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policy

The Collaborative Forest Landscape Restoration Program: A History and Overview of the First Projects

Courtney A. Schultz, Theresa Jedd, and Ryan D. Beam

In 2009, Congress passed the Forest Landscape Restoration Act, a significant new piece of legislation guiding restoration activities on competitively selected National Forest System lands. The Act established the Collaborative Forest Landscape Restoration Program (CFLRP), which solicits collaboratively developed proposals for landscape-scale ecological restoration projects that are socially and economically viable. In many ways, the CFLRP reflects a number of longer-term patterns in forest governance that have increasingly emphasized large-scale planning, collaboration, monitoring, and restoration. The program also represents an emerging trend of using competitive processes to allocate funding. We begin by providing an overview of the CFLRP's primary objectives and requirements and then discuss how this program and the capacity to make it successful have resulted from a number of past policies and initiatives. We then provide an overview of the first 10 funded projects, which we evaluated based on a systematic review of their funding proposals, followed by a closer look at several of the projects. The piece concludes with a discussion of the primary challenges that lie ahead for the program.

Keywords: forest policy, fire policy, NEPA, collaboration, restoration

In 2009, as part of the Omnibus Public Lands Act, Congress passed the Forest Landscape Restoration Act (FLRA), establishing the Collaborative Forest Landscape Restoration Program (CFLRP) to be administered by the US Forest Service. [1] The purpose of the Act is to “encourage the collaborative, science-based ecosystem restoration of priority forest landscapes . . .” [2] In many ways, the CFLRP is part of a longer-term policy shift emphasizing large-scale, collaborative, and adaptive planning. However, it is also innovative in that it provides communities with an opportunity

to work collaboratively with US Forest Service managers to seek funding to implement landscape-scale restoration programs. Proposals are selected for funding through a competitive process, which creates a system for prioritizing landscapes for the allocation of CFLRP dollars.

We begin by providing an overview of the CFLRP's objectives and requirements. Then, to situate the program in a broader context, we look at how forest governance approaches have changed over the last 20 years and consider how both the need for a program such as the CFLRP and the capac-

ity to make it successful have emerged from previous initiatives and legislation. We offer an overview of the first 10 projects funded by the CFLRP, followed by a closer look at a few of the projects in greater detail. We conclude with a discussion of some of the key challenges associated with the program and identify opportunities for further investigation of its outcomes.

Overview of the CFLRP

The primary objectives of the CFLRP are to promote ecological, economic, and social sustainability; leverage local resources to accomplish these goals; reduce fire management costs through the reestablishment of natural fire regimes and reduction of the risk of uncharacteristically severe fires; demonstrate the degree to which restoration activities achieve ecological/watershed objectives and affect fire activity and its associated costs; and show how capturing the value of forest restoration byproducts can reduce treatment costs and support local economies. [3]

The CFLRP sets up a competitive funding program, soliciting proposals developed jointly by the US Forest Service and stake-

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holders for landscape-scale restoration programs of work. Congress authorized up to \$40 million for competitive allocation under the program and required an application process, with selections made by the Secretary of Agriculture based on input from a Federal Advisory Committee chartered expressly for this purpose. The CFLRP requires projects to be based on a landscape restoration strategy that prioritizes restoration treatments for a 10-year period across landscapes that are at least 50,000 ac in size and comprised primarily of National Forest System lands, but may include other federal, state, tribal, or private land. The Act is meant to encourage landscape-scale projects across multiple land ownerships, in line with the Secretary of Agriculture's call for an "all lands" approach to land management (US Forest Service 2009), by supporting projects developed and implemented through a collaborative process that leverages local, private, and other federal resources with CFLRP funding awarded for work on National Forest System lands.

Restoration is not defined in the Act, but several parameters govern how restoration treatments can be designed. Projects must maintain or contribute to the restoration of old-growth stands. Hazardous fuel treatments must focus on small-diameter tree thinning and retain large trees. No new permanent roads may be established, and funding is also to be dedicated to the decommissioning of all temporary roads built to implement projects. Prescribed fire and the use of unplanned ignitions are to be used to promote the return of more natural fire regimes. Other ecological goals include the improvement of fish and wildlife habitat, improvement of watershed conditions and water quality, and control of invasive species.

A critical aspect of the CFLRP is that projects must be socially and economically viable. All projects must be "developed and implemented through a collaborative process" [4] and explain how they will use existing or proposed infrastructure to process restoration byproducts in a way that will support jobs and local economic development. The legislation anticipates that fire suppression costs should decrease over time as a result of these projects, as should restoration treatment costs, because of improvements in efficiency and capacity of both industry and local US Forest Service units.

The CFLRP also promotes a model of adaptive planning and management based on multiparty monitoring and learning. The

Act requires all projects to monitor social, ecological, and economic outcomes for at least 15 years after implementation begins, with this information ideally informing future decisions in an adaptive planning cycle. One of the stated purposes of the Act is to encourage a process that shows the degree to which restoration activities successfully achieve ecological objectives, reduce fire activity and management costs, and benefit local economies, while offsetting the costs to the agency of implementing treatments. [5] Thus, knowledge generation and learning are central components of the program.

Each year, up to 10 new projects can be funded with no more than two projects selected from each region of the US Forest Service in the same year. In early 2010, the Washington Office solicited the first round of proposals, which were submitted by the regional foresters. Funding is for implementation of projects only and is to be used in the same fiscal year it is allocated. The regional foresters were required to explain how they would fund the planning of these projects and also match the CFLRP dollars received for implementation, as the CFLRP funding can only cover 50% of treatment implementation costs. The concept is to incentivize regions to make a commitment to funding restoration programs in priority landscapes by offering a 50% match of dollars from the national CFLRP fund.

In the summer of 2010, a Federal Advisory Committee recommended 10 projects for funding, and the US Forest Service allocated to these 10 projects the \$10 million dollars appropriated in fiscal year 2010. In fiscal year 2011, Congress appropriated \$25 million to the program, and the same 10 projects were funded at increased levels, in

line with the projects' requests as their restoration programs began to ramp up. In February 2012, Agriculture Secretary Tom Vilsack announced that the full \$40 million would be allocated to the CFLRP, with continued funding for the 10 original proposals, funding for 10 new proposals with CFLRP dollars, and funding from other US Forest Service funds for 3 more proposals that were recommended for funding by the CFLRP advisory committee (US Forest Service 2012c). In total, nearly 50 projects have applied for funding under the program and 23 have been funded.

