



Prescribed Fire on Private Land in New Mexico

An update to the 2017 report:
Controlled Burning on Private Land in New Mexico



Forest Stewards
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FIRE ADAPTED NEW MEXICO LEARNING NETWORK

Prescribed Fire on Private Land in New Mexico

An update to the Forest Stewards Guild 2017 report in partnership with Promise PCES LLC:
Controlled Burning on Private Land in New Mexico

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¹ On cover: Forest Stewards Guild's Gabe Kohler and the New Mexico Prescribed Fire Council's Don Kearny speaking with participants of the Prescribed Fire Workshop for Private Landowners at Fort Union Ranch, Watrous, NM. Photo credit: Rhiley Allbee. Cover designed by Sam Berry.

Executive Summary

Over a century of fire exclusion and suppression has led to negative impacts for fire-adapted ecosystems across New Mexico through the increasing prevalence of uncharacteristically large and severe fires that threaten lives, property, forests, wildlife, and clean water. Wildfires can be reduced in severity and made easier to manage by reducing the density and connectivity of trees within forests and reducing the prevalence of dense forests across landscapes. The pace and scale of forest management needs to increase in order to reduce the threats of large, high severity wildfires, most notably within the wildland-urban interface (WUI) and on private lands.

Both the need to reduce the threat of wildfires by changing fire behavior, and the need to return fire as an ecological process, are addressed through prescribed burning. Within the WUI, where homes are interspersed throughout naturally vegetated areas, prescribed burning is more difficult and complex. Liability and insurance are two elements that make prescribed burning on private lands difficult, especially within the WUI.

This report is an update to *Controlled Burning on Private Land in New Mexico*¹, a report from 2017 by the Forest Stewards Guild in partnership with Promise PCES LLC. That report used the term “controlled burning” instead of “prescribed fire” or “prescribed burning.” While these terms are interchangeable, this report uses the more standardized professional terms “prescribed fire” or “prescribed burning.” That report reviewed some of the key organizational and legal issues that created barriers to prescribed burning on private lands in New Mexico and identified opportunities and practices to facilitate the increase of prescribed burning. This report reviews progress made since the 2017 report, and highlights programs, approaches, and opportunities that are currently helping to expand the use of prescribed burning on private lands in New Mexico.

Based on the 2017 report and progress over the last two years, there are a number of promising avenues for supporting and encouraging prescribed fire on private land. The following recommendations are described in more detail in this report:

Support the House Memorial 42 Working Group to make recommendations for the 2021 NM Legislature on comprehensive prescribed fire legislation to address liability, permitting, training, and certification.

Plan and implement a burn using the memorandum of understanding between the Bureau of Land Management (BLM) and the New Mexico association of Conservation Districts Memorandum of Understanding.

Continue to pursue a Forest and Watershed Restoration Act project that includes prescribed burning on private lands that is in compliance with the current interpretation of the anti-donation clause as it relates to land management actions. This initial effort can then be learned from and adapted for the future.

Work to use existing Natural Resource Conservation Service (NRCS) funding mechanisms to offset prescribed burning on private lands.

Collaborate with Soil and Water Conservation Districts to use existing funding sources to support prescribed burning on private lands.

Support the All Lands All Hands Burn Team approach in the Rio Grande Water Fund landscape and explore ways to expand the approach to other landscapes in New Mexico.

1. Support the New Mexico Prescribed Fire Council and others to maintain and expand prescribed fire training opportunities to build more capacity for prescribed fire in New Mexico.
2. Develop a consistent interpretation of the Wyden Authority in New Mexico and then develop several projects that allow for sharing of resources across jurisdictions.

