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MARCH 2022

PATHWAYS TO PRESCRIBED FIRE

*Streamlining cooperative burn partnerships between
nonprofit partners and the Forest Service*

OUR THANKS

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ABOUT RVCC

RVCC envisions healthy landscapes and vibrant rural communities throughout the American West. We are committed to finding and promoting solutions through collaborative, place-based work that recognizes the inextricable link between the long-term health of the land and the well-being of rural communities. By bringing rural leaders together to share their work, we serve as a vital peer learning and capacity building network that accelerates the practice of land stewardship and aligned economic development.

To learn more about our full portfolio of work,
visit: www.ruralvoicescoalition.org

INTRODUCTION

Prescribed fire is widely recognized as an essential stewardship activity in the fire-adapted ecosystems of the western U.S. When appropriately used, it can help enhance ecosystem function, protect vulnerable communities from wildfire, and improve the climate resilience of forests and the durability of forest carbon stores.¹ But despite the benefits to be gained from this practice, well-documented constraints continue to limit prescribed fire implementation.² Of particular interest to Rural Voices for Conservation Coalition (RVCC) is the limited capacity of federal agencies like the U.S. Department of Agriculture Forest Service (the Forest Service) to do this work at scale on public lands.³

Although the agency has increased the footprint of its mechanically treated acres in recent decades, its use of prescribed fire has remained flat over the last 20 years due to shortfalls in funding, insufficient workforce capacity, and competing agency priorities.⁴ With the passage of the Infrastructure Investment and Jobs Act (2021), significant new resources for wildfire risk reduction signal a hopeful shift in political will toward addressing those barriers.⁵ Following passage of the bill, the Forest Service announced a new 10-year ‘Wildfire Crisis Strategy,’ and with it a goal to quadruple fuels treatments, including prescribed fire, in cross-boundary priority firesheds. Working with external partners is noted as integral to achieving this goal.⁶

While still an uncommon practice on western national forests, the success of cooperative burning demonstrates a scalable opportunity for the agency to engage partners and bolster its efforts. By combining the skills, resources and staff of diverse partners, this model maximizes opportunities for prescribed fire implementation, outreach, and training, and builds place-based workforce capacity to accomplish critical fuels reduction work. Nonprofits are among those leading these efforts by integrating fire work into their operations. These efforts are having real impact—non-federal entities are responsible for 93% of the increase in acres burned nationally since 2000.⁷

Despite notable examples of success, innovation in a single location does not guarantee wider adoption across geographies, or influence agency-wide guidance and policies.⁸ Through its coalition partners, RVCC was aware that various barriers make cooperative burn partnerships and resource sharing between the Forest Service and nonprofits complex and burdensome, limiting opportunities to leverage this expertise on federal lands.

With the goal of increasing the adoption of cooperative burning between the Forest Service and nonprofits, this report provides a high-level examination of the current trends in these partnerships, identifies and synthesizes the most pressing barriers cited by partners, and produces a prioritized roadmap to resolving a number of those barriers. While this report’s scope is specific to formalized partnerships between nonprofits and the Forest Service, and does not include other cooperative burn partners, many practices and barriers may be similar.



PRESCRIBED FIRE AND CARBON STORAGE

Prescribed fire is a critical step to effectively completing and sustaining fuels treatments to increase forest resilience and reduce carbon emissions from wildfires in forests in the western United States.⁹ Studies modeling wide-scale application of prescribed fire treatments show 18-25% reductions of carbon dioxide emissions compared to a wildfire in an untreated system, and as much as a 60% reduction in emissions in specific forest systems.¹⁰ Effective forest carbon management in fire-adapted forests requires increasing the use of prescribed fire. Yet, the extent of prescribed fire in the western U.S. has remained stable or decreased from 1998 to 2018.¹¹



WHAT IS COOPERATIVE BURNING?

Within the scope of this project, we define cooperative burning as the practice of pooling qualified staff resources, equipment, and/or funds among multiple partnering entities to implement prescribed fire. This practice may have alternative names among other partners (such as “All Hands, All Lands” burning). Potential partners include federal, tribal and state agencies, conservation districts, nonprofits, local fire services, and individual community members.

METHODOLOGY

The findings of this report were informed by:

- Interviews with 67 people conducted between December 2020 and June 2021. Interviewees possessed relevant prescribed fire, nonprofit partnership and Forest Service expertise (see table 1);
- Review of 20 cooperative burn agreement documents establishing partnerships between the Forest Service and a national or local nonprofit, provided by interviewees (we were unable to attain a comprehensive list of all agreements nationwide). These included modifications, master agreements, and supplemental project agreements; and
- Review of relevant gray literature including peer studies and reports, National Wildfire Coordinating Group (NWCG) publications, and Forest Service handbooks and memos.

Table 1: Summary of Interviewees

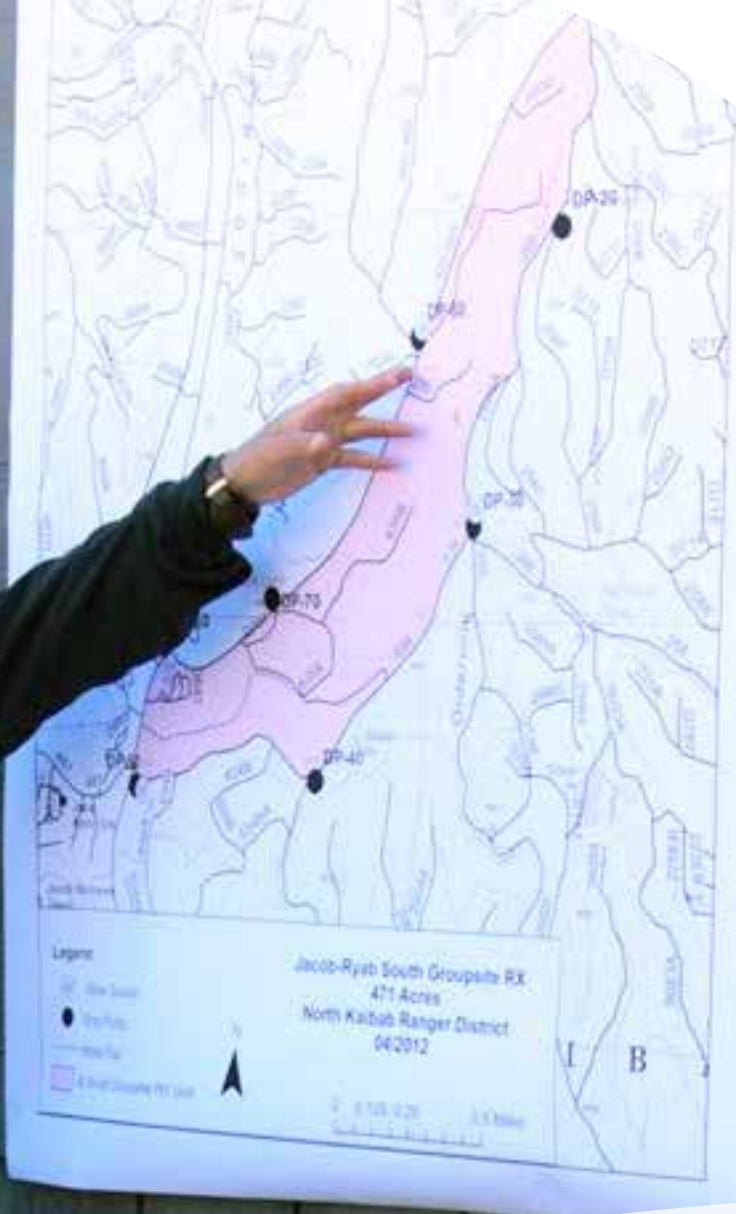
| Interviewee Organization/Sector | Description | Number of Interviewees |
|---------------------------------|--|------------------------|
| Forest Service | Washington Office staff (4), Regional fire and hazardous fuels staff in Region 1-6, 8 and 9 (11), grants and agreements staff (4), and forest and district level hazardous fuels and partnership coordinator staff (7) | 26 |
| Nonprofits | National or multi-state nonprofits (8), and statewide/state chapters/or community-based nonprofits* (15) | 23 |
| Other | Tribal agencies or organizations operating nationally, in Oregon, and in California (3), state agencies (4), local fire services (4), and university extension (7) | 18 |
| Total | | 67 |

