2010 sites, to share individual issues, instigate communication, and establish common ground. Conferences in Idaho and Colorado have had similar effects in other regions.

### *Developing Monitoring Plans*

Nonprofit partner groups have also taken the lead in developing monitoring schemes. These organizations provide capacity, vision, and expertise that fall outside of the scope of the USFS. As a result, the involvement of nonprofit partners has enhanced the ability of collaborative groups to achieve their ecological goals and monitor the impacts. In particular, the Nature Conservancy has been prominent in guiding the development of monitoring plans at numerous collaborative groups around the nation.

A good example is the Pine-Oak Woodland Restoration collaborative group where the Nature Conservancy (TNC) and Central Hardwoods Joint Ventures (CHJV) greatly influence the monitoring programs and sampling design. Jane Fitzgerald from CHJV developed the desired future conditions and indicators for the monitoring plan, and CHJV staff is working to develop the rest. One USFS employee explained the organization’s role when he said, “[CHJV] is the party that is really in charge of our multi-party monitoring. Them along with our research branch.” The collaborative group has also adopted the sampling system from TNC’s sampling plot monitoring design.

TNC is deeply involved in developing the monitoring plans for the collaborative groups involved in Ouachita and the Ozark-St. Francis National Forests. They have installed vegetation monitoring plots at both locations that follow similar protocols and will thus provide data at a regional level. Here, TNC already had a monitoring plan for the Ozark-St. Francis and only had to upgrade the plan for the Ouachita. These “permanent macro plots” were well developed and monitoring was ongoing. Here, the monitoring was dependent on an already well-established plan.

TNC is also deeply involved in the Lakeview Stewardship Group. Here, this organization has been a trusted advocate and designer of their monitoring program. One interviewee noted, “The data and modeling of the TNC was used to develop the CFLRA monitoring program.” TNC also educates local high school students that form the workforce of the collaborative group’s monitoring program.

In contrast, the Kootenai Valley Resources Initiative (KVRI) described one of its greatest challenges as developing monitoring strategies. A USFS interviewee commented, “To quantify and know how to measure some of the things that are happening is the biggest challenge we face.” The Kootenai Tribe is working to solve these problems. The tribe leads the monitoring process for the broader KVRI and the CFLRP component of the project. They developed this relationship by monitoring other dimensions of the collaborative group’s work including water quality.

Nonprofit partners are predominantly engaged in the development of monitoring programs associated with ecological monitoring. Although collaborative groups are well aware of the need to develop monitoring strategies for economic and social impacts, generally, there is little evidence that these strategies have been developed or implemented.

## *Leadership in Collaboration*

Almost all collaborative groups evidenced a need for leadership, and this need takes different forms. These leaders are described here as *champions*, *facilitators*, and *coordinators*. Each of these roles impact and serve the collaborative process differently, and in many cases, their involvement is so important that their future departure from the collaborative process is a focus of concern for many collaborative groups. The effectiveness of these three roles depends greatly on the leadership qualities of individuals and the trust and investment they are able to nurture with the greater collaborative group. Champions, facilitators, and coordinators serve as the “mortar” that connects and supports each collaborative component and strengthens the group as a whole.

*Champions* are generally the charismatic community leaders who are able to rally people to come to the table and maintain momentum. *Facilitators* are individuals who are able to build consensus and sustain a group’s process to create a functioning governing body; typically, they are hired from neutral third parties. *Coordinators* are internal administrators who keep the process of collaboration moving forward through information sharing and organization.

Although a *champion*, *facilitator* or *coordinator* can serve a vital role in a collaborative group, the specific leadership needs of a group depend on its circumstances. Being able to match a problem to a personnel solution – a champion, facilitator, or coordinator – is a powerful ability for a collaborative group.



Picture 5: Steve Wilenski discussing treatments with a researcher near his home at Humbug Ranch.

## Champions

Champions are the heartbeat of the collaborative group. With inspiration, charisma, high ambition and an often self-sacrificial work ethic, champions serve as the passionate driver of the collaborative group by maintaining momentum and inclusive focus. Steve Wilenski, formally of the Amador-Calaveras group, and Ron Smith of the Longleaf Pine group are both strong examples of individual champions. The Lakeview Stewardship Group of Oregon is blessed with multiple champions that have been serving since the group's formation.

Steve Wilenski's charisma, his passion for local economy, and his abilities to communicate and inspire helped him bring people together. Additionally, "Steve's leadership has been important to keeping some of the people in the room," said one participant in the collaborative group. As chair of the county board of supervisors, Wilenski has since stepped out of a leadership role and functions more as a participant than as a champion. The collaborative group is proceeding onward without its founding figure.

Another example of a champion is Ron Smith, former District Ranger at the DeSoto National Forest, who turned calamity into opportunity for the Longleaf Pine collaborative group. "Ron Smith came in and instead of seeing this as a huge catastrophe, he turned it around and really put a positive spin on it. He used Hurricane Katrina to reach out to a lot of groups... asking for their input... And he was able to garner a lot of support even from groups that had been very adversarial in the past which was really cool," explained one observer. From the disaster of that storm, Smith was able to make the entire forest "NEPA-ready". Valuing the importance of in-person meetings and an inclusive attitude, Smith kept the collaborative process working. Smith's presence allowed everyone else to work better. One interviewee commented, "Ron told me, 'my job is to free up everybody else so they can do their job, be a shield for them'." Smith has since retired, and many people reported concern over the loss of his leadership.

Multiple champions have helped propel the Lakeview Stewardship Group in Oregon. The oldest collaborative group has had a consistent and passionate leaders from its beginning. Several key members have developed an atmosphere of camaraderie and trust that is key to the effectiveness of the entire group. A group member explained, "The collaboratives need to learn trust is not something that you can educate to, but it is a relationship that you form. And that does take time. That one we can't short cut you on." In describing the key component of the Lakeview Stewardship Group, one collaborator stated, "Individuals. People who are just really committed to making this happen. That long-term commitment... The reason these last and endure is because of people and their commitment." This group of champions is soon approaching retirement age, and there is growing concern as to who could possibly fill these giant pairs of shoes.

## *Facilitators*

Hiring a third-party facilitator at key moments of the collaborative process has helped promote success at several of the CFLRP sites. This neutral party, with experience in collaborative processes and conflict resolution, can help move the forming of the collaborative group forward by drafting texts and running visioning exercises. A facilitator may be necessary to move conflicting parties away from positions and towards interests, and in doing so, helps to find common ground.

At the Southern Blues project, Sustainable Northwest provided funds to pay for meeting facilitation. One collaborator reflected, “If it hadn’t been for Sustainable Northwest coming in and helping provide the meeting facilitation and other resources to keep this collaborative effort going, it’s probably safe to say we wouldn’t have collaboration on the Malheur.” While facilitation is certainly important, the organizing capabilities of Sustainable Northwest have also made a difference at this site. Their work includes organizing meetings, contacting partners, and distributing information.

The Amador-Calaveras Consensus Group also hired a third-party facilitator during the foundation of their collaborative group. In addition, they received substantial administrative support from the Sierra Nevada Conservancy through Brandon Sanders. As his role in this capacity fades, many have wondered what will happen to the collaborative group.

Facilitators can build consensus within a collaborative group. By aiding group members in the discovery of common ground and the utilization of common language, facilitators can effectively mitigate disagreements. Assisting collaborative groups through contentious projects can allow them these groups to continue making progress.

## *Coordinators*

Having administrative support, either through the USFS or more frequently through a partner nonprofit, can provide stability to a collaborative group and can help to maintain momentum over time. No matter how formally a group is structured, collaborative groups that had clear administrative support function more efficiently and deal with conflict more smoothly. However, the frequency of meetings may play a part in the amount of support a collaborative group needs. With numerous collaborative groups, members either noticed a stark change if the key coordinator left or was repurposed, or they expressed fear of potentially losing this essential person. Administrative or coordination support is particularly crucial to sustaining collaboration in the long run and can help collaborative groups weather turnover of other key individuals.

Having a coordinator not only helps with the logistics but also lends a sense of professionalism and organization that may affect the group’s overall sense of momentum and success. One interviewee at the Weiser-Little Salmon group reported that having someone to run the meetings as well as someone to translate that information to the website is key to maintaining momentum. The respondent said that this individual can “add in legitimacy to the effort and a sense of sustainability and that’s strengthened people.”

McRee Anderson, working through the Fire Learning Network of The Nature Conservancy, organizes collaborative group meetings for the two CFLRP sites in Arkansas. Organizing a field day takes a substantial amount of time between coordinating people’s schedules, picking an appropriate location, vetting the agenda, among other tasks. He noted that these duties go beyond an

administrative role because they require relationships with the partners as well as an understanding of the science under discussion.

Finding coordination of project planning is a confusing challenge for the CFLR projects since CFLR funds can only be allocated to project implementation. Nonprofits have clear advantages in hosting a coordinator. These groups can independently control funds for administration and facilitation, hire full-time staff, and serve as a better base for fundraising. Nonprofit organizations can also carryover funds across fiscal years. Indeed, some collaborative groups, such as the Southern Blues, have chosen to gain 501(c)3 status as a way to secure funding for an administrator and to control their own funds.

The experience of the CFLRP sites indicates that securing a long-term coordinator is extremely helpful for increasing the likelihood of sustaining an effort over time. If a collaborative group intends to continue to work for an indefinite time, securing funding for a long-term coordinator or administrator, particularly through a local nonprofit entity, can help a collaborative group sustain momentum and continuity.

## *Youth and Community Engagement*

CFLRP projects stimulated local job training and educational opportunities. Training for ecological restoration techniques increased employment prospects and benefit local economies. Youth programs focused on ecological monitoring further establish relationships between collaborative groups and their broader communities by empowering youth. Higher levels of education and involvement with collaborative efforts may prove to stabilize long-term projects and community wellbeing.

### *Youth Programs*

Numerous collaborative groups showed great pride in their youth programs, and these programs are clearly a valued part of the groups' work. Youth programs allow students and young community members to actively participate in conservation. The involvement of youth in monitoring programs has also proven to be an effective strategy for establishing relationships with the local community and as a way to invest in students.

Wayne Shewmake of the Ozark Highlands project celebrated the major success of their youth and college-aged program and the educational opportunities that it provides. He described how many of the youth have become more interested in natural sciences and outdoor recreation. He spoke passionately about individuals who have participated in his trips:

We feel like what we're accomplishing here is several things; not only are we benefiting wildlife but we're also getting these students out here and involved and giving them a hands on opportunity to see the type of work that they may be going into. I know for sure we had two students, after the first trip, changed their major. They switched to biology.

The Shortleaf-Bluestem collaborative group is trying to integrate a youth outreach program called "Native Expeditions." They have worked with local high school students to plant species of milkweeds for native and threatened butterflies. This program could provide funding match and leverage opportunities for the Ouchita National Forest, but the program is still in its infancy.

Additionally, the Arkansas Wildlife Federation supports these youth programs by building relationships with schools around the state and by running outreach and service programs.

The Lakeview Stewardship Group also has a well-established youth monitoring program made up of kids and students from the local high school. A local ecologist started their monitoring program when the collaborative group was formed in 1998. He went on to become the science teacher at the local high school and continues to be an invaluable link for the collaborative group as a recruiter for the monitoring program. The Nature Conservancy is heavily involved in the program. The Nature Conservancy works with the student monitoring corps and provides them with the tools, training and knowledge to conduct the monitoring.

The monitoring program has aided the continued education of involved students. “The group of kids that started (the monitoring program) have earned over \$550,000.00 in scholarships (combined),” noted a member of the Lakeview group. These scholarships were earned in state, national and international science fairs where the students presented the data they collected for Lakeview’s monitoring program.



*Picture 5: Student monitors*

The collaborative groups vary in how much they actually use the results in planning or adaptive management. All groups consider them to be valuable for the purpose of connecting with local communities but they place different weight on their scientific validity. The Lakeview program measures student success as an outcome, but the USFS and the collaborative group do not use the data that the students collect. Close guidance and facilitation by respected environmental groups may assuage some of the skepticism concerning the monitoring data collected by these programs.

The Kootenai Valley Resource Initiative takes a different approach to the data its members collect. It has established a citizens monitoring group in which the youth and adults from the community can become involved. KVRI values the data collected by the citizens as being more informative than scientific estimates. An interviewee stated, “Actual data is more impactful than the estimates of scientists, and even the minimum range of data derived from studies makes projects cases stronger and less disputable.”

These examples illustrate the different values of multiparty monitoring in CFLRP. The more obvious value comes in increasing the capacity of the group to monitor impacts by adding volunteers and expertise from nonprofit partners to the USFS. Another more subtle value is to provide opportunities for partners to feel that they have made a real impact in the group’s work and give chances for educational opportunities and workforce development. The Kootenai example hints at one more value that is mostly unrealized by collaborative groups at the moment: collaborative groups often have greater buy-in regarding the data that they collectively generate and develop than they do for outside information. Multiparty monitoring has the potential to mitigate clashes over scientific data between group members and clear the way for efficient planning and project implementation.

## Training Opportunities

According to the CFLRP programmatic goals, collaborative groups have a responsibility to enhance the social and economic wellbeing in addition to restoring the landscape. Several groups are working to achieve this goal by developing training programs. Training programs help build skills, increase competency and give opportunities to at-risk or underemployed local residents. These efforts can greatly benefit the community as a whole.

The Amador-Calaveras Consensus Group provides a good example of the beneficial effects of training programs on a local community. Calaveras Healthy Impact Solutions (CHIPS) employs biomass utilization strategies and engages the local Native American population in job training. CHIPS is designed specifically as a job training program targeting at-risk populations. “And they generally work with locals, mainly Native American youth but other youth as well, and they give them trained skills...they’re trying to get them working outside, in the woods,” noted an interviewee. Having a long-term agreement for work from the USFS, such as the ten year master participatory agreement, seems to be key to getting these types of programs off the ground.

The Zuni Mountain collaborative group is working to provide job training and employment within the local community. They are exploring a partnership with the Zuni Pueblo to train hand crews in vegetation restoration and monitoring projects. These crews would start with work on their own land and then transition to National Forest work after satisfying agency requirements. In teaching more individuals from the Pueblo and the community-at-large how to use USFS protocols, the collaborative group hopes to ensure more long-term employment on future USFS projects. Although this idea is still in its beginning stages, these training programs may prove to be an effective way to positively engage the community and stimulate economic activity.



Picture 6: A CHIPS truck used for delivering firewood in Amador and Calaveras Counties.

## Communication Strategies

Though every collaborative group is unique, each of them recognizes the importance and necessity of communication among member groups and the community. The experience of the 2012 sites suggests that effective communication is a key ingredient to a functional and efficient collaborative group. However, communication methods vary based on the structure and context of the group, the relationship between its members, and the group’s priorities. Finding a common language, encouraging accessible and timely information sharing, utilizing fieldtrips, qualitative feedback, and strategic partner outreach, and desiring open and clear communication are all useful strategies for improving communication.

## *Common Language*

Differences in expertise and jargon create barriers to effective communication within collaborative groups. In particular, members of the general public understand information about forest treatments differently than how it is upwardly reported in the USFS. For instance, the USFS may indicate 300 acres treated for three different treatments on the same 100 acres. This method of counting confuses many stakeholders who then expect 300 separate acres of work. As a result, footprint acres are a better means of explaining work to stakeholders and the public.

To effectively communicate, collaborative groups should use commonly understood language and accounting, share information in a timely manner, make information accessible, and use field trips to build understanding.

## *Timely Information Sharing*

According to our interviews, problems with timing and transparency of communication have led to frustration and the eroding of trust. Regardless of the USFS-collaborative group relationship, one best practice for the USFS is to be upfront about sharing limitations due to forest plans, agency regulations, and natural resource laws. Information must also be shared broadly with the group members and local communities. Many group members have been reticent to accept plans that they feel have come out of the USFS “black box,” a colloquial name for opaque decision-making processes. Additionally, private landowners may also be uncomfortable with projects being approved by collaborative groups. Due to the limited understanding by some collaborative group members of the science and USFS forest management process, it's important that there is communication throughout project planning and implementation both with collaborative groups and the broader community.

Sharing information with partners too late can sour the collaborative atmosphere, and frustrate USFS members. As one respondent noted, “If you're too prepared they don't feel like they're involved. If you're not prepared enough, it's hard to get anything done.” In a desire to ensure scientifically sound planning, agency representatives may want to develop proposals thoroughly before consulting with partners. However, collaborative partners tend to support project ideas they developed together far more than external suggestions, including those from agency personnel.

At the Wieser-Little Salmon project, the group originally waited for USFS proposals and then reacted to them. A specific incident at this site about the decommissioning of roads related to preserving bull trout habitat produced distrust between the USFS and the collaborative group. A plan that the collaborative group had agreed upon was changed at the last minute to accommodate the forest plan. The USFS did not communicate this change well to the group and it deeply eroded trust, even drove away some stakeholders.

Both the USFS and the Wieser-Little Salmon group changed their communication approach after this setback. The collaborative group challenged themselves to formulate plans on their own. A group member noted, “So we went into a successful transition of the coalition, developing recommendations for a project and preparing those as a report, and discussing them with the ranger and the staff, and then also providing that as a formal recommendation document.” In addition, the USFS has made a concerted effort to make sure that they are more upfront about what they can and cannot do based on the forest plan.

The Kootenai Valley Restoration Initiative provides an example of how even with collaborative group approval, private citizens that will be affected by timber harvests or timber stand improvements may still be wary of USFS activity. As a result, the agency had to not only get buy-in from the collaborative group, but also communicate with private citizens. On a particular project here, the collaborative group “really knew where the water analysis came from and how that analysis was put together and why we had comfort level. But those particular land owners weren't privy to all of that pre-work and pre-planning and thinking ahead. So we did back up ... to help bring them up to speed with what we really had done,” explained a USFS member. In this case, the USFS found itself communicating with the collaborative and private citizens, reinforcing the idea that early, frequent and open communicate is important.

### *Field Trips and Qualitative Feedback*

Many interviewees cited fieldtrips as an effective means to communicate information and engage collaborative partners. All 13 sites in the 2012 CFLRP cohort use some form of field trips or field visit. The communal visualization of the project site and potential challenges may serve to standardize the groups' understanding of issues and allow for the development of more specific ecological goals rather than abstract or shallow “soft goals”—goals that are often produced to accommodate varying views and scientific understandings but have little meaning or ecological applicability.

The Amador-Calaveras group that continues uses field trips to present information about each project. A USFS employee organizes these trips and provides maps of the project area after picking sites well in advance. This technique was effective in settling litigation for a salvage logging operation that was done as a result of the Ramsey Fire because the members gained a common understanding in seeing where the work would occur. One interviewee discussed the importance of looking at the project in the field saying, “The environmental groups would not have approved that without a field trip.” In this way, fieldtrips are used to build enough understanding in partners to overcome knowledge gaps that might otherwise cause collaborators to oppose a project.



*Picture 7: Treatment activity on the Cibola National Forest.*

The Kootenai Valley Resource Initiative noted the importance of having scientists out in the field to answer questions and learn from the public. The full interdisciplinary team from the USFS attends field trips. “I want my folks, as public employees, to understand what it means to these people that maybe don't really understand all the facts, that there really is science that goes into this, that these are real people that you might see at the grocery store,” said a member of the USFS. The fieldtrip is an effective way to communicate important scientific ideas in a way that is approachable for collaborative members.

At the Grandfather Restoration project, Hugh Irwin of The Wilderness Society further emphasized the value of field trips as a tool to stimulate honest discussions. He commented, “The field trips have been very helpful in that because we’ve found that going out in the field we can usually agree on actions that are needed in that area. Getting at concrete areas that we can look at and talk about in specifics has been very helpful and working through some of the philosophical issues.”

A member involved in the Southern Blues site summed this concept up well:

I will mention too that meetings inside don't do anything for you like a field trip does. There is something about getting out, on the ground, looking at it, and talking about it where you can find agreement where in an indoor meeting, particularly early in the collaborative process... you'd spend hours bickering over the wording and you'd get on the ground and could throw the same words around or whatever but you'd say, “Oh, but I understand now.”

Field trips provide an excellent opportunity to collect feedback from collaborative group members on project designs and implementation practices. Creating institutionalized means of two-way communication at the project level, such as project request forms or evaluation worksheets, also can lead to more efficient coordination and communication.

Collecting qualitative feedback can be an effective method to advise decision makers and stimulate trust between those involved. One innovative solution to communication is being explored at the Southern Blues site. Roy Walker, fuels specialist for the USFS, noted that collaborators are asked to conduct qualitative assessments on field trips. Here, the USFS pairs their qualitative feedback forms with summer field trips. While in the field, stakeholders fill out forms to let the USFS know their opinions on the quality of restoration work and techniques used. USFS representatives work to show new small-scale restoration techniques to collaborative groups before utilizing them more widely. In this manner, the agency can effectively ensure that they have buy-in from stakeholders throughout implementation.

Similarly, the Amador-Calaveras group is using a scorecard to evaluate projects in a language they understand. As the group’s focus begins to shift from NEPA-ready projects to newer plans, they have created a specific qualitative feedback tool for reviewing these newer projects. This allows the group to compare a USFS proposal next to their stated goals and address any perceived dissonance or confusion.

### *Accessible Information*

Many sites struggle with finding ways to publicize information and make it accessible. A few sites have been successful in providing useful and timely information to collaborative group members and the general public. Strategies have included creating and updating a website, using the public library as a repository of information, and using public radio to make announcements to the community using.

Spatial Interest, a website used by the Weiser-Little Salmon group, provides a good example of an effective mechanism for communicating collaborative group work. This “repository of information” and “living record of collaboration” is built in a “forum” format that allows partners to iteratively comment and provide input even if they are not able to attend meetings. The website is updated to accurately reflect the group’s process and progress, and it is consistently used by members of the collaborative group. Importantly, the site is well maintained, user-friendly, and consistently updated

by Dennis Murphy, the webhost and collaborative group member. Notes are posted immediately after a meeting, which maintains momentum on important discussion points and allows parties that may not be present at the meetings to stay up to date. The positive impact that websites such as Spatial Interest can have on group communication, understanding and progress is significant; yet the 13 CFLRP sites largely underutilize these virtual sites.

While they utilize some online resources, the Kootenai Valley Resource Initiative (KVRI) uses the public library as the main point of contact for the collaborative group and the community. Project reports, maps, and information are available at the library for any citizen to view. Information adopted from various organizations to develop the library's and KVRI's specific information for education and outreach. The librarians are able to answer questions regarding the KVRI projects. "Some libraries think that they're in the library business. We don't. We think that we're in the people business," stated Sandy Ashworth.

Finding the most appropriate way to share information in the local community depends on how residents are used to receiving their information. Hence, the Southern Blues site uses more traditional means of outreach. In the town of John Day, OR, the USFS uses radio announcements on the town's station to announce upcoming work. In small communities, a radio station or library may be sufficient. However, as work expands to landscape scales, technology such as the internet can assist in insuring the quality of information, in dispersal of important planning documents, and in provide opportunities for stakeholder and community feedback.

### *The Media*

In an effort to utilize further means of external communication, several collaborative groups are utilizing local media. The use of television, local news, driving tours, and newspapers have aided collaborative groups in building relationships with the greater community and in mitigating push-back regarding prescribed fires, smoke and roads. The USFS is also a key source of community education for many groups.

The Shortleaf-Bluestem Community Project site has developed a "media tour". It is an effective driving tour that showcases the work being conducted on the ground, areas that have already reached their desired future conditions, and areas at other stages of progress. The Ozark Highlands group has developed a similar tour. Numerous nonprofit partners, in coordination with the USFS, created a woodland restoration tour for the public and policy makers. In reference to these tours, a member of the USFS noted, "We have several of those, and again at these meetings we have brought up the concern that we need to revisit these areas and make sure that everything is up to date. We have signs. We need to redo the signs to include the CFLR project information."

The media can be an effective tool for educating the public about prescribed burns and the role of fire on the landscape. The Lakeview, Grandfather and Arkansas collaborative groups are using media to get this message across. The Nature Conservancy's Fire Learning Network plays a lead role in many of these efforts. A member of The Nature Conservancy working with the Arkansas sites, commented, "The partnerships are also developing media strategies to educate, outreach or communicate the need and benefits of a healthy forest throughout Arkansas. And using prescribed fire - that tool is something we speak a lot about and we get media to burns a lot and so we're deeply engaged - all partners are deeply engaged in trying to make sure everything is good in the media circles." On the other side of the country in Lakeview, Oregon, The Nature Conservancy produced videos explaining

the importance of fire in ecology intended for the education of the public and collaborative members.

A member of The Nature Conservancy working with Grandfather collaborative group explained their involvement with the fire-learning network saying, “There is a fair amount of outreach that has occurred about the terrain, a lot of education. The Blue Ridge Fire Learning Network has really helped a lot too in creating brochures and doing some outreach to local communities and trying to educate folks about what are the benefits of prescribed fire, why it’s done and all the care that is taken to make sure that it goes right and doesn’t harm people.” The Grandfather collaborative group also utilizes local television stations and newspapers to reach out to local governments, city councils and local communities.

In the De Soto National Forest, the USFS has actively reached out to educate the media to alleviate local concerns. Learning from past tensions with the media and the public over smoke from prescribed fires, the Longleaf Pine collaborative group takes a more proactive approach by alerting the media before burning. The collaborative group calls the newspaper and television stations to notify them of prescribed burns and to invite their coverage. When the public calls in to the news stations to report a perceived wild fire, the news station is then able to tell the caller that the fire is under control and intentional.

### *Partner Outreach*

Some western sites currently face appeals and litigation from environmental groups. Some of these sites hoped that by bringing representatives from litigating groups into the fold they might lessen the number and severity of the appeals; but they have not seen much success from this strategy yet. It is clear that many people find litigation frustrating, and intentional outreach may serve to assuage the level of frustrations by potentially reducing the threat of litigation. Outreach from partner groups that trust the local collaborative process to other groups with whom they have working relationships has proven a more effective strategy for increasing the scope of support for collaborative work.

In at least one situation, a collaborative group developed an agreement with an appealing organization to develop a plan for monitoring the size of trees being harvested for a biomass cogeneration plant. In this case, a partner environmental group served as the link for outreach between the collaborative group and the appealing organization.

In two cases, intentional outreach from environmental groups has prevented potential litigation. Past salvage operations in the Malheur National Forest have faced extensive litigation. The local lumber company at the Southern Blues, Malheur Lumber Company, found itself in a terrible situation where it could keep its doors open only if it utilized salvage timber on the National Forest after a fire. Unlike earlier behavior before CFLRP, this collaborative group was able to work out a compromise that has not faced litigation due to outreach by environmentalists involved in the group. “He worked his side of the fence and I worked mine,” said a member of the Malheur Lumber Company. Similarly, at the other 2012 Oregon site, Lakeview has also used environmental groups to reach out on fire salvage issues and other collaborative decisions. “When there’s been controversy with outside groups, they’ve (environmental groups) been able to go and alleviate that,” said an interviewee.

Like environmental groups, the support from the collaborative groups themselves may serve as a buffer from litigation. In the Kootenai Valley, the USFS thinks that the collaborative group could act as a sort of shield in potential litigation. The collaborative group has suggested writing a letter of

support in case of any appeals or litigation.