Contents

Introduction.....	1
Developments Since 2017 Report.....	2
House Memorial 42.....	2
Memorandum of Understanding.....	3
Forest and Watershed Restoration Act	4
Continuing Limitations to Prescribed Burning on Private Lands.....	6
Liability.....	6
Anti-Donation Clause	7
Prescribed Fire Resources for Private Landowners in New Mexico	8
Natural Resources Conservation Service.....	8
Conservation Technical Assistance (CTA).....	8
Environmental Quality Incentives Program (EQIP).....	8
Conservation Stewardship Program (CSP).....	8
Soil and Water Conservation Districts.....	9
All-Hands All-Lands Burn Team.....	10
New Mexico Prescribed Fire Council.....	10
The Wyden Authority	11
Conclusion and Recommendations.....	11
References.....	13

Introduction

Wildland fire is a natural disturbance that influenced the ecology of landscapes across New Mexico for thousands of years. While the intensity, return-interval, and scale of wildland fires varied historically due to a diverse range of factors such as vegetation type, precipitation, humidity, and temperature, fire was a constant on the landscape. Forests in New Mexico need fire to remain healthy. Prescribed burning addresses both the need to reduce fire severity and to return an important ecological process to fire-adapted forests.

The native vegetation and wildlife were adapted to local fire regimes. For example, mature ponderosa pine trees have thick bark that can withstand frequent, low-severity fires^{2,3}. Additionally, historical ponderosa pine forests consisted of patchworks of tree clumps with openings created by low-intensity ground fires that limited the establishment of tree seedlings and shrubs and also consumed the litter and debris that would otherwise accumulate on the forest floor^{4,5,6,7}.

Throughout most of the 20th century, wildland fires across North America were methodically suppressed and intentionally excluded from the landscape. Extensive grazing by cattle and sheep in the late 1800s and early 1900s eliminated grassy understories from many ponderosa pine forests, permitting the establishment of trees and reducing the occurrence and spread of surface fires. Unprecedented fuel loads today create an increased potential for large, high-severity fires, or megafires. The risk of these fires has been further exacerbated by a rapidly changing climate⁸.

High-severity fires can have a profound impact on the ecological and human communities that are affected by them. A recent example of a high-severity fire is the Whitewater-Baldy Fire Complex, the largest wildfire in New Mexico state history that burned more than 297,845 acres in 2012. No human lives were lost throughout the duration of this high-severity wildfire, but it burned more than a dozen residences and caused the evacuation of several towns.

Research has demonstrated that forest management actions that restore low-density conditions and reduce the connectivity of dense forests across the landscape can reduce the severity of wildfires and make them less complex to manage^{9,10}. Typically, the most effective treatments at moderating wildland fire behavior are those that include both thinning and prescribed fire^{11, 12, 13}. When thinning alone is used as a forest management tool, and residual surface fuels are left untreated, fire behavior becomes more intense than in areas that were not thinned^{14, 15}.

In New Mexico, there are significant limitations to the use of prescribed fire, particularly on private lands. Within the wildland-urban interface (WUI), where homes are interspersed throughout naturally vegetated areas, prescribed burning is more difficult and complex. Liability and insurance are two elements that make prescribed burning on private lands difficult, especially within the WUI. Currently, the pace and scale of forest management within New Mexico needs to increase in order to meet the threats of large, high-severity wildfires, most notably within the WUI and on private lands.

This report is an update to *Controlled Burning on Private Land in New Mexico*¹, a report from 2017 by the Forest Stewards Guild in partnership with Promise PCES LLC. That report reviewed some of the key organizational and legal issues that created barriers to prescribed burning on private lands in New Mexico and identified opportunities and practices to facilitate the increase of prescribed burning. This report reviews progress that has been made since the 2017 report,

discusses continuing limitations, and highlights programs that are currently helping to expand the use of prescribed burning on private lands in New Mexico.

Developments Since 2017 Report

Since the 2017 report, three significant developments affect the potential implementation of prescribed fire in the private sector. First, the 2019 Legislature passed House Memorial 42 to examine the enabling conditions for prescribed fire on all lands. Second, a Memorandum of Understanding was signed by the United States Department of the Interior Bureau of Land Management (BLM), New Mexico State Office, and the New Mexico Association of Conservation Districts (NMACD) to encourage the use of prescribed burning within the private sector. Third, the 2019 Legislature passed the Forest and Watershed Restoration Act, creating a potential funding source for projects that use prescribed fire to restore forests and mitigate fire risks.