Setting the Stage for the CFLRP

Over the last couple of decades there has been a steady current of change in national forest management. These changes have both led to broad-based support for a program such as the CFLRP and built the capacity within the agency and among stakeholders to make it successful. Some of the approaches built into the CFLRP trace their roots back to the rise of ecosystem management, a phrase that has fallen into disuse but whose primary concepts continue to define approaches to forest management today. According to Grumbine (1994), the US Forest Service officially embraced ecosystem management in 1992, in response to a number of factors: the biodiversity crisis, successful use of appeals and litigation directed at management projects by environmental groups, calls from conservation biologists for improved resource management approaches, and a failure of policy and planning approaches to address these concerns in a way that meaningfully involved citizens. There was never a single accepted definition of ecosystem management, but it could be

Management and Policy Implications

The CFLRP is one of the most innovative and significant forest policy experiments to take place in recent decades, and it has quickly become a central feature of the US Forest Service's strategy for accelerating restoration of the national forests (US Forest Service 2012c). The program is expanding and has garnered strong support in Congress and from the Department of Agriculture. By requiring multiparty monitoring, collaboration, planning and prioritization at landscape scales, and the competitive allocation of funding to a limited number of projects, it represents the beginning of a potential paradigm shift in forest policy in the United States. The questions raised by this program, such as how to effectively collaborate with stakeholders throughout planning and implementation, how to develop a successful monitoring and adaptive management approach, and how to plan for forest ecosystem restoration and the reintroduction of fire at large scales represent some of the foremost challenges in forest management today. The CFLRP provides a forum for innovation, and tracking the program will yield insights into both the opportunities and the challenges presented by this new approach for national forest management.

characterized as an emphasis on the conditions left behind, rather than the commodities extracted, planning at larger scales and across jurisdictional boundaries, and the use of monitoring and adaptive management to address uncertainty (Grumbine 1994, Yaffee 1999, Butler and Koontz 2005). Ecosystem management also made explicit the fact that both the goals for resource management and the definitions of a healthy ecosystem were fundamentally socially defined (Cortner and Moote 1999). Ecosystem management approaches were undertaken for natural resource management projects across the nation and were central to the design of the Northwest Forest Plan, the land-use plan developed for national forests in the Pacific Northwest in 1994 after the listing of the northern spotted owl under the Endangered Species Act and as a result of requirements to provide for a “diversity” of species under the National Forest Management Act. Although the specific terminology of ecosystem management has gone by the wayside, the concepts are still prevalent, but with new names: restoration, sustainability, collaborative stewardship, and the delivery of ecosystem services (Yaffee 1999, Predmore et al. 2008).

Collaborative planning surged in the wake of ecosystem management. Wondelbeck and Yaffee (2000) attribute this to a number of factors, including the diversification of interests looking for meaningful ways to participate in decisionmaking, increased resource scarcity, and the inability of the US Forest Service to provide all things to all stakeholders at desired levels. Developments such as the Northwest Forest Plan forced timber-dependent communities to reevaluate their social and economic situations, as the amount of timber harvested on national forest lands dropped precipitously in the early 1990s (Cromley 2005). The legacy of large-scale timber harvest and fire suppression also led to ecological concerns, including an increased risk of fire, insects, and disease in many areas. By the late 1990s the community-based forestry movement had gained significant momentum. Over the years, the movement has consistently highlighted several key issues: the need for long-term funding and investment in restoration; innovative contracting mechanisms to accomplish restoration; continued collaboration, with a focus on monitoring and performance indicators to improve accountability; and an ongoing need to improve National Environmental Policy Act (NEPA) pro-

cesses and make them more efficient (Cromley 2005).

Extensive conflict over forest management has led some groups to pursue forest-specific legislation that directs the agency to implement the vision of stakeholders on particular national forest units (Nie 2010). However, other groups have opted to seek different avenues for translating their collaboratively developed, place-based agreements into implementation. Central to these efforts is a desire for a consistent funding source, a commitment to collaborative and socially acceptable plans and projects, and the need for some certainty in the supply of forest products (Nie 2010). Broad collaborative agreement is often a necessary foundation for moving forward with projects that are large enough to both support local industry through the use of small-diameter wood products and biomass and also improve ecosystem resilience and resource conditions at meaningful scales. A key challenge, particularly if industry and job creation are to be supported, is maintaining social agreement so that the supply of products is not interrupted by appeals or litigation. Another challenge is finding a consistent funding source to implement projects.

The Stewardship Contracting Authority, piloted in 1999, [6] introduced an important tool for dealing with these issues. It provided new contracting mechanisms that allowed the agency to bundle in a single contract goods, such as marketable forest products, and services, such as removal of wood byproducts from restoration activities. Community-based forestry groups were actively involved in writing and supporting passage of this legislation (Cromley 2005). Stewardship contracting can be essential for accomplishing restoration, particularly when small-diameter wood byproducts are of little value. A stewardship contract can offer a stable supply to a burgeoning industry for up to 10 years, which can be essential for developing new restoration-based businesses and markets for low-value material. According to the Government Accountability Office (GAO), “The agencies credit stewardship contracting with allowing them to accomplish more work . . . and spurring collaboration with members of the community and environmental groups” (US GAO 2008). [7] The White Mountain Stewardship Contract in eastern Arizona, the first large stewardship contract in the nation, has proceeded without litigation and benefited from collaborative involvement from a

broad range of stakeholders. The project has been successful at restoring acres and rebuilding industry in the region and also has generated important lessons learned about the use of stewardship contracting, setting the stage for implementation of future large-scale stewardship contracts under the CFLRP (Sitko and Hurteau 2010). Congress extended the pilot authority for stewardship contracting in 2003, as part of an appropriations bill, to make it available to all units through 2013. [8] Later, we address the prospects for reauthorization. Multi-party monitoring, a key oversight mechanism for the contracts, was originally required for projects, but under the extended authority, only programmatic monitoring is required. The inclusion of a project-level monitoring requirement in the CFLRP reintroduces this as an oversight mechanism for funded projects, whether or not stewardship contracts are used.

Although the CFLRP incorporates principles and strategies carried forward from ecosystem management and the community forestry movement, the escalating cost and frequency of fire were the most important drivers of this legislation. The average annual acreage of forests burned in the United States between 2000 and 2005 was 70% greater than in the 1990s (US GAO 2007). Appropriations for responding to wildland fire increased from \$1.1 billion on average in the last half of the 1990s to \$2.9 billion on average annually between 2001 and 2005 (US GAO 2007). A persistent issue has been the need to move beyond treating fuels primarily to facilitate suppression and focus more on large-scale restoration, to create conditions where fire can burn without the need for suppression (Reinhardt et al. 2008). However, the necessary scale of restoration is immense. Some estimate that over 70 million ac, mostly in the western United States, are in need of restoration, because of high fuel loadings and forest structure that is highly departed from natural conditions; importantly, most of this area was historically characterized by frequent, low-severity fire (Brown et al. 2004). The challenge is figuring out how to get enough acres treated to get ahead of the problem, in part so budgets are not drained by the need to suppress fires, and how to maintain restored conditions on treated acres, either through prescribed fire or the management of natural fires, so that natural ignitions do not lead to extreme fire events. Monitoring and learning from treatments to evaluate

their effectiveness are also essential (Brown et al. 2004).