In order for outreach to be successful, the members of the collaborative group must have a strong working relationship and trust each other. Simply bringing in an opposing voice is not enough. Instead, having representatives that are trusted in their own communities involved in the collaborative process can serve to mitigate litigious situations and represent an important link between the community and the collaborative group.

Further, in many cases nonprofits may be an underutilized resource. They can serve in valuable roles specifically advocating for decisions and explaining both collaborative planning processes and the scientific information used in them. Collaborators in the Pine-Oak Woodlands Restoration group suggested that they could be used more for this purpose. A member of The Nature Conservancy noted, “There have been times where things have happened or [the USFS has] gotten in the ringer and I’ve thought, we could have helped with that!”

## C. Economic Impacts

### *How is CFLRP affecting economic development in the communities near project sites?*

Goals for the Collaborative Forest Restoration Program include ecological, economic, and social sustainability. While sites vary in ecology and collaborative structure, they all share a common objective in developing their rural economies. In addition to restoring ecosystems, many collaborative groups feel the program offers a unique opportunity to restore jobs and local industry.

The program aims to pay for ecological restoration through receipts from forest products generated from restoration treatments. These products include both small diameter trees and woody biomass used for energy production. Recognizing the downward national trend of demand for these products, the collaborative groups feel extra pressure to make a positive economic impact.<sup>62</sup> As product demand decreases, having restoration pay for itself is more difficult, and economic development becomes a more pressing concern for rural areas.

To address these concerns, collaborative groups are pressuring National Forests to source contracts locally and are seeking ways to build certainty into projects that can spur economic development. Through these efforts, they hope to lower local unemployment, reinvigorate local industry, and reach a point where they can do more to find projects that benefit local ecosystems.

### *A Focus on Economic Restoration*

Most sites currently view economic and ecological goals separately, and, in many cases, prioritize economic sustainability over social or ecological goals, whether intentionally or not. Much of the focus is on jobs, jumpstarting local economies, saving mills and industry, generating revenue, or using cost-effective techniques. As one interviewee commented, “A big part of this is restoration in jobs.”

The Omnibus Public Lands Act of 2009 represented a milestone achievement in land management legislation.<sup>63</sup> It builds on past efforts, including New Mexico’s Collaborative Forest Restoration Program created in 2005 and the stewardship-contracting program created in the Healthy Forests Restoration Act of 2001. The Act’s passage and the program’s implementation also play out against the backdrop of the economic recession that began in 2008. Many of the communities with CFLR sites are still feeling the effects of this recession, with the downturn in the housing sector and resulting decreased demand for timber products further magnifying the economic conditions on the ground.

Comments in several interviews indicate that community stakeholders consider economic sustainability to be their top priority. One USFS employee remarked, “It’s about jobs in the community to them... They don’t want to see us hiring a bunch of government employees to get this stuff.” A western stakeholder said, “If you want to think about the other driving factors that go into

decision making: it's your social fabric, it's your mill, it's your industry, it's your capacity. It's also your economic situation at the time."

This pressure to balance the priorities of CFLRP is felt by sites across regions. A USFS employee at an eastern site spoke of the difficulty of integrating economic and ecological goals:

We strive for, as yet unattained, integration of ecological sustainability and socioeconomic and cultural issues. We've got to get away from 'Here's an area where economic development reigns, and here's an area where it's a sacrosanct nature preserve and you can't do anything else.'

The selection process for CFLRP evaluated the adequacy of local infrastructure to accomplish restoration work and as well as create value from wood products from timber harvested in projects to offset restoration costs. As a result of downward trends in the wood products market, many sites rely on only one mill in a community to process timber from restoration and must make sometimes difficult choices to keep that mill open. For instance, the Lakeview Stewardship Group has long



Picture 8: Lumber mill at the Southern Blues site in John Day, Oregon

opposed the use of salvage logging out of ecological concern, but they have recently agreed to the use of this technique after a large scale fire burned through a project area, in order to maintain the local mill. This group accepted this tradeoff with the idea that by keeping the mill open they could later refocus on restoration in areas with living trees. One interviewee commented of the fire salvage response, "We're not doing it for ecological reasons and we're fully aware of that. We're not trying to hide that fact. We're doing it because we feel there

is a need from an economic and social standpoint." Another said, "I think our environmental groups recognize that part of the collaborative and part of the goals of the unit are social and economic, and we were put into the situation that this salvage is going to have to occur."

Even without such difficult decisions, many groups still focus their energy developing and sustaining local mills and jobs. For example, the town of John Day, Oregon, used to have three mills, but only the Malheur Lumber Company is still open. Recently, it announced that it too would have to close, but the work of the Blue Mountain Forest Partners at Southern Blues has been able to keep it open through restoration projects including, as in Lakeview, a mutually agreeable approach to controversial salvage logging. One participant remarked, "Here we are in a time of declining budgets for the National Forest system and we're getting more money to not only double, but actually triple our program. That's insane! The federal government just doesn't do that. So it says a lot for the efforts

we've made.” Collaboration at this site has not only helped sustain a business but has actually resulted in new gains.

It is important to note that at sites prioritizing economic development and sustainability over ecological benefits, the collaborative processes are ensuring that ecological considerations still play a substantial role. With the salvage examples, the groups struck compromises to allow some work aimed at economic benefits while minimizing potential ecological impacts. Said one stakeholder of the balance in that decision, “Anyway what happened is we pulled together a subset from our collaborative, and we'd already gained enough trust among us that we could together on this. And this subset included a couple of the furthest left environmental folks that we had, which was amazing. So the idea was for tradeoffs in the one in order to get some off the other.” Thus, while economic interests may still dominate the decision-making in these situations, collaboration has influenced some of the environmental impacts of those decisions.

### *Can Restoration Pay for Itself?*

The CFLRP authorizing legislation seeks projects that would “use woody biomass and small-diameter trees produced from projects implementing the strategy.”<sup>64</sup> One area to be considered in project selection is whether the proposal would “reduce the relative costs of carrying out ecological restoration treatments” as a result of “the use of woody biomass and small-diameter trees.” Collaborative groups are finding the goal of restoration projects paying for themselves unachievable due to external economic factors.

Changes in the energy market since passage of the bill in 2009 have limited biomass cogeneration opportunities that many project sites relied on in their proposals. Without a strong market for woody biomass for energy production, sites are experiencing difficulty in generating sufficient funds. At the same time, the collapse of the U.S. housing market and economic recession have greatly decreased the demand for wood products used in home construction.<sup>65</sup> While CFLRP appears to be improving economic conditions in some locations, external factors are limiting the ability of project sites and National Forests to utilize wood products to finance restoration treatments.

The USFS’s 2006 guidance on ecological restoration states, “Active management is often required to achieve ecosystem restoration objectives, and values from commercial uses of natural resources may be used to help fund restoration activities.” In its 2012 report “*Increasing the Pace of Restoration and Job Creation on our National Forests*,” the USFS states, “The forest industry also lowers the direct cost of restoration projects to the taxpayer by providing markets for the forest products that result from restoration projects.”<sup>66</sup>

Furthermore, since its creation in 2000, the stewardship contracting program has been utilized by the USFS personnel based on the idea that receipts from these contracts can be used to pay for other work, including ecological restoration. Even the basic brochure on stewardship contracting outlines that “the exchange of goods for services must implement on-the-ground projects, such as removing vegetation to promote healthy forests or reduce wildfire hazards, restoring watershed areas, and restoring wildlife and fish habitat.”<sup>67</sup> These national guidance documents are indicative of an agency culture and political climate in which restoration has been promoted to agency personnel at the forest and district level on the idea that it will pay for itself.

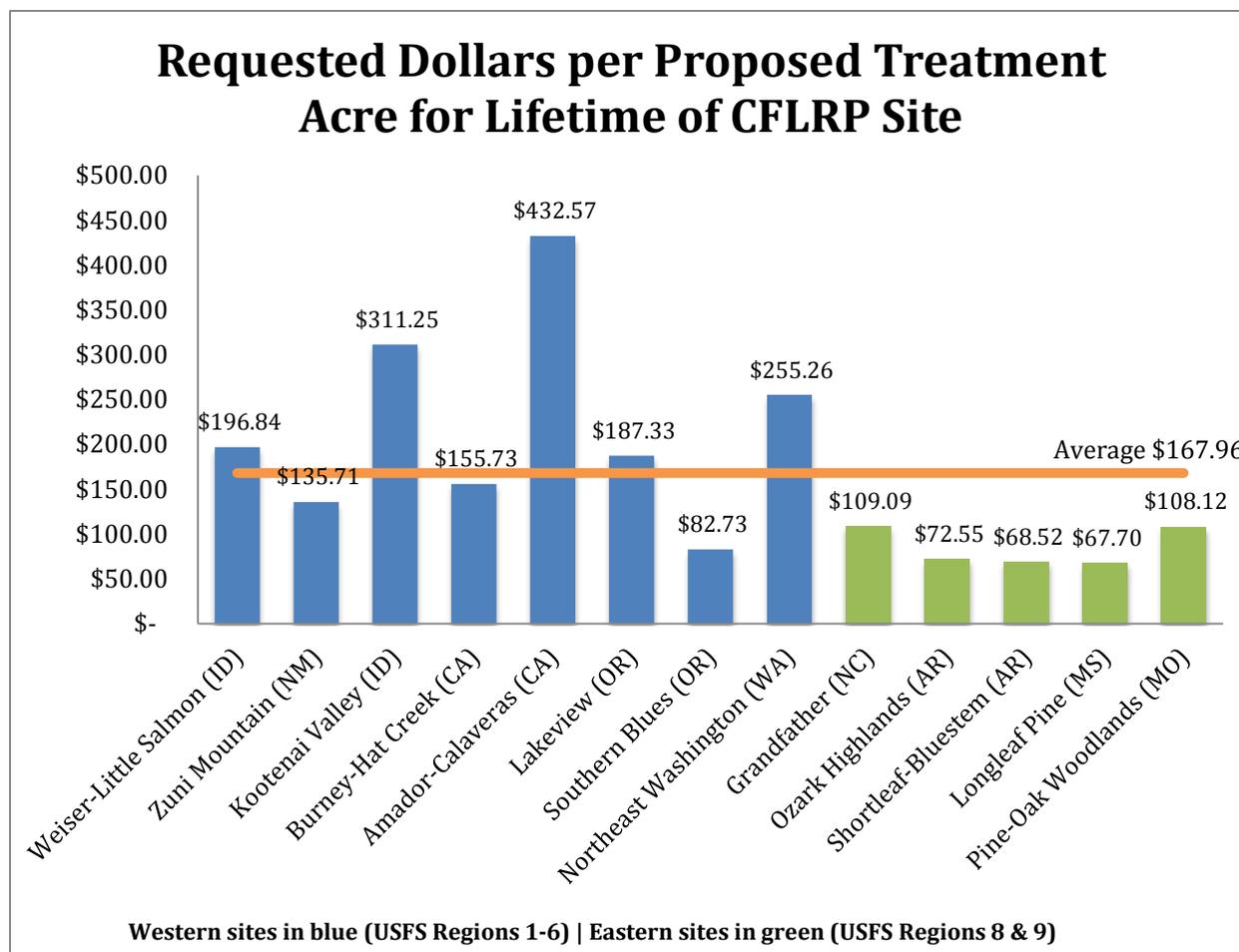


Figure 10: Requested Dollars per Proposed Treatment Acre across the lifetime of each project site

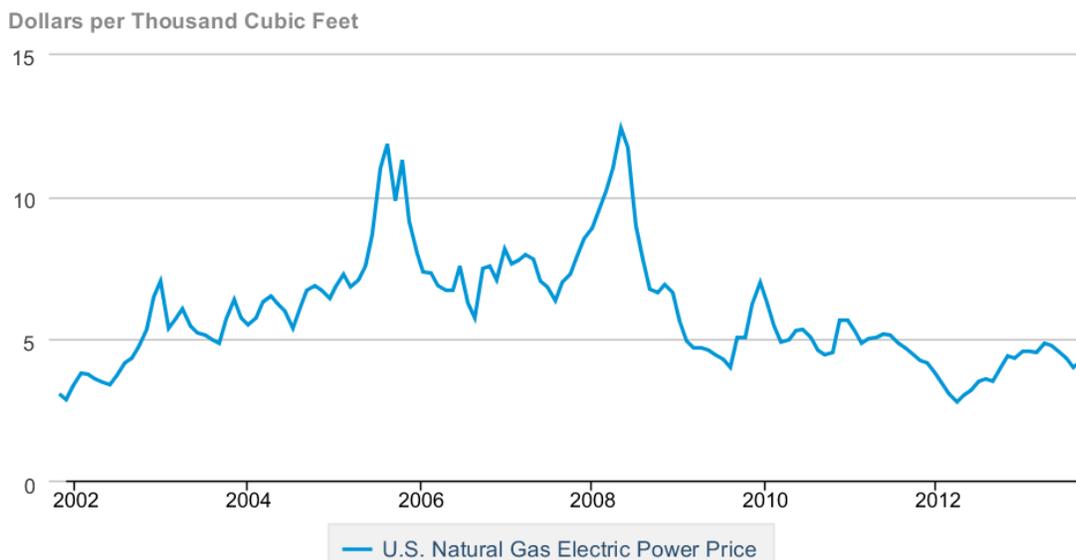
An additional complication for whether or not restoration can pay for itself is the variation in the average cost of restoring an acre across the 13 sites. Local economic factors, restoration techniques utilized, and differences in political influence result in a range of average cost per proposed acre of restoration. When looking across the thirteen sites in the 2012 cohort, it becomes clear that on a per-acre basis not all CFLR funds are equal (Figure 10). Costs are higher per-acre in the West than in the East. However, the implications of this comparison are that dollars spent to spur local economic growth and restore acres have different impacts in different parts of the country.

In many ways, the USFS and Congress, in its legislation creating CFLRP, frame restoration as a wood product itself. The difference between restoration and other management for ecological purposes is that it will spur markets and create jobs. To achieve this vision, sites prioritize their attempts at getting restoration work that will pay for itself.

### Changing Markets for Wood Products

Cheap energy alternatives, including natural gas, are limiting the ability of many sites to utilize biomass for revenue to undertake restoration work. Since its peak pricing in 2008, not long before the passage of Omnibus Public Lands Act, the price of natural gas electric power has fallen by more than

## U.S. Natural Gas Electric Power Price



 Source: U.S. Energy Information Administration

Figure 11: Price of Natural Gas Electric Power from U.S. Energy Information Administration.

half due to the shale gas boom (Figure 11). This precipitous fall in prices has greatly affected the viability of alternatives to natural gas, including biomass. As the price for natural gas drops, utilities and towns choose this cheaper option instead of biomass. The choice becomes easier when producing biomass energy would require investment in new infrastructure unlike for natural gas. Using biomass for energy production typically involves the construction of new and expensive cogeneration plants in the rural communities around CFLRP sites, creating a barrier to entry into the market and requiring investors to undertake significant risk in backing development of biomass facilities.

Low natural gas prices from developing shale resources are affecting whether or not companies and communities invest in biomass facilities. A collaborative group member in Northeast Washington tells a typical story: “We’ve got a viable facility in the area. But I don’t know that they have been running biomass as a cogeneration thing because the price of natural gas has gone down so much, even if it’s basically free. So that’s an issue.”

At some sites, the lack of a biomass facility or strong market for chips has led to piles of surplus fuels in forests. A stakeholder with the Lakeview Stewardship Group remarked, “We’ve been stock piling these slash piles for six years, seven years now for the biomass which is not being built now.” Signs advertising the facility, at an unfinished construction site at the edge of town, are a reminder of an opportunity that came and went (Picture 9).

At this site, as with several others, community members are looking to develop local resources through options other than biomass. The nonprofit Lake County Resources Initiative, founded in 2002 to carry out the collaborative group’s work and take on additional projects, now focuses much of its effort on renewables other than biomass in light of the plant closing. Its efforts at harnessing geothermal even garnered the attention of the PBS program *This American Land*.<sup>68</sup> Their choice to

develop substitute sources for renewable energy instead of biomass demonstrates how far from a viable option biomass has become.

The story is similar from site to site, without much variation. Interview comments ranged from, “There isn’t a market that’s economically feasible,” to “Where are you going to get the money to do this stuff if you don’t have an infrastructure there? And how are you going to do that if the USFS thinks that it belongs out there to this magical thing called a market?” At some sites, the lack of a viable market is slowing the pace of restoration. One interviewee said, “It’s created a huge problem, biomass, throughout the area, because we now have an oversupply and nobody to take it. And so we have projects that are sitting on the ground, ready to be implemented, but nowhere to take the chips.” While CFLRP may have aimed to encourage the woody biomass for energy industry, the reality of its implementation simply is not resulting in that goal.



Picture 9: A sign for a woody biomass energy facility in Lakeview, Oregon that was never constructed.

Some sites are finding success in the biomass and wood product markets because of state-specific programs. In California, the CFLR sites look to benefit from a state grant program for biomass facilities (Table 5). There, the increasing percentage of energy that must be produced annually by utilities from renewable sources, including biomass, due to the state’s renewable portfolio standard passed in 2011, also drives demand for biomass for energy.<sup>69</sup> A lumber mill and wood crews at the Zuni Mountain collaborative group benefit from grants provided by the Collaborative Forest Restoration Program, a state-specific U.S. Department of Agriculture program for New Mexico, to retool with new equipment for harvesting smaller diameter trees and turning them into marketable products.

At the same time, the collapse of the U.S. housing market has decreased the demand for other wood products. According to the Resources Planning Assessment, produced by the USFS, the market for all wood products has greatly decreased since 2008 (Figure 12).<sup>70</sup> Sites that are generating economic value have local lumber mills that are willing to take risks in retooling for new parts of the lumber market. However, without some sense of certainty provided through long-term plans or innovative state programs, it is hard for small, local contractors to build and maintain infrastructure in the timber economy. Programs like CFLRP can help bridge that gap, but national economic trends suggest that it may not be enough.

Quite simply, even where sites are seeing economic impacts from CFLRP, the sites are not generating sufficient funds for restoration to pay for itself. Largely, downward economic trends through the life of the program have kept the policy from living up to its original billing. If markets for woody biomass for energy and wood products were stronger, sites would likely be able to more easily increase the pace of restoration and not struggle with having to find sources for funding matches for their restoration work.

| Project Title                           | Interest in using Woody Biomass for Energy | Perceived Difficulty in Utilizing Woody Biomass | Availability of State Programs or Grants for Biomass for Energy or Small-Diameter Wood Products |
|---|--|---|---|
| Amador-Calaveras Consensus Group        | ✓  | + +   | ✓   |
| Burney-Hat Creek Basins                 | ✓  | + + +   | ✓   |
| Grandfather Restoration Project         |  |   |   |
| Kootenai Valley Resource Initiative     | ✓  | + +   |   |
| Lakeview Stewardship Project            | ✓  | + + +   |   |
| Longleaf Pine Ecosystem Restoration     |  |   |   |
| Northeast Washington Forest Vision 2020 | ✓  | + +   |   |
| Ozark Highlands Ecosystem Restoration   |  |   |   |
| Pine-Oak Woodlands Restoration Project  | ✓  | + +   |   |
| Shortleaf-Bluestem Community Project    |  |   |   |
| Southern Blues Restoration Coalition    |  |   |   |
| Weiser-Little Salmon Headwaters Project | ✓  | + +   |   |
| Zuni Mountain Project                   |  |   | ✓   |

Table 5: Site goals and challenges with biomass for energy utilization. In the first column, check marks indicate that biomass was discussed as a important issue. In the second column pluses indicate the perceived difficulty in utilizing woody biomass from the forest on a scale of 1-3 with 3 being very difficult. Check marks in the third column indicate the presence of outside grant programs to incentivize woody biomass energy production.

The USFS continues to attempt to build the industry for woody biomass utilization for energy through grants and other work, calling it “an opportunity we cannot waste.”<sup>71</sup> The struggles sites face to get woody biomass for energy off the ground result in focusing excessively on this one area instead of other more pressing issues. Instead of continuing to try to force the issue on biomass utilization, time and efforts could be better spent elsewhere on ecological restoration projects.

## *A Focus on Local Contracting & Development*

The guidelines for CFLRP selection from the Omnibus Public Lands Act of 2009 explicitly call for proposals that “benefit local economies by providing local employment or training opportunities through contracts, grants, or agreements for restoration planning, design, implementation, or monitoring.” Many collaborative groups advocate strongly for local contracts to generate positive local economic growth, but concerns around capacity and risk sometimes prevent small businesses from realizing potential gains.

Some collaborative groups formed primarily to address local economic issues and concerns over poverty. The Amador-Calaveras Consensus Group (ACCG), for instance, is motivated to generate

local contracts and develop its community. The group came together to deal with social issues and poverty in the area. Unemployment in Amador County over the past two years has varied between 9% and 12%,<sup>72</sup> and in Calaveras County it has reached as high as 13% in January 2013.<sup>73</sup> These high numbers are not uncommon in the communities around CFLRP sites (Figure 13). This collaborative group utilizes a wide range of approaches to create local jobs and businesses. Most notably, ACCG supports the Calaveras Healthy Impact Product Solutions (CHIPS) program and Amador Calaveras Cooperative Association for Biomass Utilization. “That’s a social aspect. They [the two programs] bring into this collaborative, job training outfits and other social outfits to try and coordinate the social infrastructure as well,” said one collaborative group participant.

In an effort to support their two initiatives for local jobs and contracts, ACCG tries a number of strategies. One participant said:

We were working real hard for a while on it, and ended up backing off on it, I don’t think it’s dead, on developing a memorandum of understanding and a master stewardship agreement with the USFS with the intention of trying to have more control over who does the work and ensure the work goes to local people.

They have been able to create a series of special project agreements and a master partnership agreement with the USFS for CHIPS. A USFS employee said, “The nice thing about that is that under certain constraints we can work directly with CHIPS without any external competition. That’s the first way that I can think of that we’ve found to take CFLR money and give it directly to a local business.” Through formal agreements and due to collaborative pressure, the group is seeing contracts go to the programs they created.

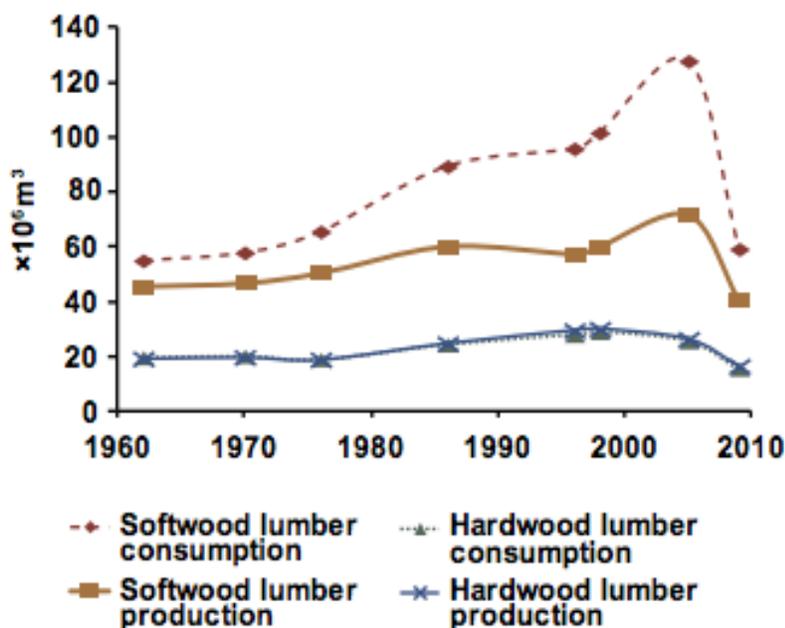


Figure 12: from “Status and Trends for the U.S. Forest Products Sector: A Technical Document Supporting the Forest Service 2010 RPA Assessment” (FPL-GTR-207)

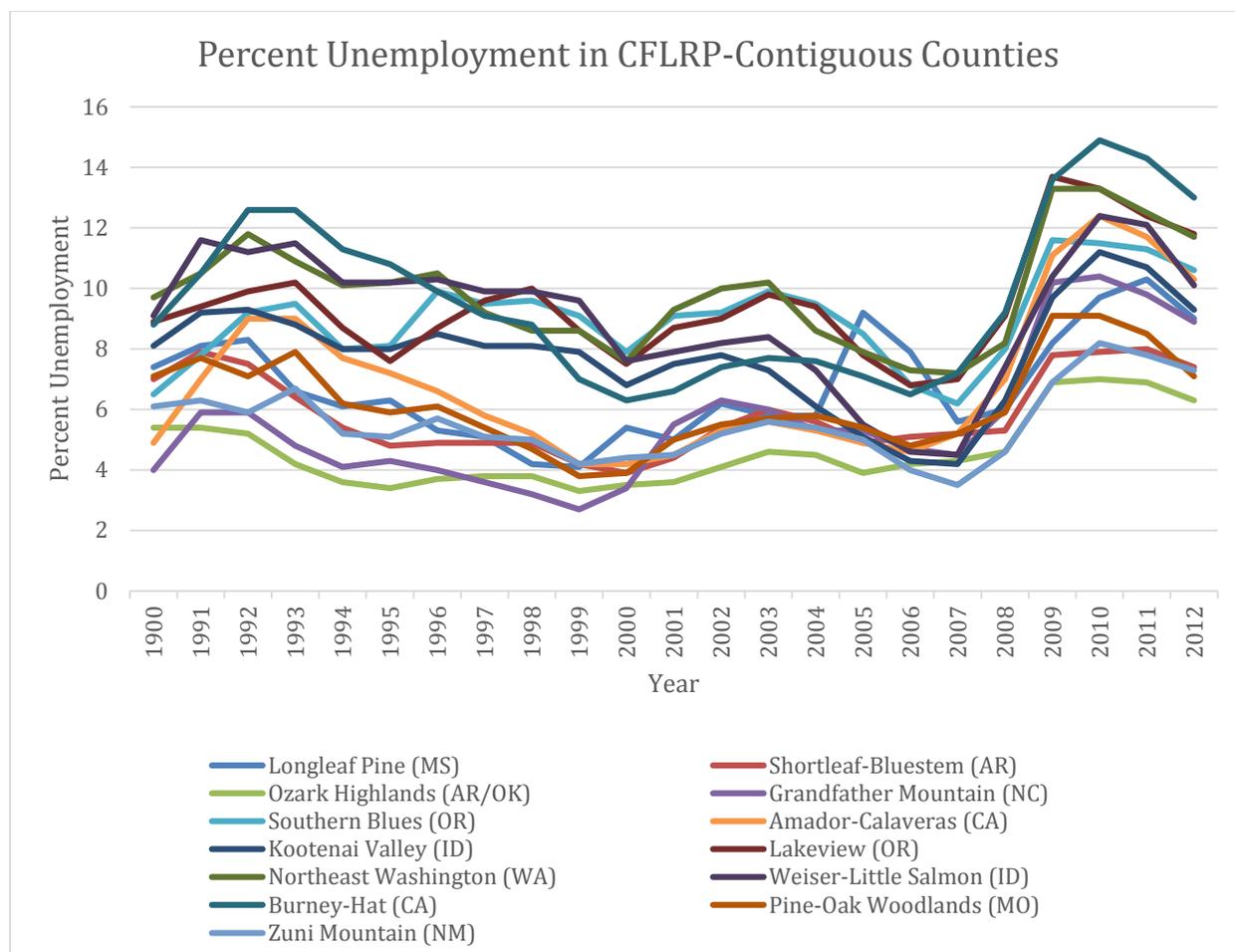


Figure 13: Unemployment trends

Not every collaborative process includes a presence from the wood products industry in the collaborative group (Table 6). The perception of the local community regarding the trends for the wood products industry, as well as the stakes for federal contracts based on the amount of federal land nearby (discussed in the section on Collaborative Structure) can determine if the wood products industry participates in the collaborative group. Their participation influences how much the group prioritizes local contracting.