House Memorial 42

On April 5th, 2019, Representative Matthew McQueen introduced House Memorial 42 to the House of Representatives of the State of New Mexico “requesting the Energy, Minerals, and Natural Resources Department (EMNRD) to create a working group to develop an analysis to expand the practice of prescribed fire in New Mexico¹⁶.” Specifically, the purpose of the working group is to study the expansion of prescribed fire in New Mexico including issues of liability, training, certification, permitting, negligence, and smoke impacts, and to review how other states have addressed these issues in state law while simultaneously increasing the use of prescribed fire¹⁶.

The working group is comprised of a core team made up of representatives from the following organizations:

- EMNRD/State Forestry Division (Forestry Division);
- New Mexico Prescribed Fire Council (NM Rx Fire Council);
- The Nature Conservancy (TNC);
- Forest Stewards Guild (Guild);
- New Mexico Forest Industry Association (NMFIA);
- Chama Peak Land Alliance (CPLA); and the
- Air Quality Bureau (AQB) of the New Mexico Environment Department (NMED).

Additional organizations have been invited to take part in the working group and keep apprised of information and developments. These groups include, but are not limited to:

- the State Fire Marshal’s Office (SFMO);
- New Mexico Department of Game and Fish (NMDGF);
- New Mexico State Land Office (NMSLO);
- New Mexico Department of Agriculture (NMDA);
- Office of the State Engineer (OSE);
- Office of Superintendent of Insurance (OSI);
- New Mexico Acequia Association (NMAA);
- New Mexico State University (NMSU); and
- New Mexico Forest and Watershed Restoration Institute (NMFWRI)¹⁶.

The 23 Tribes and Pueblos in New Mexico were also invited to participate in the working group¹⁷.

The core team of the working group was formed shortly after the introduction of House Memorial 42 to be leading contributors for the full group¹⁷. The findings and conclusions of the working group will be reported to the appropriate interim legislative committee by July 1, 2020¹⁶.

Memorandum of Understanding

In July of 2017, a Memorandum of Understanding (MOU) was passed between the United States Department of the Interior BLM New Mexico State Office and NMACD to facilitate access to prescribed fire expertise and resources for private landowners across landscapes. The overall goal of the memorandum was to help support private landowners in accomplishing prescribed burning across private and public land jurisdictions. The MOU will remain in effect for 5 years from the execution date, unless it is terminated, extended, or cancelled prior to that date^{18, 19}. The roles and responsibilities of the BLM within the MOU include:

- i. providing resources and expertise in the development of burn plans on private and public land jurisdictions. A mutual benefit must be present for both parties, and implementation can only occur upon request and funding by private landowners (or grazing permit holders);
- ii. providing resources and expertise in the implementation of the above-mentioned burn plan (with the same constraints still in affect); and
- iii. providing a National Wildfire Coordinating Group (NWCG) certified Burn Boss (RXB2), equipment, and resources for the planning and implementation of the prescribed fire through the local Soil and Water Conservation District (SWCD), if requested and feasible¹⁸.

The roles and responsibilities of the NMACD include:

- i. providing education and information to local landowners and local SWCDs on the purpose of the MOU and its opportunities and mechanisms;
- ii. providing SWCDs and private landowners the guidelines of the BLM's prescribed fire policy; and
- iii. assisting in the development of the burn plan and/or the implementation of the prescribed fire⁸.

