

**2016**

**Taos County CWPP Update**  
Connecting Communities and Watersheds



***Cover Photo: Taos Valley Panorama***

The cover is composed of five stills photographed by Chris Dahl-Bredine from his Ultra-Light. Note the Encebado Fire Scar above Taos Pueblo on the right and the Taos Mountain Foothills Fuel Break extending around the base of the mountain toward the Rio Lucero on the left.

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## Acknowledgements

# Community Wildfire Protection Plan

**For: Taos County**

**By: The Taos County CWPP Core Team**

### **Taos County 2016 CWPP Update “Connecting Communities and Watersheds”**

**A collaborative planning effort facilitated by  
The Land and Water Clinic: Watershed planner, Ron Gardiner**

**The Land and Water Clinic**  
*“Planning a future that includes the past”*

*Taos County and the Land and Water Clinic would like to thank...*

- Taos County Government for their ongoing facilitation of the CWPP Core Team.
- The Taos CWPP Core Team for their participation and their vision for the development of this 2016 CWPP Update. Their confidence in the process will produce results in our communities and watersheds and help us face our future together.
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- The Nature Conservancy and Steve Bassett for project mapping.
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- Kimiko Barrett, Ph.D. and Molly Mowery with Headwaters Economics, Chris White and Rod Moraga with Anchor Point.

## About the Title

### Connecting Communities and Watersheds

*The 2009 Taos County Community Wildfire Protection Plan “Living with Wildfire”*, is the foundation for this 2016 Update. The 2009 Plan wisely focused on increasing awareness and reducing risk in the Wildland Urban Interface (WUI) - where wildland vegetation meets communities and infrastructure. Those key elements have been incorporated in this 2016 Update and reflect the continuing importance of wildfire awareness and risk management strategies for the safety of our communities.

As landscape-scale fires have spread across the West, there is an increasing awareness of the importance of upland watersheds to downstream security. Water captured, stored, and slowly released to downstream communities and farmland by intact forests guarantees dependable well water supplies, consistent stream and acequia flow, stable mountain soils, healthy fisheries, and a host of other values that contribute directly to the quality of life where people live.

*The 2016 Taos County Community Wildfire Protection Plan “Connecting Communities and Watersheds,”* emphasizes the primary objective to protect life, property, and critical infrastructure in our vulnerable WUI communities while taking into account a more expanded view of the risks to our well-being. The watershed topography of Taos County is considered as a component in our WUI descriptions, and landscape restoration strategies are introduced.

## Chapter 1 - Executive Summary

“To build a better motor we tap the uttermost powers of the human brain; to build a better countryside we throw dice.” **Aldo Leopold**

Rather than throw the dice, Taos County has purposefully embraced a process of community based wildfire and watershed planning to meet our natural disaster challenges. This 2016 Community Wildfire Protection Plan (CWPP) Update “Connecting Communities and Watersheds”, is a result of that commitment.

Taos County is blessed with natural beauty due to the predominance of national forests and wildlands that surround us. With this beauty comes the danger of catastrophic wildfires, a primary natural disaster concern in our region. Wildfires have plagued this region since before recorded history and recent fires such as the 1996 Hondo-Lama Fire on Flag Mountain and the 2012 Taos Pueblo Encebado Fire are local reminders of the destruction that is possible. Other catastrophic wildfires like those near Jemez and Ruidoso illustrate the profound impact on the character of the landscape and on the underlying economy that stabilizes these communities.

Taos County has a history of planning and preparing for wildfires. In 2003, our planning process was significantly enhanced with the passage of the Healthy Forest Restoration Act (HFRA). This legislation provided incentives for the primary land managers in our county, the United States Forest Service (USFS) and the Bureau of Land Management (BLM), to give consideration to the priorities of local communities when establishing forest and land management projects.