The long-term contracting opportunities that job training provides may prove to have numerous benefits for both the collaborative effort and the community at large. Contracts that favor local hiring can help keep funds within the region, benefit long-term relationships and increase the ability to implement projects as the needed work force can be easily sourced. A USFS member with the Southern Blues group commented, “What we’re really trying to concentrate on is the local. If somebody wants to move in here and start a business and do some work that’s great, and you’ll hear that from our contractors. It’s about locals, and not bringing people in from other parts and other states. That’s what it’s about.”

Local crews may be preferable to outside contractors because they are easier to communicate with and are more familiar with the immediate landscape. For instance, the USFS at the Grandfather collaborative group has contracted local community members “for hemlock woolly adelgid treatments,

| Project Title                           | Perception of Local Wood Products Industry Trend Pre-CFLRP | Wood Products Industry Active in Collaborative Group |
|---|--|--|
| Amador-Calaveras Consensus Group        | ↓  | ✓  |
| Burney-Hat Creek Basins                 |  | ✓  |
| Grandfather Restoration Project         | ↑  |  |
| Kootenai Valley Resource Initiative     |  | ✓  |
| Lakeview Stewardship Project            | ↓  | ✓  |
| Longleaf Pine Ecosystem Restoration     | ↑  |  |
| Northeast Washington Forest Vision 2020 |  | ✓  |
| Ozark Highlands Ecosystem Restoration   |  |  |
| Pine-Oak Woodlands Restoration Project  |  |  |
| Shortleaf-Bluestem Community Project    |  |  |
| Southern Blues Restoration Coalition    | ↓  | ✓  |
| Weiser-Little Salmon Headwaters Project | ↓  | ✓  |
| Zuni Mountain Project                   | ↓  | ✓  |

Table 6: Presence of Wood Product Industry representatives in collaborative group. Check marks indicate active participation in the group as indicated by attendance at meetings, etc.. Plusses indicate the relative formality of the collaborative groups prior to CFLRP designation on a scale from 1-3. Arrows indicate increase or decrease in formality since CFLRP designation.

and for non-native or invasive species removal,” explained a group member. Local crews may also provide benefits from continuity. One interviewee at an eastern site reflected:

But it would be really nice to be able to work with, to some extent, the same crew for the next couple years if they would continue, because I think that's been just a yearly thing for us. They learn as they're doing these sales. If we then have to start from scratch with a new crew it would be counterproductive to say the least.

### *Challenge of Unpredictable Dispersal of Funds*

Unpredictable funding hinders implementation of CFLR projects. Because Congress ultimately determines funds for CFLRP, the program is subject to budgeting inconsistencies and irregularities. For season-dependent restoration, such as the use of prescribed fire, and long-term needs, such as planning and making substantial investment, unpredictable funds dispersal can be problematic. A member of Lakeview Stewardship Group said the past year “has been really challenging with the uncertainty over funding.” In all, problems from funds dispersal can radiate into other areas of CFLRP, straining relationships between collaborative partners and between the collaborative groups and National Forests. Ultimately, this strain can weaken ground-level results.

The use of Indefinite Delivery / Indefinite Quantity (IDIQ) contracts, such as at the Longleaf Pine site, has helped buffer against some problems associated with unpredictable funding. IDIQ contracts provide a stand-by source of labor for work that sites know needs to be accomplished. A member of the group said, “We’re lucky to have contracts in place. Because what happened last year was that they dumped a pile of money on us at the end of the year but we were already built for that. We took bids on work on a big, giant IDIQ.” Other sites are using multi-year Stewardship Contracts to neutralize the effects of unpredictable funds dispersal, blending multiple assignments over multiple years into a single contract. Both approaches increase the flexibility the USFS has to tackle problems.

There is “a mismatch between funding availability, which is uncertain, and the seasonal ability to get projects on the ground,” noted a member of the Lakeview Stewardship Group. Unpredictable funding prevents sites from achieving season-dependent restoration. At the Shortleaf-Bluestem site, burn crews are often short on needed personnel and resources to complete their work during peak periods. Interviewees at the Pine-Oak Woodlands Restoration Project, mentioned the flow of funds is a problem for monitoring in particular. A member said, “They’ve been working on the design of this project and that money still hasn’t come.” Making long-term planning and implementation decisions or investments with slow or low return on investment is tough to validate when the future of the program is uncertain.

Difficulties between the frequently short turnaround time between Congressional appropriations and the end of the federal fiscal year means that National Forests must source contracts when the opportunity arises. Due to this difficulty, some sites believe that contracts are going simply to “ready projects” rather than priority projects. One interviewee remarked that funds were going to low-priority recreation related projects like replacing toilets, complaining, “this is not what our group envisioned for CFLRA.” Another felt that his local National Forest was using funds to plug gaps in its budget elsewhere rather than applying it to actual restoration work. These frustrations tend to occur when restoration projects have yet to make it through NEPA approval. It suggests that prior approval of environmental assessments can facilitate the funding of the collaborative group’s priority projects resulting in economic gains, but where planning still needs to occur, sites are not getting the effect they hoped for.

## *Efficient Economic Development*

While ecological restoration can have economic gains, justifying projects by claiming that ecological restoration will pay for itself can force collaborative groups to narrow their focus on often-unattainable economic goals instead of embracing a more balanced approach.

The case of wood biomass for energy emphasizes this point. A more modest approach to marketing the economic benefits of restoration, perhaps by simply indicating that it can have economic benefits but not going so far as to indicate that it would pay for itself, would lift a burden from collaborative groups trying to achieve unreachable targets. This more measured effort would also decrease the need to expend valuable scarce resources on grant programs designed to develop an industry for woody biomass for energy in a market that simply does not currently exist. Instead, collaboration could try to blend competing interests in a more effective way.

## D. Ecological Restoration

### *How are sites approaching ecological restoration when planning, implementing, and monitoring projects?*

The first stated purpose of CFLRP in the Omnibus Public Lands Act of 2009 is “to encourage the collaborative, science-based ecosystem restoration of priority forest landscapes.” The legislation goes on to expand this objective by highlighting ecological, economic, and social sustainability as priorities. However, reducing wildfire risk, improving watershed and ecosystem health, and using the best available science are front and center in the law.

The law creating CFLRP requires that projects “reduce the risk of uncharacteristic wildfire,” “improve fish and wildlife habitat,” “maintain or improve water quality and watershed function,” address invasive and exotic species, “maintain, decommission, and rehabilitate roads and trails,” and “use woody biomass and small-diameter trees,” as part of this restoration.<sup>74</sup> CFLRP also incentivizes a collaborative approach that should help land managers increase the scale of restoration by reducing litigation, building consensus, and building capacity. However, in trying to implement ecological restoration projects, collaborative groups face a number of seemingly insurmountable problems.



*Figure 14: Stages in collaborative process for defining and applying the concept of ecological restoration in management.*

Through the program, collaborative groups must define what ecological restoration means to them, establish goals, develop individual projects, and monitor for effectiveness, often iteratively through this process as the context changes. This process is outlined in Figure 14. The diversity across sites makes it difficult for any one group to serve as an example for the next, but groups are facing and resolving similar challenges as they attempt to restore their landscapes. Collaborative projects in the 2012 cohort are still in the early stages on implementing and monitoring projects developed through

CFLRP, but lessons regarding approaches to restoration, setting goals, and collaboratively developing and monitoring projects can be seen even at this early stage.

## *Planning Ecological Restoration within CFLRP*

CFLRP intends to accelerate restoration work on National Forests by providing funding to increase both the pace and acreage of restoration treatments, but the legislation does not define the term “ecological restoration.” There is no single definition that encapsulates what ecological restoration might mean to a land manager or stakeholder, and it becomes no less complex when looking at a specific project area.

The USFS has adopted the basic definition provided by the Society of Ecological Restoration, which defines the concept of ecological restoration as “the process of assisting the recovery of an ecosystem that has been degraded, damaged, or destroyed.”<sup>75</sup> The agency adds, “Ecological restoration focuses on re-establishing the composition, structure, pattern, and ecological processes necessary to facilitate terrestrial and aquatic ecosystem sustainability, resilience, and health under current and future conditions.”<sup>76</sup> This definition integrates other complex ecological concepts; however, each one is just as ambiguous and open for interpretation as “ecological restoration.”

Collaborative groups at the projects we studied are not focusing on any single objective, but are attempting to restore their landscapes with some combination of approaches. For example, the Burney-Hat project in northern California is using historical data to build consensus on what a restored landscape may look like, as one interviewee described,

[We] got the original data, and said "Okay, this is what the forest structure looked like, elevation slope, in 1880." So then they brought in the environmental groups that were challenging them and said "Okay, here's our forest structure now, on average, where we're standing. This is what it was described as in 1880. We're not trying to reset the clock here, but we think it's actually more appropriate to get it closer to that structure than it is now. Do you agree?" And they said, "We do agree."

At the Amador Calaveras Cornerstone Group (ACCG) a stakeholder explained their prioritization of “having a healthy community and economy in addition to a healthy environment,” which reflects the group’s emphasis on economic and social benefits. For the Missouri Pine Oak Woodland project, wildlife habitat is a primary focus. As a stakeholder explained, “the biggest effect that [CFLRP] has had is a significant source of money to get the [bird] habitat done which is a great motivator. I mean not just for the forest but for other people it’s like, ‘yes, we’re going to get this on our landscape’.”

## *Regional Priorities and the Threat of Wildfire*

The goal of ecological restoration is a common denominator across the CFLRP collaborative groups, but the precise definition of restoration and the type of landscape are unique to each program site. These differences manifest themselves in each collaborative group’s ecological goals, plans, and methods of implementation. The prioritization of goals by each group, and specifically the focus on wildfire, varies depending on the ecological region in which the collaborative unit is located.

Both eastern and western collaborative groups are implementing projects to restore the structure and composition of their landscapes, but western sites focus more on reducing the immediate risk of wildfire. While fire suppression in National Forests has been practiced across all regions, the impact on western forests – where forests are typically drier and public land is the dominant form of land ownership – has had broader implications than in the East.

Fire is a natural, integral, and defining part of many ecosystems throughout North America. Each ecosystem is adapted to different intervals and intensities of fire disturbances. Low-severity fires are important to the lifecycles of fire adapted plants, nutrient cycling, and creation of important habitat for wildlife. Fire suppression not only disrupts the natural fire cycle, influencing forest structure and composition, but also leads to the build-up of fuels which increases the risk of larger higher severity fires. These uncharacteristic fires are a risk to property and communities that live in lands adjacent to the forest, and they can also be ecologically devastating, leaving productive forestlands barren for years.

Fire suppression in the West has influenced forest structure leading to increased vulnerability to large-scale, high-intensity wildfires, referred to as “uncharacteristic fire” by the USFS (Figure 15). As one Forest Service employee at a western site described, “in a landscape that should have 20 or 30% high severity [fire] at the most, we’re seeing 70% high severity right now.” Additionally,

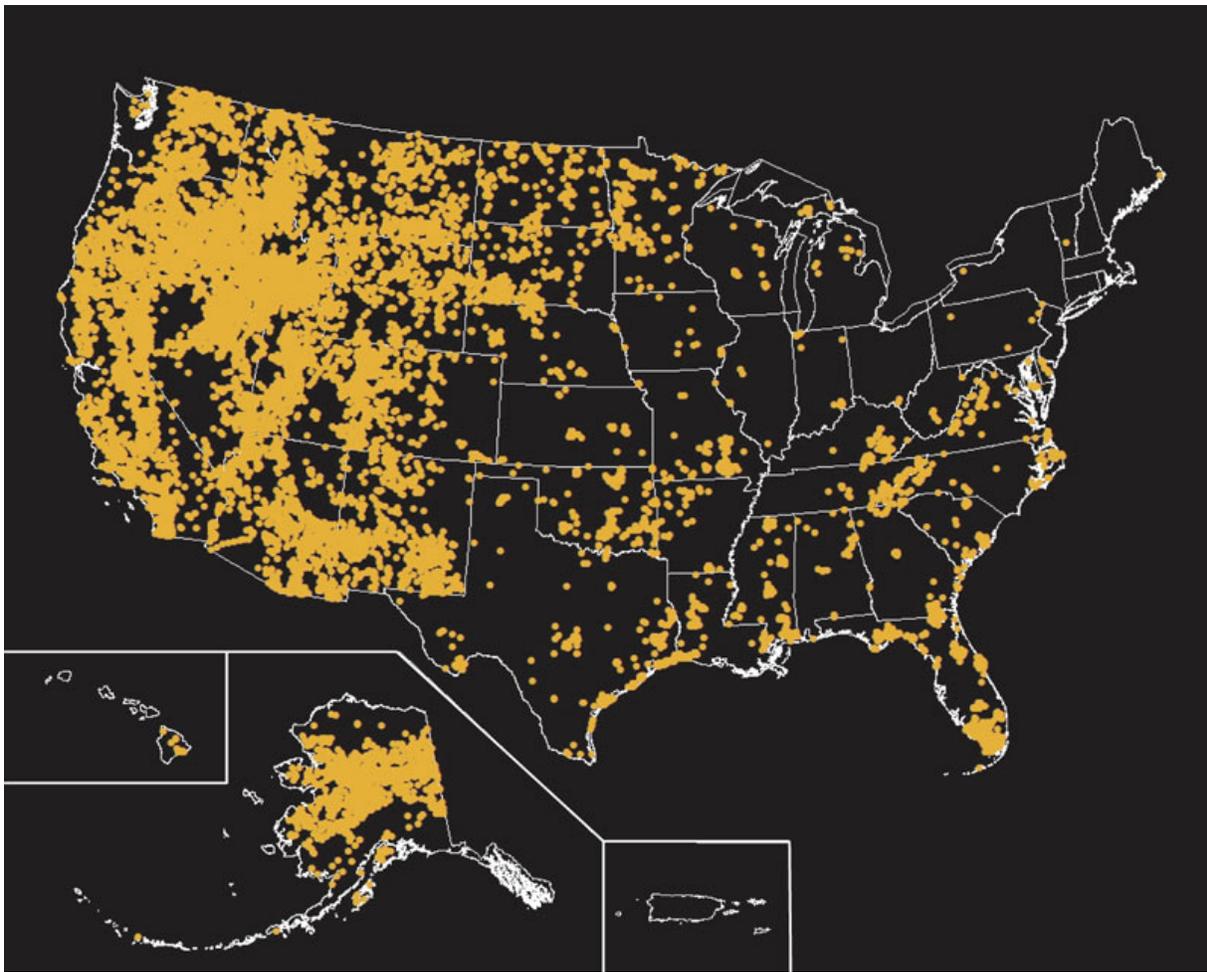


Figure 15: Locations of wildfires greater than 250 acres, from 1980 to 2003<sup>77</sup>

western states have a much higher percentage of public land, broadening the implications of public land management on large-scale fires in the west. As such, western sites prioritize the reduction of uncharacteristic fire.

Because of this perceived risk, Western collaborative groups often cite imminent fire danger as a primary reason for group coalescence. A stakeholder at a California site said, “A lot of people would say we have to protect our forest. We have to make sure that we don’t burn it. We have to stay alive. So that’s number one.” The increased risk of uncharacteristic fire in the West leads more fire-focused interest groups to participate in the collaborative process. For example, both the ACCG and the Burney-Hat projects in Northern California have Fire Safe Councils engaged with the project with the specific objective of reducing wildfire risk.

Western sites also tend to have more timber industry interest groups at the table. All eight western CFLRP sites have timber industry representatives engaged in the collaborative process (Table 6), whereas none of the five eastern sites do. These industry groups have a vested interest in protecting the timber resource from fire. Stakeholder interests in these groups further influence the prioritization of uncharacteristic fire reduction over other ecological objectives.

At eastern sites uncharacteristic fires are less common. As a result they pose fewer risks to communities, and are less of a primary concern of stakeholders. Here, restoration work can focus primarily on returning forests to desired structure and function. However, low-severity fire remains an important ecological component for eastern sites. Fire is used as one of many means to change species composition and increase habitat for particular species of interest. As a stakeholder at the Pine-Oak Woodland project emphasized, “We’re doing it to restore natural community type because we don’t have the catastrophic wildfires.”

Collaborative groups in USFS Regions 8 and 9, in the South and East, typically emphasize strong central partnerships with environmental nonprofits that have interests in specific ecological outcomes, like increases in species ranges and habitat. The Nature Conservancy has been an integral part of driving biodiversity focused restoration at the Shortleaf-Bluestem, Ozark Highlands, and Missouri Pine-Oak Woodlands sites. A stakeholder recalled, “TNC devoted a lot of time to looking statewide at the data and rating the biological diversity and they developed this report [the Ozarks Ecoregional Conservation Assessment]”, which now guides the priorities at all three sites. As these sites do not experience uncharacteristic wildfire, they are able to focus on other priorities for restoration.

### *Dealing with uncertainty and heterogeneity*

Many groups have prioritized restoration of landscape-level diversity. This diversity, or heterogeneity, complicates the process of collaboratively developing ecological goals and plans because the types of management practices that apply in one forest area might not be ideal for another. As the area of the landscape under management increases, so does the amount of heterogeneity and the number of variables to be considered when examining ecological outcomes.

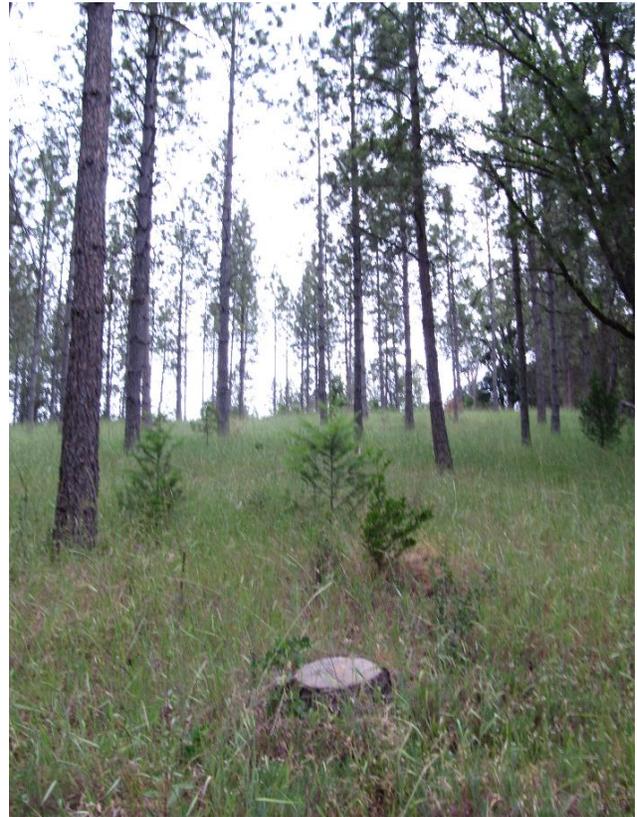
The complexity of ecological systems makes predicting restoration project outcomes difficult. The difficulty of defining ecological objectives and developing management proposals when dealing with such variable conditions and uncertainty further add to the stresses of the collaborative process. A USFS employee described the challenge this way:

To know what to do, to know how to do ecosystem restoration and what to do, first you have to know what you've got. And I'm going to say, that is the greatest challenge right now, to, not just the Forest Service but all land managers and anyone trying to do restoration ecology. What's supposed to be there, or what kind of system would be an acceptable natural functioning system.

Working through these issues of uncertainty affects the selection of where to work, what goals to set, and what treatments to use.

Ideally, the collaborative approach can help groups build a shared vision of a restored landscape and the steps required to achieve that vision. Building consensus can be difficult to achieve due to the increased landscape heterogeneity and scientific uncertainty that is inherent with landscape-level management. For instance, at one site a stakeholder commented, “We weren’t able to reach really any agreement in those stands. [Another stakeholder group] said, ‘We don’t have enough science to go in and cut those.’”

The use of tools like remote sensing and modeling allows groups increase communal understanding in an otherwise murky area. These tools can help stakeholders conceptualize land management at the landscape level. With this knowledge and technology, USFS personnel or stakeholders with relevant expertise are now able to explore environmental impacts and ecosystem characteristics across landscapes quickly without requiring extensive exams. While these approaches can be more efficient for landscape level assessment, they lack the specificity of on-the-ground assessment, and still can carry a high level of uncertainty.



Picture 10: Shortleaf pine forest in the Pine-Oak Project

Technological advancements facilitating landscape-scale assessment can inform collaborative deliberations around ecological goal setting. At the Southern Blues project in Oregon, the group pairs collaboratively developed project objectives with data from a remote sensing program called LIDAR, which allows for accurate higher-level landscape analysis. Stakeholders develop ecological priorities as a group, with the USFS providing a significant amount of expertise, and work to find an agreeable common ground between all those present. A partner there described their process of filtering scientific information: “One of the tricks is of course agreeing on the science. Because everyone brings their own science to the table, and it's all supposed to be the best... what we've found in our group is that 80-90% of us for the most part can walk down the same road, agree that this is where we want to go.”

Ecological modeling can also play an important role in fostering understanding and reducing uncertainty in the collaborative process. At the Lakeview Stewardship Group (LSG), there is concern within the collaborative group about the capacity for managing their landscape in the future as environmental conditions shift. To combat this uncertainty, LSG is utilizing the data from a landscape management system computer model. This interactive computer model incorporates variables such as forest growth models and potential project treatments to illuminate some potential future images of the forest. Through close collaboration with The Nature Conservancy and the University of Oregon, LSG is working to increase their capacity and effectiveness for landscape management in the present as well as in the unknown future.

### *Soft Goals*

Ecological goals can be hard to develop and conceptualize due to high levels of uncertainty in identifying drivers of ecosystem change and the detailed level of context needed to make goals appropriate and achievable. As one stakeholder described, “people have an inability to conceptualize ecological goals that are measurable. Partially because it’s context dependent, and there’s so much complexity.” Given the breadth of possible solutions to land management and ecological issues, it can be hard for groups to find common ground that is also specific enough for precise ecological goals. As such, collaborative groups tend to set more flexible and less specific goals in an effort to find broader areas of agreement.

One stakeholder explained that it “might not be worth it to specify exact goals, because we don’t even know what they should be. As an ecologist engaged in one of these processes, your goal is to get people to recognize the uncertainty and the need for an experimental approach.” Accommodating the opinions of many stakeholders in a collaborative process can often conflict with the need to set specific measurable goals. Many groups end up with “soft goals,” or ones that describe an overarching vision but lack specificity. Such goals include fairly generalized unquantifiable conditions such as “park like” or “high quality wildlife habitat.” As one stakeholder described, “The group did spend some time developing goals, and it probably wasn’t adequate. There were problems around terms like ‘resiliency.’”

Within the 2012 CFLRP site cohort, eight out of thirteen groups relied exclusively on difficult to quantify goals in their CFLRP proposals. Of those eight groups, seven are western collaborative groups which typically have more participants and more diverse representation, indicating that larger, more diverse groups may be setting less specific goals in order to find agreement among many members. Proposals that were more detailed in their goals specified basal area or percent vegetative cover in addition to employing broader “soft” goals. Examples of proposal goals can be found in Table 7. It may be that groups left more specific goals out of their proposals because these objectives had not yet been defined, or because they were not required in the proposal. Many groups also referenced other more specific plans and reports, such as USFS general technical reports, manuals, land and resource management plans, and state forest restoration plans. However, very few stakeholders interviewed were able to define specific ecological objectives during interviews, suggesting that groups are not collaboratively developing specific ecological goals.

Difficulty in connecting these “soft” goals to implemented projects can contribute to stakeholder dissatisfaction later in the process. While they originate out of a desire to find objectives that meet a wide range of viewpoints, when they are applied, individual stakeholders may feel that the on-the-ground interpretation is not what they had envisioned or thought the goals meant.

| Project Title             | Relative specificity of proposal goals | Examples of Ecological Goals in Proposal  |
|---------------------------|--|---|
| Amador-Calaveras (CA)     | ✓                                      | "create more resilient vegetation conditions"   |
|                           |  | "natural fire regime"   |
|                           |  | "restore and maintain forest structure, function, and ecological processes"   |
| Burney-Hat Creek (CA)     | ✓                                      | "mosaic of historic stand structures"   |
|                           |  | "reestablish a fire-adapted and resilient landscape"  |
|                           |  | "promote heterogeneity with variable horizontal structure and on a landscape scale"   |
| Grandfather (NC)          | ✓✓                                     | "improve wildlife habitat and forest composition through silviculture in degraded stands"   |
|                           |  | "between 40%-60% canopy closure, an open midstory and shrub layer with few evergreen shrubs"  |
|                           |  | "35-90% herbaceous groundcover dominated by grass species"  |
| Kootenai Valley (ID)      | ✓                                      | "restore fuel conditions so that surface wildfire flame lengths are reduced to 1-2 feet and fire spread rates are low"  |
|                           |  | "increase shrub diversity, forested vegetation types and openings which benefit grizzly bears and flammulated owls"   |
| Lakeview (OR)             | ✓                                      | "open and park-like, maintained by relatively frequent, low-intensity surface fires at 1 to 25 year intervals"  |
|                           |  | "Maintain and improve aquatic and riparian habitat for native species by lowering stream temperatures and sediment loads"   |
| Longleaf Pine (MS)        | ✓✓                                     | "improving acres classified as 'longleaf pine forest type' through return of fire regimes and restoration of native understory plant communities"   |
|                           |  | "the 15-year goal of the Conservation Plan is to increase longleaf acreage from 3.4 to 8.0 million acres"   |
| Northeast Washington (WA) | ✓                                      | "restore the sustainability and resiliency of forested ecosystems"  |
|                           |  | "Restore a patchwork forest across the landscape, providing for large old trees, early seral habitat, and in between."  |
| Ozark Highlands (AR)      | ✓✓✓                                    | "Overstory basal area average 60 square feet per acre and ranges from 14-69. Overstory basal area is 70% or more oak or oak-pine as appropriate"  |
|                           |  | "Fifty percent of overstory trees are over 14" diameter at breast height (DBH)."  |
|                           |  | "Shrub cover averages less than 30%. Ground layer total live cover averages over 8%."   |
| Pine-Oak Woodlands (MO)   | ✓                                      | "restore fire-adapted pine and pine-oak bluestem woodlands that are more resilient to anticipated climate changes"  |
|                           |  | "facilitate the reestablishment of a multi-scale mosaic of age and structural classes through mechanical thinning, prescribed fire, and reintroduction of natural fire and other processes" |
| Shortleaf-Bluestem (AR)   | ✓✓                                     | "the reduction of the midstory and co-dominant pine and hardwood to achieve open, park-like conditions"   |
|                           |  | "basal areas between 60-80 sq. ft. per acre and prescribed burns at 3-5 year intervals"   |
| Southern Blues (OR)       | ✓                                      | "restoring a mosaic of historic stand structures"   |
|                           |  | "restore landscape resiliency"  |
|                           |  | "reintroduction of natural disturbances"  |
| Weiser-Little Salmon (ID) | ✓                                      | "invasive weed detection and control"   |
|                           |  | "reduce tree densities"   |
|                           |  | "produce a landscape pattern with characteristics that resemble the historic stand structure and composition resulting from ecological processes"   |
| Zuni Mountain (NM)        | ✓✓                                     | "restoring forested ecosystem structure and processes; protecting old and large trees; removing excess small trees; returning fire to the ecosystems at appropriate intervals"              |
|                           |  | "reduce basal area to an average of 30 to 70 square feet per acre across most of the treatment stands"  |

Table 7: Relative specificity of project proposal goals. One check indicates the least specific goals found in the proposals, three checks indicate the most specific goals found in the proposals.