* Based in Washington, Oregon, Idaho, Montana, California, Colorado, Nevada, Utah, Arizona, New Mexico, South Dakota, Kentucky, and Tennessee

A steering committee was established to advise on the project and develop salient recommendations to address the emergent themes from our research. Steering committee members brought diverse backgrounds in nonprofit leadership, cooperative burning, wildland fire suppression, and statewide prescribed fire association coordination.

Although this paper focuses specifically on cooperative burning between nonprofits and the Forest Service, we conducted broad background research to better understand cooperative burning as a practice, and to note the shared barriers experienced across parties and regions. We spoke with interviewees outside of our geographic and organizational scope and reviewed cooperative burn agreements with other federal entities as part of this process.

Photo Credit: David Hercher/USDA Forest Service, Southwestern Region



BACKGROUND & FINDINGS

BACKGROUND

Cooperative Burn Agreements in the West

Our research found that cooperative burn partnerships between the Forest Service and nonprofits are still an emerging practice, and are not widespread in the western U.S. By reviewing agreements and speaking with agency and nonprofit interviewees, we found partnership agreements in Forest Service regions 2, 3, 4, 5, and 6. While some of these regions have just one primary nonprofit partner, their agreements sometimes have multiplying effects. This occurs when the nonprofit signatory is permitted to make collaborative arrangements with other organizations to carry out joint activities with the agency. The rarity of agreements also does not reflect nonprofits that had previously partnered with the Forest Service but have since stepped back from that work due to risk aversion or other causes. In three cases, nonprofit partners maintained agreements with the Forest Service but contracted the work to other entities. We also found nonprofit partners who chose not to work with the Forest Service because they found the agency's administrative processes or fire culture to be too difficult to engage with—but who do burn cooperatively with the U.S. Fish and Wildlife Service, the Bureau of Land Management, tribal and state agencies, and private landowners.

Despite the relative novelty of cooperative burning with the Forest Service, most agency and many nonprofit interviewees expressed enthusiasm for the concept and a desire to establish cooperative burn partnerships in the future. One agency interviewee shared, “Partnership is the tool that we have to use. [Our work has] got to be landscape scale, and it's got to involve everyone.”

Opportunities for Nonprofit Partners to Engage

Nonprofits are one of many possible resources the Forest Service can draw on to implement prescribed fire on national forest system lands. These include agency staff from neighboring districts or forest units; short-term “Administratively Determined” hires (see Spotlight 1); fire crews from other federal agencies (called interagency resource sharing); tribal agency partners; state forestry fire crews; local fire services; private contractors; corrections/inmate crews; conservation corps crews; and conservation districts. If and when each resource is utilized will depend on the organizational landscape of the local area, what entities the agency trusts, as well as timing—whether local fire resources are constrained by coinciding burn windows or the wildfire season. Some national forests have access to several types of implementation partners, while others are extremely limited.

Our interviews indicated that nonprofit partners have multiple possible avenues to engage in prescribed fire project planning and implementation with the Forest Service. Partners can collaborate on shared priorities through strategic and planning conversations, discuss cross-boundary fuels treatment needs, or create joint funding strategies. Nonprofits may also manage or assist with the site prep, monitoring, and logistical coordination required to prepare a federal burn unit. Finally, they may be proactive implementation partners, or engaged as call-when-needed resources on burn days.



ADMINISTRATIVELY DETERMINED (AD) HIRING AUTHORITY

The Forest Service uses Administratively Determined (AD) hiring to supply temporary, qualified local assistance for its suppression-related workforce needs. In 2020, the Forest Service expanded the approved uses of AD hiring to include assistance with prescribed fire projects.¹

While the authority is often used to engage recent federal retirees who have maintained advanced and difficult-to-obtain fireline credentials, its use can be more expansive. It was cited in several interviews with agency staff as a desirable avenue for engaging cooperative partners by bringing individual nonprofit employees onto federal burn projects.

For nonprofits, there may be short-term benefits to releasing their employees for AD assignments, specifically concerning qualifications. As ADs, nonprofit employees receive sponsorship by the federal government, granting them access to the federal Incident Qualifications and Certification System (IQCS) and allowing them to receive a federally-issued red card to verify their credentials. While AD assignments do not support new training to advance one's credentials, they can provide nonprofit employees opportunities to complete elements of their existing position task book. Nonprofit employees may also be offered suppression assignments, which can be critical for completing certain difficult-to-obtain task book items.

In the long term, however, most nonprofit interviewees felt that AD hiring should not be considered a partnership mechanism. Intermittent departures by nonprofit staff for AD assignments have ramifications for a number of operational and financial matters such as whether an employee is still considered full-time, eligible for benefits, or covered by the nonprofit's or federal agency's workers' compensation insurance. This additional complexity, coupled with the inability to collect indirect funding to support organizational overhead, creates operational challenges for a nonprofit.

In contrast to AD hiring, cooperative burn agreements create a substantive partnership framework that gives the Forest Service access to additional workforce capacity without negatively affecting the operations and financials of their partners.

FINDINGS

Establishing a Cooperative Burn Agreement

Several federal agreement instruments and federal authorities can be used to formalize a cooperative burn partnership into what this report simplifies as a “cooperative burn agreement.” Nonprofit partners, Forest Service fire and fuels program staff, and agency grants and agreements (G&A) specialists work together to design and develop each agreement individually. Agreements must be built using templates approved by the Office of Management and Budget, which lack specific guidance related to fire operations and standards. Those subjects are addressed through the policies and protocols of the Forest Service's Fire and Aviation Management division.