Currently, the MOU has not been utilized and the BLM and NMACD are working towards addressing these areas of concern:

- i. **Increasing cost-share funding.** The current cost-share reimbursement for prescribed fire does not cover enough of the costs incurred to make the implementation of prescribed fire a viable option for many private landowners. The MOU is hoping to establish a 50/50 cost-share model through the Natural Resources Conservation Service (NRCS). To accomplish this, NRCS needs to obtain accurate and up-to-date data regarding the actual

- costs incurred when implementing prescribed fire on a per acre basis²⁰. The BLM-NMACD MOU can be used without NRCS cost-share funding²⁰.
- ii. **Reviewing federal laws and regulations that guide work across multiple jurisdictions.** For example, if cost-share funding is received from NRCS through the Farm Bill, other entities cannot add their additional expertise or funding under the same contract, even if prices are more competitive. This interpretation of the law is being reviewed to confirm its accuracy²⁰.
 - iii. **Providing access to prescribed fire insurance.** There are several options to provide landowners access to prescribed fire insurance coverage. In other states, chapters of the Pheasants Forever provide insurance for the chapter to conduct prescribed burns on private lands for habitat improvements⁴⁶. In Florida and Missouri, the Quail and Upland Wildlife Federation offers landowners liability insurance when conducting prescribed burns in accordance with their policies. In this instance landowners who pay the annual \$35 membership to the local chapter can gain access to the insurance policy^{20, 21}. In 2018 and 2019 the Forest Stewards Guild has secured prescribed fire liability insurance for burns that the Guild bosses and for other organizations and businesses conducting similar activities in other areas. The Guild is looking into the potential to work with our insurer to develop a policy for landowners to have additional coverage. Between these three examples, there is likely a way to provide landowners with prescribed fire insurance coverage. Once such a policy is developed, it's important that it get used to maintain the market incentive for insurers to continue to offer the policy.

If these three areas of concern can be addressed, this MOU could provide an important support for prescribed fire on private lands. Perhaps the best way to demonstrate the potential power of this option would be to plan and implement a burn based on the MOU.

Forest and Watershed Restoration Act

The Forest and Watershed Restoration Act was created by House Bill 266 and signed into law by Governor Michelle Lujan Grisham on March 15, 2019. This Act annually allocates \$2 million funding to the Forestry Division for the purpose of restoring forests and watersheds on any lands² in the state²². The Act also created a Forest and Watershed Advisory Board to guide the implementation of the Act. Projects are eligible for funding if they:

- are for public benefit;
- are part of a current state forest and watershed health plan or forest action plan, a community wildfire protection plan, a comprehensive forest and watershed treatment plan, or wildlife conservation improvement plan approved by the Advisory Board;

² N.M. Legis. (2019). House Bill 266: Forest and Watershed Restoration Act. Retrieved from <https://nmlegis.gov/Sessions/19%20Regular/final/HB0266.pdf>.

Line 19: "C. "project" means a large-scale forest and watershed restoration project on any lands in the state that increases the adaptability and resilience to recurring drought and extreme weather events of the state's forests and watershed; protects water sources; reduces the risk of wildfire, including plans for watershed conservation; restores burned areas or thins forests; and includes a related economic or workforce development project or a wildfire conservation or habitat improvement project."

- incorporate actions recommended by current plans, or where new plans are developed, seek to integrate forest, fire, and water management with community and economic development plans;
- protect watersheds that are a source for drinking water or irrigation;
- target an area at high risk of high-severity wildfire; or
- have obtained all state and federal permits and authorizations necessary to initiate the project²².

The Fiscal Impact Report for the Forest and Watershed Restoration Act noted that the bill provides for projects on any land within the state, stating that unless certain conditions exist, use of state funds on private lands could violate the anti-donation clause of the New Mexico Constitution²³. The Fiscal Impact Report states that to prevent an anti-donation clause violation, three primary conditions must be met:

- i. the funds must be spent for a public governmental function, not just for a public purpose (e.g. funds must be administered through a state agency or other political subdivision of the state pursuant to authority granted under state law to be considered a public governmental function);
- ii. the project spans multiple private landowners and requires a minimum number of owners to participate in order to achieve a land management outcome that individual landowners working separately could not accomplish on their own;
- iii. and the state agency, or political subdivision, must have complete control over the funds and their disbursement (e.g. a private individual or entity cannot administer or directly receive the funds)²³.