Field trips have been used as a technique to build a shared vision of group goals in project contexts. As a stakeholder at the Grandfather site in North Carolina explained,

There has been some level of disagreement especially when talking around the table in the abstract. For instance, the early succession versus old growth issue, where to put early succession. The field trips have been very helpful in that because we've found that going out in the field we can usually agree on actions that are needed in that area. Getting at concrete areas that we can look at and talk about in specifics has been very helpful in working through some of the philosophical issues.

Developing this understanding among group members and between the collaborative group and USFS staff has helped to connect "soft" goals to particular outcomes.

The potential disconnect between desired goals and implemented projects sets groups up to struggle with developing an approach to monitoring and adaptive management. As one stakeholder from a 2010 collaborative group recalled, "If they had better goals, they could have said more about what could have been done to get there." Unquantifiable goals do not lend themselves to specific action, project plans, or quantifiable variables that can be monitored by collecting and analyzing data. If groups were more specific about goals, they could communicate more clearly with the USFS about specific processes with which the goals could be achieved. In theory, improving communication in this way would increase the integration of collaborative ecological priorities into projects.

However, groups with less precise ecological goals are not necessarily less effective. Collaborative groups within the 2012 CFLRP cohort are still in the very early stages of project implementation, but some groups within the 2010 cohort have taken unique approaches to goal setting. The 2010 Uncompahgre Plateau project found that setting "undesirable future conditions" rather than trying to agree on what was a very diverse set of desired future conditions allowed them to find agreement around what they did not want to see happen in the landscape. For instance, their monitoring plan states a goal for ponderosa pine and dry-mixed conifer forests is to avoid "Undesirable condition #1: Active crown fires are likely across >300 contiguous acres or in patches >30% of burn units under 90<sup>th</sup> percentile weather conditions." (Appendix C). The Colorado Front Range Roundtable began as from a collaborative group fuels reduction project, and while early conversations around goals were laden with disagreement, further description of desired future conditions has led the group to develop a general technical report on the principles of forest restoration in the Front Range.

### *Sources of Scientific Expertise and Data*

Typically, collaborative groups at the 2012 CFLRP sites depend on the USFS for expertise and guidance in shaping project plans to accomplish collaborative group objectives. Science-based environmental nonprofits and universities can also play a large role in providing ecological expertise and data. The source of scientific information and knowledge within CFLRP groups largely depends on the level of trust between stakeholders and the USFS, the ability of stakeholders to influence USFS decision-making, and the level of scientific expertise provided by individual partners.

Group members who provide information in the collaborative process can significantly influence decision making. Given the primary role the USFS has in planning and implementing this restoration work, as well as the extensive amount of information the agency has generated, groups may feel



Picture 11: Slash piles mount in Lakeview, OR.

pressure to rely only on USFS information in lieu of using group developed data. A stakeholder at the Amador Calaveras Consensus Group noted, “For the environmental side, it's not so difficult. So much is already set there. The USFS and other folks have a lot of stuff around sustainability and environmental indicators - that's a pretty rich area. As a matter of fact, it may be problematic because it's so rich, you tend to lean into that knowledge.” While data developed by the collaborative group may help increase group trust in plans and outcomes, some stakeholders may feel as though time shouldn't be spent developing more ecological

information. A stakeholder from a western collaborative group felt that since the project was in a well-studied area and an organization specializing in ecological restoration was at the table, the group was “ready to move beyond” a discussion of ecological objectives even though “goals were vague at best.”

Still, the USFS is the default source of scientific information and expertise for these collaborative units. An agency employee at a western collaborative noted, “We come at it, from the agency, on the ecological side of things...and they tend to bring things to the table that maybe we don't think about, the social and the economic part of it, as much, as we do the ecological part of it.” This model appears fairly standard across the CFLRP sites. The agency is typically regarded as the primary expert in forest management, and each National Forest has a forest plan used to guide management practices and priorities in the forest. Additionally, the USFS has developed a significant amount of research and guidance for specific ecosystem and forest types, ecological issues, like disease and pests, and approaches to restoration.

In some cases, non-agency groups are also relied upon for leadership in ecological expertise. Universities and large environmental nonprofits have the resources and capacity to engage in the CFLRP projects and also have a significant amount of credibility to help influence USFS decision-making. For example, The Nature Conservancy (TNC) is a common partner at CFLRP sites, especially at the sites in the Southeast. A TNC report on areas of critical biodiversity, the “Ozarks Ecoregional Conservation Assessment,” guides the work at three of the 2012 projects. As one agency representative told us, “TNC has a great deal of expertise, ecological expertise, and horsepower.” Academic institutions can also be collaborative group leaders in ecological expertise. Several of the 2010 sites continue to interact with local universities as part of their collaborative process, such as Colorado State University, Northern Arizona University, and the University of Montana. These types of connections are less common in the 2012 sites, with the relationship between Longleaf Pine and researchers at Southern Mississippi University a notable exception.

One potential problem with relying on the USFS as the primary source of expertise is that many collaborative groups formed to overcome conflict and they are still trying to build trust in the agency.

Many stakeholders have been skeptical of the quality and breadth of scientific information generated by the USFS. As one group member from a western site recalled, “I don’t think the group anymore is anti-forest service... There was a time that anything the FS said was going to be not trusted.” This process of developing trust in the sources of data can be slow and present challenges that are difficult for collaborative groups to overcome. Some stakeholders question whether or not the information is the type they actually need, feeling that the agency often reports project outputs, like board feet, instead of more restoration relevant project impacts.

Stakeholders in the collaborative process also must come to trust each other as honest brokers of scientific information. One stakeholder gave a colorful description of this process,

One of the things both sides are guilty of, and still are in certain arenas, [is] misrepresenting things to their advantage--and industry will do it, and the environmental community will do it. And so, when we first get started we had plenty of that crap going on and all that does is foster distrust. So that was one of the things we had to kind of get through and as both sides got to trust each other, they started dropping the crap.

Building trust through the collaborative process has reduced contention over scientific information at some of the project sites. The multiparty monitoring concept in CFLRP has the potential to further develop trust in scientific information developed by collaborative partners, but its effect remains to be seen.

Some sites used outside expertise in developing their proposals but do not continually engage with these external groups. For instance, agency staff and the collaborative group at the Southern Blues project have reached out to outside experts on an as needed basis. A group member recounted, “We do that with our local scientists, we have an ecology group that we can tap into, we have a pest management person, that kind of local scientific knowledge. But in this case we brought in some bigger name people from outside of the area... They had some great ideas, and now we're getting ready to do that again.”

### *Collaborative in Science-based Project Planning*

While relying on the USFS as the primary source of scientific expertise, collaborative groups are still taking an active role in project planning led by the agency. Many groups are actively engaged in reviewing USFS approaches to ecological restoration, with some also taking a proactive approach to providing management recommendations.

At the Kootenai Valley Resources Initiative (KVRI), the USFS brings their analysis to the collaborative group’s forestry subcommittee for review. A collaborative group member said they “let us build something with it instead of bringing us something canned that they’ve already put together and want us to respond back to.” KVRI encourages the USFS to bring well-developed analyses to the collaborative group in order to make collaborative discussion as productive as possible, aiming to providing feedback rather than generating new ideas on its own. Several groups take similar approaches, relying on USFS expertise, but still with very active collaborative group input.

Some groups also give very specific guidance upfront to the USFS. For example, a small group of stakeholders at Northeast Washington Forest Vision 2020 (NEWFC) have been able to give very specific thresholds, or sideboards, to the USFS for project planning (Appendix B). These sideboards include three separate management zones around wilderness/roadless areas, active management, and

restoration. While NEWFC gives specific prescriptions, they still depend on USFS expertise and data to inform their thresholds. If the group thresholds are exceeded the group requests an opportunity to provide further collaborative input.

Collaborative groups may rely on existing USFS expertise or data because much of the restoration work implemented thus far are projects planned prior to CFLRP, sometimes without collaborative



Picture 12: A Scorpion Harvester goes to work

group input. Commonly known as “shelf stock,” these projects have already been through the NEPA planning process and are ready to be implemented. Shelf stock limits the collaborative group’s ability to give input as projects have already been through the planning process. National Forests engaged in CFLRP have anywhere from one to three years of pre-collaboration shelf stock planned for implementation, which means that many of the collaborative groups have not yet contributed as a group to project planning and have not yet had the need to refine their ecological goals at a project level. It may be that as these groups start to plan new projects collaboratively, more non-agency expertise will be integrated and groups will be able to further integrate ecological objectives into project plans.

Communication between collaborative groups and USFS staff can influence the level at which collaborative group goals are integrated into USFS project plans. Collaborative groups with high USFS involvement perceive that their goals are more adequately connected to project design and implementation. This confidence can be attributed to a better integration of collaborative group priorities into project plans and implementation. However, USFS staff and project design teams (ID teams), specifically, that are distanced from the collaborative group may not understand collaborative goals or integrate those goals into project design at a level that satisfies stakeholders. This may be due to limitations on agency staff time, or collaborative group structure. One science advocate stakeholder noted, “There’s not enough connection between collaborative perspectives and ID team plans,” resulting what he felt was an inadequate integration of collaborative group priorities into agency project plans.

## ***Implementation: Experimental Approach***

Given the high levels of uncertainty in predicting ecological outcomes of restoration projects, adaptive management can help groups tailor projects as they see results from implementation. As monitoring takes place, groups may start to see the impacts of management and better grasp how plans should be adjusted. An experimental approach, including control sites for comparison and

measuring baseline data in addition to post-treatment monitoring, could enable groups to develop more specific goals around restoration issues. However, forest structure and composition are slow to change, and many aspects of the forests that collaborative groups are trying to address will not show changes for many years. The result is a tension between the desire to increase the pace of restoration and the desire to inform future projects from current management practices.

Community stakeholders and USFS line officers often provide pressure to see quick results and this pressure drives a focus on implementing work rather than seeking opportunities to set up experiments. Limited receptivity to experimental or high-uncertainty project designs may inhibit an adaptive management approach. As a researcher from a southern site explained,

One of the things with CFLRP - with the Forest Service in general - is they just want to primarily know, are their restoration efforts working? Moving towards this target vegetation? For my purposes as a scientist at a university, we kind of want to do things a little more experimentally. So if you're going to do a restoration plot on a compartment, my preference would be to see to actually leave 2-3 spots where you don't do anything. And that's hard for the Forest Service, because they want to move compartment by compartment.

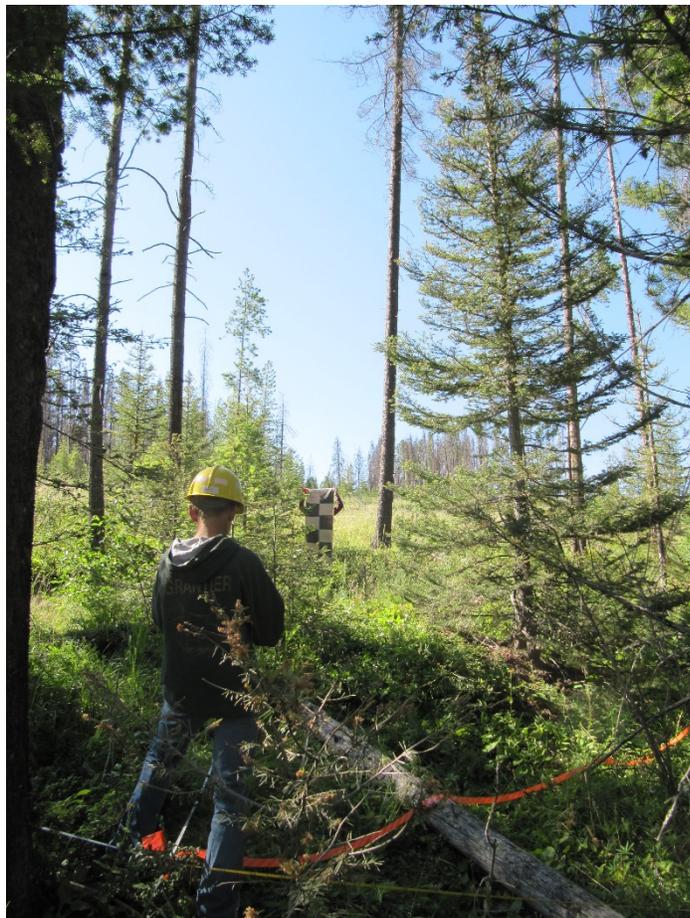
This experimental approach could require more time invested in project design and implementation. Yet, this effort could help set projects up for success in learning from project outcomes. One 2010 CFLRP site is trying to encourage the USFS to implement projects with a more experimental design, because, as a stakeholder described, “If the treatments are done in a haphazardly way, the monitoring responds to that.”

Additionally, setting specific measurable variables and targets for monitoring through a collaborative process can be time consuming and complicated. One monitoring program coordinator called the goal development phase “expensive,” in time and resources. The limited ability of stakeholders to engage in ecological goal setting is often the result of low capacity. Both agency staff and stakeholders are often short on time, funding, and personnel, limiting their ability to address adaptive management planning at the level they may want.

In the push to get results on-the-ground, valuable opportunities to put an adaptive management framework in place may be lost. For data to be useful for this process, sites must establish not only a sense of what data to collect but also how to utilize it as feedback in future planning decisions. The Lakeview Stewardship group has a draft monitoring plan that includes an adaptive management system with stakeholders developing questions, using reporting requirements and data collection to answer those questions, and then both annual and multiyear analysis of the data on those questions. This analysis feeds back into use in “future decisions, including new questions” that will be collaboratively developed. The Colorado Front Range Roundtable, a 2010 site, also developed a systems diagram for their adaptive management approach last year (Appendix D). The sites that have created a means for adaptive management on the front end of project implementation, like these examples, have the chance to focus their monitoring efforts on collaboratively developed questions that can inform future management.

## Monitoring

The legislation creating CFLRP calls for the program to “use a multiparty monitoring, evaluation, and accountability process to assess the positive or negative ecological, social, and economic effects of projects implementing a selected proposal for not less than 15 years after project implementation commences.”<sup>78</sup> Regardless of the specific project focus, many of the same challenges that are seen in addressing landscape scale ecological restoration are seen in developing and implementing a monitoring plan. Goals that lack specificity do not translate well into specific variables to be measured in monitoring, and groups often find themselves starting from scratch in plan development.



Picture 13: Youth monitoring in Montana

able to do it all,” told a stakeholder. They are building the list, which will be narrowed down later, based on goals and objectives in their CFLRP proposal.

Collaborative groups with more informal structures may take a more informal approach to monitoring as well. One science-driven stakeholder remarked, “For my part, I’m monitoring more or less vegetation response, and so they’re pretty much leaving that up to me as to how that’s done.” The Zuni Mountain Project, a relatively informal collaborative group, takes an innovative approach to setting its monitoring goals efficiently. Each year they hold a stakeholder meeting about what they should assess in the coming year. They also partner with state-level agencies and nonprofits to avoid duplication in data collection. For instance, they are partnering with the National Wild Turkey

Limited capacity is also a barrier to monitoring plan development. Agency staff and nonprofit partners are typically underfunded and overburdened, and groups must decide how to allocate funds to monitoring and who will implement the plans. Projects sites in the 2012 CFLRP cohort are spending anywhere from 10 to 1 percent of their budgets for monitoring. All sites are required to report on the same indicators and information as part of the CFLR program. The first report is due in FY 2014, and it remains to be seen how differences in approaches and investment in monitoring will influence site progress.

Groups are addressing this challenge by engaging outside expertise—individuals who are monitoring experts or have experience developing plans—and by taking an “everything but the kitchen sink” approach, as described by a stakeholder of the Amador-Calaveras group. At this site, this plan is being developed by compiling a list of all the aspects of the project that the group would like to measure through monitoring. “There are no bad questions,” and they are aware that “they won’t be

Federation to assist with assessments for their next project area and are pairing with New Mexico state officials to monitor the Zuni bluehead sucker, a state-listed endangered fish species found downstream of their restoration work.

Sites have also hired monitoring coordinators to develop and run monitoring programs, helping to solve capacity issues. The Northeast Washington Forest Vision 2020 (NEWFC) group engaged Vince Archer of the USFS TEAMS Enterprise unit to lead the development of their monitoring program. A NEWFC stakeholder recalled,

We started having meetings with the Forest Service and started talking about ideas on how to move forward with the monitoring because it's really important. And everyone came into agreement that we should hire in a person that has that knowledge, but I think some people from the Forest think that it should be more internal. It was in my opinion, and NEWFC's as well, that we should have somebody a little bit outside of the Colville National Forest to mediate a little bit and be able to write this plan and... have the knowledge and skills.

The hiring of Archer as a monitoring plan coordinator not only increased the capacity for the group to build a monitoring plan they felt would effectively address their interests, but it also brought in a neutral party, which helped create group ownership of the plan.

## E. Working at a Landscape Scale

### *How is working at a landscape scale affecting the processes of collaboration and resource management?*

CFLRP is unique in the scale of work it encourages. The landscape scale focus of the program is intentional but challenging to achieve. The gains realized so far in environmental and economic impacts would not be possible under a smaller scaled approach.

CFLRP springs from a backdrop of extensive restoration needs. The USFS estimates that there are “between 65-82 million acres of NFS lands in need of restoration,”<sup>79</sup> with approximately 65 million acres “at high or very high risk of catastrophic wildfires” and nearly 18 million additional acres that have incurred damage from the bark beetle. National Forests provide “a broad range of values and benefits, including clean drinking water for millions of people across the U.S., vital wildlife habitat and a variety of recreation opportunities.”<sup>80</sup> Environmental restoration is clearly a pressing matter. As of 2012, CFLRP has resulted in fuels reductions across 380,000 acres, 37,000 acres of wildlife habitat improvements and 394 miles of fish habitat improvements, and 6,000 miles of roads remediated or decommissioned.<sup>81</sup>

Further, communities around National Forests face economic challenges that can be mitigated by CFLRP projects. Conflict over extraction—which arose in the 1980s and was exemplified by litigation around threatened and endangered species—led to an annual decrease in billions of board feet coming off public lands. As timber supply shrunk, timber-reliant local economies suffered. CFLRP and its landscape-scale restoration are viewed as a source of relief and an engine for economic growth. According to the CFLR Coalition, as of December 2012, the program has resulted in 94.1 million cubic feet of timber sold, thousands of full and part-time jobs created, and \$290 million generated in labor income.<sup>82</sup>

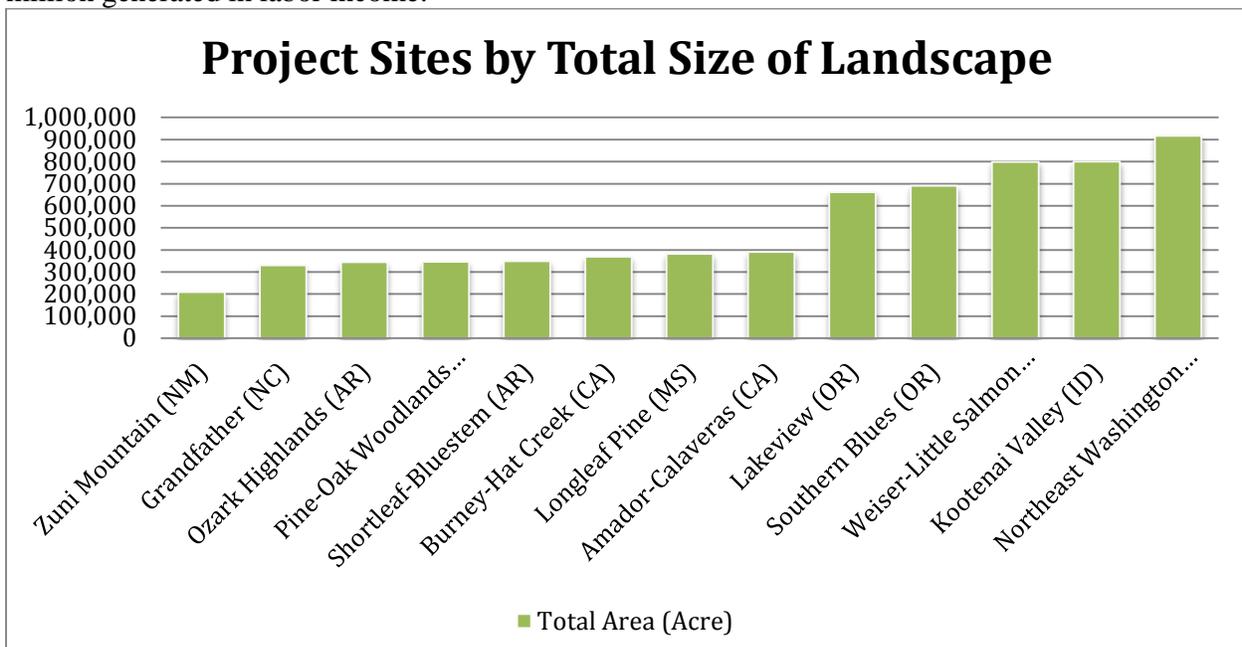


Figure 16: Project size by area of landscape

Still, the landscape-scale approach of CFRLP has not been without its challenges. The size of the landscapes for the 2012 CFLRP sites range between 200,000 and 900,000 acres (Figure 16). Treatments that are more extensive bring in more stakeholders and greater variation among them, and add to the complexity of decision-making. Collaborators are also challenged because of the workload and need to travel longer distances for meetings. In addition, a larger scale can overtax the USFS or divert resources from other activities. The scale of restoration can also lead to tension between local and regional interests. Such differences add to the complexity of decision-making for landscape-scale restoration.

### *More Stakeholders*

Effectively, a landscape-scale approach magnifies the importance of decisions and actions on National Forests. Collaborative projects tend to number in the tens of thousands of acres within landscapes in the hundreds of thousands of acres, and use a range of interventions including prescribed burns, mechanical thinning, road decommissioning, and others. With high visibility and the potential to be replicated, such recommendations can bring in stakeholders from outside the immediate area, including nonprofit organizations with regional or national interests.

Nonprofit organizations with a regional or national focus change the local process significantly because of resources that they bring to the table. These resources include match funds, monitoring, expertise, facilitation, and the ability to communicate between sites. An example is support from The Nature Conservancy (TNC) at the Longleaf Pine site in Mississippi. A collaborator there brought up that TNC, in addition to serving as a conduit to Department of Defense management of a tract leased from the De Soto National Forest, has been integral to public outreach and engagement. For example, TNC published a brief on CFLRP and “handed it out to the folks in DC and all over the place.” The collaborator said, in brief, “We can’t pay for that kind of endorsement.”

However, the influx of new stakeholders can also be a detriment. Restoration on this scale can lead non-partner groups with regional or national interests to attempt to impose their views. Input from such groups can sometimes be valuable but can also be less so, for example when views are incompatible with ongoing negotiations or local or practical considerations. A collaborator at another site referred to the impacts of outside groups as “an almost insurmountable challenge” because of the reduced consideration for local issues and inclination toward “challenging some of the collaborative group’s processes.”

The wide range of interventions intrinsic to landscape-scale restoration can bring in a broad cross-section of interested parties, including off-highway-vehicle or off-road-vehicle (OHV) users, local and state government personnel, timber interests, environmental interests, hikers and bikers, ranchers, tribal representatives, and more. Groups not historically involved have been able to become more active and have greater influence at some sites. An example OHV users, who seem to be quite influential at a number of sites. Individuals or groups representing these interests can take advantage of ambiguity around the ‘no new roads’ clause in the CFLRP statute to shift other collaborators away from a strict stance. Collaborative groups, for example, can decide to interpret the statute as ‘no net increase in road miles’.

Another example is local officials, whose involvement is variable across sites but seemingly at a higher level than in recent history. Local officials at some sites became more involved with the onset

of CFLRP, seemingly because of the potential for national recognition due to their involvement on a landscape-scale restoration program that promises economic and other benefits.

Restoration at this scale can also be of interest to some individuals or groups that may nonetheless be less apt to collaborate because they see CFLRP as a government intervention. Challenges persist for 2012 cohort sites in bringing in interested parties including ranchers, tribal representatives, and local public officials. For example, a tribal representative at one site was interested in being involved but wanted the tribe to participate in the process as an autonomous group. As such, the tribe would preserve some distance from the USFS.

### *Greater Impacts*

Landscape-scale implementation promises greater economic and environmental impacts, an outcome that can help to sustain collaborator involvement over the long haul. A collaborator at the Weiser-Little Salmon Headwaters site said that partners would lose interest and see it as a deal-breaker if, “over time, they don’t see the scale of activity increasing at all.” This is an indication that greater impacts—connected implicitly to an increased scale—can sustain collaborator involvement.



Picture 14: Collaborators on a field visit in Arkansas.

Collaboration may be sustained when groups feel that the scale of the efforts might transform their depressed economies. A specific interest at some sites is to achieve greater economic impacts in rural communities that are hurting from the decline of timber-based industries. One interviewee at ACCG mentioned “the fire danger... and the poverty” as driving continued collaborative group involvement. Implicit in that statement is the hope that the collaborative projects will lead to results far-reaching enough to alter socioeconomic trends. CFLRP proposals and the goals within them reflect an interest in achieving the economic and social benefits possible under the program.

Larger scale may also increase the likelihood that appeals or litigation are prevented because it enables the development of support for a decision or action from outside groups. Extensive restoration is a benefit that collaborative groups can point to in order to convince outside groups of the potential of this new approach. A partner with the Northeast Washington Coalition said that the collaborative group has reached out to non-partner groups to garner support. Their pitch is that the collaborative group intends to “find a way to give enough of everything to enough people, that we can find balance,” and that all would get “more than we would” under the status quo.

### *Increased Travel Time and Costs*

Moving to the landscape scale, however, has increased the travel time and costs for collaborators to get to meetings. CFLR sites are inherently place-based, but treatments, and partners, can be located hundreds of miles away. Collaborating at this scale can be burdensome.