Congress addressed fire management issues with funding for the National Fire Plan and passage of the Healthy Forests Restoration Act (HFRA) in 2003. Both included provisions that engaged community-based practitioners, e.g., in developing community wildfire protection plans under HFRA; however, both programs suffered from challenges and criticism. For instance, many environmentalists criticized HFRA in the way that it limited the requirements for environmental impact assessment in accordance with NEPA requirements and, for many projects, replaced the postdecision appeals process with a predecisional objection process (Vaughn and Cortner 2005). Another criticism was that as fire suppression costs continued to rise, money that had been allocated to community-supported fuels reduction projects, under both HFRA and non-HFRA authorities, was redirected to pay for fire suppression and never replenished, eroding trust with stakeholders and frustrating restoration efforts (Cromley 2005).

In the end, HFRA did not have the impact on fuels reduction and fire mitigation that was promised with its passage. According to the GAO, "Although the passage of HFRA was seen as an important new tool for streamlining fuel reduction decisions, our review indicates that the impact of the act appears to be limited" (US GAO 2010, p. 28). The US GAO (2010) found that between fiscal years 2006 and 2008 only 10% of decisions used the HFRA authority, and a briefing for a Senate Hearing on HFRA noted that in fiscal years 2005–2006 only 1% of fuels reduction projects on US Forest Service and Bureau of Land Management lands were accomplished under the HFRA authority (Gladics and Miller 2006). In the hearing itself, senators repeatedly questioned why the authority was not delivering on promised outcomes and in their remarks highlighted the problems of adequately funding the Act and the importance of prioritizing allocation of funds across the nation; the US Forest Service noted the challenges of training staff to undertake the collaborative planning required to use the HFRA authority (US Senate Committee on Energy and Natural Resources 2006). Furthermore, the agency expected HFRA to reduce the litigation of fuel management decisions, but the US GAO (2010) found no evidence of this. The GAO's data also show

that of the fuel reduction projects using environmental assessments and environmental impact statements and subject to objection or appeal, the rate of objections for HFRA decisions was higher than the rate of appeals on non-HFRA decisions (US GAO 2010, Table 3, p. 14). Overall, the Act was not used as extensively as was anticipated and suffered from several persistent challenges, including the lack of consistent or adequate funding to restore particular landscapes, a lack of a transparent strategy for prioritizing landscapes targeted for restoration, and the challenge of designing effective collaborative processes and incorporating collaborative agreement into project design (US Senate Committee on Energy and Natural Resources 2006).

Over the last 10 years a number of regional and local stakeholder groups have convened to address the threat of extreme fires in their communities and landscapes. For example, in Arizona, Governor Napolitano convened the Governor's Forest Health Council, which developed a *Statewide Strategy for Restoring Arizona's Forests* (Governor's Forest Health Councils State of Arizona 2007). Some groups participated in a joint venture by federal land-management agencies and The Nature Conservancy called the Fire Learning Network, a peer-learning network for developing landscape restoration plans (Goldstein and Butler 2010). Staff from The Nature Conservancy and participants from the Fire Learning Network recognized that restoration plans needed to secure sufficient funding, and they worked to help develop and provide political support for the CFLRP; in 2010, three of the projects that were funded had been participants in the Fire Learning Network (Butler and Goldstein 2010). Many of the CFLRP efforts expand on previous collaborative work by local and regional groups that identified restoration strategies and priority areas for treatment, built social agreement and support for restoration, and designed strategies to address the threat of uncharacteristic wildfire to landscapes and communities.

As wildland fire policy evolves for the National Cohesive Wildland Fire Management Strategy currently under development, it will be driven by the need to restore and maintain resilient landscapes, create fire-adapted communities, and improve responses to wildfire. [9] Regional Society of American Foresters units have explained that the restoration of resilient landscapes requires large-scale approaches; this simulta-

neously promotes the goals of creating fire-adapted communities and achieving better results from wildfire suppression (Society of American Foresters 2011). The need to restore and maintain resilient landscapes as a key goal of a national wildland fire strategy points to the need for successful implementation of the CFLRP.

A final important precursor to the CFLRP was the Community Forest Restoration Act of 2000, which created the Community Forest Restoration Program (CFRP) under legislation introduced by Senator Bingaman (D-NM) as part of the Secure Rural Schools and Community Self-Determination Act. In many ways CFRP is a state-level version of the CFLRP. It allows for the appropriation of \$5,000,000 annually for community-based restoration projects, selected through a competitive process, on any combination of federal, tribal, state, county, or municipal forestland in New Mexico. Purposes include promoting healthy watersheds; reducing the threat of wildfires; improving the functioning of forest ecosystems and biodiversity by reducing the density of small-diameter trees; and developing, presenting, and evaluating ecologically sound forest restoration techniques. [10] The CFRP also seeks to improve communication and joint problem solving and encourage sustainable communities and forests through collaborative partnerships. The CFRP provides federal grants of up to \$360,000 over 4 years. Grantees are required to complete a multiparty assessment to report on the positive or negative impact and effectiveness of the project, including improvements in local management skills and on-the-ground results. The size of the CFRP projects is limited by the size of the grants, and the continuation of collaborative projects is limited by the 4-year grant period, which makes it difficult for the CFRP to address forest management at the landscape scale. The CFLRP, also introduced by Senator Bingaman, addresses this by requiring a minimum of 50,000 ac, providing a mechanism to fund projects for 10 years, and not setting a limit on the cost of specific projects.