This explanation was reaffirmed in a Frequently Asked Questions posted on the New Mexico State Forestry Division (Forestry Division) website regarding what lands HB 266: Forest and Watershed Restoration Act funds can be used on. The answer states that “projects must be on public land, or if on private land comply with Article IX, Section 14, the anti-donation clause of the New Mexico Constitution and be administered by the Forestry Division²⁴.”

The Forest and Watershed Advisory Board met for the first time on Tuesday, July 9, 2019. At this meeting, project proposals requesting funding under the Act were presented to the Advisory Board for review. A project proposal on the Las Vegas District, in the Turkey Mountains, was proposed as a test case for utilizing funding on private lands while remaining in compliance with the anti-donation clause²⁵. The project would span the properties of five landowners and would treat 4,500 acres of forested land through thinning or prescribed fire over a 10-year period with match through the federal Landscape Scale Restoration program. The advisory board asked for supplemental information to be developed to document the landowner commitment before approving funding¹⁷.

The Turkey Mountains project was recommended for funding by the Advisory Board on November 13, 2019. This project could set a precedent for utilizing funding for prescribed fire from the Forest and Watershed Restoration Act on private lands without being in violation of the anti-donation clause. This initial effort can then be learned from and adapted for the future.

Continuing Limitations to Prescribed Burning on Private Lands

The 2017 report, *Controlled Burning on Private Land in New Mexico*, identified uncertain liability and the anti-donation clause within New Mexico's state constitution as factors limiting prescribed burning within the private sector¹. These factors continue to limit private landowners from utilizing prescribed fire as a forest management tool on their properties.

Liability

New Mexico does not have specific statutes defining prescribed fire and its resultant liability. Therefore, New Mexico, along with 21 other states, is considered to have uncertain liability, and outcomes of litigation typically fall between strict liability and simple negligence¹.

- Strict liability considers prescribed fire to be an “ultra-hazardous activity,” and should the activity cause any injury, the individual that engaged in the activity will always be held liable regardless of any precautionary measures that may have been taken¹.
- Simple negligence requires the plaintiff to prove fault through harm, causation, or breach of duty by the defendant. This permits the assumption that the accident may have occurred despite the defendant having satisfied all the applicable standards of care, therefore, allowing the defendant to reduce or even avoid liability¹.

The uncertain liability definition deters prescribed burning because even if applicable standards of care are utilized, prescribed burners could be potentially liable for damages if an accident were to occur. Courts typically sway towards simple negligence where liability definitions are not determined²⁶. However, “reasonable care” is subjective without the presence of standards that demonstrate what is reasonable and under what circumstances.

Uncertain liability may impede the ability to acquire appropriate prescribed fire insurance. Outdoor Underwriters, one of the few insurance underwriters that provide prescribed fire products to private landowners, will not underwrite a project in a state without a prescribed fire law that defines liability as simple or gross negligence⁴⁵. Organizations and contractors that are currently utilizing prescribed fire on private lands have insurance coverage, but still report limited options for acquiring appropriate insurance and concerns apropos of liability as challenges to implementation¹.

Uncertain liability in New Mexico may also limit the availability of federal funding for implementing prescribed fire on private land. For example, the 2019-2020 Wildfire Risk Reduction for Rural Communities Grant Program in New Mexico explicitly stated that, “Prescribed burning of any type including, but not limited to, broadcast burns, pile burns, understory burns, etc. is explicitly excluded as an approved practice through this grant program²⁷.” Funding for this program is provided by the National Fire Plan through the Department of the Interior BLM in cooperation with New Mexico Counties. The program targets at-risk communities by offering seed money to help defray the costs of reducing wildland fire risk to non-federal WUI areas in New Mexico²⁷.

Anti-Donation Clause

A factor that is frequently cited as limiting the Forestry Divisions' support to private landowners is the anti-donation clause in New Mexico's state constitution. The anti-donation clause states that:

“Neither the state nor any county, school district or municipality, except as otherwise provided in this constitution, shall directly or indirectly lend or pledge its credit or make any donation to or in aid of any person, association of public or private corporation or in aid of any private enterprise for the construction of any railroad²⁸.”

