

A photograph of five firefighters in a forest. They are wearing yellow and red gear, hard hats, and backpacks. They are standing in a line, looking towards the right. In the background, there are trees and a fire burning. The image is overlaid with a dark green semi-transparent box containing text and several overlapping circles in shades of green and blue.

RVCC
Rural Voices for
Conservation
COALITION

WORKING TOGETHER TO
INCREASE THE PACE AND
SCALE OF PRESCRIBED FIRE

A CASE STUDY

JANUARY 2020

WORKING TOGETHER TO INCREASE THE PACE AND SCALE OF PRESCRIBED FIRE

ABOUT THIS CASE STUDY

All hands approaches that leverage the capacity of federal, state, tribal, and non-governmental partners are essential to increasing the implementation of prescribed fire. Working together, partners used a variety of mechanisms to align organizational goals, build trust across agencies and organizations, and combine resources and skills, which ultimately resulted in the trained personnel needed to work across all lands in New Mexico.

AUTHORS

Zander Evans, *The Forest Stewards Guild*

Matt Piccarello, *The Forest Stewards Guild*

Karen Hardigg, *Rural Voices for Conservation Coalition*

Emily Jane Davis, *Oregon State University Extension, Ecosystem Workforce Program*



ACKNOWLEDGEMENTS



This project was made possible through funding support provided by the U.S. Forest Service to the *Rural Voices for Conservation Coalition* and *Wallowa Resources* supporting an All Lands Learning Network. This institution is an equal opportunity provider.

Document layout and design by Jessica Sabine Brothers, *Rural Voices for Conservation Coalition*

All photos courtesy of the *Forest Stewards Guild* and feature the *Forest Stewards Youth Corps* and collaborative burning in New Mexico.

For more information, contact:

Rural Voices for Conservation Coalition, rvcc@wallowaresources.org

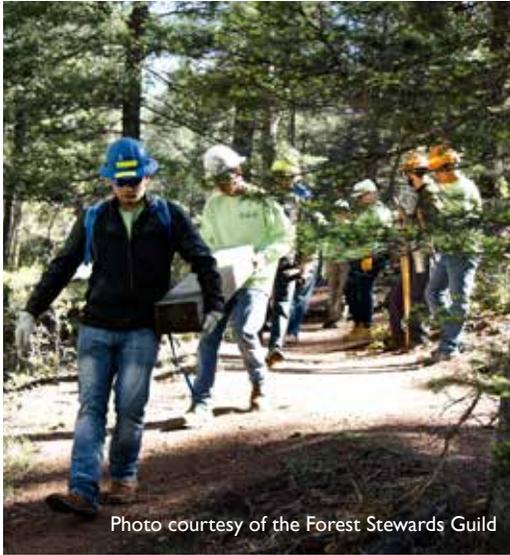
CONTENTS

Project Partners/Cooperators	1
Outcomes & Activities To Date	1
Involved Partners	2
Programs, Tools, and Authorities	3
Making it Happen	4-5
Challenges Encountered	6
Key Steps	7
Lessons Learned	8

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.

PRIMARY PROJECT PARTNERS & COOPERATORS



All Hands All Lands (AHAL) Burn Team
City of Santa Fe Fire Department (SFFD)
Forest Stewards Guild (the Guild)
Forest Stewards Youth Corps (FSYC)
National Wildfire Coordinating Group (NWCG)
New Mexico Department of Game and Fish (NMDGF)
New Mexico State Land Office (NMSLO)
New Mexico Youth Conservation Corps (NMYCC)
Rocky Mountain Youth Corps (RMYC)
Santa Clara Pueblo
South Central Mountains RC&D
The Nature Conservancy (TNC)
USDA Forest Service Region 3 (USFS)
USFS Española Ranger District, Santa Fe National Forest (ERD)
USFS Mt. Taylor Ranger District, Cibola National Forest (MTRD)