As the time and costs of getting to meetings increase, collaborative group members come under more pressure to generate results. An example can be found at the Amador Calaveras Consensus Group (ACCG) site in California. ACCG was originally the Calaveras Consensus Group, focused on issues in Calaveras County. Bringing Amador County on board, the group has committed to sharing the burden of travel. Still, commuting between counties for meetings and field trips has increased the time and costs associated with collaborating. It has also increased pressure on collaborators. This added pressure is something collaborators consider when deciding whether or not to continue their involvement. Without results, partners can decide the costs of collaborating are greater than the benefits.

In Arkansas, The Nature Conservancy (TNC) has adapted its approach to reduce the burden and costs associated with travel. TNC at first organized separate meetings under the Fire Learning Network for the collaborative groups from the Shortleaf-Bluestem and Ozark Highlands sites. However, because the Fire Learning Network had a regional reach, a number of experts and agency personnel were doubling up on meetings. A leader behind the Fire Learning Network changed the approach as a result: “We started out doing one for each forest—for each CFLR—and then we changed because we felt that most people were coming to the meetings twice.” Since the adjustment, the burden on collaborators has decreased.

One particularly effective strategy in this context is for sites to offer web-based mechanisms for collaborators to participate online. The Weiser-Little Salmon site has one successful example of this in the site “Spatial Interest,” where minutes and collaborative group documents are posted and where partners can track progress and provide input online.

### *Increased Complexity with Recommendations*

Being asked to provide recommendations for more and larger treatments can overtax the capacity of collaborative groups. Partners at one site, for example, questioned whether CFLRP was too big of a venture for the collaborative group to take on. Groups with less experience or a less formal approach can become mired in the process or generate “watered down” recommendations at this scale.

Understanding landscape restoration requires partners to understand complex information. One USFS employee said, “To understand the road systems, understand the recreation opportunities, understand all the vegetation management—from actual commercial logging, to pre-commercial thinning, to



*Picture 15: A row of cars parked for a field visit in Arkansas.*

prescribed burning—all of those things that are going on out there” demands from partners “a lot of their own personal time.”

An inability to alter recommendations or adapt implementation after the submission of them adds additional pressure on collaborative groups to submit pitch-perfect recommendations, particularly at this scale where treatments can be extensive and time-consuming. With that context, the relationship between National Forests and collaborative groups can become strained. At one site, partners felt competing pressures to increase the substance of recommendations and decrease their turnaround time. One USFS employee said the collaborative group there should be more “willing to endorse a broad range of recommendations” to help them get “the bigger picture work” done. Because most collaborative group partners are unpaid volunteers, responding to such calls is no small order.

### *Local and Regional Tradeoffs*

The CFLRP statute requires that local economies benefit from the program through provision of “local employment or training opportunities through contracts, grants or agreements for restoration planning, design, implementation or monitoring,” and other mechanisms. However, the statute does not define *local*. Determining the meaning of local, as such, becomes the responsibility of collaborative groups. With representation from individuals or groups from a number of geographic scales and treatments that span across multiple communities, the definition of local is more open to interpretation. Without a clear meaning and with a scale of restoration that could be considered incompatible, the language in the statute requiring local benefit might be too demanding.

Economic declines were the catalyst for a number of collaborative groups. Most counties adjoining restoration projects are economically depressed, with mills and other timber-based industry running below historical levels or closed down. Unemployment rates in CFLRP-contiguous counties were typically above national averages and as high as 14.9% over the past five years, according to data from Headwaters Economics. Further, additional social costs are correlated with the costs of unemployment.<sup>83</sup> Communities saw landscape-scale restoration, with its considerable labor needs and timber generated, as a means to offset such costs.



Picture 16: Lumber being shipped by rail from the Collins Company Mill in Lakeview, Oregon.

Some benefits to local economies have certainly accrued, however, such as through increased and steadier flow of timber to local mills. A USFS employee that we interviewed said she thinks that CFLRP is helping to reduce unemployment, also. Stewardship contracts at that site included “a wide range of projects,” from cutting timber to understory thinning, chipping, putting in trails, putting in toilets, and more, that “provide jobs for the communities.” Similarly, a collaborative partner at the Longleaf Pine site maintained that restoration was leading to a healthier forest, which “is good for all

of our forest-based industries, which we still have a lot of.” Both employment and industry gains tend to concentrate around the immediate area.

Still, landscape-scale restoration can be a complicating factor for local economic growth. One area where the two can become disjointed is contracting. While often involved in formational collaborative group meetings, local contractors at some sites now face new challenges. Contracts corresponding with large-scale treatments, more prevalent under a landscape-scale approach, can be nonviable for local bidders. Small local contractors are unable to absorb uncertainty and risk in contracting, such as from appeals and litigation or losses to wildfire, as well as larger businesses can. In addition, they may be short the needed capital, equipment, or personnel to bid or be competitive in the selection process. At the Burney-Hat Creek Basin site, for example, small local contractors sometimes elect not to bid on particularly large contracts and instead defer to Sierra Pacific Industries, a larger company. While subcontracting from such businesses is possible, flow to local contractors is not guaranteed under that approach.

Similarly, there is a strong emphasis on contracting out to locals at the Amador-Calaveras Consensus Group site. The stewardship contracting authority at the site includes selection criteria besides how low the bids are. However, small contractors are struggling to be competitive. USFS leadership expressed a strong preference to be efficient with taxpayer dollars, a criterion that can result in some contracts being awarded to bidders from outside the area.

### *Increased Heterogeneity and Time Pressure*

At a landscape scale, the number of ecosystems and issues at play are challenging. Heterogeneity can make understanding and responding to large numbers of ecological issues more demanding. There is also considerable pressure to implement quickly and at scale because restoration could potentially offset problems such as uncharacteristic wildfire.

Collaborators and USFS personnel feel pressure to achieve extensive restoration quickly, due to the potential for it to offset uncharacteristic wildfire and increasing fuels density on forests. The timeframe of the CFLRP program adds additional pressure to accomplish restoration at a significant pace.

As a result, some sites might set more homogenous or coarse ecological goals, such as acres treated or other output measures. At one 2010 site, a collaborative partner said the USFS was too focused on output measures such as acreage, mileage, or number of culverts rather than outcome measures that might have more bearing in “turning the landscape into what people want it to look like.” The pressures around achieving extensive restoration quickly might promote the development of less robust ecological goals.

Time pressure and heterogeneity might also result in limited monitoring, considering the resource constraints of USFS and collaborative groups. Finite capacity can push collaborators and USFS personnel to forgo monitoring altogether or collect less data. Use of technology—such as remote sensing polygons for Environmental Assessments and Environmental Impact Statements—has eased the monitoring burden, making such compromises less necessary.

### *Pressure on USFS Capacity for Coordination*

Planning and treating at a landscape scale can also be more difficult for the USFS. CFLRP puts National Forests under deadline to achieve significant restoration. With the constraints on CLFR funds, interacting with collaborative groups can overtax some agency personnel. Collaborators at the Arkansas sites said that adapting to CFLR without increased personnel was a challenge. One individual indicated that the USFS personnel were “struggling with how to realign around these programs” without “extra staff hired to accomplish” the increased scale of work.

Landscape-scale restoration can also alter the balance of resources within forests or regions. Regional offices determine National Forest budgets, generating differences in the degree that CFLR streams add to existing budgets. Since some sites ask for more CFLR funds than others, and the mechanics of budgeting differs from site to site, funds diversions can sometimes arise. One partner from the Southern Blues site said the “Forest Service has been very careful” to avoid diverting “resources from other areas in order to support our efforts” on the Malheur National Forest. However, a USFS employee—also from the Southern Blues site—said restoration funds were “coming through our normal appropriations, just more,” meaning, “Somebody’s getting less, somewhere.” At the Missouri Pine-Oak Woodlands site, a partner said the site was “pretty conservative with what we asked for,” meaning it would not divert “a whole lot from other districts.” Another partner, at the Weiser-Little Salmon Headwaters site, said, however, CFLR winners “more or less maintain their budget” at prior levels, while, “Losers are operating with several million dollars less than before.” These examples suggest that CFLRP and landscape restoration can increase the strain on the USFS and lead to more diversions within the agency.

Constraints on CFLR funds, which preclude use for USFS planning and facilitation, add further complexity. Under a landscape-scale approach, planning is more critical and resource-intensive and especially important when sites run out of projects that have already gone through the NEPA approval process. As one collaborator said, “We need planning dollars, none of which this pays for, to keep the ball rolling.” While shelf stock NEPA can help collaborative groups and the USFS to start to achieve their vision, further planning is needed to sustain implementation over the course of the ten-year program.

Facilitation can be more difficult when proposed treatments cut across two or more USFS districts or forests. ACCG is a strong example of that point. Treatments there cut across both the Eldorado and Stanislaus National Forests, straining collaborators and personnel and increasing the need for facilitation.

### *Observed Strategies for Landscape Scale Restoration*

Sites used a range of strategies to address the challenges of restoration at a landscape scale. Sites that set conservative treatment goals appear to be avoiding some of the problems of trying to do too much. For sites with larger treatment goals, increasing the size of projects over time and celebrating intermediate successes were cited as successful strategies. One group has used an online form of involvement to ensure ongoing collaboration in light of costs associated with attending meetings.

## *Started Small*

Starting their collaboration work with landscape-scale recommendations can be overwhelming for collaborative groups, with the potential to harm their sustainability, weaken their legitimacy, and result in ineffective restoration. However, collaborative groups also feel some pressure to increase the scale of implementation considering the economic and restoration goals implicit in the CFLRP statute.

Restoration can be accomplished through “one-and-done,” larger treatments and more numerous but smaller treatments. Dr. Wally Covington, a partner with the 2010 cohort CFLRP Four Forest Restoration Initiative, or 4FRI, opined, “Back when forest fires were a 1,000 acres you could do 1,000-acre treatments, but now that we’re seeing forest fires of over a half-million acres we need to look at half-million-acre treatments.”<sup>84</sup> Others see such extensive treatments—essential with 4FRI’s 2.4 million acre proposal—as precarious or more apt to be unsuccessful. For example, large-scale treatments seem more open to appeals or litigation and are more labor-intensive, adding pressure on the USFS and collaborators.

One response to this situation was to start small and increase the scale of projects over time, with feedback and lessons learned channeled into adaptive management. A number of sites that started small and built up to larger projects said that approach was critical to their effectiveness, including the Kootenai Valley Resource Initiative, the Amador Calaveras Consensus Group, and Northeast Washington Forest Vision 2020 sites. A USFS employee at the Kootenai Valley Resource Initiative site said that, without the slow build-up, “We would not have been able to be at the point where we could have implemented something like this.” A collaborator there, similarly, said that the group’s approach was to take “intentional, small steps” because, “had we jumped into something like CFLRA on year two, three, four, it would have just been a bomb.”

Likewise, as the Amador Calaveras Consensus Group formed and was looking for direction, initial funding from the Bureau of Land Management (BLM) and some small projects held the group together and got them off the ground. One partner reported, “In the intervening three-year period before the USFS came in, the BLM were the ones who kept it [Amador-Calaveras] on life support by pushing a lot of small projects and such into this area.” Again, the group found these small accomplishments to be formative and encouraging, allowing it to tackle larger and larger problems with confidence.

To some degree, planning completed before selection can determine how CFLRP implementation advances. Sites enter with NEPA “shelf stock” projects that have set parameters. Thoughtful development of projects before selection can help collaborative groups start more smoothly.

Additional sites maintained that starting small, while the collaborative group was still building its norms and processes, was essential to later success. Through a gradual approach to growth, collaborative groups built credibility and momentum.

## *Stayed Small*

Some groups have explicitly decided to keep their efforts down to a manageable size. Both the Zuni Mountain and Kootenai Valley sites made efforts to keep acreage within the realm of what the USFS and collaborative groups could handle.

The scale of proposed restoration differs considerably across the 2012 CFLRP and high priority restoration sites, with treatment ranging from 38,500 to 374,000 acres—and the mean topping 154,000 acres—over ten years. A collaborator at the Kootenai Valley Resource Initiative said that the intent behind their 39,000-acre proposal was to “under-promise and over-deliver, not over-promise and under-deliver,” with future funding possibilities in mind. There are, of course, tradeoffs with such an approach. Restoration is limited and the collaborator granted that, “Hindsight is maybe where we should’ve looked a little bigger.” Interestingly, some collaborative groups whose CFLRP proposals were not selected in 2010 increased proposed treatment acreage and were selected in 2012.

At the Zuni Mountain site, match funding requirements and input from the USFS guided the process of determining a proposal for treatment acreage. By choosing a reasonable scale, collaborators, USFS personnel, and others such as local timber businesses are more confident and comfortable with restoration plans. Individuals at the site felt a sense of progress, satisfaction with how CFLRP has been implemented, and that the workload has been more manageable.

### *Focused on Local Economies*

To respond to challenges with local contracting and local-regional economic tradeoffs at this scale, some collaborative groups have instituted unique approaches to focus on local economies. Collaborative groups can serve as advocates or provide support for local needs, identifying gaps and then working to fill them. Examples of gap-filling measures include retraining the workforce for a restoration economy and developing methods to increase the preference local contracts receive in USFS selection.



Picture 17: In-progress restoration treatments at the Zuni Mountain Project.

Amador-Calaveras’ (ACCG) partner Calaveras Healthy Impact Product Solutions (CHIPS) started a training program for local Native American crews through a Master Participatory Agreement. According to a U.S Forest Service employee at the site, the program ensures “under certain constraints, we can work directly with CHIPS without any external competition,” allowing CFLR funds to go “directly to a local business.” ACCG also tried to gain increased “control over who does the work and ensure the work goes to local people” through a formal Memorandum of Understanding, an effort that according to one partner has fizzled because USFS leaders were less supportive. The ACCG site also saw the formation of a contractor-training program from a partner (ACCABU), plans for a small business incubator for wood products businesses, and a contractor co-op. An ACCG partner said the contractor co-op was “one of the better things that has come about... helping them to understand how to work together and how to join forces” to compete “against

contractors from Oregon, or Eldorado, or whatever.” Partners at the Zuni Mountain site are considering a similar training program.

Another approach is for the collaborative group to pressure the USFS for changes. At the Southern Blues site, the collaborative group has pressured the USFS to avoid “hiring a bunch of government employees to get this work done,” according to a collaborator. ACCG also tried to use this approach but the results are not clear at this point.

### *Used Online Involvement*

To address the problem of participation across a broad geographic area, some sites are using innovative online forms of involvement. One site in particular has been successful in this vein. The website “Spatial Interest” has been a critical mechanism for involvement for collaborators at the Weiser-Little Salmon Headwaters project. Meeting minutes and collaborative group documents are posted to the Spatial Interest site, and partners can add input through an included forum. As one collaborative group partner explained, “There’s a whole segment of the coalition that at this point in time that barely comes to meetings, but monitors what’s going on. They consider themselves to still be members. And the only way they can monitor it is what comes on the website, and that’s been their main tool.”

With the costs of physically attending a meeting being so high, and most partners being volunteers, such virtual collaboration seems a smart way to ensure broad engagement and continued involvement. A collaborative partner with the Weiser-Little Salmon Headwaters site explained it as such:

It costs me fifty bucks every time I drive up from McCall or Council to go to a meeting. And nobody reimburses me. That’s out of my own pocket. And I think probably about a third of the people on the coalition are volunteer. They don’t get any reimbursement and they’re not on anybody’s staff. And for them to stay engaged... I think they’re not going to make every meeting, and they need to feel like they can stay involved. And I don’t know how you do it without something like that [Spatial Interest].

Online involvement has been effective for some sites in responding to challenges at this scale with attending meetings and sustaining collaboration.

### *Celebrated Intermediate Successes*

One partner said celebrating intermediate successes under landscape-scale restoration was important for collaborative groups, since “The NEPA process and USFS process take so long.” When groups place value on intermediate accomplishments, it enables them to maintain momentum throughout the long and sometimes arduous process of working at this scale.

One method sites used to celebrate intermediate successes was going on field trips and tours, for example to ecosystems such as the 600-acre pitcher plant bog at the Longleaf Pine site, instead of holding a typical meeting. This strategy helped bridge the gap between abstract, expansive recommendations and tangible and visible implementation at a more localized scale. When groups celebrated and understood their achievements and milestones, momentum grew stronger.

# **IV: Conclusions and Recommendations**

## Conclusions

Building on our case studies and cross-case analysis of the experiences of the 2012 CFLRP cohort, this section summarizes the study's conclusions and provides recommendations for improving the effectiveness of the program as well as other initiatives for collaboration and restoration.

The CFLR Program aims to promote environmental, economic, and social sustainability through restoration projects at a landscape scale. The implementation of the program to achieve these valuable goals is well intentioned; however, CFLRP is currently underperforming. Changes to the program, both as a policy and at individual sites, could help realize its potential.

### *CFLR Program Analysis*

One benefit of the program is its focus on linking environmental and economic interests. For the groups involved in the program, however, the priorities among these goals differ. While ecological restoration is important for the USFS and large environmental groups involved in the processes while local community groups tend to prioritize economic impacts. The way collaborative groups manage these competing objectives will determine their success. As one stakeholder observed, "We strive for, as yet unattained, integration of ecological sustainability and socioeconomic and cultural issues."

To achieve integration of ecological, economic, and social objectives and improve the on-site performance of the program, participants and program administrators must address key challenges. Our research suggests that:

- **Collaboration can be challenging and time consuming.** Variations on the phrase "sometimes you have to go slow to go fast" guide many of these groups. Increasing collaborative efforts to a landscape scale through CFLRP can complicate this process by placing greater demands on time and transportation for participants and changing the composition of collaborative partners from primarily local community groups to including more national and regional organizations. Collaboration can decrease appeals and litigation, improve the quality of recommendations, and increase capacity. However, the collaborative processes require significant human resources, attention, and time to succeed.
- **The economic assumptions of the program have been undermined by changes in the broader economy.** The program creates an expectation that wood products from project sites, including woody biomass utilized for energy, will help pay for restoration treatments. Changes in the energy market and timber industry have prevented that goal from being realized at many of the project sites. In an effort to achieve this goal, many groups are expending extensive resources toward fruitless attempts at jumpstarting a biomass facility. A participant at a western site noted, "That has been one of our concerns, in looking at our projects, there isn't a market that's economically feasible. Even though we have good sources to utilize it here, the market does not dictate that."

- **CFLRP’s funding model is problematic.** As a policy to encourage collaboration, providing funds for projects planned in the past without any clear process for incentivizing future collaborative work or tying those funds to future performance weakens the effectiveness of the program. The program rewards past collaboration with funds, but then expects continued collaboration over a ten-year period without providing any money for coordination or planning support. The sites need funding to help develop additional projects for NEPA approval, support facilitation, and develop new recommendations. Speaking to this point, a stakeholder commented, “The other thing is, we don’t even need match dollars – we need planning dollars, which none of this pays for, to keep the ball rolling.”
- **Sites struggle with the development of restoration goals and evaluation of progress toward them.** The effects of ecological restoration will not become visible on the landscape for years or even decades. This time horizon makes developing ecological goals difficult for collaborative groups. A researcher involved with one project site noted, “As we move forward, and these sites become more restored, we will hopefully – maybe five years from now, ten years – bring in other researchers to look at [different ecological impacts].” Creating individual metrics to evaluate landscape-scale treatments for difficult to define objectives also continues to be a challenge. One USFS employee remarked, “Most of the data that we capture right now is at the wrong scale.” Collaborative groups must grapple with the larger scale of the projects and with finding ways to create quantifiable metrics for restoration principles that have often been framed in an abstract and ambiguous manner.

**Despite the many challenges of CFLRP, collaborative groups are succeeding in both large and small ways across the country.** In John Day, Oregon, different interests have united through collaboration and CFLRP to help keep the last remaining mill in the town open and save local jobs. The Longleaf Pine Restoration project is quickly implementing project work on the ground and serving as a model for actions by private landowners. The Arkansas sites are greatly expanding their prescribed burns in an effort to restore habitat. ACCG is capitalizing on CFLRP as an opportunity to expand local business and job-training opportunities. The work from CFLRP sites in Idaho is catching the attention of the state’s Congressional delegation and building political support for restoration.

Several aspects of the program and site strategies are facilitating these successes. These factors include:

- **Strategically taking small steps.** Building momentum through small projects gives collaborative groups successes that incentivize continued involvement, provide feedback opportunities, and help groups make manageable recommendations. For example, the work along the Buffalo Road Tour in Arkansas, a 600-acre pitcher plant bog in Mississippi, and restoration near a popular old-growth interpretive trail in Oregon provide useful showcases for restoration treatments and help sites progress toward their goals.
- **Changing the dynamic of collaboration.** The process of developing a proposal together for CFLRP has brought competing interests together to tackle a common challenge, find motivation to grapple with difficult tradeoffs, and changed the dynamics of how collaborative groups interact with the USFS. One USFS employee described the local collaborative group in this way,

We are very dependent upon them on dealing with the contentious natural resource issues, social economic issues that we face in the communities here, and proposing to us how we should go about doing planning on particular project areas and what restoration activities should be thought about being included in each project. They're a very, very intricate piece of how we do business on the forest here.

- **Drawing new attention to restoration.** The twenty-three CFLRP sites are increasing the visibility of restoration on public lands by expanding outreach to new partners, increasing attention from congressional offices and local government officials, and providing examples for other communities and forests. One USFS employee commented, “I think we’re very fortunate that we have a congressional delegation that is very engaged, they’re very interested in what we’re doing. They want to help however they can.” The CFLRP sites provide specific examples that can build political support for restoration.

The recommendations contained in this section also highlight a variety of strategies that individual sites are utilizing to find success at their project sites.

## *An Effective All-Lands Approach?*

Leaders of the USFS and USDA advocate for an “all-lands approach” to address pressing land management issues around restoration, climate change, and energy. “An all-lands approach brings landowners and stakeholders together across boundaries to decide on common goals for the landscapes they share,” according to Forest Service Chief Tom Tidwell.<sup>85</sup> Many stakeholders expected the Collaborative Forest Landscape Restoration Program to be a true all-lands program, but the program’s structure and limitations on how funds can be spent are keeping it from living up to its potential. This program is not realizing its potential to create public-private partnerships or effectively coordinate between separate public agencies.

Natural resource management issues do not stop and start at property boundaries. In order to address the complex challenges facing managers, the USFS aspires to manage their lands for the role that they play in broader landscapes. The agency refers to this strategy as an “all-lands approach.” The shift to an all-lands approach marks one of the most significant changes in the 2012 Forest Planning Rule.<sup>86</sup>

The 2012 Planning Rule, a federal regulation that guides the development of fifteen-year forest plans in accordance with the National Forest Management Act, takes a similar approach to CFLRP. It states its purpose as guiding “the collaborative and science-based development, amendment, and revision of land management plans that promote the ecological integrity of national forests and grasslands and other administrative units of the NFS.”<sup>87</sup> This language echoes the text of the Omnibus Public Lands Act of 2009 that stated, in establishing CFLRP, “The purpose of this title is to encourage the collaborative, science-based ecosystem restoration of priority forest landscapes.” The new planning process mirrors CFLRP in its emphasis on collaboration, monitoring, sustaining local economies, and ecological restoration as part of an all-lands approach. Presumably due to these similarities, the USFS selected several forests with CFLR sites to be part of the first wave of forests to use the guidance from the new Planning Rule. These forests include the Cibola in New Mexico and the Nez Perce-Clearwater in Idaho, home to a 2010 site.

In February of 2014, the U.S. Department of Agriculture announced the Chiefs' Joint Landscape Restoration Partnership (CJLRP).<sup>88</sup> This program, currently comprised of 13 sites across the country, splits its \$30 million in funds between the USFS and the Natural Resources Conservation Service (NRCS) for a multiple-year partnership between the agencies to reduce wildfire risks and restore ecosystems. The first round of projects includes the two National Forests in Arkansas, De Soto National Forest, and Cibola National Forest from the 2012 CFLRP cohort. This interagency coordination facilitates the ability to spend funds on both private and public lands, with NRCS using funds for private land work. Whether designed consciously in response to the limitations of how CFLR funds can be spent or not, the policy's structure overcomes a serious shortcoming of CFLRP.



*Picture 18: A restored stand at the Southern Blues site.*

CFLRP represents an opportunity to taking an all-lands approach to management. However, at many of the project sites we studied, stakeholders and agency personnel want to see the program generate management approaches across a public-private landscape, not just on National Forest System lands. Many crafted their proposals with the idea of working across agency boundaries, including restoration on adjacent private land. Managing to restore a fire regime, improve watershed condition, or limit the spread of invasive species requires collaboration not only in planning projects but collaboration in implementing actions across an entire landscape.

Stakeholders and agency personnel frequently cited the limitation of spending CFLR funds only on National Forest land as a point of frustration in achieving what the group actually hoped to get done. One interviewee commented, “So I think in our mind, when we developed our proposal, we thought we could do some work there [on private and tribal land] and now we're finding out that we can't so we're dealing with that.” Sites are instead relying just on making announcements of their work to private landowners and hoping that they follow the agency's lead or hope that partners from the collaborative group implement projects in line with CFLR work on their own land with their own funds. In areas with scattered public land holdings, large private landowners and frequently timber interests are often absent from collaborative processes. At those sites, opportunities to coordinate across land ownership are few and far between within the context of CFLRP.

A lack of effective coordination between agencies also prevents true all-lands management. This point is made particularly clear in Mississippi where broad efforts such as America's Longleaf Pine Restoration Initiative throughout the region are attempting to encourage private landowners to restore longleaf pine and fire regimes. However, in independent interviews, both the USFS and the Mississippi State Forestry Commission cited a need to have a contact in the other agency. In this case, CFLRP has failed to incentivize the kind of collaboration that could target landowners adjacent to public lands to increase the scope and effects of the restoration.

Participants at a California site told a similar story regarding efforts to get federal and state agencies to work together on a project. This group had brought personnel from a range of agencies together in order to examine applications for a management strategy from several adjacent private landowners. One participant said, "You talk to some of the states and you say, CFLR, and they go [blank]. And you talk to somebody in the feds and you say, IRWM, which is the state all-lands, and they're not going to know what it is. So there's very little interaction." Insufficient coordination between agencies at different levels of government means that some potential gains in true landscape management remain unrealized.

## Recommendations

Several modifications can improve the effectiveness of CFLRP at the site and policy levels. The set of recommendations in this section are grouped in six areas. Our recommendations include ways to improve the collaborative processes and communicate at project sites, and recommendations for taking a collaborative approach to restoration and monitoring. We also outline opportunities for training and policy changes that can guide expansion of the CFLR Program and future initiatives.

### *Collaborative Process and Leadership*

#### **1. Individual sites often should start with smaller projects to build momentum, provide feedback, and evaluate restoration techniques.**

Success at the early stages of a collaborative effort is an important motivator and is more easily accomplished when projects are at a smaller scale. By starting with smaller projects, stakeholders have more opportunities to provide feedback in planning stages, allowing for more adaptive management and a sense of inclusiveness. Smaller projects can effectively demonstrate management approaches and build group confidence in deploying restoration techniques over the landscape scale. As the group gains momentum, it may be important to increase scale and complexity to keep parties interested and have a larger impact on the landscape.