Establishing the CFLRP

The FLRA, which created the CFLRP, was introduced by Senator Bingaman in 2008 and cosponsored by Senators Domenici (R-NM) and Feinstein (D-CA); it quickly garnered broad bipartisan support. Senator Bingaman explained in a 2008 Senate hearing before FLRA's passage, "As wild-

fire activity and suppression costs have grown dramatically, and as the effects of global warming are posing an ever-greater threat to forest and watershed health, and as the economy struggles, the time is right for this approach” (US Senate Committee on Energy and Natural Resources 2008, p. 1). Likewise, Senator Domenici noted that taking “small steps” to restore forests will result in “millions of acres burned and billions of dollars expended with little to show for the effort” (US Senate Committee on Energy and Natural Resources 2008, p. 16). By emphasizing collaboration, economic feasibility, and landscape-scale planning, the CFLRP offered a way to address the need for forest restoration at larger scales than had been feasible under past programs and legislation. In the same hearing, attention was drawn to large-scale fires in 2002, especially the Rodeo-Chediski fire in Arizona, which burned nearly half a million acres, and the Hayman Fire in Colorado. The case for restoration was made even stronger with the 2011 fire season, which brought large-scale fires in two of the CFLRP project areas: the half-million acre Wallow Fire in eastern Arizona and New Mexico’s largest fire to-date, Las Conchas, which burned in the Jemez Mountains and surrounding Pueblos.

Since the Act’s passage in 2009, a variety of political coalitions have been actively involved in pushing Congress to fully fund the CFLRP. Two of the more prominent efforts at the regional and national levels involve the Western Governors’ Association (WGA) and the CFLRP Coalition. In a recent report from the WGA Forest Health Advisory Committee (FHAC), the committee wrote, “the absence of clear and cohesive federal policies and leadership on climate adaptation, the use of biomass for energy production, and the sustainability of forests perpetuates the declining condition of Western forests. (T)he need for forest restoration is larger than can be effectively addressed given current treatment sizes, rates of restoration treatments, and typical planning and implementation processes” (WGA FHAC 2010, p. 1). In the same report, the advisory committee recommended full funding of the CFLRP as one way to achieve these objectives. In November of 2011, the WGA wrote a letter of support to the chairman and ranking member of the Senate Appropriations Subcommittee on Interior and Environment indicating the association’s support for full funding of the CFLRP (WGA 2011a). Additionally, in 2011, the CFLRP

Coalition—convened by The Nature Conservancy, Society of American Foresters, Sustainable Northwest, American Forests, and The Wilderness Society—came together with US Forest Service and stakeholders to advocate for full funding of the CFLRP. Through letters and phone calls, CFLRP Coalition members have requested that their Senators and Representatives fully fund the CFLRP in upcoming years. The coalition has been pivotal in producing information establishing the success of the program. For instance, they produced a report in November 2011 with general information, program accomplishments, and an outline of each of the projects selected in 2010 (CFLRP Coalition and US Forest Service 2011). Congress has steadily increased funding for the CFLRP and appropriated full funding to the program in fiscal year 2012; as discussed earlier, the US Forest Service has augmented this funding by redirecting additional dollars to projects that applied for CFLRP funding.

By focusing on projects that are economically feasible, have a broad social license, and have a clear ecological need, the CFLRP has launched a significant change in how forest restoration is conducted with partners at scales that can meaningfully influence fire behavior and accomplish restoration goals. To improve on past efforts and policies, the Act includes an innovative suite of provisions that have been consistently recommended by advocates and practitioners. In 2003 representatives from several conservation groups called for a forest restoration approach based on several core principles, including the need for a restoration assessment that prioritizes treatments across a landscape, monitoring, collaborative planning, and development of rural economies and work forces to accomplish restoration (DellaSalla et al. 2003). The CFLRP incorporates these recommendations and builds on the suite of lessons learned from the steady current of forest policy and management changes over the last 20 years.

The First Round of Projects Funded under the CFLRP

Methods

We compiled the 31 proposal documents submitted for CFLRP funding in 2010. [11] Using a uniform, free-response questionnaire, we evaluated the 10 proposals that were funded in 2010. Our evaluation form included questions for all sections of

the proposals, focusing on landscape characteristics, restoration and treatment goals, collaborative history and governance frameworks, fire management goals, usage strategies, job creation, and monitoring, among other factors. Although each proposal was standardized in its format based on the US Forest Service’s call letter, each evaluation had a unique character, given that the projects are varied in their approach, scale, and history. Not all groups presented the same information or used the same metrics and/or models to do so. We tabulated summary data based on the information given in 2010 for each project (Table 1). Other data we present in a narrative fashion to provide readers with a broad sense of the scope and nature of the program and projects. Finally, we conducted participant observation for an in-person 2-day workshop on national indicators and for a series of peer learning web- and telephone-based conference sessions held by the National Forest Foundation in conjunction with the US Forest Service Washington Office on a range of topics, including annual reporting, the development of indicators for results monitoring, and the development of the nationally agreed-on set of indicators for projects. Unless otherwise indicated, all details about the projects are based on their 2010 proposals.

Results

Of 31 applicants, 10 project proposals were selected for funding in 2010. The 10 projects are located in 9 states, within 6 US Forest Service regions. Project proposals outline a need for restoration, primarily because of fire suppression and exclusion, across landscapes that have increased fuel loadings and a high risk of large-scale and uncharacteristically severe wildland fire events. Historic alteration of natural fire regimes also has led to decreased heterogeneity at the forest stand level, and in many areas understory diversity has declined as a result. A number of projects note that stand homogeneity and fuel loadings also hinder ecological resilience and/or adaptation to insects, disease, invasive plant species, and climate change (Allen et al. 2002). Therefore, the overarching goal for the projects is to restore forest ecosystems so that they are more resilient to natural and human disturbances. For instance, a primary goal for the Four Forests Restoration Initiative (4FRI) in Arizona is the reestablishment of frequent, low-severity fire as a key ecological process. However, it is important to note that restoration does not

Table 1. Funding, size, and landownership patterns for the first ten FLRA projects.