PRIMARY ACTIVITIES & OUTCOMES TO DATE

- ✓ Agreements in place that allow non-federal personnel to assist on prescribed fire on federal and tribal land.
- ✓ New youth programs established to support prescribed fire on USFS lands.
 - A total of 21 new firefighters trained on 3 youth crews from the Rocky Mountain Youth Corps and Forest Stewards Youth Corps.
 - The Española Forest Stewards Youth Corps (FSYC) crew burned 500 acres, effectively reducing fuel loading and reducing risk of catastrophic fire in a municipal watershed.
 - The Mountainair FSYC crew burned 157 acres of ponderosa pine forest adjacent to a community.
- ✓ Additional capacity hired by the Guild that allowed the Forest Service to take advantage of fall prescribed burn opportunities.
 - Seasonal firefighters were rehired to support prescribed fire with funding from the Collaborative Forest Restoration Program (CFRP).
- ✓ Innovative payment for ecosystem services funding mechanism allowed for the creation of an All Hands All Lands (AHAL) Burn Team to address capacity needs on federal, tribal, state, and private land.
- ✓ In less than a year, the AHAL Burn Team burned 6,236 acres across the Rio Grande Water Fund landscape.
- ✓ AHAL Burn Team provided a burn boss, enabling Santa Clara Pueblo fire staff to follow up their investment in thinning with 150 acres of prescribed fire.
 - Multi-stakeholder AHAL Burn Team of more than 50 individuals representing 20 different agencies, worked across 9 jurisdictions and worked over 220 operational shifts.
- ✓ Partnerships and agreements built through AHAL and previous collaborative burns allowed partners to conduct a 25,000-acre prescribed burn in the Luera Mountains in the spring of 2019.

Partner Name	Type	Roles
All Hands All Lands (AHAL) Burn Team	National nonprofit organization	<ul style="list-style-type: none"> Provide additional capacity to ensure prescribed fire can be implemented even when federal resources are stretched thin
New Mexico Department of Game and Fish	State agency	<ul style="list-style-type: none"> Provide funding and staff to support prescribed fire to improve habitat on lands managed by the State Land Office and Forest Service
USDA Forest Service Region 3	Federal agency	<ul style="list-style-type: none"> Work with AHAL to accomplish high priority prescribed burns
Cibola National Forest, Mt. Taylor Ranger District	Federal agency	<ul style="list-style-type: none"> Support and host prescribed fire crew of Guild employees from the administrative discretion (AD) pool
Cibola and Santa Fe National Forests, Española and Mountainair Ranger Districts	Federal agency	<ul style="list-style-type: none"> Support and host prescribed fire youth crew for 12 weeks
New Mexico Youth Conservation Corps	State	<ul style="list-style-type: none"> Provide crucial salary support for young adults participating in prescribed fire training and implementation
The Nature Conservancy	National nonprofit organization	<ul style="list-style-type: none"> Provide support for prescribed fire through the Fire Learning Network Provide technical support and review of burn plans Funded and supported the formation of the AHAL Burn Team
Forest Stewards Guild	National nonprofit organization	<ul style="list-style-type: none"> Coordinate the prescribed fire youth crews Work with partners to build the AHAL Burn Team Rehire firefighters for fall prescribed burning season
City of Santa Fe Fire Department	Municipality	<ul style="list-style-type: none"> Build wildland program from New Mexico Youth Conservation Corps investments Support Prescribed Fire Training Exchange (TRES) and collaborative fire efforts Participate in the AHAL Burn Team Provide career opportunities for youth finishing fire training
New Mexico State Land Office	State	<ul style="list-style-type: none"> Support restoration through prescribed fire on lands managed by NMSLO
Rocky Mountain Youth Corps	Nonprofit organization	<ul style="list-style-type: none"> Participate in firefighter trainings Provide personnel for collaborative prescribed burns