Several sites pointed to specific successes at a small scale as hallmarks of their work together. These small successes include a bog project in Mississippi, a private forest plan in California, and even celebrating incremental progress in the NEPA process in Idaho. The feeling of accomplishment can build momentum for collaboration. Says one stakeholder of collaboration, “Well, what's interesting is that at various points I thought, ‘Well there's really nothing more, no more big leaps that we can take.’ And then there would be, you know the CFLRP would be one of them...and you were like ‘Wow, that's another success.’... So what's the next one?”

*For more information, see Landscape Scale: Observed Strategies for Landscape Scale Restoration, pp. 130-133.*

#### **2. The USFS and collaborative groups should have open and honest dialogues about regulatory and legal limitations to the planning process in order to avoid tensions caused by differences in expectations.**

Many tensions between stakeholders and the USFS at CFLRP sites lie in differences in expectations for planning, implementation, and the amount of influence collaborative groups have on decision-making. Due to legal and regulatory restrictions, the USFS retains control over funding and the NEPA process. Local USFS personnel should explain how these processes function and strategize with local partners and stakeholders about ways to incorporate collaboration without violating administrative guidelines.

Finding ways to capture collaborative agreement for the USFS even when stakeholders may not be present can help increase this openness. At ACCG, the collaborative group developed a scorecard for

projects that USFS personnel use to check how well projects align with the goals of the collaborative group before the formal NEPA process begins. The tool developed out of discussions around when and how collaboration can influence decisions and the limitations of particular laws and regulations. While the USFS no longer utilizes this exact scorecard, the exercise played an important role in forming a common understanding of collaborative expectations and USFS procedures. At times, these approaches may require more flexibility and creativity on the part of USFS staff than is traditional, but leadership from the USFS in this area can foster trust, increase collaboration, and improve the quality of decision-making.

*For more information, see Collaborative Group Contexts and Structures: Relationship of Forest Service to the Collaborative Group, pp. 68-70.*

### **3. Individual collaborative sites should recruit collaborative coordinators and find support for them.**

Collaboration can be logistically challenging, and as the scale of work increases and more individuals and organizations become involved, having a designated coordinator on staff can make a tremendous difference in keeping the group organized and sustaining momentum. The coordinator can either be supported through an existing nonprofit organization, or can be hired by a collaborative group that has established 501(c)3 status.

The importance of individuals like Patty Perry for Kootenai Valley Resources Initiative or McRee Anderson at the Arkansas sites cannot be understated. Within CFLRP, funds from the program cannot go towards paying for these individuals' time or work. However, collaborative groups should seek out support for people that can serve as dedicated coordinators to manage these often-complex processes.

*For more information, see Partner and Community Engagement: Leadership in Collaboration, pp. 86-89.*

### **4. Collaborative groups can use individual partners to reach out to potentially litigious parties with similar interests to explain and build support for collaborative decisions.**

One reason for collaboration is to limit the amount of appeals and litigation facing restoration activities. Outreach by members of a collaborative group to potentially litigious parties with whom they have a relationship is often more effective than trying to bring outside groups into a collaborative process. As a stakeholder from Lakeview summarized, "The environmental groups have been able to, when there's been controversy with outside groups, they've been able to go and alleviate that." This strategy may help reduce unnecessary litigation and improve the speed of project implementation.

Participants in a collaborative process develop trust with one another over time and outside parties that are not committed to this process can upset the balance of the group. Through collaboration, group members come to realize their interdependence and shared goals and recognize the legitimate perspective of competing interests. One stakeholder commented, "That trust-building stuff takes a long time. One of the things both sides are guilty of, and still are in certain arenas... [is] misrepresenting things to their advantage.... And as both sides got to trust each other, they started dropping the crap." The 2012 sites include examples of collaborative groups that have included previously litigious organizations since formation, a potentially successful strategy. These

organizations have participated in the trust-building process in collaboration. However, inviting litigious outside groups to a collaborative process after the formative stages of collaboration and only as a reaction to appeals or litigation can threaten the delicate process of trust building within a collaborative group.

*For more information, see Partner and Community Engagement: Partner Outreach, pp. 96-97.*

### **5. Collaborative groups can utilize tools to streamline decision-making processes in order to reduce the need for individual group members to provide input on each decision.**

As National Forests begin to implement projects through this program, some collaborative group members have expressed a desire to make group vetting of projects more efficient, enabling individual members to stay involved without considering every detail. Tools that groups have found helpful for simplifying the decision-making process include: sideboards for projects, which set upper and lower bounds on project characteristics, and decision trees, which can establish appropriate options in a certain set of circumstances. Exploring these options can help each collaborative group maintain involvement without overwhelming participants.

For instance, the collaborative group in Northeast Washington has developed sideboards that reflect the thresholds that are comfortable to collaborative group members and are used by the USFS in project planning. These recommendations set bounds within which USFS personnel know that they have the group's approval without having to consult them. Similarly, Southern Blues in Oregon is developing decision trees to inform the USFS of collaborative group preferences in certain situations and who to contact for specific issues.

*For more information, see Collaborative Group Contexts and Structure: Strategies for Change, pp. 77-83.*

### **6. As collaborative groups age, they should actively develop new leaders to help continue their work.**

People, not any structure or resources, are what truly drive collaboration. In order to sustain collaboration, groups must evolve by constantly seeking out new leaders. University of Michigan researchers Steven Yaffee and Julia Wondolleck often discuss the importance of maintaining both the "bricks" and the "mortar" of a collaborative group. While the "bricks" are the structural pieces of collaborative efforts, including process documents, formal agreements, and the like, the "mortar" refers to the intangibles including inspirational leadership and relationships. Many sites are facing the loss of key "champions" that helped to generate momentum through their passion for the issues and the process. Collaborative groups seeking to sustain this level of interest should look within their group and to the community to foster this kind of leadership.

Several sites, such as Lakeview or NEWFC, are facing the possibility of key leaders in the collaborative group retiring or scaling back involvement. Developing leadership can also prevent the loss of different perspectives in a group. As one stakeholder observed, "If you get too much movement on one side of the interest groups, it really sets us up to not be successful in the long run, because... they help balance the end product." Changes in USFS personnel can also slow collaborative progress, and groups should encourage more USFS staff to become involved in collaboration to mitigate disruptions due to turnover. A stakeholder at another site noted, "We had

one project that we've collaborated on that, in the course of the collaboration on that project, we've dealt with four different Rangers... That's a real problem. And it affects institutional memory.”

*For more information, see Partner and Community Engagement: Leadership in Collaboration, pp. 86-89, and Collaborative Group Contexts and Structure: Strategies for Change, pp. 77-83.*

## **Communication and Outreach**

### **1. Individual sites should increase the use of online tools such as document sharing, public descriptions of collaborative activities, and virtual meeting spaces to supplement face-to-face interaction.**

Stakeholders are often located far from the collaborative group activities. In-person participation in collaborative meetings, while important, often requires considerable time and financial costs for stakeholders. In response, collaborative groups can offer virtual participation by posting minutes and launching a forum on a website to supplement face-to-face sessions. This approach should help to ensure that collaboration is inclusive for individuals who have limited time and funding. A good example of this strategy is the Payette Forest Coalition’s website, “Spatial Interest,” which houses meeting minutes and collaborative documents.

This strategy has an added benefit in creating a form of publicly available institutional memory that can help ease the transition difficulties around personnel turnover. Rather than relying on scattered information, new members can look to online resources to learn about group processes and goals. For instance, ACCG has their collaborative group’s memorandum of agreement posted on their website. New members can easily locate this governing document, which will become increasingly important as the collaborative group ages.

*For more information, see Working at a Landscape Scale: Used Online Involvement, p. 132, and Partner and Community Engagement: Accessible Information, pp. 94-95.*

### **2. Where restoration techniques involve new methods or the wood products industry has declined, sites can invest in job-training programs to create opportunities for local hiring.**

When sites assess the most pressing economic issues, they often identify a lack of infrastructure in the wood products industry due to mills closing. Their response has been to seek out projects that will help ensure that these facilities stay open and maintain local jobs. Some local mills, such as the Malheur Lumber Company in Oregon, have retooled to meet the type of wood generated by restoration. Collaborative groups should find ways to direct funds and capacity into investments in human capital as well.

Job training for restoration work can provide lasting impacts beyond CFLRP. The Zuni Mountain site in New Mexico is looking to partner with a nearby pueblo to train crews on restoration work that would begin on pueblo land and extend to the National Forest. More sites should seek out opportunities like this one that, that greatly extends the value of CFLRP, and help advance the program’s often-overlooked goals in the area of social sustainability.

*For more information, see Partner and Community Engagement: Training Opportunities, p. 91.*

### **3. Collaborative groups can use social media and websites to increase accessibility to information, expand outside interest and involvement, and create a platform for education.**

Social media provides a way to instantaneously share information and provide feedback. As projects expand to the landscape scale, stakeholders are located in a broader geographic area, often from outside the immediate location of the restoration activities. While informal, interpersonal relationships continue to form the core of working relationships in collaboration, social media offers a new way to share information and get people involved in two-way communication.

None of the collaborative groups in the 2012 cohort currently utilize social media, but the 2010 site at the Deschutes National Forest provides an example of how a site can use Facebook to share announcements and get responses. Their active Facebook page, with over 250 followers, shares information about activities on the forest including prescribed burns and information on fire science, local news articles on natural resources, and community events. It also provides an opportunity for stakeholders to provide feedback.

*For more information, see Working at a Landscape Scale: Used Online Involvement, p. 132, and Partner and Community Engagement: Accessible Information, pp. 94-95.*

### **4. Collaborative groups can explore ways to engage youth organizations in order to fulfill CFLRP requirements and address the challenge of broader community outreach.**

One option for promoting local economic development – a goal of the CFLR program – is to work with local Youth Conservation Corps or develop partnerships with state, local, or nonprofit youth organizations. Working with these groups can help overcome challenges in outreach to local communities beyond the scope of stakeholders already involved in the projects. One interviewee noted, “I don't know that there's a good model out there that really engages the community at a greater level.” Working with youth organizations can serve as a way to engage a wider audience.

At least three of the CFLRP sites work with some kind of youth program and they serve as an important point of pride for all three projects. Lakeview has a high school group that gathers scientific information that has created a strong foundation for its participants to receive scholarship funding. The Ozark Highlands project touts its youth program run by the Arkansas Wildlife Federation, and the other Arkansas site is attempting to emulate its success through a new organization called “Native Expeditions.” As sites expand to a landscape scale, they sometimes lose the involvement of local community groups as national and regional organizations become involved. Working with youth organizations can help the sites ground themselves in place and overcome the challenge of outreach to the broader community.

*For more information, see Partner and Community Engagement: Youth Programs, pp. 89-90.*

### **5. Collaborative groups can strengthen communication between members, the USFS, and the community through several strategies:**

- **Fieldtrips.** All of the 2012 sites have used fieldtrips to some degree. Groups found that time spent in the field building a common language and understanding proved much more valuable than time spent at regular meetings. Fieldtrips can also provide a compelling mechanism for participation from the broader community.

- **Stakeholder feedback forms.** Consistently providing opportunities for group members to give feedback on project planning can help increase input and provide the USFS with feedback on whether their treatments are meeting the vision of collaborative groups. Many project sites have ecological goals that are difficult to measure. Providing opportunities for qualitative partner feedback on these treatments can iteratively refine the USFS staff's understanding of the group's interests and knowledge of the restoration activities. The Southern Blues site developed a form for this purpose. On fieldtrips, stakeholders use this common form to provide feedback to the USFS regarding restoration treatments. The USFS keeps and can later use this input in future decisions.
- **Jargon-free, tailored reporting to specific audience.** The public and the USFS often understand things in different ways and may use different terms to describe the same activities. One USFS employee explained the difference in reporting within the Forest Service and the general public is in acres treated, saying, "Little things like footprint acres – we've done three different treatments on this piece of ground. So for Forest Service upward reporting that's three different things that have happened that we had to pay for and they like to keep track of those three different things and so sometimes it almost looks that instead of 100 acres we did 300 acres, and we know better. But the public doesn't. So they see that we did 300 acres of something and but then I go and show them on the ground, oh it was really only 100 acres. So if I'm talking to public I'm talking footprint acres, what did we actually affect on the ground. If I'm talking to the Forest Service it's how we report." Acronyms, technical terms, and other jargon can create the same types of problems. Not only USFS personnel, but also members of collaborative groups, should be aware of this challenge and seek to share information in a way that their audience will understand it.

*For more information, see Partner and Community Engagement: Communication Strategies, pp. 91-97.*

## ***Restoration and Monitoring***

### **1. The USFS should work with collaborators to establish clear strategies for using data from CFLRP in adaptive management.**

One goal of the CFLR Program is to demonstrate the effectiveness of particular restoration and collaborative techniques throughout the country. National Forests should embrace this demonstration concept on a local level as well. A stakeholder in Oregon noted, "Outlining the monitoring, particularly if you have strong environmental groups with you, that is key to adaptive management... That to me is the number one thing to get done." Adaptive management allows for groups to learn from project outcomes, not just by monitoring impacts but also by changing the approach of future planning based on monitoring results.

While many project sites have some kind of monitoring plan in place, few have connected this information to adaptive management. For instance, the Colorado Front Range Roundtable, a 2010 site, developed a monitoring plan in 2011 but only began in 2013 to connect this information to a collaboratively developed adaptive management framework. Their progress in implementing restoration projects has embraced uncertainty by taking an experimental approach.

They have used smaller projects to demonstrate new techniques and experimental plots with different treatments and controls, engaged Colorado State University and science-based nonprofits, and an iterative process to develop desired conditions across their varied landscapes based on the results of smaller projects.

*For more information, see Ecological Restoration: Implementation: Experimental Approach, p. 119-120.*

## **2. Collaborative groups should engage external scientific experts, such as university researchers, in ecological goal setting, planning and monitoring.**

Scientific experts with experience in developing landscape-level ecological analysis, restoration goals, and monitoring plans can help collaborative groups by bringing impartial information and assistance to the table. Actively engaging experts from science-based nonprofits, universities, and USFS researchers helps improve the quality of information on ecological issues. A number of CFLRP sites approach to develop proposals such as a Forest Service General Technical Report developed in California on restoration, graduate student work in Washington, and a report from The Nature Conservancy in Arkansas and Missouri that served as a driving point for much of their ecological work.

Fewer sites in the 2012 cohort, however, actively continue to use these external sources of expertise. One situation with continued involvement is Mike Davis, a professor from Southern Mississippi University that has been involved in the Longleaf Pine Restoration project for the last three years. Davis meets regularly with USFS ecologist Tate Thrieffley to lay out study plots and works alongside the agency. In describing the monitoring work, he said,

The simplest stuff is just setting up plots. We're going to look mainly at understory diversity, but we'll do midstory woody diversity. We're going to do a little bit of canopy analyses as well. We're going to try - this isn't stuff that's specifically funded in the project - we're also going to try to look at ecosystem services, carbon fluxes and things like that. So we'll probably do some floor respiration, canopy respiration measurements as well. Because people want to know what their carbon footprint - the sequestration potential in these forests, so we're going to kind of - there's not a lot of data out there.

While many of the 2010 sites have ongoing relationships with nearby universities such as with Colorado State University or Northern Arizona University, these connections are not common for the 2012 sites. Continued involvement of universities or science-based nonprofits can improve the quality of ecological information and monitoring data.

*For more information, see Ecological Restoration: Sources of Scientific Expertise and Data, pp. 116-118, and Ecological Restoration: Monitoring, p. 121-122.*

**3. Involving a broad range of personnel from a National Forest in the collaborative process can improve the communication of recommendations between the collaborative group and agency implementers, and increase stakeholder understanding of ecological factors and management approaches.**

For the USFS, working effectively with collaborative groups requires more than the efforts of a single individual. Having a broad range of agency personnel working with the collaborative group increases the expertise at the table and allows the USFS to more comprehensively discuss different aspects of the planning and implementation processes. The presence and support of line officers can particularly impact the efficacy of collaborative recommendations in decision-making. When they go on fieldtrips in the Southern Blues, roughly half of the people in the field are from the USFS. Their presence allows the agency to respond to questions about scientific information or plans in the moment, improving trust, communication, and understanding with the collaborative group.

Sites should find ways to connect collaborative groups directly with USFS interdisciplinary (ID) teams so that recommendations from the group do not have to go through multiple personnel to get to them. As one stakeholder observed, “There’s not enough connection between collaborative perspectives and ID team plans.” Improving communication here can also help stakeholders understand what data the USFS is considering. Few sites have this level of interconnectedness, but it can improve collaborative functionality.

*For more information, see Ecological Restoration: Implementation: Experimental Approach, pp. 119-120.*

**4. Multiparty monitoring can improve buy-in from stakeholders regardless of how the information they gather is used.**

While multiparty monitoring has the potential to increase the capacity of a budget-limited agency in collecting valuable scientific data, it also has benefits for the collaborative process and project planning. When stakeholders, local community groups, and youth organizations participate in the collection of scientific data, they feel more confident in the results and have a feeling of ownership over the information and project outcomes. Hands-on work for monitoring does not need to generate the bulk of useful information for a collaborative group to gain these positive benefits. These scientific projects and field experiences can become a point of pride for groups and help set the stage for successful collaboration and effective management.

Collaborative involvement in setting assessment and monitoring priorities can also improve stakeholder support by ensuring that science is carried out in priority areas. For example, each year, the Zuni Mountain project has a meeting with stakeholders to set priorities for data collection for the coming year. The Lakeview site similarly has a long-running program where local students participate in monitoring efforts. These opportunities to participate in data collection or setting priorities for assessment improve support for scientific information and prevent conflicts over scientific information arising within collaborative groups.

*For more information, see Partner and Community Engagement: The Role of Nonprofit Partners, pp. 85-86.*

**5. Individual sites need comprehensive landscape-scale assessments of baseline conditions to gauge program effectiveness and create the possibility for adaptive management.**

Groups can end up bypassing important ecological planning activities due to pressure to spend CFLRP funds for implementation immediately. One USFS employee remarked, “To know what to do, to know how to do ecosystem restoration, and what to do, first you have to know what you've got. And I'm going to say, that is the greatest challenge right now, to not just the Forest Service but all land managers and anyone trying to do restoration ecology.” Some sites are spending too little time on this stage of the process.

By assessing the condition of forests across their landscape, groups can better understand and set specific goals addressing forest condition. New technology is making this type of assessment possible at the landscape scale. Said one USFS employee,

In the past, you had to have people cover every piece of ground, and start making decisions, and you need a crew to do these exams on the stand conditions. But with these remote sensing and all these other models you can draw some pretty good conclusions without visiting every site. Then, once you start to do prescriptions you still need to go there. So I think that helped a lot, that had to be a big player, there's no way that we can go do stand exams on 40,000 acres, try to keep up.

Through assessment, groups can integrate key restoration concepts of habitat connectivity, biodiversity, and conservation biology. Landscape-scale assessments will benefit National Forests beyond CFLRP. The 2012 Planning Rule outlines an adaptive management framework that includes assessment for 15 different areas, plan development, and monitoring effectiveness as a sequential and looping process. Taking advantage of CFLRP to begin this assessment process can help benefit National Forest management more broadly.

*For more information, see Ecological Restoration: Dealing with Uncertainty and Heterogeneity, pp. 112-114.*

**6. Whenever possible, sites should utilize measurable, quantifiable ecological goals to make monitoring progress and effectiveness easier in the future.**

Collaborative groups tend to create goals centered on outcomes that often result in “soft goals” as recommendations. For instance, one stakeholder in California described part of their process for ecological goals considering historical conditions by saying, “This is what it was described as in 1880. We're not trying to reset the clock here, but we think it's actually more appropriate to get it closer to that structure than it is now.” In Missouri, one stakeholder stated a formative goal as “the most resilient systems are the ones with the highest rate of native biodiversity.” These concepts have meaning but are difficult to measure, resulting in “soft goals” that are difficult to quantify.

Whenever possible, groups should strive to pair these outcome-based measures with measurable output- or input-based measures. For instance, the Kootenai Valley Resources Initiative uses potential natural vegetation total maximum daily loads (TMDLs) to measure impacts on water pollution in order to gauge impacts on less tangible concepts such as stream health. One stakeholder explained,

We're doing what they call potential natural vegetation TMDLs. We're looking at what the system can support for vegetation along the stream bank, what was the stream like then, the corridor, and how can we most closely mimic natural to that, instead of saying we're going to get to this degree [of temperature] because even our streams that are pristine on the west side of this valley don't get there and don't stay there so obviously there are thermal refuge areas where fish are getting in, where things are working and always have. We said, if we can't develop something achievable what are we after here? So we're taking a different approach and EPA actually approved our first TMDLs and we're on the second round.

Finding common agreement on output- or input-based measures is a difficult and time-consuming process for a collaborative group. “To quantify and know how to measure some of the things that are happening is the biggest challenge we face,” observed one USFS employee. However, doing so can improve monitoring progress and effectiveness and set sites up to effectively engage in adaptive management.

*For more information, see Ecological Restoration: Planning Ecological Restoration within CFLRP, p. 110-119.*

## ***Training Opportunities and Developing Resources***

**1. To help improve understanding among stakeholders around complex elements of the planning process, the National Forest Foundation should continue to sponsor training sessions or peer learning seminars on the following:**

- **Using the contracting processes to benefit local economies such as through IDIQ contracts and stewardship contracting.** Small businesses need some level of project certainty before investing in new techniques, infrastructure, or even bidding on large acreage projects. Small local contractors can assess potential contract costs, such as from appeals and litigation or losses due to wildfire, as outweighing benefits. Or, they may lack the needed capital, infrastructure, or capacity to bid or be competitive. As a result, large restoration contracts are going to a small number of large and sometimes nonlocal companies. The contracting process can provide a means to build in this certainty as part of a landscape-scale approach in order to make projects viable for local bidders and encourage social and economic sustainability.

Several sites are using the stewardship-contracting authorities or indefinite delivery/indefinite quantity (IDIQ) contracts in order to create more certainty for small businesses. For instance, a stakeholder in Idaho explained, “The stream bank [project], what we did was just add it to an existing contract, that IDIQ, which means basically we have contractors on hold. And when we have the work, we say, ‘Okay, go.’ Instead of going out for the bid and the whole process.” A USFS employee in the South explained how IDIQ contracts could help with the challenge of unpredictable dispersal of funds. “We're lucky to have contracts in place. Because what happened last year was that they dumped a pile of money on us at the end of the year but see we were already built for that... We took bids on work on a big giant IDIQ.”

Training opportunities should stress how to use these programs as part of a landscape scale approach rather than simply focusing on the mechanics of how they work on the ground.

*For more information, see Economic Impacts: A Focus on Local Contracting and Development, pp. 104-107, and Economic Impacts: Challenge of Unpredictable Dispersal of Funds, pp. 107-108.*

- **User-friendly tools for stakeholders to understand the NEPA process.** The approval process for the National Environmental Policy Act (NEPA) often baffles stakeholders and USFS personnel alike. User-friendly training opportunities and tools such as “A Roadmap for Collaboration Before, During, and After the NEPA Process,” developed by the National Forest Foundation, can help open up the process to collaboration. When stakeholders understand the requirements and constraints of the NEPA process, they can better assist with planning efforts. The average amount of the proposed treatment acres to already have gone through NEPA approval at the time of selection at a site in the 2012 cohort is 44%. Each site must undergo extensive NEPA processes before they can implement the proposed projects to meet their ten-year goals. They will have a continual need for useful tools to approach this challenge.

*For more information, see Collaborative Group Contexts and Structures: Relationship of Forest Service to the Collaborative Group, pp. 68-71.*

## **2. The USFS should place an emphasis on the following topics in their ongoing training for agency personnel:**

- **Training opportunities for district and forest-level staff on how to use data to establish social and economic baselines so as to better understand project impacts.** Measuring the socioeconomic impacts of projects is difficult. Quantifying outcomes, as opposed to outputs such as board feet, make measuring the contribution to social and economic sustainability a more difficult task than simply generating lumber. One tool that can assist in generating a wide range of baseline data is the Economic Profile System-Human Dimensions Toolkit (EPS-HDT) developed by Headwaters Economics and approved for agency use by the USFS. Using this information, as well as nontraditional data sources such as measuring local student enrollment in free and reduced lunch programs, can give an enhanced impression of local social and economic situations. While causality is often difficult to assign, sites can then look to these measures to see if the program is affecting local communities.

Despite the availability of these data sets and tools, many local level personnel do not know about them or understand how to utilize their information. One stakeholder commented on the challenge of economic monitoring saying, “The socioeconomics is harder for the USFS to crack, and it's also hard to determine cause and effect. That's one of the things I keep saying ‘We can measure that, but does it really mean anything?’” This uncertainty acts as a barrier to effective monitoring. In order to insure that economic considerations were properly evaluated in the project proposals, sites were required to use the TREAT model that has been developed specifically for CFLRP and is required for annual upwards reporting. However, TREAT modeling is only as good as the information put into it. Using other means of measuring economic data, such as through the free EPS-HDT program, can improve

stakeholder buy-in for economic information and measure broader social and economic impacts.

*For more information, see Economic Impacts: A Focus on Local Contracting & Development, pp. 104-107.*

- **Continue to offer training to line officers and regional staff on the structure and forms of collaborative groups and collaborative processes so that agency staff can better support and assist local groups with complex projects.** While training for USFS staff at a variety of region-level positions currently exists, there is still room for improvement to help personnel recognize and understand opportunities to assist local groups. Personnel at the regional level do not have the ability to observe the day-to-day operation of collaborative processes, yet they have an interest in working with local groups to achieve land management goals. Currently, the regional offices are involved in various levels with the local collaborative groups.

For example, the Longleaf Pine Restoration Project has operated as an informal collaborative group thus far. However, a more formal collaborative process may now be a useful tool to address recent conflict over roads closures in connection to CFLRP. Similarly, in Northeast Washington, USFS personnel have recognized the need to step away from a tight-knit collaborative group to involve more stakeholders and are finding a more informal process to be helpful in that situation. Regional staff and line officers are in the unique position to provide perspective to these collaborative groups. Having a broad understanding of the variety of these structures and tools can help leaders choose the correct process to address a variety of challenges.

*For more information, see Collaborative Group Structures and Context: Gaining CFLRP Designation, pp. 72-74.*

- **Develop training opportunities that help scientists and other staff communicate complex ecological concepts to the broader public.** Extensive scientific information and expertise already exists within the USFS, science-based nonprofit partners, and the academic community. However, there is a demonstrated need to improve understanding and develop ways to effectively communicate about ecological restoration and its challenges with non-scientists. This language and method of delivery needs to be developed so that the general public can easily understand concepts of ecological restoration and participate in dialogue at the site-specific level.

One solution has been to create driving tours to restoration projects that illuminate the process and goals of the program such as the Buffalo Road Tour in Arkansas. This tour effectively communicates the work being done through actual demonstration sites. This allows non-scientists to relate to the quality of the treatments rather than the technical details. The USFS or a nonprofit partner could also provide training specifically tailored for scientific personnel on how to effectively communicate complex information about ecological restoration to partners.