The anti-donation clause can inhibit collaboration between the public and private sectors to address significant land management needs. The anti-donation clause is often cited as limiting state support to private landowners to “technical support,” often in the form of publicly available guidance that is not specific to any one landowner or their specific land management needs¹.

It may be possible to develop projects for private lands that will be in compliance with the anti-donation clause. A precedent was set for this with the operation of the grasshopper control program through the Grasshopper Control Board of the State of New Mexico. This program met the requirements for the anti-donation clause because:

- i. a public purpose was being served; and
- ii. complete control of the expenditure of the State's contribution rested in a state agency³⁰.

As was previously discussed, approval of the Turkey Mountains project could provide an example for potential prescribed fire practitioners to understand the criteria needed to utilize the Forest and Watershed Restoration Act on private lands and be in compliance with the current anti-donation clause.

Prescribed Fire Resources for Private Landowners in New Mexico

New Mexico has a committed community of professionals dedicated to restoring landscapes and protecting communities through the utilization of prescribed fire. Although barriers to prescribed burning in the private sector are a reality, numerous programs and initiatives exist to facilitate the implementation of prescribed fire within the private sector.

Natural Resources Conservation Service

NRCS assists private agricultural producers with the planning, design, and implementation of conservation practices on forests, rangelands, or pasture systems, including the use of prescribed fire. NRCS assists in the planning, development, and implementation of prescribed fire through either Conservation Technical Assistance (CTA) and/or financial programs such as the Environmental Quality Incentives Program (EQIP) or the Conservation Stewardship Program (CSP). Additionally, lands enrolled in the Conservation Reserve Program (CRP) are eligible for prescribed fire as a management or restoration tool³¹.

Conservation Technical Assistance (CTA)

CTA is provided by NRCS, or the employees of other entities/agencies that are under the technical supervision of NRCS, to clients in order to address opportunities, concerns, or problems related to the use of natural resources. The planning, development, and implementation of prescribed fire can fall under this category³².

Environmental Quality Incentives Program (EQIP)

EQIP is the main NRCS program that provides financial and technical assistance to agricultural and forestry producers to use conservation practices. EQIP is a voluntary program in which prescribed burning can be an eligible conservation practice. Interested private landowners can contact their local NRCS office to request a field visit and begin the process of developing a conservation plan. Financial assistance covers part of the costs of implementing conservation practices. Payments for prescribed burning will differ based on size, terrain, and fuel type in the proposed burn area^{31,33}.

Conservation Stewardship Program (CSP)

CSP funded practices, described as “enhancements” by statute, for prescribed burning are available through the CSP. The CSP is a voluntary program that helps private landowners build their existing conservation efforts while strengthening their business operations^{31,34}. Enhancements directly related to prescribed fire include:

Enhancement E338136Z: short interval burns to promote a healthy herbaceous plant community for wildlife food. Prescribed fire is used in a forest to restore fire-adapted plants while also improving wildlife habitat and forage and reducing the risk of damage from intense, severe wildfires. This enhancement addresses the resource concern of inadequate habitat and forage for fish and wildlife and has a 1-year lifespan³⁵.

Enhancement E338137Z1: sequential patch burning. Prescribed fire is conducted beneath the canopy of a conifer forest in patches, creating a mosaic of diverse vegetation at several stages of development that increase understory diversity and

wildlife habitat. This enhancement addresses the resource concern of inadequate habitat and forage for fish and wildlife and has a 1-year lifespan³⁶.

Enhancement E338137Z2: short interval burns. The frequency of prescribed burning is increased to help restore ecological conditions in forests and woodlands. This enhancement addresses the resource concern of inadequate habitat for fish and wildlife and has a lifespan of 1 year³⁷.