Non-Profit
 Local Partner
 State Partner
 Federal Partner

Program, Tool, or Authority	Purpose
Fee for Service Contracts	State agencies used fee for service contracts to hire non-profits to implement project work.
Memorandum of Understanding	Entered into by the Guild and NMSLO, provided a foundation for additional contracts to use prescribed fire on lands managed by NMSLO.
New Mexico's Collaborative Forest Restoration Program (CFRP)	Competitively awarded funding for forest restoration projects in New Mexico that are designed through a collaborative process, and address objectives such as wildfire threat reduction, ecosystem restoration, reforestation, and local forest-related employment. Utilized to build partnerships and funding for prescribed fire capacity building projects.
National Wildfire Coordinating Group	Provides firefighting training classes that allow engagement of new firefighters.
Participating Agreement	Supported creation of the Forest Stewards Youth Corps program to train to older youth (18- to 25-year-olds) in prescribed fire.
Prescribed Fire Training Exchange (TREX)	TREX demonstrates the effectiveness of collaborative burns and trains practitioners.
Rio Grande Water Fund	Provided financial support for prescribed fire across all jurisdictions within the Rio Grande watershed.
State Price Agreement	A statewide price agreement, which included the Guild, allowed provision of simple fee-for-service contracts for prescribed fire services to NMDGF and NMSLO.
Supplemental Project Agreement	Supplemental project agreements were used to direct funding from the U.S. Forest Service projects and to provide the legal foundation for work on federal lands.



MAKING IT HAPPEN

Expanding prescribed fire capacity to meet the need across New Mexico requires looking beyond the scope of just one project. Partners across the region have worked for nearly a decade to align goals, train new fire fighters, leverage skills and resources, and take advantage of prescribed fire opportunities. Along the way they've built trust and gotten good fire back on the ground across thousands of acres. Prescribed fire (fire ignited and managed under defined weather and environmental conditions) is crucial for restoring forest health, increasing resilience, and reducing the threat of catastrophic wildfire. Even though prescribed fire is an effective and ecologically appropriate tool for improving the health and resilience of forests, an array of factors makes it difficult to implement, including perceptions of risk, smoke concerns, weather limitations, capacity to implement, proximity of homes, and funding.

One of the biggest factors limiting the use of fire is capacity – the personnel and equipment needed to implement prescribed fire. To light a prescribed fire, landowners and managers need experienced and qualified personnel, personal protective gear, tools, transportation, wildland fire engines, and numerous other resources. It is comparably easy to stockpile physical resources, but having the right people in place is a challenge. This is particularly true in the Southwest during the fall, a key prescribed burn season. When conditions are right to burn in the Southwest, federal resources are often called to California and the Pacific Northwest to keep large, high severity fires from burning homes and forests. This can create a vicious cycle where resources are not available to light prescribed fires because they are being used to fight the very wildfires that prescribed fires can prevent.

Building prescribed fire capacity in New Mexico required partners to:

- Train and support new fire fighters;
- Combine resources and skills;
- Build trust across agencies and organizations;
- Align organizational goals; and
- Take advantage of prescribed fire opportunities with flexible staffing.

Training and supporting new firefighters

Within the existing federal wildfire management organization there are thousands of trained firefighters, but there remains a need for more prescribed fire practitioners.

Youth or young adult programs are an important way to engage future natural resource professionals and can be used to help meet the need for prescribed fire capacity. Safety concerns necessitate focusing prescribed fire training programs on young adults (18- to 25-year-olds). In New Mexico, the Guild's Forest Stewards Youth Corps (FSYC) young adult training program is built on decades of success with the younger cohort (16- to 19-year-olds) and a more than 20-year relationship with National Forests (currently codified in a Participating Agreement with USDA Forest Service Region 3). By taking young adults through standard National Wildfire Coordinating Group's (NWCG) firefighter Type II training, FSYC was able to fill the personnel gap in prescribed fire capacity during the late summer and fall, while resources were committed elsewhere in the country.

Combining resources and skills

In addition to FSYC, two other organizations are training and employing young adults and early career firefighters in Northern New Mexico. The links and mutual support between all three organizations means each can be more effective. The Rocky Mountain Youth Corps (RMYC) employs youth in a variety of conservation projects in partnership with federal, state, tribal and local land management agencies. While projects usually include trails construction, erosion control, invasive species control, and forest thinning, some crews have taken advantage of fire training opportunities with the Guild. Building on the fire training, personal relationships, and a history of working together, RMYC crews have added capacity to several prescribed burns in New Mexico.

Another connected organization building fire capacity is the City of Santa Fe Fire Department (SFFD). In 2010, SFFD secure funding for a 10-person thinning crew of 18-

to 25-year-olds. As the crew became more established, they were able to participate in wildfire suppression assignments in addition to prescribed fire and thinning work. SFFD now maintains a seasonal crew made up of young adults and five full-time staff in their 30s. The length of time SFFD can keep the seasonal crew working is related to the fire season and the number of wildfire assignments available. SFFD has partnered with federal and non-governmental organizations on prescribed burns and importantly, provides a potential career opportunity for youth finishing FSYC and other training programs.