Many nonprofit and agency interviewees had experienced inconsistent policy interpretation and agreement requirements while developing cooperative burn agreements. This was often attributed to the individual judgements and risk aversions of local agency program staff, and the lack of G&A guidance specific to prescribed fire. Senior agency and G&A interviewees acknowledged these concerns and shared steps that have been taken to improve the process, including reviewing agency policy and handbooks, forming small teams to streamline cooperative burn agreement processes, and developing a new internal reference for program staff in 2021. This reference is not available to the public or to partners, but provides simple points of clarity regarding the most frequently used agreement types, authorities, and allowable activities for prescribed fire agreements with partners.

It was a common strategy for agency and nonprofit interviewees to use already-executed cooperative burn agreements from other forests or regions to source content and legal language for new agreements. This practice has helped provide informal guidance on constructing an agreement, and was credited by interviewees as helping to streamline approval processes by using pre-vetted content. Some interviewees said agency staff specifically requested that their nonprofit partner bring these examples to meetings about developing a new agreement. This informal knowledge-sharing may have contributed to the many common features and language we observed in the agreements that we reviewed.

Our review of executed cooperative burn agreements found:

Participating Agreements were by far the most common agreement instrument used to operationalize cooperative burn partnerships.†

Because these instruments are intended to achieve mutual, non-monetary benefits for the agency and its partners, they are well-suited to supporting the sharing of equipment and human resources, and facilitating joint training opportunities. Participating Agreements (PAs) must reference at least one legal authority approved by Congress. Two were commonly cited in the agreements we reviewed: the Cooperative Funds and Deposits Act (P.L. 94-148), which among other activities allows for “cooperative manpower,” training and development programs, and forestry protection; and the Watershed Restoration and Enhancement Act (Wyden Amendment P.L. 105-277, Section 323 as amended by P.L. 109-54, Section 434), which among other activities allows for risk reduction for natural disasters and restoration of natural habitats that benefit national forest system lands.

Cooperative burn agreements can be developed with different degrees of flexibility and specificity.

Participating Agreements can be developed in several ways. Most narrowly, they can be written as project-specific “standalone” agreements lasting up to five years with the option to modify annually or on an ad-hoc basis to expand and adapt over time. Alternatively, they can consist of two parts: a Master Participating Agreement (MPA), which outlines the broad parameters of a partnership, and also spans up to five years in length; and Supplemental Project Agreements (SPAs), which operationalize an MPA through specific projects or annual work plans. There was widespread agreement among our nonprofit and agency interviewees that beginning with a standalone agreement helps build trust between the partners before moving to more flexible and expansive MPAs, which are ultimately more useful.

Cooperative burn agreements are usually bilateral arrangements between the agency and a single partner.

We did not find any examples of multi-party cooperative burn agreements in our research, although agency policies do allow for them. More common were examples where nonprofits or other community-based partners without their own agreements acted as volunteers or “agents” of another partner with an established agreement, often formalized through a Memorandum of Understanding (MOU) between the non-federal partners. “All Hands, All Lands” burn teams such as those in New Mexico and Northern California have historically employed this strategy to form a network of partners that can burn together across jurisdictions through connected and nesting agreements. However, we heard from nonprofit and agency interviewees in Regions 5 and 6 that this practice is increasingly discouraged by G&A staff, who prefer to have signed agreements with every entity that sends a participant to a cooperative burn, particularly when operating beyond Prescribed Fire Training Exchange (TREX) trainings.

† While other instruments were also found in use, such as Challenge Cost-Share Agreements, they were much less common.

Nonprofits have signed cooperative burn agreements with the Forest Service at all organizational scales of the agency.

The agreements we reviewed included several with the Forest Service national office (e.g., The Nature Conservancy's MPA for Cooperative Prescribed Fire and Fuels Management, and multiple conservation corps organizations' agreements), but most are signed with regional offices or individual national forests. Some regional fuels managers preferred to centralize agreements by signing MPAs at the regional level that individual forest units and districts can tier to with SPAs covering project-level implementation. Other regional staff we interviewed had no parameters for whether agreements should be signed at the region or forest level.

Cooperative burn agreements can include a range of prescribed fire activities.

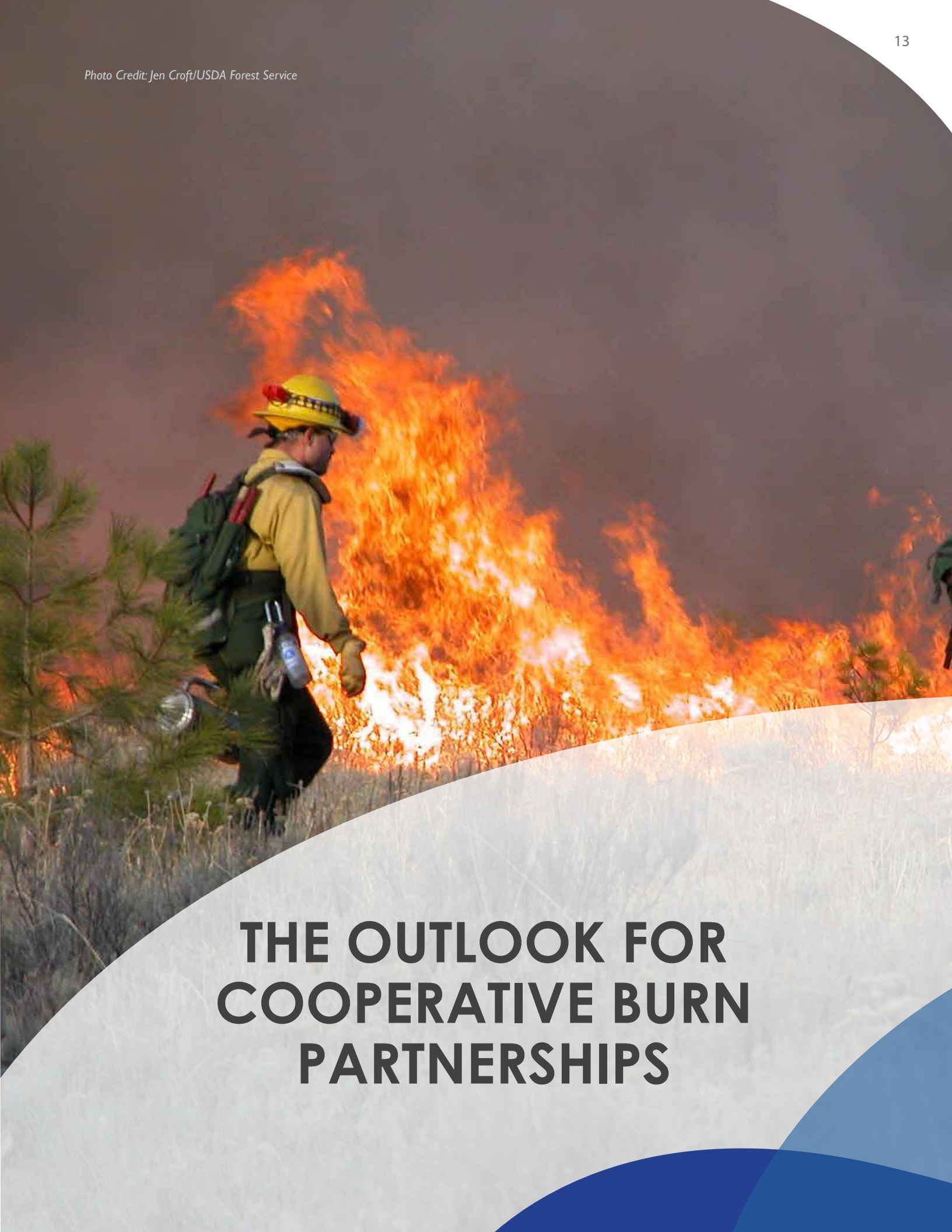
Common examples include explicit authorization for the partners to burn together; inclusion of joint training as a goal of the partnership; an intent to organize TREX training events on federal burn units; identification of resources and equipment to be shared; and the transfer of funds for planning or project implementation.