*For more information, see Ecological Restoration: Regional Priorities and the Threat of Wildfire, pp. 110-112.*

### 3. The National Forest Foundation or other nonprofit organizations should facilitate peer-learning opportunities in the following areas:

- **Encourage dialogue among collaborative groups by linking groups with common structures or challenges.** Many sites are connected through regional partnerships and shared nonprofits. However, groups may benefit from increased communication and information sharing with groups that are similarly structured or are facing similar challenges. For example, the project sites in Arkansas and Missouri all work together due to geographic proximity and a shared nonprofit partner in The Nature Conservancy. More could be done to build connections around structure and challenges outside of local areas. For instance, ACCG in California found that when they reached out to neighboring collaborative groups, certain differences in group objectives prevented useful sharing of information. Because of their interest in setting effective social and economic indicators of change, this group would be best paired with a group that is addressing a similar problem. Taking the pairings one step further could pair groups with different structures to facilitate opportunities for collaborative groups to learn about different approaches. More informal groups may want to learn about how to effectively structure more formal processes if they encounter new challenges or conflict. These links would give collaborative leaders a chance to learn from the experience of other groups about successful strategies and pitfalls to avoid while transitioning processes.

*For more information, see Partner and Community Engagement: Building Bridges Between Sites, p. 85, and Collaborative Group Contexts and Structures: Communication Between Collaborative Groups, pp. 82-83.*

- **Host a conference or workshop series specifically for long-term collaborative groups that are grappling with issues of sustaining collaboration.** As the concept of collaboration as a tool for resource management matures, many of the collaborative groups that began in the mid-1990s are now reaching the end of their second decade working together. Within CFLRP, some collaborative groups such as the Lakeview Stewardship Group, founded in 1998, and Kootenai Valley Resources Initiative, founded in 2001, have worked together for well over a decade. Convening key individuals from long-standing collaborative groups to survey their changes over time and explore challenges specific to older collaborative groups could provide a valuable forum for strategizing the future of this type of management. Conferences such as the ones in Oregon, Idaho, and Colorado last year have brought together CFLRP sites from across one or two USFS regions. Expanding conferences to include other long-standing collaborative groups would increase the scope of viewpoints and experiences. If possible, outreach efforts should seek to draw in participants from collaborative groups that no longer meet or have disbanded to increase the variety of viewpoints. The goal of this conference or series of workshops is to begin to draw a road map for long-term collaboration.

*For more information, see Collaborative Group Contexts and Structure: Strategies for Change, pp. 77-83.*

- **Create an educators network to build programs and curriculum for youth engagement in ecological restoration.** Engaging youth in meaningful citizen science, volunteer work, and outdoor education requires a specific set of programming. Many sites currently have only limited engagement of local youth. Identifying key partner organizations, community leaders,

or educators to build a network focused specifically on engaging youth can increase communication among existing programs and help new programs grow. In strengthening youth involvement, collaborative groups can build momentum for the project and strengthen ties to the community at large. The sites in Arkansas have already shown how this outreach strategy can be effective. The “Native Expeditions” was cultivated and modeled in part as a response to the success of Wayne Shewmake’s youth programs through the Arkansas Wildlife Federation. Taking a different approach, USFS employees at the Longleaf Pine site participate in a band called “The Blues Rangers” that makes songs about ecological issues aimed at young audiences. Another successful example is a monitoring program with the Lakeview Stewardship Group and a local high school immerses students in a rich ecological curriculum. Collecting tools from these resources and sharing them among sites would help develop the capacity of each project site to engage youth and the community. Peer learning sessions specifically on this topic could also create a valuable means of information sharing and inspire new programs across the country.

*For more information, see Partner and Community Engagement: Youth Programs, pp. 89-90.*

**4. The National Forest Foundation or another national organization should identify or develop a master web-platform for collaborative groups, and provide training and technical support to implement and maintain this online resource.**

Few sites are taking advantage of modern information technology, which could be effective for record keeping and communication across large landscapes. Lack of expertise and limited capacity for participants to set up and maintain such a resource are the main factors limiting the use of this online resource. One solution is to have a national organization, such as the National Forest Foundation, create and host a web-platform specific to the needs of resource management collaborative groups based on feedback from individuals in the program. This site could include the ability for collaborative groups to create virtual meetings, share documents, and create or discussion threads.

In order to fully implement this web-based project, the national organization would need to provide training to participants on use of the resource and technical support for the coordinators of the collaborative groups. Five of the thirteen 2012 CFLRP sites maintain websites of varying quality, and at least more sites have basic information on the group on an individual partner’s website. All of the sites that maintain a web presence are more formal collaborative groups. Having a master site hosting collaborative groups would enable some uniformity, provide guidance on collaboration, and create a network where interested individuals could easily access information about other sites. It would also encourage more informal collaborative groups to set up web resources by lessening the burden on individual groups in developing a website. A pilot version of this online resource could include the current CFLRP sites, and if it is successful and funds are available, it could then expand to other collaborative groups.

*For more information, see Working at a Landscape Scale: Used Online Involvement, p. 132, and Partner and Community Engagement: Accessible Information, pp. 94-95.*

## *Policy for Collaboration and Restoration*

### **1. The USFS should invest significant funding and training in partner coordination for National Forests going through the 2012 Planning Rule Process.**

In many ways, CFLRP serves as a dress rehearsal for implementation of the 2012 Planning Rule. The new planning process calls for collaboration and planning for ecological restoration including incorporating conservation biology concepts of structure, function, composition, and connectivity. The challenges for National Forests working with partners on new fifteen-year forest plans will mirror the challenges of CFLR sites. These sites consistently show that collaboration at a large scale requires extensive coordination to set up meetings, organize stakeholders, and plan useful activities like fieldtrips. The USFS should ensure that collaboration at a National Forest scale has the human resources to overcome coordination challenges. Providing personnel specifically to work with collaborative groups can help improve the collaborative processes that form around forest planning.

*For more information, see Partner and Community Engagement: Leadership in Collaboration, pp. 86-89.*

### **2. To encourage collaboration in land management, the National Forest Foundation and USFS should continue to provide small, startup grants for newly formed collaborative groups.**

In order to jumpstart collaboration elsewhere, the National Forest Foundation and other funders such as USFS should provide small, startup grants for newly formed collaborative groups. At least five of the collaborative groups in the 2012 CFLRP cohort benefitted from a grant from the National Forest Foundation, U.S. Department of Agriculture, or another nonprofit group. These smaller grants can provide a jolt for collaboration by funding fieldtrips or facilitators to help collaborative groups get over the initial hurdles in formation. Nonprofit organizations and federal agencies interested in spurring collaboration should use small grants to new groups.

Providing funds for training new collaborative groups in effective process could be beneficial, especially with groups facing the transition from visioning bodies to decision-making groups. A stakeholder facing this challenge noted, “We realized then that we needed to develop a charter and a decision-making process. And we struggled with that because we didn’t have a decision-making process. So we couldn’t agree on the charter, basically.” He later described the process as “frustrating.” Insight from experienced individuals or trained facilitators could help groups succeed in developing useful collaborative structures and processes, and small grants could specifically target this purpose.

*For more information, see Collaborative Group Contexts and Structure: Strategies for Change, pp. 77-83.*

### **3. The USFS should improve coordination with other federal and state agencies, including through CFLRP, to achieve its “all-lands management” goal.**

Initiatives in the USFS and U.S. Department of Agriculture call for an “all-lands approach” that seeks to manage federal land within the context of broader landscapes and ecological dynamics. In order to achieve this goal, the USFS must improve coordination and communication with other

agencies. Existing coordination occurs on an irregular basis and usually relies on personal relationships. However, in many cases, personnel from state and federal agencies do not even know the names of each other's programs. One stakeholder told the story saying, "You talk to some of the states and you say, CFLR, and they go [blank]. And you talk to somebody in the feds and you say, IRWM, which is the state all-lands, and they're not going to know what it is. So there's very little interaction."

Greater coordination among agency leaders could establish common language and goals for restoration, coordinate dispersal of funds, and facilitate true landscape scale restoration. The Chiefs' Joint Landscape Restoration Partnership between the USFS and Natural Resource Conservation Service represents one effort at this coordination. Emphasizing well-established, cross-agency coordination in addition to engaging with nonprofit, industry, and community stakeholders in the selection of future CFLRP sites could also help select sites that are well equipped for success.

*For more information, see Partner and Community Engagement: Leadership in Collaboration, pp. 86-89.*

#### **4. The USFS should emphasize collaboration and partnership skills in human resource development by incorporating them in line officer performance evaluations and position descriptions.**

Effectively accomplishing goals in CFLRP, the forest planning process, and other collaborative and interagency initiatives requires USFS personnel with skill sets for partnership coordination and collaboration. Placing a premium on collaboration and partnership skills in USFS human resource tasks can help the agency recruit and develop leaders for collaborative work. First, including these areas in position descriptions and hiring evaluations can help the agency identify and recruit personnel with those competencies. Position descriptions should include consideration of organizing ability, facilitation skills, and a history of collaborative projects across agencies, organizations, or sectors. Second, collaboration and partnership development should be included in performance evaluations in a meaningful way. This inclusion would allow the USFS to promote employees based on their ability to collaborate effectively and encourage line officers and other staff to prioritize partnership development throughout their employment.

*For more information, see Partner and Community Engagement: Leadership in Collaboration, pp. 86-89.*

#### **5. The USFS or another federal agency should provide grants to small businesses interested in retooling lumber mills to create products from restoration projects other than woody biomass for energy production.**

One advantage of the Collaborative Forest Restoration Program (CFRP), the New Mexico-specific precursor to CFLRP, is the ability to give grants to local businesses to invest in new infrastructure. While the requirement for existing infrastructure helps many CFLRP sites achieve their goals, the mills in place are often unprepared for the different types of forest byproducts available and contractors may not have the equipment suitable for the current restoration needs. In many situations, restoration work occurs where only one or two mills remain in local communities.

Collaborative processes prioritize these vital sources of jobs and means of using wood from restoration. However, without grants to assist with retooling or to retrofit mills, these local businesses

are bearing the brunt of the risk for ecological restoration. Currently, the USFS has some grants for biomass energy generation, but the difficulties in the biomass market indicate that these programs should expand to include businesses looking to invest in other areas. Grants to local businesses could both accelerate restoration and spur local economies. The recently announced White House “Made in Rural America” initiative, including a \$2 million competition through USDA for cross-laminated timber (“CLT”), provides an example of what such a push could include and an opportunity for more activity on this issue.

*For more information, see Economic Impacts: A Focus on Economic Restoration, pp. 98-104.*

**6. The USFS should collaborate with industry and nonprofit partners to develop a certification process and label for wood products generated from ecological restoration projects.**

There currently are two different certification programs for sustainably harvested timber. Creating another that recognizes timber products generated through ecological restoration on National Forest lands could be a relatively low cost way to improve the market for these products. A certification initiative would most likely require leadership from the Secretary of Agriculture’s office. The USFS National Forest System division could partner, potentially along with State and Private Forestry, with nonprofit organizations and the wood products industry to design the certification process and label. This initiative would also build upon the work of the interdisciplinary USFS Woody Biomass Utilization Team.<sup>89</sup>

In the face of low prices for other sources of electricity such as natural gas, biomass does not appear to be a viable option for a future scenario where restoration work pays for itself. Instead, creating a certification program that identifies and advertises wood products as coming from National Forest projects for ecological restoration could improve sales for small mill businesses and help with generating more funds for ecological restoration.

*For more information, see Economic Impacts: A Focus on Economic Restoration, pp. 98-104.*

**7. Collaboration and project successes, particularly through CFLRP, can build broader political support for restoration work.**

One positive effect of CFLRP is in raising the profile of restoration work by recognizing collaborative groups with this national designation. This increased attention builds political support for restoration both at specific project sites and more broadly. For instance, the Oregon Governor’s office has provided resources and funding for the Southern Blues site, extending to even more parts of the Blue Mountains. In Idaho, the CFLRP sites maintain a strong and valuable relationship with their congressional delegation and staffers, who often attend collaborative meetings. One stakeholder explained, “We’re showing not only the FS audience but also the congressional audience who are making these decisions that the collaborative and the relationship that we have going, we’re a good investment! If you want to get things done on the ground, we’re going to make it happen.” The Burney-Hat Creek project site in California has also had frequent attendance by congressional staffers, and the Shortleaf-Bluestem site has taken congressional representatives on its “Buffalo Road Tour” to share its progress and successes.

Showing support from a wide range of stakeholders in a collaborative group and pointing to successful examples from CFLRP can build political support for additional restoration initiatives. For instance, USFS Chief Tom Tidwell testified to Congress in April 2014 on the progress of CFLRP in

the context of the agency's fiscal year 2015 budget.<sup>90</sup> The information from CFLRP can prove valuable in debates over how to fund preventing and fighting wildfire. The involvement of a broad range of perspectives in collaboration through CFLRP creates a powerful argument in favor of increased funding and attention to restoration.

## *The Future of CFLRP*

### **1. Policymakers should change CFLRP to allow funds to be used for project planning and the coordination of partnerships.**

CFLRP should include funds that can be used for planning activities. Many of the projects implemented through CFLRP to-date were developed prior to the program. However, stakeholders and USFS personnel now find themselves in a situation where they must plan at the project-level to implement a landscape scale strategy. Landscape scale planning is more complex because of increased acreage, greater ecological heterogeneity, and the potential of crossing district and forest boundaries. With ten-years to work on projects, sites need money and support collaborative planning of specific projects before they can be implemented to reach their proposed acreage goals. Resources spent to develop well-planned projects can also expand the total amount of funds available by sites by increasing the interest of outside organizations in providing money to project implementation, such as the partnership with Coca-Cola at ACCG.

To facilitate effective planning and collaboration, CFLRP should be modified to allow funds to be used for planning purposes. One stakeholder put it plainly by saying, "I think it's generally recognized that there's more funds that are needed to treat the forest...and some type of infusion of funds or rethinking of how the planning process is done." As it currently stands, CFLRP creates a mismatch by giving money for collaboration that already occurred without supporting future collaboration. If the program's goal is to encourage collaboration, policymakers should free up funds for use in planning or coordination.

### **2. Policymakers should make CFLRP money available for use on private land or pair CFLRP dollars with other flexible funding streams.**

Working on private lands is essential for truly effective landscape-scale or watershed-level planning and restoration. Many stakeholders expected that CFLRP funds would be available for use on projects extending onto private land. One individual commented, "So I think in our mind, when we developed our proposal, we thought we could do some work there [on private and tribal land] and now we're finding out that we can't so we're dealing with that." Others hoped that CFLRP would set an example for private landowners to follow voluntarily, but providing money for work on private lands could ensure that it occurs.

Spending money on private lands can also improve the relationship and amount of trust between partners and the USFS. One reason that some partners experience tension with the USFS is that despite collaborative development of the proposal, the USFS retains control over the money, and it must be spent on their land. Breaking that situation by finding ways to get funds to work on private lands could shift these relationships. Restrictions on this funding could ensure accountability. For instance, policymakers could place a cap on the percent of funds or acreage that include restoration

treatments on private land or restrict the use of public funds to private lands directly connected to public lands as defined by being adjacent or within the watershed as defined by an eight-digit USGS hydrologic unit code.

**3. To incentivize collaborative planning for restoration, project selection for CFLRP should take place in frequent and predictable intervals.**

The prospect of receiving funds for collaboratively developed plans can incentivize stakeholders to join a process, grapple with tradeoffs, and build support for group decisions. Crafting a common proposal for selection gives stakeholders with different interests a reason to work together because only in doing so can any individual member achieve his or her goals. Seven of the thirteen sites in the 2012 CFLRP cohort applied and were rejected for funding in 2010 before revising their submission for successful selection in the next call for proposals. More frequent selection also has the added benefit of adding to the network of identified CFLRP sites. Despite size, once a group has been recognized by selection to the program, they may feel a greater desire to come together and share information

Policymakers face a tradeoff with increasing the frequency and consistency of opportunities for competitive funds selection. Changing CFLRP to shorten project length from ten years would allow for more projects to be selected and provide an ongoing incentive for collaborative groups to work together with the common goal of crafting a successful plan and proposal. However, the time horizon for monitoring ecological impacts needs and certainty for contractors necessitate long-term funding. Expanding CFLRP to more sites would also likely require an increase in funds beyond \$40 million annually and an extension beyond 2019. A tension exists between supporting current projects and funding new ones as long as the program has limits on time and annual appropriations. Policymakers should be explicitly aware of these tradeoffs and plan for them in any decisions to modify the program.

**4. Each CFLR project site should have a full-time USFS employee serving as a partnership coordinator.**

Long-term collaborative processes like CFLRP require extensive amounts of coordination including arranging meetings, planning field trips, and communicating between stakeholders and USFS personnel. Currently, the point person for USFS at most CFLR sites has another job on the National Forest and must split his or her time between that job and navigating the complexities of collaboration thereby limiting his or her capacity in each role. Having a dedicated partnership coordinator would help in building trust, a common language, and smoothing over difficult processes to organize.

**5. If CFLRP expands to more sites, the selection process should include the following elements:**

- **Designation of USFS coordinator.** Any future requests for proposals should ask for sites to indicate who will serve as a partnership coordinator for a site from the USFS, his or her primary job responsibilities, and how much time he or she can dedicate to the coordination. While ideally this position should have a full-time focus on CFLRP, sites should understand that serving in this role should be at least 50% of an employee's time. The selection process should prioritize choosing sites with a clear plan in place for an individual to serve in this important role.

- **How the site plans to coordinate with other federal and state agencies.** Achieving a vision at a landscape scale involves working across property lines and jurisdictional boundaries. The CFLRP sites successfully work with other agencies can improve the scale of impacts, such as through ACCG's with the BLM, or create efficiencies in monitoring and data collection, as with Zuni Mountain's coordination with New Mexico state agencies to monitor the Zuni Bluehead Sucker. Asking about specific plans to coordinate with other agencies in proposals, separately from lists of partners, would emphasize the important role other agencies can play. It would push sites to reach to other agencies and develop strong relationships that can help the USFS achieve its "all-lands management" goals.
- **Description of collaboration with already approved NEPA acreage.** Selection should prioritize sites that have ready-to-go projects that already have buy-in from collaborative groups. Using CFLRP funds for project implementation in the first years after designation requires the use of projects already approved through NEPA. Whether or not these projects were in fact developed through a collaborative process can set a tone for the relationship between the USFS and the collaborative group. Regarding this concern, one stakeholder noted, "The key thing there is to make sure that while you are gaining the social license that you're not just there as a formality, that you're not rubber stamping what the agency is [doing]. You actually do need to bring something to the table, whether it's on the ground knowledge or you're representing some interest." Requiring information in proposals explaining the role of collaboration in NEPA-approved projects would give the selection committee a chance to choose those sites best set up for success.
- **A clear rubric for evaluating proposals.** The selection committee should use a common rubric for evaluating project proposals that prioritizes the areas that make CFLRP sites most successful. Rubrics assist in selection by standardizing how to compare plans across submissions and providing guidance in weighting the relative importance of different aspects of a submission. For instance, a rubric could give descriptions of how to score the size of a project, clarity of planning procedures, readiness of work for implementation, and strength of collaborative process. An example rubric has been included with this report as an appendix.

**6. Future review of CFLRP, such as through the General Accounting Office (GAO), should attempt to answer these questions:**

- **Are sites employing new restoration techniques through CFLRP?** The Omnibus Public Lands Act of 2009 states that CFLRP should include a process that "demonstrates the degree to which (A) various ecological restoration techniques-- (i) achieve ecological and watershed health objectives; and (ii) affect wildfire activity and management costs." An open question remains as to whether or not CFLRP sites are in fact trying out restoration techniques that they would not be using otherwise. One stakeholder suggested, "I think we're doing some really good work. It's not really different work from what we were doing before, but we can do it on a larger scale." Further review of CFLRP should consider if sites are trying out new treatments and attempt to evaluate their ecological effectiveness.
- **Are CFLRP funds truly additive for National Forest budgets?** Stakeholders and USFS personnel vary in their perception of whether or not funds from CFLRP add to their annual appropriations. As one stakeholder commented, "I'd like to see it as new money, not as old

money. I think it's generally recognized that there's more funds that are needed to treat the forest, it's burning up faster than it can be treated, basically.” Additional review of the program should explore budgets in greater detail to determine if funds are additive for National Forests, if they are being diverted from other National Forests or Ranger Districts, and if they are going to accelerating restoration or simply plugging holes in National Forest budgets. The one-time injection of significantly large amounts of funds from the American Reinvestment and Recovery Act of 2009 (ARRA), described by one respondent as a “big spike” compared to the “bump that hopefully lasts” in CFLRP, laid the framework for the planning of projects now being carried out through CFLRP. A review of the program should also strive to isolate the impacts of the funds from these two programs on forest management.

- **What aspects of CFLRP can be replicated nationally?** The question remains of what aspects of the program can be scaled up to forest management across the country. The USFS estimates that between 65 and 82 million acres of the National Forest System need restoration.<sup>91</sup> If the thirteen sites in the 2012 CFLRP cohort reach their goals over the ten-year lifecycle, their combined size will be 2,008,982 acres of restoration treatments. While these 2 million acres would represent a significant accomplishment, the pace of restoration must accelerate far beyond CFLRP to adequately address the challenge for public land management. Expanding the program would help towards national restoration needs, but the USFS must expand its efforts to emphasize restoration in forest planning and regular appropriations.

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## **APPENDIX A: Interview Questions**

### **1. Could you give us some background on your involvement with CFLRP?**

a. How and why did your organization get involved with CFLRP? Individual level?

### **2. What do you know about the history of this collaborative?**

a. What was the catalyst?

b. What work has the collaborative accomplished before CFLRP?

c. What are the goals of the collaborative?

### **3. Can you tell me about how the collaborative is structured and how it runs?**

a. What is the structure of the collaborative? (try to draw on paper if needed)

b. What are the structure of your meetings and how do you make decisions?

c. How does your collaborative communicate and keep records?

d. How has collaborative membership changed over time?

### **4. How has collaboration affected your approach to land management?**

a. What is the relationship between the collaborative and the broader community?

- How are you perceived? By locals? Other collaboratives? USFS? Other governments?

- Has collaboration influenced any of these relationships? Developed new ones?

- How transparent has the collaborative been about their planning with the public?

b. What perspectives or organizations do you feel the collaborative is missing?

c. How do members of the collaborative interact with each other? In and outside of meetings?

- Do you find/think there are differences in commitment levels among members? How do collaborative members hold each other accountable?

d. What influence do you think the collaborative has on USFS decision-making?

e. Why did your collaborative end up with the goals it has? Process of goal setting?

- Has being in CFLRP changed selection of goals? How? Why?

- Do you think the collaborative's goals align with your own? Those of your organization/agency?

f. Do you feel that this collaborative has built understanding between partners? If so, how?

- Do members trust the specialized knowledge of other members? How does the collaborative incorporate that? How do you reconcile differences?

g. Has the collaboration developed consensus over issues? If not, are there particular partners or types of partners that are not buying in?

### **5. What are the ecological goals of this CFLRP site and where are you in the planning process?**

a. Where are you in the process of creating or adapting ecological goals for CFLRP?

- How are ecological goals identified? Prioritized? Resourced?

b. Where are you in the process of creating work plans to achieve ecological goals?

- How are you addressing long-range planning & future uncertainty of conditions?

c. How are you planning to measure your goals?

- How did you select/have you selected your indicators within the parameters of CFLRP?

- What metrics are you using for measuring?

d. How are you accomplishing the program objective of "multiparty monitoring?"

- What process is taken to incorporate monitoring results into decision-making?

- Has this changed common understanding of scientific information?

e. Has your collaborative started to develop a plan for the 5-year national reporting indicators? If so, what does that plan consist of?

**6. Within the context of CFLRP, what are some of the successes and challenges of your collaborative?**

- a. What do you consider to be the successes of your collaborative? What made those possible?  
- Do you think the collaborative has built trust and understanding between partners? Within the community?
- b. What do you consider to be the challenges of your collaborative? How do you overcome them?  
- Exterior & interior; conflicts & sticking points  
- How does your collaborative deal with changing conditions?
- c. How do you keep momentum/sustain collaboration? *Champion? Sense of place? Overarching goals?*  
- What do you think is holding your collaborative together?  
- How do you deal with turnover of leadership within the collaborative and with USFS personnel?
- d. What factors are limiting achievement of your collaborative's goals?  
-What additional resources or expertise could make your collaborative stronger?
- e. How has CFLRP/collaboration influenced implementation of other land management and environmental policies?  
-NEPA? Forest Planning? E&T Species? Prescribed Fire? Recreation? Watersheds?
- f. How do you think collaboration/CFLRP has affected your ability to achieve restoration?
- g. Do you feel that CFLRP will be able to increase local jobs? Change the sustainability of the local economy?  
- Do you feel the collaborative's economic goals are achievable? Well-planned for?
- h. Has CFLRP/collaborative influenced the ability to accomplish the goals of your organization/agency?

**7. Has becoming part of the CFLRP changed your collaborative?**

- a. Do you consider your collaborative more or less successful because of CFLRP?
- b. Have your expectations of collaboration/CFLRP been met?  
- Strengths or weaknesses of the program?
- c. What is your perception of how CFLRP has affected collaboratives or other restoration work outside of the program?  
- *Setting a framework/increasing collaboration, furthering the field of restoration? Resource diversion? Halting other restoration work? Media/agency attention? USFS view?*
- d. What makes this collaborative unique from other CFLR programs & outside collaboratives?  
- Regional differences?

**8. What are some of the things you've learned that could help other collaboratives?**

- a. Are you in contact with other collaborative either in or outside the program?
- b. What new information would you find most valuable? Any specifics?
- c. What have been effective ways for you to find out about what other collaboratives have learned?

**9. Is there anyone else you think we should talk to?**

**10 Do you have any questions for us?**

## **APPENDIX B: NEWFC Sideboards**

April 2, 2007

Lloyd McGee, President  
Northeast Washington Forestry Coalition  
565 West 5<sup>th</sup>  
Colville, Washington 99114

Ms. Margaret Hartzell, Team Leader Colville,  
Okanogan, and Wenatchee - National Forests  
Plan Revision Team 1240 Second Avenue  
South Okanogan, WA 98840

RE: Colville National Forest Plan

Dear Ms Hartzell,

The Northeast Washington Forestry Coalition appreciates the opportunity to comment and provide input to the Colville National Forest Plan revision process. As you know, our Coalition is made up of timber industry representatives, environmental group leaders, forestry consultants, private non-industrial timber owners, academic leaders and other interests. Since our group consists of a wide range of special interest groups, our general goal is to find Colville National Forest management approaches that we can all agree upon. Our specific goal concerning the Colville Forest Plan revision is to achieve a balanced approach to forest management that promotes innovative forestry, ecosystem restoration and protection of critical wildlife habitat.

Northeast Washington Forestry Coalition is a cutting-edge collaborative group formed in 2002 expressly to resolve difficult social, business and environmental issues concerning forest management including community wildfire protection, restoration and conservation of old growth forests, and wilderness preservation. For the past 14 months coalition members have developed a holistic management plan for the Colville National Forest – which we call our Blueprint – that takes an innovative approach to managing our national forest.

As you are aware, in October 2006, the Coalition presented this draft forest management strategy in a map-based format during the Forest Service-led collaborative Forest Plan Summit process. This map then became the basis for Working Group discussion and agreement during the remainder of the Summit process, which concluded in January 2007.