Build trust across agencies and organizations

Growing prescribed fire capacity requires building trust. Fire management brings greater short-term risk potential than many other land management activities; therefore, decision makers and managers must focus on standards, qualifications, and other risk management tools. To provide prescribed fire capacity, partners must ensure that they meet accepted standards. For federal partners across the western US these are the National Wildfire Coordinating Group (NWCG) standards. In addition to following objective standards, managers had to personally trust the crews and leadership of the fire crews. For example, even once youth crews had earned NWCG certification as firefighters, individual fire managers had to be convinced that the crews would prove to be an asset during a prescribed fire. Not surprisingly, trust was built slowly one successful project at a time. Each successful project set the stage for the next. Early projects digging fireline showed partners that the crew could work hard. The first prescribed fire showed they knew the safety protocols and the intricacies of fire management. Problems also helped build trust, especially when they were tackled head-on and federal fire managers saw their concerns addressed.

Align organizational goals

Achieving landscape-scale ecological change requires that the organizations that operate across that landscape align their strategies and goals. For example, once the New Mexico State Land Office and the New Mexico Department of Game and Fish agreed that prescribed fire met their shared restoration and wildfire habitat goals, it was possible to harness their combined financial and operational resources to implement a 25,000-acre prescribed burn in the Luera Mountains during the spring of 2019. In addition to shared goals, the work in the Luera Mountains required that personnel capacity, equipment availability, and weather conditions all lined up as well. The good personal relationships between many of the key actors was a critical, positive influence. New Mexico State Land Office, New Mexico Game and Fish, South Central Mountain RC&D Council, the New Mexico Prescribed Fire Council, The Nature Conservancy, and the Forest Stewards Guild each brought resources to achieve shared goals. The burn (believed to be the largest in state history) took place over 14 days, using hand ignitions in grass, piñon/juniper, ponderosa pine and mixed conifer.

Take advantage of prescribed fire opportunities with flexible staffing

The ephemeral nature of prescribed burns windows - the fuel, weather, and social conditions that allow for a safe an effective burn - requires partners to both be ready to seize an opportunity when it appears, and to be creative. Federal agencies have learned to accommodate sudden staff absences to respond to wildfires and their administrative systems can accommodate prescribed fire as well. For organizations with smaller budgets that must comply with fair labor laws, flexibility can be difficult to manage. For example, a surprise rainstorm that closes a prescribed fire window can wreak havoc with grant deliverables. Similarly, project partners must be judicious with staff salaries and often can only afford to pay firefighters when there are actually implementing a burn. Establishing a group of on-call firefighters who are trained, certified, trusted, and able to leave other commitments for a few days at a time has been crucial to implementing the AHAL Burn Team. Each burn takes advantage of a slightly different group of firefighters and requires significant coordination to ensure each burn has the required personnel.

CHALLENGES ENCOUNTERED



Building trust

Wildland firefighting, and by extension prescribed fire, tends to be culturally insular and resistant to change, in part because of the importance of safety. For example, often federal land managers and decision makers are most comfortable in the existing system, i.e., using federal firefighters to implement prescribed burns. Trying to broaden the resource pool to include other firefighters can raise questions about training and liability even if partners follow the same standards.

Limited availability of temporary and seasonal fire fighters during the prescribed fire season

The Forest Service's ability to bring prescribed fire to all the land that needs it is limited by temporary and seasonal personnel capacity. Seasonal employees are crucial to fire suppression. They are usually hired in the spring to prepare and then work hard across the country during the height of fire season. However, seasonal employees are limited to six months of work, and are often let go – just as the opportunities for prescribed fire emerge in the fall. Other firefighters are brought on as administrative discretion (AD) hires and trained for the fire season, but also must be let go as money for wildfire suppression runs out.