Liability is the primary topic that was not addressed consistently in cooperative burn agreements.

Given the lack of a cooperative burn agreement template, we looked for similarities and differences across executed agreements to determine if this resulted in inconsistencies. Most agreements reflected similar verbiage or requirements on the topic of qualifications and credentialing requirements. A requirement for partners to have documentation upon request proving that those present at a federal burn have certifications adhering to the National Wildfire Coordinating Group (NWCG) PMS 310-1 "Wildland Fire Qualifications System Guide" was common. Agency policy allows nonprofits to self-manage and certify their own credentials and we found no agreement content that contradicted this or expressed a preference for the method or the party that must issue a red card.

The topic of liability was not addressed consistently. Agency interviewees explained that the type of agreement instrument directly impacts the liability language required. We found that some but not all agreements contained a clause about the Federal Tort Claims Act (FTCA, 28 U.S.C. §§ 2671-2680) and its application to the Forest Service within the agreement; and an associated clause confirming that the nonprofit cooperator and its agents understand that they are not considered federal employees for any purposes, including under this act. (For more information on liability and the FTCA, see Spotlight 3). Other agreements contained the language "each party shall be responsible for the acts or omissions of its representatives," but others contained no acknowledgement of the assignment of liability to federal or nonprofit partners. Specific liability concerns like workplace injury were more consistently addressed, requiring waivers and insurance, and utilization of risk mitigation strategies outlined in NWCG protocols.

Photo Credit: Jen Croft/USDA Forest Service



THE OUTLOOK FOR COOPERATIVE BURN PARTNERSHIPS

OUTLOOK FOR COOPERATIVE BURN PARTNERSHIPS

The Benefits of Cooperative Burning

Our literature review and interviews identified four commonly-cited benefits of cooperative burning:

Accomplishing cross-boundary objectives

Cooperative burning is commonly used to accomplish projects that cross land ownership boundaries, which are often recognized for their potential to optimize ecological benefits and more effectively address wildfire risk.

Overcoming capacity constraints

Lack of personnel capacity or equipment to execute a burn is a common barrier to implementing prescribed fire, and cooperative burning is one tool to address that challenge.² Even when a burn is not cross-boundary, a land management entity may enlist qualified external partners to help fill essential roles within a prescribed fire operation, and to meet NWCG staffing and equipment standards for the complexity of the burn planned.³



The Nature Conservancy has been a significant contributor to the cultivation and promotion of cooperative burning through its long-standing nationwide investments in prescribed fire learning and capacity. By providing financial and technical assistance, supporting multiple peer learning networks, and its TREX training strategy (enabled through a national partnership agreement with the U.S. Departments of Agriculture and Interior), many nonprofit interviewees have been able to build their own prescribed fire capacity.

Building social license

Engaging multiple partners in cooperative burning can help demonstrate broad-based support for the work, strengthen the effectiveness of community outreach and education, and improve public acceptance of burning. These benefits were frequently mentioned by agency interviewees as key advantages to cooperative burning.

Achieving community goals

Cooperative burning offers partners the opportunity to share knowledge, traditions, and training opportunities and build local prescribed fire workforce capacity.

BARRIERS

In this section we highlight the most frequently referenced barriers to cooperative burning raised by interviewees. For the purposes of this paper, we focus only on issues within the Forest Service’s sphere of influence or control. †

Barriers are organized into two categories: 1) Issues that directly impact cooperative burning that have achievable, short-term solutions, and 2) Broader issues impacting the overall use of prescribed fire on national forest lands, and by extension, preventing opportunities for cooperative burning.

Barriers to Cooperative Burning

Reluctance to Partner

Some agency staff, spanning national, regional and forest unit interviewees, did not feel that the effort required to cultivate a nonprofit partner produced an adequate return on investment. Nonprofits were viewed as more burdensome than alternative partners, such as other federal agencies, because partnership agreement development and approval requires more communication, more advanced planning, and more complexity. In addition, it was common for agency interviewees to acknowledge that building trust with a nonprofit partner—and having adequate opportunities to observe their proficiency on a burn—takes more time in the West than in the South where cooperative burning is an operational norm, because of fewer burn windows per year. The timeline to get to a “plug and play” operation was considered too onerous if other implementation partners with more streamlined administrative processes were available (such as interagency agreements with other federal bureaus).

Administrative Barriers

Nonprofit and agency interviewees agreed that the process for establishing a cooperative burn agreement is confusing and inconsistent between Forest Service regions, local management units and often between grants and agreements (G&A) staff within the same region.†† Agency guidance has been interpreted differently, and there is a lack of clear and centralized direction on agreement language or terms.

In addition, the process for putting an agreement in place is often lengthy, a problem that some nonprofit interviewees felt was exacerbated by a shortage of G&A staff and a lack of streamlined process. One interviewee shared that it has typically taken them 18 months to 2 years to develop and execute a cooperative burn agreement with the Forest Service. Such a timeframe places a significant financial burden on organizations that are grant-based and fee-for-service, and which must invest uncompensated staff time into standing up these partnerships for an uncertain project timeline.

† There are important barriers impacting cooperative burning, and nonprofit engagement in prescribed fire, that are beyond the authority of the Forest Service and scope of this paper. Topics like state-based standards of care for determining negligence, and the availability of private insurance are influential factors that significantly deter nonprofit engagement in prescribed fire.