Enhancement E338140Z: short interval burns to promote healthy herbaceous plant communities. The use of prescribed fire in forests and woodlands to restore fire-adapted plants and ecological conditions. This enhancement addresses the resource concern of livestock production limitations and has a lifespan of 1 year³⁸.

Other enhancements indirectly related to prescribed fire include:

Enhancement E383135Z: grazing-maintained fuel break to reduce the risk of fire³⁹.

Enhancement E384135Z: biochar production from woody residue to reduce the risk of fire³⁹.

Enhancement E666135Z1: reduce height of the forest understory to reduce risk of wildfire and create conditions that facilitate prescribed burning³⁹.

While NRCS has several pathways to facilitate the use of prescribed fire on private lands, these programs have not been utilized in New Mexico through contractual agreements from 2012-2018⁴⁰. Landowners have utilized NRCS technical assistance, but none have engaged in contractual obligations to implement prescribed fire. Private landowners in all other states used prescribed fire a total of 2,985 times through contractual agreements during the same period⁴⁰.

NRCS is unique as a federal agency as it does not require NWCG certification for its employees. Instead, NRCS has their own prescribed fire qualification and training requirements⁴⁰. Most federal agencies cannot assist on a burn plan or a prescribed fire that do not meet NWCG standards, however NRCS has the ability to do this. To account for this unique situation, NRCS in NM has agreed to use an NWCG compliant plan on private lands if it includes federal lands or if it is using the BLM-NMACD MOU²².

Given that NRCS supports prescribed fire in other states, there appears to be an opportunity to use existing NRCS funding mechanisms to expand prescribed burning on private lands in New Mexico.

Soil and Water Conservation Districts

SWCDs frequently conduct state funded natural resource projects on private property, and these activities are not in violation of New Mexico's anti-donation clause. These programs and projects are authorized and implemented according to Section 73-20-1 through 73-20-24 NMSA 1978, which is referred to as the "Watershed District Act" and can include prescribed burning¹⁹.

Although SWCDs have not been significantly involved in prescribed burning in New Mexico, an opportunity currently exists for collaboration on a project-specific basis. Depending on the funding source, a SWCD could use state funds to conduct, complement, leverage, or match other funding sources available for a project. State funds would need to be appropriated to the Board of Regents of New Mexico State University for a SWCD to conduct such projects. The SWCDs are part of the New Mexico Department of Agriculture, which is part of the New Mexico State University system. Collaboration with a SWCD should occur early in the planning phase of a prescribed burn project due to the length of time needed to secure funding¹⁹.

The unique position of the SWCDs could allow them to serve as mechanism to fund prescribed fire on private lands in collaboration with other organizations.

All-Hands All-Lands Burn Team

The All Hands All Lands (AHAL) Burn Team is a collaborative effort between a multitude of stakeholders, including The Nature Conservancy of New Mexico, the Rio Grande Water Fund, and the Forest Stewards Guild, to return fire to landscapes that are adapted to frequent fires. The AHAL Burn Team is a stand-alone organization that adds capacity to existing efforts; addresses the buildup of prescribed fire backlogs on federal, state, and tribal lands; and supports private landowners' use of prescribed fire. Seasonal burn teams have been organized with a mix of staff, contractors, and volunteers to facilitate an increase of knowledge, skills, and abilities⁴¹. The AHAL Burn Team has completed over 6,300 acres of burns with insured and qualified burn bosses on private, state, federal, and tribal lands.

Support from and collaboration with state and federal agencies is crucial to the success of efforts like the AHAL Burn Team. Agency support can expand training opportunities and help to expand prescribed fire expertise and capacity in the state. With funding, similar burn teams could be developed in other regions of the state.