Stringent firefighter standards are hard to achieve

It is not easy to get and maintain the qualifications and fitness needed to be a prescribed fire practitioner. Workforce development requires meeting participants where they are and supporting them on the path to the high standards required. It is easy to lose program participants because they feel they cannot achieve the program goals or because it takes extra training or time to get them to meet standards. For example, some of the young adults in the prescribed fire training program were not able to meet the fitness requirements at the start of the program – a strenuous level pack test. Instead of seeing this as the end of the road for these individuals, trainers worked with them to improve their fitness and worked with managers to identify ways for them to participate in prescribed fire after passing the moderate level pack test.

KEY STEPS AND ENABLING CONDITIONS

- ✓ A history of partnerships at the operational level meant collaborators knew and trusted each other. A background of past work also meant collaborators knew each other's strengths and processes.
- ✓ Project planners and administrators listened to and were responsive to concerns of land managers.
- ✓ Agreements with land management agencies were in place, allowing practitioners to be responsive to fire windows. Agreements included an MOU with State Land Office and National Park Service, and Participating Agreements and Supplemental Project Agreements (SPA) with the U.S. Forest Service.
- ✓ NGO partners were able to secure insurance for prescribed fire.
- ✓ The NMYCC provided funding for young adult prescribed fire training.
- ✓ Implementing on-the-ground projects demonstrated the skill and effectiveness of young adults to federal partners.
- ✓ NGO partners responded to agency needs with funding for fall AD hires.
- ✓ The Guild secured critical seed funding for AHAL burn team through the Rio Grande Water Fund.
- ✓ All partners continue in outreach, education, and actively listen to public concerns about prescribed fire.

LESSONS LEARNED

Build long-term relationships

It would not have been possible to put together a successful youth prescribed fire training program without past experience with youth programming and a relationship with New Mexico Youth Conservation Corps. A positive history of collaboration at the operational level between the Guild and U.S. Forest Service districts on the Forest Stewards Youth Corps (FSYC) also provided a strong foundation on which to build the youth prescribed fire program. SFFD's January 2017 prescribed pile burn in the Santa Fe watershed was another example of how relationships built over time. During this pile burn the Guild provided crucial additional personnel. The success of the collaborative pile burn motivated the development of the AHAL Burn Team and helped set the stage for increased collaboration on future burns.

Have agreements in place early

Weather windows open and close quickly for prescribed fire – too quickly to get an agreement in place. Long before the first match is lit, partners need to work together to forge or update agreements that allow for cross boundary work. In turn, because prescribed burn windows also close quickly, partners need to be patient – and have funding agreements with long enough lead times to allow for flexibility.

Seek creative and flexible solutions

It often takes a lot of creative problem solving to pull off a collaborative prescribed burn. Getting good fire on the ground can hinge on housing, or transportation, or finding a way to supply meals. Many of the prescribed fires implemented with the youth crews or the AHAL Burn Team required some unusual solution. For example, support from the High Plains Grassland Alliance to pay for food enabled collaborative burning on a private ranch near Watrous, New Mexico. Creativity, flexibility, and problem solving is essential.

Acknowledge and work to address public concerns

Smoke, perceptions of risk, and other concerns can become a significant constraint for prescribed fire. Even small numbers of individuals can close down a controlled burn or make decision makers shy away from burning. Acknowledging public concerns and working to address them, even in small ways, can maintain prescribed fire as an available option. For example, a program to loan air filters to smoke sensitive individuals (<http://www.santafefireshed.org/hepa-filter-loan-program>) helps individuals and at the same time, shows the community that land managers are responding to their concerns.

Recognize that workforce development requires commitment

Just as fostering resilient ecosystems is an ongoing effort, building the prescribed fire workforce needed for restoration requires a long-term commitment. Training programs need to invest in the process and lay the groundwork for enduring success, i.e., fire practitioners who can rise to new challenges as they emerge. It is not enough for trainees just to complete the program, they must be ready and motivated to take the next career step.



This project was made possible through support provided by the United States Forest Service to the Rural Voices for Conservation Coalition and Wallowa Resources, under the terms of Cooperative Agreement #16-CA-11132544-032 supporting an All Lands Learning Network. This institution is an equal opportunity provider.



RVCC
Rural Voices for
Conservation
COALITION

www.ruralvoicescoalition.org



Photo courtesy of the Forest Stewards Guild