Region and project name	Size of the restoration landscape	Funding (% of request)	Land ownership patterns within the landscape
R1, Selway-Middle Fork Clearwater (ID)	1.4 million ac within the Selway and Middle Fork Clearwater River drainages (part of the 6 million-ac Clearwater Basin)	FY10, \$1,000,000 (100%) FY11: \$3,447,500 (88%)	94% Federal 1% State 4% Private <1% Nez Perce Tribal Land
R1, Southwestern Crown of the Continent (MT)	1.45 million ac of working forests on public and private land, and working ranches in the SW Crown, a subregion of the larger Crown of the Continent landscape	FY10, \$1,029,000 (100%) FY11, \$3,507,500 (88%)	70% Public lands 59% US Forest Service lands 11% other, including state 30% Private (private-to-public land transfers will continue to shift these numbers)
R2, Colorado Front Range	800,000-ac restoration zone in the 1.5 million-ac landscape, which is a contiguous stretch of ponderosa-pine and Douglas-fir, lower montane zone along Colorado's Front Range	FY10, \$1,000,000 (100%) FY11, \$3,507,500 (88%)	50% US Forest Service 50% Nonfederal, state and private (not specified)
R2, Uncompahgre Plateau (CO)	1 million ac of a variety of cover types ranging from sagebrush to spruce-fir on the western slope of Colorado	FY10, \$446,000 (100%) FY11, \$930,500 (87%)	56% US Forest Service 1% State 18% Private 25% Bureau of Land Management
R3, 4FRI (AZ)	2.4 million ac of contiguous ponderosa pine across four national forests in northern Arizona	FY10, \$2,000,000 (100%) FY11, \$3,507,500 (88%)	94% US Forest Service lands 6% Other (not specified)
R3, Southwest Jemez Mountains (NM)	210,000 ac of ponderosa pine, mixed conifer, and piñon-juniper woodlands in the upper and middle Jemez River watersheds of central New Mexico	FY10: \$392,000 (100%) FY11, \$2,405,500 (88%)	93% Total US Forest Service 52% Santa Fe National Forest 41% Valles Caldera Preserve 4% Private 3% Tribal (Pueblo of Jemez)
R5, Dinkey Landscape Restoration (CA)	154,000 ac of coniferous forest, foothill hardwood and chaparral, montane meadows, and riparian forests	FY10, \$829,900 (42.4%) FY11, \$415,000 (54%)	84% US Forest Service 16% Private
R6, Deschutes Skyline (OR)	130,000 ac encompassing the headwaters of two Upper Deschutes Basin Creeks, which are the municipal watersheds for the cities of Sisters and Bend, Oregon	FY10, \$500,000 (100%) FY11, \$720,500 (87%)	75% US Forest Service lands 25% Private lands, called the "Skyline Forest" (under negotiation to be managed as a community forest by the Deschutes Basin Land Trust)
R6, Tapash Sustainable Forest Collaborative (WA)	1,629,959 ac in central Washington's Kittitas and Yakima counties	FY10, \$1,630,000 (100%) FY11, \$2,159,500 (88%)	51% Federal 15% State 10% Private 24% Yakama Nation
R8, Accelerating Longleaf Pine Restoration (FL and GA)	567,800 ac of largely longleaf and slash pine flatwoods in northeast Florida and southeast Georgia	FY10, \$1,171,000 (100%) FY11, \$1,278,500 (87%)	41% US Forest Service 24% US Fish and Wildlife Service 15% Private 13% Industrial 7% State

mean a complete return to historically natural or presettlement conditions. Restoration, according to the 4FRI proposal, "attempts to return an ecosystem to its historic trajectory, although a restored ecosystem may not necessarily recover its former state since contemporary constraints and conditions can cause it to develop along an altered trajectory" (US Forest Service 2010, p. 1).

In the 10 projects now underway, the most common, and often the most urgent, treatment objective is a reduction of fuel densities. Techniques to achieve fuel reduction include mechanical thinning, prescribed fire, harvesting woody biomass, and managing lightning-caused fire for restoration objectives. Restoration is also needed to slow the spread of invasive plants, reduce soil erosion from roads and trails, and promote

the recovery of protected species. Therefore, other treatments include habitat and riparian restoration, culvert replacement, slope stabilization, road maintenance or decommissioning, native plant establishment, and removal of meadow-encroaching trees.

The landscapes all are significantly larger than the 50,000-ac minimum required by the Act. Not all acres in each landscape are slated for treatment, and projects were required to prioritize selected areas for treatment over the landscape and 10-year life the CFLRP funding. Many groups have placed treatments close to communities to protect them from future catastrophic fire. For instance, in the Selway-Middle Fork Clearwater Project, 90–100% of the treatments will take place within the wildland–urban interface (WUI). Other projects, such

as the 4FRI, aim to strategically place treatments in areas farther from communities to reduce the risk of uncharacteristic wildland fire in the future. The Uncompahgre Plateau Project places some of its critical fuels reduction treatments along power line corridors that deliver local energy and transport hydrogenerated energy across state lines.

Although the majority of the landscapes consist of National Forest Service (NFS) lands, some other ownership types are included in the landscapes. The CFLRP funding can only go to treatments on NFS lands, but ideally this funding will leverage funds and activities on adjacent lands. Privately owned lands comprise as much as about 25% of some landscapes, while other federal lands also comprise up to a quarter of some landscapes. In some cases private lands are

in transition to public ownership or to a land trust, as is the case with private timberlands in the Southwest Crown of the Continent landscape. In the Selway-Middle Fork Clearwater Project, private partnerships and fuels reduction treatments on other land ownerships are essential to the larger task of fuels management across the landscape. State trust lands also are included in many of the projects.

The FLRA prioritizes groups with a strong track record of collaboration. One of the selection criteria is the strength of the collaborative process, and groups must describe in their proposals their track record of successful planning and implementation. The history of collaboration between organizations in each project is varied in terms of membership type and duration, and each project lists out numerous past accomplishments. In the Clearwater Basin, organizations formerly embroiled in litigation were convened formally in 2008 by Senator Mike Crapo (R-ID) with the aim of reducing conflict between participants. The Southwest Crown of the Continent group first convened in July 2009 and has since negotiated land transfers totaling 60,000+ ac of industrial timberland to US Forest Service management—building on 40 years of collaborative work in transferring lands into public and private conservation. The Front Range Project started as the Front Range Fuels Treatment Partnership, which convened just after the 2002 wildfire season, at which time it only included state and federal government agencies. In 2004, government entities joined with local elected officials, land managers, and “a wide range of interests” to become the Front Range Roundtable. In the Southwest Jemez, group participants have worked together over the last 10 years, often on CFRP projects, and the Jemez Mountains Fire Learning Network also was integral to the collaborative process. The Jemez Watershed Group collaborative developed a Watershed Restoration Action Strategy in 2005, and seven successful CFRP projects took place from 2001 to 2007. The Deschutes proposal names five other major collaborative efforts that have taken place in the past 15 years, beginning with the Deschutes Provincial Advisory Committee, which was formed in 1994. On the Accelerating Longleaf Pine Restoration Project, the Osceola National Forest credits working with other organizations over the last 5–10 years to improving achievement of forest plan goals and objectives and reducing conflict and project

appeals. Organizations first came together on the Tapash Sustainable Forest Collaborative in 2006, and previous collaborative efforts include landscape analysis, land acquisitions, and a cross-ownership prescribed burn. A 2006 Memorandum of Understanding document joins The Nature Conservancy, Washington Department of Fish and Wildlife, Washington Department of Natural Resources, Okanogan-Wenatchee NF, and Yakama Nation together as landscape partners on the Tapash.