### Management Areas & Objectives

Responsible Management Area: The goal of sustainable active management is to increase the forest's resilience to insects disease and uncharacteristic fire by providing site-specific ranges

of stocking levels, species composition and tree size, as well as provide a stable flow of forest by-products for local rural economies. These goals will be accomplished by using ecologically sensitive forestry techniques and equipment to mechanically thin overstocked stands on a sustainable schedule, using existing roads whenever possible. In situations, particularly in the WUI portion of the RMA, where new roads absolutely must be built to adequately meet the purpose and need of a project, the NEWFC Roads Policy (described below) will apply.

RestorationArea: The Colville National Forest has, in many areas, an unnatural forest structure that adversely affects the Forest's ecosystems. There is a need to enhance ecological integrity and ecosystem function in these areas by restoring natural processes and resiliency, which will protect watersheds, habitat, and ecosystems. To effectively accomplish this goal—taking into consideration various forest types and their location, ranging from warm dry forests to cold wet forests and those near WUI/RMA areas to those near proposed Wilderness areas—restoration must integrate a variety of restoration treatments, including treatments to the transportation system (road maintenance and removal), wildlife habitat and watershed restoration, restoration of dry-forest old growth, invasive species control, and fuel and fire treatments.

WildernessArea: NEWFC supports the recommendation for wilderness of all IRAs included in the 2006 inventory with the exception of the Lost Creek IRA and Harvey Creek IRA. Proposed Wilderness areas on the attached map are restricted to inventoried roadless areas. NEWFC recommends that unroaded and lightly roaded areas, shown as Restoration Area on the attached map adjacent to and that separate IRAs should be restored to, or maintained in, their historic stand structure. Management in these areas would be the minimum necessary to restore them to a healthy, historic condition.

## Guidelines

While work on enhancing and fine-tuning guidelines is still underway, NEWFC has reached agreement on a set of guidelines to be followed while implementing projects in the RMA and Restoration zones. In order to make quick comparisons between one zone and the other, we present these guidelines below in a table with columns showing guidelines for the RMA and Restoration Zone side by side

| Guideline               | Responsible Management Area   | Restoration Area  |
|-------------------------|---|---|
| Preliminary Assessments | The level, range, and scope of assessments required will be determined by existing law, regulations and official agency guidance in place at the time the assessments are conducted.  | The level, range, and scope of assessments required will be determined by existing law, regulations and official agency guidance in place at the time the assessments are conducted. Short-term adverse impacts to biological legacies, soils, water quality, wildlife and botanical resources, weeds, and impacts from roads that are determined in a risk assessment to be unavoidable in accomplishing the overall restoration objective shall be mitigated. Under conditions where adverse impacts outweigh the potential benefits of active restoration activities, such activities will not take place. |
| Monitoring              | The assessment and corresponding actions are then followed by improved programmatic and effectiveness monitoring that measures progress towards improving a degraded system so that it is more resilient to disturbance. Effectiveness monitoring will provide a means to assess progress and make a determination regarding the need for subsequent/additional treatments in order to continue progress toward the desired future condition. | The assessment and corresponding actions are then followed by improved programmatic and effectiveness monitoring that measures progress towards restoring a degraded system. Effectiveness monitoring will provide a means to assess progress and make a determination regarding the need for subsequent/additional treatments in order to continue progress toward the desired future condition.   |
| Adaptive Management     | Adaptive management is key to successfully managing biological systems. Adaptive management, based on monitoring results, will serve as a reality-check for the above assessments and will enhance the ability to achieve the goal stated above.  | Adaptive management is key to successfully managing biological systems. Adaptive management, based on monitoring results, will serve as a reality-check for the above assessments and will enhance the ability to achieve the goal stated above.  |

|                             |  |  |
|-----------------------------|--|--|
| Priorities                  | In the interest of getting necessary work done, most active stewardship effort can be focused on already roaded, grazed, and/or logged portions of the landscape.  | In the interest of getting necessary work done, restoration effort should be focused initially on already roaded, grazed, and/or logged portions of the landscape.   |
| Economics                   | In addition to sawlogs, other materials generated from active stewardship projects (by-products) may be made available to the forest products industry.  | If materials generated from implementation of site-specific restoration prescriptions are not to be left on site, they may be made available to the forest products industry. In planning restoration projects where there will be a significant number of units in which the costs of services exceeds the value of such by-products, project planners should strive to include enough units in which the value of by-products will exceed implementation costs that the project will, at minimum, break even economically. However, in doing so, the restoration objective of the project must not be compromised. |
| Variations in Prescriptions | Prescriptions to accomplish active stewardship objectives will vary, depending upon site-specific conditions, including but not limited to, plant association groups, historic fire regime, social and cultural objectives. (Note: The inclusion of “plant association group” shall not be construed to imply that we are managing for a seral climax condition across the entire forest.) | Prescriptions to accomplish restoration objectives will vary, depending upon site-specific conditions, including but not limited to, plant association groups and historic fire regime. (Note: the inclusion of “plant association group” shall not be construed to imply that we are managing for a seral climax condition across the entire forest.)   |
| Water Quality and Quantity  | Active stewardship includes protecting and/or restoring streams and riparian habitat, fish passage, stream temperature, sediment load, addressing erosion problems at road-stream crossings, and protecting the land’s capacity to absorb, store, and filter water, including protection of water table levels.  | Restoration includes restoring streams and riparian habitat, fish passage, stream temperature, sediment load, addressing erosion problems at road stream crossings, and restoring the land’s capacity to absorb, store, and filter water, including restoration of water table levels.   |
| Weeds                       | Minimize noxious weeds by conducting integrated weed management.   | Minimize noxious weeds by conducting integrated weed management.   |

|                       |  |  |
|-----------------------|--|--|
| Grazing               | [Committee members all agreed that development of language this item should be postponed until we've consulted with grazing interests.]  | [Committee members all agreed that development of language this item should be postponed until we've consulted with grazing interests.]  |
| Soils                 | Protect, manage, and rehabilitate soils where necessary to optimize soil productivity.   | Restore soils, in accordance with site-specific prescriptions.   |
| Wildlife Habitat      | [Committee members all agreed that language for this item will developed in tandem with language for the same item in the Restoration Principles, allowing us to assess (with assistance from independent biologist) the extent to which Restoration and Wilderness zones allow for habitat protection.] | [committee members all agreed that language for this item will be developed in tandem with language for the same item in the restoration principles, allowing us to assess (with assistance from qualified biologists) the extent to which RMA and Wilderness zones allow for habitat protection.] |
| Roads                 | [Language regarding roads will be tiered to a NEWFC board-approved roads policy. This policy is currently under development by NEWFC Project Committee.]   | [Language regarding roads will be tiered to a NEWFC board-approved roads policy. This policy is currently under development by NEWFC Project Committee.]   |
| Species and Structure | Restoration of structure (including reduction of fuels), ecosystem function, and species diversity is a key objective of all projects.   | Restoration of structure, ecosystem function, and species diversity are key objectives of all restoration projects.  |

## Draft NEWFC Interim Road Policy for NEWFC Supported CNF Projects

The Northeast Washington Forestry Coalition (NEWFC) is committed to preventing and significantly reducing harmful impacts of roads,<sup>1</sup> including reducing overall road density on the Colville National Forest.

NEWFC recognizes that there may be site-specific circumstances in which road construction and/or reconstruction<sup>2</sup> may be appropriate. Whenever NEWFC determines that road construction activities are necessary to meet the Purpose and Need of a project, NEWFC support for the project shall be conditioned on the following: for each foot of road

<sup>2</sup> This includes all roads within the Colville National Forest, classified, unclassified, and temporary.

<sup>2</sup> For the purposes of this document, the following activities constitute road construction/reconstruction:

- Construction of a new segment of road where there is currently no road template
- Construction of a new segment of road over an existing unclassified-road template
- Construction of a temporary road
- Road reconstruction over any existing road template, classified or not

<sup>2</sup> and entered into the obliteration target.

construction/reconstruction implemented in the project, one foot of existing road shall be removed from the road atlas and ripped or re-contoured<sup>3</sup> to the extent necessary to allow the affected landscape to recover from the adverse ecological impacts to soils, hydrology and wildlife. These roads will also be considered for possible conversion to trails.

During the period in which the interim roads policy is in effect, the amount of road miles to be obliterated or converted into trails in exchange for 1 mile of road reconstruction will as follows:

1 mile of light reconstruction = .2 miles of obliteration/trail conversion

1 mile of medium reconstruction = .4 miles of obliteration/trail conversion

1 mile of heavy reconstruction = .6 miles of obliteration/trail conversion

A forest-wide list of roads to be obliterated as described above shall be collaboratively developed, prioritized, and maintained by NEWFC. This list of roads will also be coordinated with the NEWFC Recreation Committee to prioritize roads the committee has identified as possible roads-to-trails conversions to enhance the existing recreational trails system on the forest. Roads will be obliterated or converted into trails in the assigned order of priority unless otherwise agreed to by NEWFC.

## Boundaries

NEWFC has agreed upon boundaries for the Responsible Management Area, the Restoration Area, and areas that NEWFC supports for Wilderness Recommendations under the CNF forest planning process. Please see the attached map for the boundaries of these three zones.

Below is a brief description of each of these three zones:

Responsible Management Area: The starting point for developing the RMA was to determine polygons of land that were located between roads within a half mile of each other. In ArcView, all system roads were buffered out ¼ mile. Areas where the buffers overlapped (or nearly overlapped) were considered, with rare exception, as the “no brainer” areas that would serve as the starting point for the RMA. Other considerations were then used to expand or contract the area, including adding of all WUI areas (1.5 miles from occupied structures) not overlapping proposed wilderness boundaries, exclusion of INFISH buffers and habitat management units, inclusion of areas immediately adjacent to or surrounded by polygons of “already roaded” areas, etc.

Proposed Wilderness Area: In terms of reflecting NEWFC agreement on areas of the CNF to be proposed for Wilderness in the context of comments on this administrative process, the proposed Wilderness area on the attached map is restricted to inventoried roadless areas. NEWFC supports the recommendation for wilderness of all IRAs included in the 2006 inventory with the exception of the Lost Creek IRA and Harvey Creek IRA.

Restoration Area: Since road density is the key driver in differentiating one area from the other, the Restoration area emerged as the lightly roaded area that lies—on the road-density

scale—between the heavily roaded RMA and the unroaded IRAs. In other words, in general, the Restoration area is the portion of the forest remaining after the RMA and the IRAs were developed.

## Conclusion

We appreciate the opportunity to work cooperatively with the Colville National Forest to implement the Blueprint. We will provide additional specific silvicultural and restoration objectives in the near future and in a timely manner prior to release of your draft Forest Plan Option. Please feel free to contact me any time if there are any questions concerning our proposal.

Sincerely,

Lloyd McGee President

Enclosure: Map – proposal for management of Colville National Forest

## APPENDIX C: Uncompahgre Undesirable Conditions

### Ponderosa pine and dry mixed--conifer forests

Conditions we seek to move away from / avoid through management:

**Undesirable condition #1:** Active crown fires are likely across >300 contiguous acres or in patches >30% of burn units under 90<sup>th</sup> percentile weather conditions.

*Spatial / temporal scale:* Landscape / 10 years

**Undesirable condition #2:** We are overly cautious with prescribed fires. We fail to burn in over half of the units we mechanically treat, and when we do burn, we burn areas smaller than historical fires (about <500 acres).

*Spatial / temporal scale:* Landscape / 10 years

**Undesirable condition #3:** We implement treatments that fail to reduce crown fire hazards. We leave ladder fuels covering >30% of the stand, and crown continuity remains high because we didn't create treeless openings (0.25 to 0.5 acres) across the stand.

*Spatial / temporal scale:* Stand / 2 to 3 years post--treatment

**Undesirable condition #4:** Prescribed burning kills >10% of residual ponderosa pine and Douglas--fir trees >8" dbh.

*Spatial / temporal scale:* Stand / 1 week

**Undesirable condition #5:** Post-- fire browsing by livestock and wildlife reduces regeneration to less than 50 aspen suckers / acre in stands capable of supporting aspen.

*Spatial / temporal scale:* Stand / 3 years

*Spatial / temporal scale:* Stand / 3 years

### Spruce--fir forests

Conditions we seek to move away from / avoid through management:

**Undesirable condition #1:** Less than 10% or more than 30% of the area occupied by spruce--fir is in young, regenerating forests due to natural or management--induced disturbances (i.e., insects, fire, or cutting).

*Spatial / temporal scale:* Landscape / 10 years

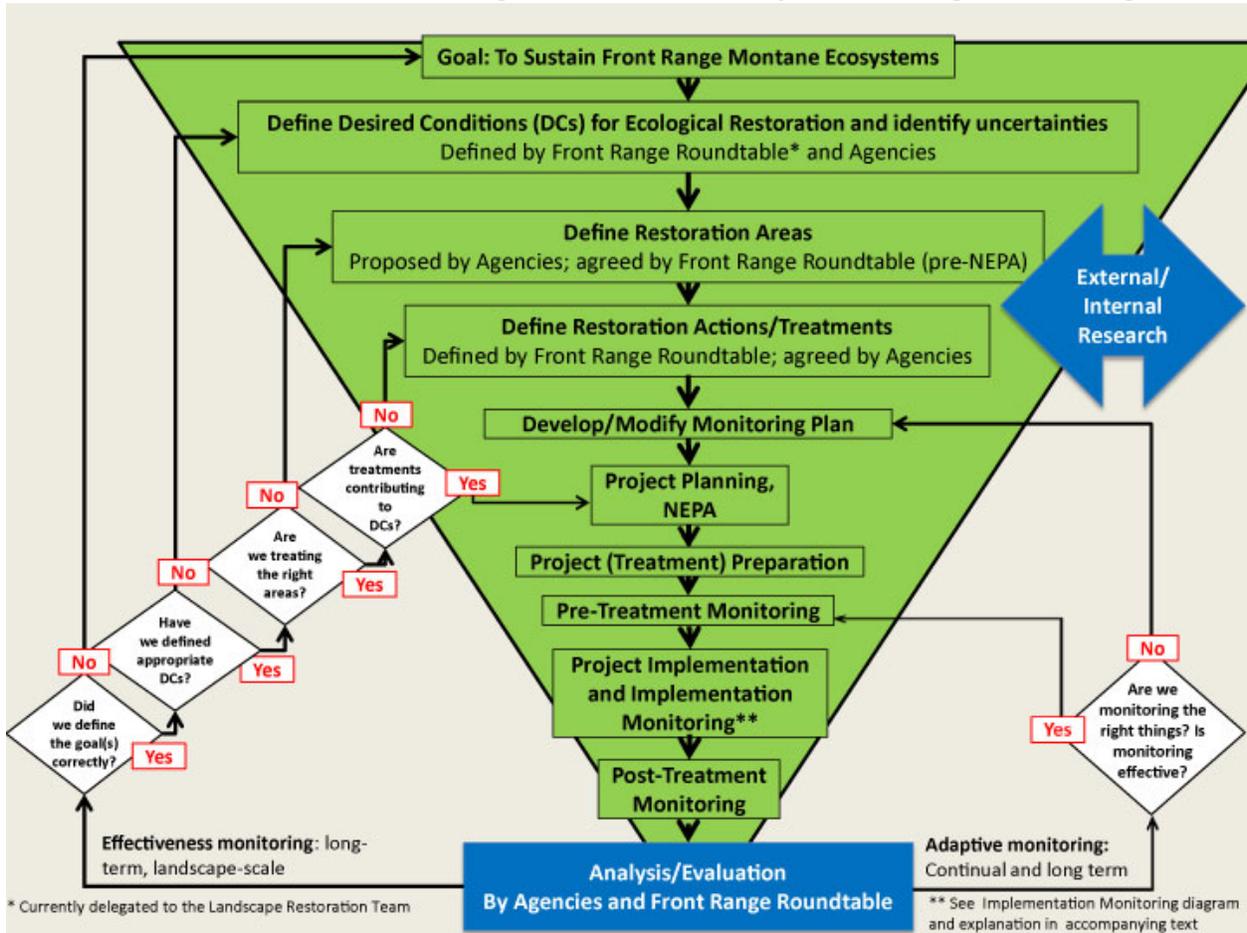
**Undesirable condition #2:** Over 80% of our treatments in spruce--fir forests are very unlike historical disturbances, creating numerous, small forest patches with linear boundaries. We fail to experiment with alternatives to this approach, such as the judicious use of prescribed fire to create young spruce--fir forests.

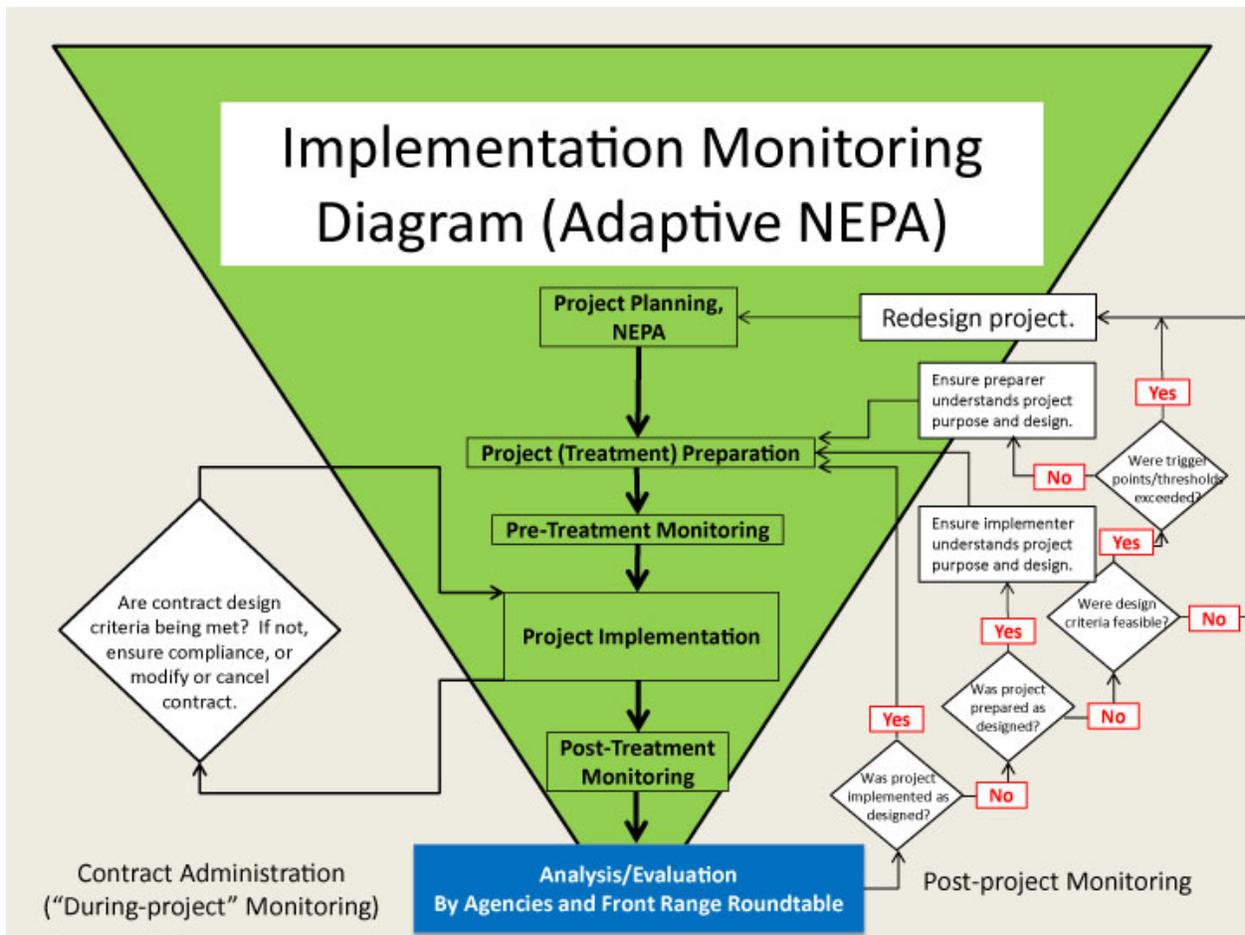
*Spatial / temporal scale:* Landscape / 10 years

**Undesirable condition #3:** Post-- fire browsing by livestock and wildlife reduces regeneration to less than 50 aspen suckers / acre in stands capable of supporting aspen.

*Spatial / temporal scale:* Stand / 3 years

**APPENDIX D: Colorado Front Range Roundtable Adaptive Management Diagrams**





## APPENDIX E: Sample Rubric for Site Selections

|   | 5  | 4  | 3  | 2  | 1   | 0   |
|---|--|--|--|--|---|---|
| Specifically identified coordinator within the Forest Service and amount of time he/she can spend on CFLRP. | Clear coordinator exists and can spend 100% of time on CFLRP.  | Coordinator identified, can spend 75% on CFLRP OR plan to hire a coordinator that can spend 75-100% of time. | Coordinator identified, can spend 50% of time on CFLRP.  | Coordinator identified, can spend 25% of time on CFLRP OR plan to hire a coordinator that can spend 50%. | There is a stated need/plan to identify a coordinator.                                    | No identified coordinator.  |
| Specifically identified coordinator/plan for getting collaborative group coordinator.                       | Clear coordinator exists and is highly likely to stay in the organization/region.                                | Good coordination, but person may move on.   | Clear plan of where coordinator will be housed and 2-3 years of funding available.                 | Existing partner expressed interest in being coordinator.  | There is a stated need/plan to identify a coordinator.                                    | No clear coordinator.   |
| Existing well-defined projects that have broad support.   | Demonstration project that is directly related to project has been completed with broad support.                 | Demonstration project with broad support currently being implemented   | Well-defined project with goals and implementation plan existing.                                  | Actively working on a specific project to define goals.  | Demonstrated broad support for specific project though no scoping has taken place.        | No projects with support.   |
| Potential to scale above projects to the landscape-level goals.   | Ecology/structure/ infrastructure of small project is directly linked to a majority of the landscape-level goals | Ecology/structure/ infrastructure of small project is directly linked to some of the goals                   | Ecology/structure/ infrastructure of small project is somewhat linked to the landscape-level goals | Ecology/structure/ infrastructure of small project is linked to other small project goals                | Ecology/structure/ infrastructure of small project is vaguely relevant to landscape goals | No relation of demonstration project to the landscape level goals |
| Well-defined link to multiparty monitoring host.  | Multiparty monitoring protocols already in place on the landscape and funded into the future.                    | Multiparty monitoring protocols ready to be applied. Organizational support in place.                        | Monitoring plan completed, implementation of plan in development.                                  | Strong relationships for multiparty monitoring in place, plans in development.                           | Partners identified but no plans in place.  | No identified partners or plan.                                   |

|   | 5   | 4  | 3  | 2  | 1   | 0  |
|---|---|--|--|--|---|--|
| Role of collaboration in existing NEPA-approved projects.                 | Narrative of process and outcomes around NEPA-approved projects involving collaboration.                      | Narrative of process and outcomes and lessons learned from previous highly contested projects, some collaboration in NEPA.   | Narrative of process and outcomes and lessons learned a somewhat controversial project.            | Demonstrated ongoing conversations incorporating broad range of views.   | Acknowledgement of on-going effort and plan to reach out to conflicting viewpoints. | Very little consensus on any projects/ indications of conflicting organizations/ missing parties in the proposal |
| Outside match funds and in-kind donations.                                | Funding and in-kind donations ongoing and substantial.  | Funding and in-kind donations ongoing but minimal  | Funding and in-kind donations promised   | Funders interested   | Funders identified  | No potential match   |
| Level of support from USFS line officers.                                 | Strong support from multiple line officers.   | Strong support from Forest Supervisor.   | Strong support from District Ranger.   | Some support throughout the agency.  | Vague support referenced.   | No support/ awareness from necessary agency personnel  |
| Location of work to create firebreaks or reduce risk in the WUI.          | <i>Consult with modeler to designate criteria.</i>  | <i>Consult with modeler to designate criteria.</i>   | <i>Consult with modeler to designate criteria.</i>   | <i>Consult with modeler to designate criteria.</i>   | <i>Consult with modeler to designate criteria.</i>                                  | <i>Consult with modeler to designate criteria.</i>   |
| Synergy/ proximity with similar projects of National Forest System lands. | Nearby lands and funds have already been identified and strong relationships exist to work across boundaries. | Nearby lands and funds have already been identified and strong relationships have been identified to work across boundaries. | High potential for the site to be identified for future initiatives, group actively seeking these. | High potential for the site to be identified for future initiatives, but group is not aware/not capable of seeking them. | Low potential for other initiatives.  | No potential for working across boundaries.  |
| Level of coordination with state and federal agencies                     | Coordination is already in place with programs and key personnel identified. Tangible accomplishments exist.  | Coordination is already in place with programs and key personnel identified.   | Key personnel identified and contacted.  | Similar programs across agencies identified for future contact.  | Some knowledge of similar programs across agencies.                                 | No knowledge of other programs.  |

|  | 5  | 4  | 3   | 2   | 1   | 0  |
|--|--|--|---|---|---|--|
| Status of baseline ecological assessment at landscape scale. | Comprehensive, landscape-level baseline ecological assessment already completed.                                       | Detailed landscape-level ecological assessment being completed.                                      | Plan for landscape-scale ecological assessment developed but no work on completing yet. | Landscape-scale ecological assessment plan in development.                                      | Ecological assessment consisting of scattered information.          | No ecological assessment or plan for one.      |
| Outreach plan  | Demonstrated ability to communicate well with broader community through specific media.                                | Some past success with outreach to broader community with plan to improve.                           | Clear plan to develop broader community outreach.                                       | Demonstrated interest in developing outreach plan.  | Awareness of lack of outreach plan.                                 | No outreach plan.                              |
| Local economic development                                   | Collaboration with local wood products industry with plans for job training programs.                                  | Some relationships with local wood products industry, potential for local employment gains.          | Some use of stewardship contracting authorities.  | Local wood products infrastructure in place.  | Plans in place for fostering a local wood products industry.        | No potential for local economic impacts.       |
| Quality of baseline economic assessment.                     | Well-thought out economic assessment already completed.  | Well-thought out economic assessment being completed.  | Well-thought out economic assessment developed.   | Economic assessment being developed.  | Economic assessment development planned.                            | No economic assessment or plan for one.        |
| Indicating new treatments                                    | New treatments are being used broadly.   | New treatments are being used in select areas.   | New treatments proposed and in planning process.  | Actively seeking projects for new treatments.   | New treatments discussed.   | No mention of new treatments.                  |
| Approach for adaptive management                             | Monitoring results and project outcomes have informed project plans and a clear process exists for continued feedback. | Well-developed monitoring plan includes clear process for monitoring results to inform future plans. | Monitoring plan includes some plan for adaptive management.                             | Monitoring plan in place, process for monitoring results to inform future plans in development. | Monitoring plan and process for adaptive management in development. | No plan for monitoring or adaptive management. |
| NEPA-approved proposed treatment acres.                      | 100%   | 80%  | 60%   | 40%   | 20%   | 0%   |