New Mexico Prescribed Fire Council

The New Mexico Prescribed Fire Council (NM Rx Fire Council) is a 501c3 that serves as an advocate for prescribed fire^{42, 43}. One of their objectives is to facilitate the private sector in obtaining access to fire resources, such as labor, equipment, and the expertise needed to successfully plan and execute a prescribed burn. The NM Rx Fire Council has accumulated a collection of valuable educational resources on their webpage, including burn plan templates, articles related to liability, and information on prescribed burn associations. The NM Rx Fire Council has made available for rent, at the cost of \$125/day, a fully equipped burn trailer that contains personal protective equipment and general equipment such as drip torches, hand tools, and two-way radios⁴². The NM Rx Fire Council has also partnered with NMSU to conduct prescribed burning workshops across the state⁴³. As with AHAL, continued support for the NM Rx Fire Council will help return fire to our ecosystems and expand prescribed fire capacity in the state.

Quail and Upland Wildlife Federation

Quail and Upland Wildlife Federation (QUWF, a 501c3 organization) offers prescribed burn insurance to chapter members for burns that are conducted as part of an approved wildlife

management plan and with a NWCG compliant burn plan and boss in place. In addition, burn equipment and protective clothing can be purchased at discount by chapter members through the QUWF Vendor Direct Program. QUWF is actively recruiting members in New Mexico to form a chapter. A chapter in New Mexico would enable private landowners in New Mexico to access the prescribed burn insurance and equipment discounts offered by the organization.

The Wyden Authority

The Wyden Authority (16 U.S.C §§ 1011 & 1011a) allows the “U.S. Secretary of Agriculture and of the Interior to enter into cooperative agreements with other federal agencies, tribal, state, and local governments, and private and non-profit entities and landowners for the protection, restoration, and enhancement of fish and wildlife habitat, and other resources on public or private land, the reduction of risk from natural disaster where public safety is threatened, or a combination thereof or both⁴⁴.” The BLM or United States Forest Service (USFS) entering into a cooperative agreement with private landowners to implement prescribed fire on their private landholdings could be an option as one of the methods of treatment. While the Wyden Authority has been used in this way, it is still rare in part because the authority has been interpreted differently across and even within agencies. A consistent interpretation of the authority that facilitated burning collaboratively with diverse entities, such as private landowners, could expand its use for prescribed fire²⁶.

Conclusion and Recommendations

The landscapes of New Mexico are adapted to fire. Following a history of wildland fire suppression and exclusion, fire needs to be returned to the landscape. Prescribed fire has to be a part of the solution in order to foster ecological health and mitigate risk to communities. Private lands and WUI areas need to be included in the expansion of prescribed burning because of the values at-risk on these properties. While there are barriers to controlled burning, particularly on private lands and in the WUI, New Mexico also has a committed community of professionals dedicated to restoring forests and protecting communities through the utilization of prescribed burning. Working across property boundaries, burning collaboratively, expanding the insurance options, changing the liability definition, and amending the anti-donation clause would all contribute to more controlled burning and a safer, healthier New Mexico.

Agencies and prescribed fire practitioners in New Mexico should consider these recommendations:

1. Support the House Memorial 42 Working Group to make recommendations for the 2021 NM Legislature on comprehensive prescribed fire legislation to address liability, permitting, training, and certification.
2. Plan and implement a burn using the memorandum of understanding between the Bureau of Land Management (BLM) and the New Mexico association of Conservation Districts Memorandum of Understanding.
3. Continue to pursue a Forest and Watershed Restoration Act project that includes prescribed burning on private lands that is in compliance with the current interpretation

of the anti-donation clause as it relates to land management actions. This initial effort can then be learned from and adapted for the future.

4. Work to use existing Natural Resource Conservation Service (NRCS) funding mechanisms to offset prescribed burning on private lands.
5. Collaborate with Soil and Water Conservation Districts to use existing funding sources to support prescribed burning on private lands.
6. Support the All Lands All Hands Burn Team approach in the Rio Grande Water Fund landscape and explore ways to expand the approach to other landscapes in New Mexico.
7. Support the New Mexico Prescribed Fire Council and others to maintain and expand prescribed fire training opportunities to build more capacity for prescribed fire in New Mexico.
8. Develop a consistent interpretation of the Wyden Authority in New Mexico and then develop several projects that allow for sharing of resources across jurisdictions.

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