The CFLRP encourages the use of woody biomass and small-diameter trees to offset treatment costs. To make use affordable, infrastructure generally needs to be sited in close proximity to project areas. In some cases, timber mills and cogeneration facilities already exist. In other cases, new contracts are needed to bring industry back to areas to accomplish the necessary restoration work. In the vicinity of the Selway-Middle Fork Clearwater Project, Clearwater Paper Mill already has a cogeneration plant. On the Colorado Front Range, Colorado Springs Utilities is reworking an electricity plant to add cofiring capabilities, which could present an opportunity to use the smaller materials removed during restoration. On the Uncompahgre Plateau, a Rocky Mountain Research Station grant is being used to assess supply, so that potential biomass energy suppliers can be confident about making an investment in area energy supply infrastructure. An assessment of small-diameter wood supply is a central piece of the history of the 4FRI project, which emphasizes the need for industry partners that can use small-diameter timber to produce wood products. For the 4FRI, new industry capability will be critical to making the project successful, because the use of wood products will be necessary to offset the costs of restoration treatments; since the writing of the proposal, the US Forest Service has awarded a 300,000 ac/10-year stewardship contract, the largest stewardship contract in agency history, to accomplish the envisioned work (US Forest Service 2012a). On the Deschutes, of the 20,000 ac of proposed thinning with biomass removal, approximately one-half will be implemented using stewardship contracting authority. These acres are expected to yield roughly 20 million bd ft of merchantable and submerchantable material, producing over a half million dollars that can be applied to services such as mowing and ladder fuel reduction within the landscape. In

the case of Accelerating Longleaf Pine Restoration Project, the proposal states that usage through stewardship contracting has the potential to cut 50% of the cost of mechanical mulching, mowing, or chopping.

Aside from the ecological need for restoration, there is also an economic need. A number of these rural economies are experiencing higher rates of unemployment than the national average. Counties referenced in the Dinkey Project, e.g., experienced unemployment rates higher than 11% in 2010. The Selway-Middle Fork Clearwater Project references increasing unemployment, with rates that hit nearly 20% in one county in 2010, which the group attributes in part to communities' dependence on wood products industries. All groups estimated that significant job creation could be expected as the projects go forward, and it will be critical to track this in the future to see if industry investments and job creation take place as anticipated. [12]

The program requires that groups monitor ecological, social, and economic conditions for at least 15 years after implementation begins. All groups stated a commitment to long-term, multiparty monitoring, but the specifics of the monitoring plans in the proposals were generally open-ended, because most groups anticipated further developing their monitoring goals and indicators with the US Forest Service. Monitoring goals include understanding ecological baseline conditions, implementation and effectiveness monitoring, and tracking socioeconomic conditions and effects of project implementation. For instance, the Front Range Project mentions that the success of its restoration work will be measured with multiparty monitoring, which will be developed, facilitated, and implemented with the help of the Colorado Forest Restoration Institute (CFRI). The CFRI will also assist the Uncompahgre Plateau CFLRP Project with its monitoring strategy, which specifically calls for the incorporation of citizen science and youth organizations, as well as job and conservation corps centers. Some groups have significant monitoring procedures in place already. For instance, on the Accelerating Longleaf Pine Restoration Project, the Department of Defense tracks breeding pairs of the federally endangered red-cockaded woodpecker. Similarly, on the Dinkey landscape, two species monitoring programs have been ongoing: The Kings River Fisher Project and a California Spotted Owl Demographic study. Groups also are working

with the National Forest Foundation and the US Forest Service Washington Office to identify a common set of indicators to “report up” on the accomplishments of the CFLRP. One US Forest Service representative, along with one partner from each of the 10 projects, convened to develop these proposed indicators in the summer of 2011. The proposed indicators focus on five areas: ecological outcomes, fire cost savings, jobs and economic impacts, leveraged funds, and collaboration outcomes. [13]

Although we can not summarize or do justice to the complexity and history of each of these projects, we conclude this section with a brief overview of several of the projects, each with different characteristics, to give the reader a sense of the types of projects and treatments underway. Although we only discuss three projects individually, we recognize that each project would serve as a valuable and unique example and would benefit from an in-depth case study.

The Four Forests Restoration Initiative

The 4FRI is a restoration initiative across 2.4 million ac of ponderosa pine forest in northern Arizona. Its primary goals are to restore the ecosystem so that it is more resilient to fire and climate change over time, increase native biodiversity, reduce the risk to communities of wildfire, and promote sustainable wood products industries that can support restoration efforts and strengthen local economies. The goal is to undertake mechanical thinning on approximately 50,000 acs/year to allow for increased use of both planned and unplanned fires to meet restoration objectives, ultimately mechanically treating roughly 1 million ac over 20 years. The current vision is to ramp up, with the help of CFLRP funding, to an additional 30,000 ac of treatment per year, over and above the forests’ current program of work. The 4FRI is currently conducting a project-level NEPA analysis across approximately 750,000 ac to identify roughly 300,000 ac of treatment for 10 years of work. This scale matches that of the 10-year, 300,000 stewardship contract, which was awarded in May of 2012 and is the largest such contract the US Forest Service has ever offered (US Forest Service 2012a). Notably, the contract award is not without significant controversy, something that may pose problems for this effort in the future (see, e.g., Center for Biological Diversity 2012). The effort was designed to use primarily stewardship contracting to entice

new industry to the area with the provision of a large-scale and long-term contract. Industry partners that can use large amounts of small-diameter material will be essential to make restoration on this scale financially feasible. The US Forest Service estimates the potential creation of 500 industry jobs once the effort is fully underway, in addition to new federal employees and short-term construction jobs (US Forest Service 2010, 2010a). Previous collaborative efforts date back over 10 years and include the work of the Greater Flagstaff Forests Partnership and the Governor’s Forest Health Councils. The White Mountain Stewardship Contract, still in progress on the east side of the landscape, is also a key part of this effort’s history and ongoing progress. Stakeholders, with financial support from the US Forest Service, completed an assessment of small-diameter wood supply in 2008, both to assess volume and to find social agreement around harvesting parameters. They also have in place a charter that guides their activities, a memorandum of understanding with the US Forest Service, and a number of collaboratively written documents that capture their zone of agreement. [15]