†† At the time of our research, ongoing G&A efforts to streamline fire-related agreements were likely too recent to influence the experiences of interviewees with executed cooperative burn agreements.

Finally, current Forest Service policy requires that partners entering into Participating Agreements provide a minimum 20% match. This can be met through non-cash and in-kind contributions and serves to establish the mutual benefit described in the agreement. Match requirements are increasingly named by advocacy and educational organizations as a counterproductive barrier to partnership, which was confirmed by several nonprofit interviewees.⁴

Fireline Qualifications Barriers

Nonprofit interviewees cited fireline qualifications requirements as a barrier to building and maintaining their prescribed fire capacity. Because suppression is the basis for the federal NWCG position qualifications standards, and no separate “track” exists for prescribed fire, suppression experience is critical to advancing one’s credentials. Yet nonprofit interviewees shared that they have no avenues to participate in suppression work on an organizational level. They are not permitted to be on-call resources within the mutual aid system between states and the federal government, or permitted to participate in emergency federal contracts. This hampers their crews’ ability to develop and demonstrate applied competency and achieve full certification. (Individual non-profit employees have another option, Administrative Designation hiring—see Spotlight 1.)

Another notable barrier cited by nonprofit interviewees was limited access to web-based systems that track and certify fireline qualifications (see Spotlight 2 for more information). Some partners like The Nature Conservancy and certain national conservation corps organizations have negotiated access to the federal IQCS system for their employees, but this access is rare. Most nonprofits struggle to find durable solutions to this challenge.

When nonprofits use different modes of certifying fireline qualifications than those familiar to agency staff, it can also contribute to skepticism and concern about the rigor and equivalency of their qualifications. Although federal burn partners are required to meet NWCG position standards—standards which were created to encourage partnership and ensure interoperability across institutions—nonprofit interviewees often felt that their credentials were not regarded as “equal” to those of their federal partners by agency fire and fuels staff.

Liability Barriers

Every prescribed fire practitioner that we interviewed cited the uncertainty of their personal or organizational liability, particularly from an escaped burn or smoke damage, as a source of grave concern.

Because fire management carries inherent risk, some agency interviewees expressed a reticence about utilizing cooperative burning—even burning with other Forest Service districts or federal agencies—out of fear that they would be held responsible for the acts or omissions of those partners on a burn. One interviewee noted that burn bosses do receive liability training during NWCG’s RX-301 Prescribed Fire Implementation course, and that federal attorneys from the Office of General



SPOTLIGHT 2

FIRELINE QUALIFICATIONS AND MANAGEMENT

Federal agencies require that any cooperators burning on federal land meet the minimum standards outlined by the National Wildfire Coordinating Group (NWCG) in its Standards for Wildland Fire Position Qualifications, PMS 310-I. Each NWCG fire position (such as a Type I Burn Boss, or a Firefighter 2) has specific requirements, called fireline qualifications. Qualifications may include classroom courses, practical skill development, physical fitness standards, and mandatory training scenarios that must be signed-off on in a trainee's "position task book."

Successful completion of fireline qualifications must be tracked and validated by a trainee's sponsoring organization, such as a federal agency, a fire department, or a nonprofit. Web-based systems that streamline this complex tracking process include the federal government's Incident Qualifications and Certification System (IQCS), state agencies' parallel system called the Incident Qualifications System (IQS), and private wildland fire suppression contractors' platform provided by the National Wildfire Suppression Association (NWSA). These systems produce incident qualifications cards (also called red cards) for each fire professional as proof of earned fireline credentials, and maintain a record of completed qualifications requirements and upcoming training needs.

No qualifications management system exists for nonprofit organizations, a commonly cited challenge of cooperative burning partners. Various work-around strategies are in use as a result. Some nonprofits negotiate sponsorship by a local fire district that allows a trainee to access IQS. Others pay for membership to NWSA, although its suppression focus does not fully accommodate the requirements for prescribed fire-specific positions. In addition, NWSA membership does not scale effectively for small organizations with limited users, making it difficult to justify the cost of a dedicated organizational administrator as NWSA requires. Other nonprofits track and verify credentials manually, an onerous task that also carries high overhead costs.

Counsel are often invited to present to federal trainees. However, risk aversion and confusion about federal protections for agency employees on cooperative burns seem to persist within the agency, particularly in regards to property damages and bodily injury. (See Spotlight 3 for more information.)

Nonprofit interviewees felt similarly hindered by liability. Many interviewees had stepped away from prescribed fire implementation work because of the scarcity of private insurance options and the lack of assurances or parameters about their liability exposure on federal burn projects. Most nonprofits are without the legal or financial resources to absorb this uncertainty and risk.



SPOTLIGHT 3

LIABILITY & PRIVATE PRESCRIBED FIRE INSURANCE

Liability is a significant concern for prescribed fire practitioners because of the potential for smoke damages as well as the rare but sometimes costly event of an escaped burn. Catastrophic escapes can be career-ending events for those involved, and have in some instances caused the loss of life and property.⁵ For this reason, prescribed fire practitioners are generally careful to work only with trusted partners, and develop conservative burn plans to avoid unnecessary risk.

Forest Service employees are broadly protected from liability under the Federal Tort Claims Act (FTCA, 28 U.S.C. §§ 2671-2680). This act places the burden of compensation for permissible tort damages caused by federal employees on the United States government.⁶ It is generally understood that nonprofit partners are not included under the FTCA. One senior agency interviewee noted that the agency assumes primary liability on federally-led burns, but cannot shield nonprofit partners participating in implementation from the potential of shared liability. Any individual may still be held legally responsible for their own performance and duty of responsibility.

For this reason, many nonprofit interviewees have previously obtained private prescribed fire insurance policies from entities like Lloyds of London—but those policies have largely been eliminated in the past year due to exacerbating fire conditions and increased potential for damages. Prescribed fire insurance policies available to nonprofits are now extremely limited, covering only a handful of organizations.

(continued on next page)



SPOTLIGHT 3

(Liability & Private Prescribed Fire Insurance, continued from previous page)

Without this coverage, nonprofits implementing prescribed burns may depend on the use of contracted burn bosses with insurance, or their organization's general liability coverage. But for most nonprofits, this uncertainty is a prohibitive factor - a "wall," as one interviewee said, limiting their engagement in prescribed fire to supportive roles like planning and funding, but stopping short of on-the-ground execution on either private or federal land.

There are several policy solutions that would address the liability concerns of nonprofit cooperative burn partners, but most are outside the purview of the Forest Service. One is to lower each state's liability standard of "negligence," or responsibility for damages, to the least strict interpretation (gross negligence), which requires evidence of "reckless disregard" by the practitioner. Several states have or are establishing state-run certified burn manager certifications for private land burning that provides state-certified practitioners with access to that lower standard of care. Another example is California's new \$20 million Prescribed Fire Liability Pilot Program, a claims fund that will protect prescribed fire practitioners from cost-recovery for damages on permitted burns unless deemed grossly negligent.⁷ There is hope that if more states develop programs that pick up primary liability coverage as California has done, then private insurers may be more willing to underwrite for first losses (partial insurance) or catastrophic losses (high-cost events).