Accelerating Longleaf Pine Restoration

The 567,800-ac Accelerating Longleaf Pine Restoration Project in Northeastern Florida and Southeastern Georgia covers a landscape dominated by longleaf and slash pine forests that have an historic fire return interval of 2–3 years. The project seeks to restore the over- and understories of these forest ecosystems to reduce the risk of severe fire, limit insect and disease outbreaks, and enhance wildlife habitat. This will be done with an emphasis on prescribed burning, which will occur on 450,000 ac over 10 years, in addition to 42,545 ac of mechanical treatments, 21,000 ac of roller chopping to restore native groundcover conditions, and nearly 400 mi of road and fire line rehabilitation. The success of these treatments will be evaluated according to Osceola National Forest’s Ecological Condition Model, as reviewed by The Nature Conservancy and the US Fish and Wildlife Service. The model examines the quantity of lands in different tiers of ecological condition. Multiple parties, including the Tall Timbers Research Station and Land Conservancy and the University of Florida, are already conducting studies on these lands and will perform the monitoring. Progress has also been made in

the formation of the Greater Okefenokee Association of Landowners (GOAL), a collaborative group focusing on fire-related issues that has agreed on a variety of shared fire responsibilities and responses. Additionally, the Longleaf Alliance, made up of private landowners, industry partners, state and federal agencies, and other concerned groups, focuses on improving conditions on the private land in and surrounding the GOAL area. The proposal explains that involvement of the forest products industry will be integral to the project because of the currently limited market for woody biomass. However, plans to construct biomass energy plants in the region, which were expected to create jobs and reduce treatment costs, have been suspended due to currently low demand for biomass energy (Downey 2011). This will likely affect the amount of work that can be accomplished with appropriated dollars.

Uncompahgre Plateau

The Uncompahgre Plateau landscape consists of 1 million ac on the western slope of Colorado with biotic communities ranging from sagebrush rangeland to spruce-fir forests. Within the landscape are four of the Colorado River’s primary drainages, WUI lands, and two nationally critical energy transmission corridors, all of which are in need of protection from uncharacteristically severe wildfire. The project also seeks to improve the forest ecosystem in structure and function by reestablishing viable populations of native species, retaining large trees, and reopening meadows and parks. These and other social and economic goals will be met through implementation of a variety of treatment types across the varied landscape totaling 160,000 ac. Activities will include burning on 55,000 ac, reseeding native plants on 37,500 ac, mechanical treatment on 27,300 ac, and weed treatments on 9,200 ac. The collaborative group has 15 years of experience under its belt. The 17,000-ac Uncompahgre Mesas Project, a smaller-scale experiment in collaborative restoration, is underway and serves as a model for the larger project. It has yielded treatment strategies, a monitoring protocol, and valuable experience specific to the area. Monitoring will inform the adaptive management process to ensure that desired conditions are met. If the projected 750 seasonal jobs materialize, they will serve as a much-needed boost to these counties, which have some of the highest unemployment rates in the state. Existing saw-

mills in the towns of Montrose and Delta, combined with potential new uses such as cofiring the Nucla coal-fired power plant with 20% woody biomass, provide markets for forest restoration byproducts.

Discussion

In many ways, although the CFLRP opens the door for large-scale, collaboratively planned restoration projects, most of the work of transferring the agreement captured in the CFLRP proposals to NEPA documents and on-the-ground implementation remains to be performed. In many cases, projects are approaching planning on larger scales than have been attempted in the past. This is for a number of reasons: matching the scale of planning with contracting, so that industry can have some assurance of future supply; approaching restoration on a scale that is meaningful for processes such as fire or for the habitat needs of target species; and in some cases to capture stakeholder agreement in a long-term plan of action. Although the agency has past experience with large-scale programmatic planning, successful project-level planning on the scale of 750,000 ac, as is being attempted by the 4FRI, would be truly innovative. As the US Forest Service and groups scale up, the challenge will be to make NEPA documents site-specific enough to satisfy the needs of project-level planning, while also focusing on desired conditions and ongoing implementation monitoring, so that decision documents can support actions taken up to 10 years in the future.

Another challenge revolves around the role of collaborative groups throughout the NEPA process. Stakeholder groups submitted proposals collaboratively with the US Forest Service, and in all cases some NEPA analysis remains to be completed. For many projects the majority of acres to be treated still need to be identified through project-level NEPA decisions. Although each proposal provides a detailed history of collaborative efforts and accomplishments, what is not clear is the precise role of the stakeholder groups vis-à-vis the US Forest Service in designing projects. The governance structures that the collaborative groups and the US Forest Service use as they work through the agency's decisionmaking process will vary across the projects and would benefit from future research. The challenge projects face is striking a balance between honoring the zone of agreement stakeholders have often taken years to outline with the fact that the

US Forest Service must abide by the requirements of the Federal Advisory Committee Act, retain decisionmaking authority within the agency, and avoid making specific decisions about on-the-ground actions before the NEPA process.

Ultimately, the questions are these: Will project-level decisions honor the vision that was set forth at the outset and allowed these groups to secure CFLRP funding, or will decisions deviate from the level of agreement stakeholders outlined in these proposals? If project decisions deviate from the collaboratively outlined vision in proposals, how will stakeholders respond? The difficult work of agreeing on treatment parameters or explicit desired conditions will be ongoing for many groups, while at the same time the US Forest Service will have to move forward with implementation to use and maintain funding under this program. It will be interesting to see to what extent these projects are appealed or litigated, either by parties that were external to the collaborative process or by parties that feel their collaboratively developed agreements were not honored when projects were implemented on the ground. Indeed, one of the early projects funded under the Southwest Crown of the Continent CFLRP Project already is under litigation by environmental groups that were not significantly involved in the collaborative process for the project (Chaney 2011). We can likely expect additional litigation from groups external to the design of these CFLRP projects and may also see litigation from groups that were partners in promoting individual CFLRP projects.

Other key questions arise related to funding. It is possible that Congress will not continue to appropriate money to the CFLRP for the remainder of the 10-year cycle for these projects. If that occurs, the CFLRP projects would be significantly hampered in reaching their restoration goals. They may also find it difficult to deliver on their contractual obligations if the US Forest Service entered into stewardship contracts with the assumption that needed CFLRP funds would be available for the full 10 years. This outcome seems unlikely, however, given the broad support for the CFLRP, as long as projects can successfully establish achievement of their objectives. Another key question is how this process affects the budgets of other national forests in the region that do not have CFLRP projects. Shuttling money to CFLRP projects will mean that other areas in need of restoration

will not receive necessary funding. The question is whether the CFLRP is an effective way to prioritize the allocation of limited financial resources, and this question presents an interesting research opportunity. Ideally, the CFLRP sends dollars to areas with a clear ecological need but also a realistic business plan and the necessary social license to accomplish restoration with limited conflict or litigation. By prioritizing areas with all of these factors aligned, the program hopefully will lead to significant and cost-effective accomplishments on the ground. At the least, we can look to monitoring and reporting of achieved outcomes by the individual CFLRP projects to understand the efficacy of the program as a whole. Therefore, it will be critical that these projects show positive effects ecologically, economically, and socially through multiparty monitoring, but it remains to be seen how and whether projects will do this successfully.