Photo Credit: Lance Cheung/USDA Forest Service



BARRIERS

Barriers to Prescribed Fire

Suppression Focus

Nearly every nonprofit interviewee felt that the suppression focus of the Forest Service’s fire and fuels staff—particularly in the West—fails to appropriately acknowledge the contributions of nonprofit partners and the inherent differences between emergency management and fuels reduction. Many nonprofit interviewees felt that the agency seemed to feel that it “owns fire,” and as one interviewee phrased it, “federal staff exhibit a pervasive superiority complex about fire work.” This seemed to result in a tendency toward insularity, and an inherent skepticism of practitioners who did not build their credentials through suppression assignments or federal employment.



Performance Measures

Agency performance measures and their corresponding incentive structures send a clear signal to field staff about agency priorities, with current performance measures devaluing prescribed fire generally and partnership efforts more specifically. One nonprofit interviewee put it this way: “There are a lot of incentives to meet other targets (i.e., timber targets) in the agency, but there are very few incentives to meet managed fire and prescribed fire targets.”

Many nonprofit interviewees felt that the principal target for hazardous fuels, “Acres Treated,” is a flawed metric for capturing the desired outcomes of fuels reduction. This measurement does not

discriminate between easier, low-value acres versus more difficult (and potentially more expensive) higher-value acres. It also does not distinguish between acres that have, for instance, only been mechanically thinned versus those that have also received prescribed fire, which in many western landscapes is a necessary additional step. As an output focused metric rather than one designed to measure outcomes, it fails to incentivize the comprehensive treatment of priority hazardous fuels.

Both agency and nonprofit interviewees felt that a performance measure focused on partnerships was also necessary to break through barriers to cooperative burning. Current performance evaluations tend to reward work accomplished on the ground.⁸ Agency staff are thus encouraged to prioritize expedient strategies over longer-term alternatives—like partnerships—that produce community benefit and build the prescribed fire workforce over time. These incentive structures tacitly dissuade agency staff from making the upfront investment of time and resources required in cooperative burn partnerships. One agency interviewee supportive of cooperative burning agreed that national-level directives would encourage the practice: “I would like to see an incentive [for partnership] from the Washington Office. If I’m not told to do it, I’m not going to do it. There needs to be some reason for us to change our culture.”

Staffing Barriers

The limitations of agency staff capacity were cited by a majority of interviewees as a significant constraint on cooperative burn opportunities as well as the agency’s own prescribed fire work. The lack of a dedicated prescribed fire workforce within the agency, as well as limited Partnership Coordinator (and similar) positions, makes it difficult for the Forest Service to maintain a steady program of fuels work and to utilize partners. Limited G&A capacity further strains the agency’s ability to process new agreements and assist with their creation. Without significant investment in the agency’s internal capacity, opportunities to grow and leverage the resources of partners will continue to be lost.

Photo Credit: Leslie Reed/USDA Forest Service, Southwestern Region



RECOMMENDATIONS FOR THE AGENCY

RECOMMENDATIONS FOR THE AGENCY

We have prioritized sixteen recommendations that would expand cooperative burning between the Forest Service and nonprofit partners. Some recommendations highlight opportunities for the Forest Service to address agency-specific barriers; others build on successful practices in the agency; and the remainder address barriers external to the agency but within its sphere of influence.

Recommendations to Facilitate Cooperative Burning

There are several actionable, short-term steps that the agency can take to increase the ease of cooperative burning for its own staff, and for nonprofit partners.

Address the Reluctance to Partner

Cooperative burning cannot occur without the desire and vision of agency staff to cultivate partner capacity and invest in relationships. Unfortunately, the practice is limited because these partnerships represent a departure from the agency's usual way of doing business, and because structural constraints make the agreements process burdensome. We recommend that the agency:

- **Communicate clear leadership intent encouraging broad adoption of cooperative burn partnerships.** The agency should deliver clear, top-down leadership intent to leverage cooperative burn partnerships and agreements in implementing its prescribed fire priorities. This will also send important signals to partners that they should expand and invest in their prescribed fire capacity. Agency messaging should include a Leadership Intent Letter that identifies cooperative burning as a critical tool, and new resources streamlining grants and agreements (G&A) processes and clarifying points of confusion such as liability language.
- **Establish partnership-focused performance metrics.** Agency and nonprofit interviewees agreed that clear prioritization and incentives were necessary to normalize and encourage the work associated with developing and maintaining partnerships. It would also indicate an unmistakable commitment by the agency to its goal of working in partnership to implement its 10-year Wildfire Strategy. New agency performance metrics might include the longevity of partnerships, or whether existing partnerships have leveraged new partnerships or scaled up in size.¹
- **Reward and learn from agency innovators.** Our interviews identified a number of innovative federal fire and fuels staff that have demonstrated a passion for and commitment to burning in partnership with nonprofits. These agency 'spark plugs' should be invited to form a strike team that can 1) socialize the models and practices that promote cooperative frameworks, and 2) identify strategies and mechanisms to institutionalize their successful practices into agency policy, guidance, and incentives.

Address Administrative Barriers

While some nonprofit partners manage to navigate the complexity of Forest Service G&A processes, their experiences are variable, interpretation of agency guidance is inconsistent across regions, and official resources for cooperative burn agreements are lacking. Partners and their federal counterparts need key improvements to streamline the agreement process and reduce the administrative burdens of partnership. To accomplish this, we recommend that the agency:

- **Create a virtual library of executed cooperative burn agreements.** Given the common practice of sharing agreements between forests and regions, the agency should create a central location (i.e., a Forest Service webpage) where executed burn agreements are made accessible across the agency and to partners. By transparently sharing these examples, fire and fuels staff can more easily learn about cooperative burn practices throughout the country, understand how they are being codified into agreements, and borrow content and language for their own agreements.
- **Create a unified roadmap for agency and nonprofit staff clarifying the process to develop a cooperative burn agreement.** Agency and nonprofit interviewees agreed that there is limited guidance on how to establish cooperative burn agreements.[†] Each region's G&A team has unique processes and tools, which can be confusing to agency staff that change positions and regions with some frequency. Efficient practices should be identified and made standard across the agency, reflected in an agency-wide roadmap or checklist that outlines the steps in the agreement process. This should include a list of key questions to answer before drafting an agreement, and a chronology for completing G&A review and approval.[‡]
- **Provide common operating language and legal provisions for cooperative burn agreements.** The majority of cooperative burn agreements we reviewed were of a single type (Participating Agreements) authorized by the same authorities (Cooperative Funds and Deposits Act and Wyden Authority), sharing similar scopes and features. While there will always be a need to tailor aspects of an agreement to the circumstances, these similarities suggest an opportunity to develop a number of pre-approved provisions that can be used in many, if not all, occasions. Of particular importance is the inclusion of liability, given the concern among all interviewees about uncertain risk exposure. Establishing this common operating language would make the development of cooperative burn agreements more efficient, and provide greater security to fire and fuels staff. Ultimately, any vetted language deemed not suited to the specific agreement in question can still be flagged and amended through the G&A review process.
- **Reduce or eliminate partner match requirements.** The twenty-percent match required by partnership agreements was regarded by nonprofit and some agency interviewees as an unnecessary barrier to entry that prevents full engagement of less-resourced groups in cooperative burning.

[†] Although the Forest Service grants and agreement program produced a reference guide for prescribed fire agreements in 2021, it is only accessible to agency staff and does not include a process checklist or examples of approved legal language.

[‡] Key questions might include whether there is an exchange of funds, whether the nonprofit partner meets or exceeds NWCG training standards, what the intended roles and responsibilities of the nonprofit and the agency are, etc.

Address Fireline Qualifications Barriers

Challenges in obtaining, tracking and certifying fireline qualifications were among the most pressing barriers to nonprofit engagement in cooperative burning. The Forest Service stands to benefit from untapped partner capacity by helping to resolve these challenges. We recommend that the agency:

- **Support options that allow nonprofits to be mutual aid entities, creating opportunities for nonprofits to build their qualifications and establish trust with federal fire partners.** Wildfire suppression experience is often needed to develop and maintain fireline qualifications—including those relevant to prescribed burning—in any of the NWCG-recognized systems. But nonprofits are excluded from several key avenues to suppression work, including federal mutual aid agreements and federal emergency contracts. This could be addressed by integrating nonprofit prescribed fire partners into the Interagency Resource Ordering Capability (IROC, a call-when-needed resource ordering system).
- **Make the federal Incident Qualifications and Certification System (IQCS) available to nonprofit partners, or support an alternate solution.** Limiting access to IQCS needlessly hampers recognition of equally valid credentials earned through other recognized systems. It also contributes to skepticism and concern among agency staff who need assurances that their partners' training qualifications meet the standards and rigor of their own. The Forest Service has demonstrated its ability to include outside partners in IQCS through its limited inclusion of The Nature Conservancy and several conservation corps organizations. It should explore the viability of opening IQCS to other nonprofits with partnership agreements, or support nonprofits and the broader nonprofit community in establishing a viable alternative platform that is parallel to the IQCS system.
- **Support the addition of a nonprofit seat on the NWCG governing board.** NWCG standards and guidelines are meant to facilitate interoperability between federal and non-federal fire management organizations. Although nonprofits represent a growing sector of partners engaging in prescribed fire implementation across all land jurisdictions, the NWCG Executive Board (the primary decision-making body) lacks nonprofit representation.² Adding a nonprofit seat to this body, alongside the existing federal, state, tribal, and fire chief entities represented, would facilitate policies that are more inclusive of all prescribed fire practitioners and promote true interoperability between all categories of fire practitioners.[†]

[†] The Nature Conservancy has historically been included in some NWCG work groups.

Address Uncertainty Regarding Liability

While there are complex factors contributing to the risk aversion and liability concerns expressed by interviewees—many outside of the agency’s purview—simple steps can be taken to improve understanding of these topics within the agency and clarify how to appropriately address them in agreements. We recommend that the agency:

- **Provide additional training to agency program staff about their liability protections when conducting prescribed fire and cooperative burning.** Agency interviewees expressed a reticence to engage outside partners in federal burns due to a seemingly pervasive fear of personal risk exposure and liability. The agency should survey agency fire and fuels staff to understand what topics cause concern or confusion, and work with the Office of General Counsel to design trainings that address them. This might include topics such as federal legal protections related to prescribed fire implementation, the classes of risk, tools for risk management, and implications for crossboundary burning and partnerships.



Photo Credit: Bureau of Land Management, Idaho

Recommendations to Facilitate Prescribed Fire

Increasing cooperative burning necessarily relies on an enabling environment for prescribed fire within the agency, reflected through its priorities, incentives, and workforce capacity.

Address the Agency's Suppression Focus

There are no simple solutions to the agency's organizational and cultural emphasis on suppression. It is critical that the Forest Service continue to encourage the prioritization of fuels treatments and prescribed fire—which its 10-year Wildfire Strategy is positioned to do—and acknowledge the credibility and value of other fire practitioners' knowledge, expertise, and abilities. Recommendations outlined in this report would help move the agency towards these critical changes, such as communicating clear leadership intent in support of prescribed fire and the engagement of partners; new performance metrics for comprehensive fuels treatments and partnerships; and the inclusion of nonprofit partners in the governing board of the National Wildfire Coordinating Group.

Modernize Performance Measures

Interviewees felt that current, output-based performance measures do not effectively incentivize the scale of prescribed fire implementation required for hazard mitigation. We recommend that the agency:

- **Elevate the Key Performance Indicator (KPI) “Acres Mitigated” to a principal agency target.** “Acres Mitigated” captures acres where final treatment effectively mitigates wildfire risk, and is a more comprehensive measure of the necessary fuels treatments required than “Acres Treated.” While still an annual output-based measure with the risk of prioritizing the easiest acres for treatment, it is a bridge to more outcomes-based performance measures that would ensure that prescribed fire as a fuels treatment option is being prioritized and measured.
- **Create new agency performance measures that generate meaningful fuels reduction outcomes.** While elevating “Acres Mitigated” is a short-term improvement, a more meaningful solution would be to evaluate the relative value of acres treated using a system that is spatially explicit and tied to the expected effectiveness of fuels treatment strategies. Fuels treatment prioritization and modeling conducted by the Colorado Forest Restoration Institute offers one example of how the Forest Service could develop new performance measures that reflect the highest-value risk reduction outcomes.³ The agency should convene a forum to discuss the different systems for quantifying acres treated and develop its own strategy for meaningful performance accounting.

Increase Staff Capacity


Agency and nonprofit interviewees agreed that increased Forest Service capacity was essential to meeting its fuels reduction goals and cultivating cooperative burn partnerships. The Infrastructure Investment and Jobs Act is anticipated to alleviate capacity constraints by establishing a permanent classification series for firefighters who would be required to conduct a minimum number of fuels reduction hours annually; and by providing new resources for additional agency staff positions. In making these staffing decisions, we recommend that the Forest Service:

- **Increase grants and agreement capacity to address constraints within that program.** Long agreement processes place a financial burden on nonprofit partners. Improving the timeliness of agreement creation will encourage more interest in cooperative burn partnerships and provide more security to nonprofit partners.
- **Create more partnership coordinator positions on national forests.** Partnership coordinators bring the additional capacity needed to cultivate and facilitate cooperative burn relationships and alleviate the administrative burden on program staff.
- **Establish dedicated, year-round fuels positions that are not given wildfire suppression assignments.** The continuity of staff is essential for building the agency's own capacity to hit hazardous fuels targets, and utilize critical strategies to do so like ongoing, multi-year cooperative burn partnerships. To secure this permanent capacity, the agency must develop strategies to attract qualified fire professionals given competition from more lucrative suppression positions, which offer incentives like hazard pay, budgeted overtime, and clear agency prioritization.