Contracting and industry engagement will also present a unique set of challenges. New industry will only be enticed to an area if there is a predictable supply of materials over a sufficient amount of time to justify the investment. To make this possible, the agency must have the funding, staff, and infrastructure to implement projects and enough acres NEPA-ready or very likely to be made available in forthcoming NEPA decisions. In general, the economic, social, and political climates all have to be relatively predictable and stable if industry is to make significant investments. Projects also must be in locations and provide enough material to make treatment costs affordable.

Stewardship contracting offers a potential solution to these issues but also has presented the agency with some challenges. For one, the authority is up for renewal in 2013, and to approve reauthorization, the Congressional Budget Office requires the US Forest Service to offset the cost to government of reauthorization (Doug Crandall, pers. comm., Director of Legislative Affairs with the US Forest Service). However, given the importance of the tool and broad bipartisan support for reauthorization, it is likely the authority will be reauthorized in 2013, despite the challenges of doing so. Another persistent issue has been the cancellation ceiling or "the amount an agency obligates at the inception of a multiyear contract to protect the contractor's investment and the government's interest in case the government later cancels the contract" (US GAO 2008, p. 6). This can be a substantial amount of

money, particularly for large-scale contracts. Because the cancellation ceiling, also called the cancellation liability, is often handled locally, the agency “might be reluctant to enter into a multiyear contract . . . thereby foregoing an opportunity to stimulate the market for small-diameter materials” (US GAO 2008, p. 6). However, the US Forest Service’s interpretation of the cancellation liability requirement is evolving. Based on reinterpretation of the requirement, it presents less of a challenge than previously thought for several reasons: the amount of the cancellation liability is negotiable with contractors, it only applies when the agency defaults on the contract due to lack of funding, and it does not cover contractor investments other than those that are directly related to implementation of the project covered by the contract (Doug Crandall, per. comm.). The US GAO (2008) also notes that implementation of large-scale contracts can consume large amounts of money, particularly if the costs of restoration treatments do not decline over time, thus displacing other needed work on a unit or in a region. One suggestion from US GAO (2008) is that the US Forest Service develop a nationwide strategy for implementing long-term stewardship contracts to address such issues.

To address the challenges of large-scale forest restoration, the WGA, in a 2011 policy resolution on Large-Scale Forest Restoration, has made a number of recommendations for collaboratively designed restoration projects. These efforts, they note, “would benefit by improved federal agency guidance and consistency of collaborative stakeholder involvement through the implementation of the [NEPA]” (WGA 2011b, p. 2). In other words, although the Council on Environmental Quality (2009) has issued some guidance on collaborating throughout the NEPA process, more guidance is needed to understand specifically how collaborative agreements can be carried into and through the NEPA process. The questions are, what room does the US Forest Service have to work with self-convened stakeholder groups, take their recommendations forward into their proposed actions, or even allow stakeholders to codesign a proposed action, while retaining their decisionmaking authority? The WGA (2008) also recommends a comprehensive review of adaptive management plans to identify how to successfully incorporate the approach into large-scale restoration efforts. They ac-

knowledge the need for ongoing attention to the challenges associated with stewardship contracts and additional grant programs to support the growth and development of wood processing infrastructure. Also worth noting is their call for a learning network for projects, such as those taking place under the CFLRP, that are attempting large-scale, adaptive, and collaborative forest restoration.

Conclusion

The CFLRP is one experiment in an emerging suite of new governance strategies, which approach management in ways that are more flexible and adaptive, less hierarchical, and emphasize the role of collaboration and communities in setting goals and objectives on multiple-use landscapes (see Brunner et al. 2005, Layzer 2008, and Wiersema 2008 for more on these types of approaches and Lukensmeyer et al. 2011 for review of this trend across federal agencies in general). It is also part of a new set of programs that establish competitive processes for allocating funding to priority landscapes. The US Forest Service’s Watershed Condition Framework provides another example along these lines (US Forest Service 2011), as does the Competitive Resource Allocation Process for funding awarded to projects by the US Forest Service’s State and Private Forestry organization. [14]

The program provides a valuable sample of projects for further research and analysis of collaborative governance approaches, large-scale planning strategies, monitoring and adaptive management frameworks, industry engagement and job creation, and on-the-ground efficacy of restoration activities. Other collaborative forest restoration projects, including the newest round selected for fiscal year 2012, as well as those that remain unfunded under the CFLRP, also merit attention for future research. Assuming Congress funds the CFLRP into the future, tracking its progress will provide practitioners and observers with an opportunity to learn about approaches to some of the most prominent challenges on forest landscapes today.

There is the potential for the CFLRP, if implemented well, to break through the persistent gridlock in US forest management and pave the way for more efficient and effective forest restoration (O’Laughlin 2004). For these reasons, the WGA and CFLRP Coalition have expressed strong support for the program, and the chief of the US Forest

Service has highlighted the CFLRP as a key program to promote accelerated restoration at unprecedented scales through the use of strategic partnerships and innovative approaches to restoration planning (CFLRP Coalition and US Forest Service 2011, WGA 2011a, US Forest Service 2012b). At its best, the CFLRP may well be an important incubator for innovative and improved approaches to forest governance in the years to come.

Endnotes

- [1] Pub. L. No. 111-11, tit. IV, 123 Stat. 991 (2009).
- [2] *Id.* at Section 4001.
- [3] *Id.*
- [4] *Id.* at Section 4003(c)(2).
- [5] *Id.* at §4001.
- [6] Pub. L. No. 105-277 (1999).
- [7] Quotes from the introduction entitled, “What GAO Found.”
- [8] Pub. L. No. 108-007 (2003).
- [9] See www.forestsandrangelands.gov; last accessed May 23, 2012.
- [10] Pub. L. No. 106-393 (2000).
- [11] Available on the US Forest Service website at www.fs.fed.us/restoration/CFLR/2010/proposals.shtml; last accessed May 23, 2012.
- [12] Although it is operationalized differently in some cases—in terms of part and full time, and private and government employment—each 2010 proposal lists estimates regarding job creation, and groups used a variety of methods for estimating jobs.
- [13] See www.nationalforests.org/conservel/learning/cflrp; last accessed May 23, 2012.
- [14] This process was established under the 2008 Farm Bill, PL 110-246, Title VIII, at Section 8008. For more information see www.fs.fed.us/spf/redesign/; last accessed May 23, 2012.
- [15] See www.4fri.org; last accessed July 10, 2012.

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