CONCLUSION

Cooperative burning is an emerging practice between nonprofits and the Forest Service with the potential to expand the application of prescribed fire on critical landscapes throughout the western U.S. Our research found that the majority of agency and nonprofit interviewees were interested in cultivating these partnerships, but that the feasibility of doing so was highly influenced by the degree of administrative complexity in agency processes, challenges and biases related to fireline qualifications, and uncertainty tied to liability exposure. There are immediate and long-term steps the agency can take to lower the barriers to entry for agency staff and for nonprofit partners and grow the use of cooperative burn partnerships on national forest system lands.



KEY TERMS

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| Administratively Determined (AD) hiring | A federal hiring authority reserved for emergency workers, allowing for hiring of short-term employees to fill wildfire and prescribed fire positions. ¹ |
| Burn boss | A trained and qualified person in charge of a prescribed burn. The burn boss is responsible for writing burn plans, determining when the burn is in prescription, obtaining smoke clearance and weather forecasts, notifying officials of the upcoming burn, and obtaining all qualified personnel and equipment needed to conduct and patrol the burn. The burn boss must also ensure all operations are conducted in a safe manner and consider personnel and public safety during and after the burn. ² |
| Burn plan | Official site-specific implementation documents prepared by trained and qualified personnel, approved by the agency administrator or land manager, and including criteria for the conditions under which a prescribed fire will be conducted to meet the resource objectives. ³ |
| Burn window | A ‘window’ of opportunity when environmental conditions allow for a prescribed burn, contingent on variables including resource objectives, current and predicted weather, fuel moisture, personnel and equipment availability. The most common burn windows occur outside of wildfire season in the spring, winter and fall. ⁴ |
| Cooperative burning | When diverse partners combine skills, resources and staff in ways that maximize opportunities for outreach, treatment and training through prescribed fire implementation. ⁵ |
| Cooperative burn agreement | For the purposes of this report, “cooperative burn agreement” is a colloquial term indicating any federal partnership agreement that codifies a cooperative burn partnership between a nonprofit and the Forest Service. |
| Escaped fire | A prescribed fire which has exceeded or is expected to exceed its initial prescription or attack capabilities. ⁶ |

KEY TERMS

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| Fireline qualified | Personnel who have met required qualifications to work on the fireline of a wildland fire incident or prescribed burn. Personnel must pass a work capacity test, specific National Wildfire Coordinating Group training courses, and complete scenario training including a practice fire shelter deployment. ⁷ |
| Grants and Agreements (G&A) | A division of the Forest Service whose specialists are responsible for the pre-award, award, administration, and closeout of a wide variety of agency grants and agreements. ⁸ |
| Hazardous fuels treatments | Forest management activities that modify the structure, distribution and type of fuels (living and dead vegetation) in a forest or rangeland ecosystem to reduce the potential for severe wildland fire behavior. It can be accomplished through a combination of brush removal, tree limbing, tree thinning, and prescribed fire. ⁹ |
| Incident qualifications card | The National Wildfire Coordinating Group defines this as “a card issued to persons showing their incident management and trainee qualifications to fill specified fire management positions in an incident management organization.” ¹⁰ It is issued by the entity that holds and manages a person’s qualifications. |
| Incident Qualifications and Certification System (IQCS) | An online federal interagency platform used for tracking and certifying the fireline qualifications, experience, task books and fitness requirements of federal partners in the National Wildfire Coordinating Group, and producing red cards. ¹¹ |
| Incident Qualification System (IQS) | A parallel system to IQCS administered by the National Association of State Foresters and used by state agencies to track qualifications for local fire services and mutual aid entities. IQS can exchange data with IQCS. ¹² |

KEY TERMS

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| Liability | The legal responsibility for acts or omissions that cause injury to another’s property. A prescribed fire practitioner may be held liable for damages caused by an escaped burn if their actions were determined to be “negligent.” Standards for negligence vary state by state and are established through common law or legislation. ¹³ |
| Multi-partner prescribed fire teams | A network of partners - sometimes called All Hands All Lands teams - that can burn together across jurisdictions through connecting and nested agreements. |
| Mutual aid / Mutual aid entity | Through mutual aid agreements, federal, tribal, state, and local agencies send their firefighters, engines, aircraft, and equipment upon request to wildfires on other jurisdictions, which is facilitated by the interoperability framework for operations established by the National Wildfire Coordinating Group. ¹⁴ |
| National Wildfire Coordinating Group (NWCG) | The body responsible for setting national interagency wildland fire operations standards and wildland fire position standards and qualifications requirements that allow for the interoperability of federal, state, local, tribal, and territorial partners. ¹⁵ Cooperative burn partners implementing prescribed fire on federal lands must meet or exceed NWCG position standards. |
| Partnership agreements | Forest Service agreements formalize a working relationship between parties and are a commonly used tool in the realm of collaborative forestry. They are more binding than memoranda of understanding, offer more flexibility than contracts and involve greater Forest Service engagement than grants. In most cases, agreements are intended to have mutual benefit and are defined by substantial involvement and/or contributions from both cooperators. They are non-competitive and are largely based on local resources and priorities as opposed to any national direction or mandate. Examples: Participating Agreement, Cooperative Agreement, and Challenge Cost Share Agreement. ¹⁶ |

KEY TERMS

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| Performance measures | A bureaucratic accountability tool used by the Forest Service to measure annual progress towards strategic priorities, including “Targets” and “Key Performance Indicators (KPIs). ¹⁷ |
| Prescribed fire | A land stewardship activity where fire is ignited and managed under defined weather and environmental conditions to meet specific ecological objectives. This can include broadcast burning of fine fuels across grasslands or shrublands, understory burning of surface fuels under a forest canopy, or pile burning of heaped woody debris collected during fuels removal. ¹⁸ Also called a controlled burn, or “burn”. |
| Prescribed Fire Training Exchanges (TRES) | A program supported through a partnership between The Nature Conservancy, the Forest Service and Department of Interior agencies that brings a diversity of fire practitioners together for experiential training that builds local capacity, delivers unique learning and professional development opportunities, engages local communities and implements cooperative burns and other fuels treatments. ¹⁹ |
| Red card | Shorthand for an Incident Qualifications Card, which is produced through IQCS and IQS. It is also a common phrase used outside of those qualifications management systems. |

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