At the county level, it became a requirement to create a Community Wildfire Protection Plan (CWPP) in collaboration with community representatives as well as county, state and federal agencies, a group of stakeholders collectively identified as the CWPP Core Team. An initial grant that the New Mexico Association of Counties, awarded to Taos County, started the development process and the first CWPP Core Team was formed in 2008. Since that time, quarterly meetings of the CWPP Core Team have led to the development of community plans, notably the 2009 Taos County CWPP Update “Living with Wildfire,” and most recently the 2016 Taos County CWPP Update, “Connecting Communities and Watersheds”.

Here in Taos County, wildfire protection has grown from a small conversation among professionals to a broader community-based dialog. Community outreach and collaboration are responsible for the continued growth of the CWPP Core Team, from the handful of people at the beginning, to the 40 plus stakeholders who now meet regularly. Included in the Team are federal, state, local and tribal forestry managers, local forestry contractors, fire responders, community members, local non-governmental organizations and Taos County representatives. Through education, engagement, and this collaborative planning process, the Taos County CWPP Core Team mitigates the risk of wildfire.

The ongoing interaction of regular attendees has increased community awareness of the relationship between fire behaviors and the strategies used to manage forests and watersheds. Treatments such as fuel breaks in the forest are recognized as analogous to the levees that protect communities along flood and hurricane prone rivers. At meetings that are open to all interested

parties, stakeholders are kept informed about advances in the science of forest and watershed management; opportunities for new partnerships, new funding sources and grant applications are discussed and evaluated; and priorities are adjusted based on current conditions and resources.

The guide for the CWPP Core Team's activities is the County's Community Wildfire Protection Plan. These plans are considered to be 'living documents', requiring periodic updates that are reviewed and approved by the New Mexico Fire Planning Task Force. Starting in early 2015, the CWPP Core Team began the update process, meeting on a regular basis throughout the year to revisit and assess the maps and data that inform the Core Team's goals and implementation strategies.

The 2009 Taos County CWPP Update "Living with Wildfire" was produced by the CWPP Core Team in conjunction with the Land and Water Clinic of Questa, NM. Using that document as a foundation, Ron Gardiner led and facilitated the update process with current members of the CWPP Core Team. Prevalent community values were confirmed, relevant Wildlands Urban Interface (WUI) maps were reviewed and analyzed, and updated Community at Risk (CAR) ratings were created. The goals of this update process were to identify the risks of fire, establish priority fuel reduction treatment areas, and develop the implementation plans and strategies to protect our communities and watersheds.

An updated **Communities at Risk (CAR) Table** showing the relative risk determination of hazardous conditions for each community can be found in **Chapter 4 - Fuel Reduction Priorities. Communities with high ratings include:** Upper Red River Valley, Village of Questa, Lama, Valdez, Gallina Canyon, Tres Ritos/Angostora, Sipapu, Pot Creek, Taos Canyon/Rio Fernando, Shady Brook, Llano Largo, El Salto, Tierra Blanca, Llano Quemado, Llano San Juan, Kiowa Village, and the Village of Taos Ski Valley.

Additional information organized around Watershed and Fire Projects by Location can be found in the **Community Inventory (Appendix F)**. The Community Inventory also provides information about land ownership and known water users associated with each community.

HFRA legislation created the demand for this CWPP document and collaborative process. Taos County has expanded the scope and purpose of this document in order to **educate** our citizens and provide public awareness of wildfire risks, along with preparedness recommendations. At-risk communities in Taos County Wildland Urban Interface (WUI) areas can use the information in this document to **plan** for their own fire response strategies. Emergency management officials, first responders and hot shot crews can use the fire risk maps detailing vegetation, infrastructure, water and roads to plan effective **action**.

For a full list of resources to increase your fire knowledge, see **Resource List (Appendix E)**. Check <http://www.emnrd.state.nm.us/SFD/FireMgt/cwpps.html> to ensure you are reading the most current accepted Taos County CWPP.

## Taos County CWPP Core Team Goals

### The Core Team's Vision.

The Taos County CWPP Core Team seeks to build fire resilient communities, forests and watersheds through collaboration with all community stakeholders and partners.

**The primary goal of the CWPP is to protect lives, property, infrastructure and natural resources in Taos County from catastrophic wildfires.**

Our goals are aligned with the National Cohesive Wildland Strategy (NCWS) and its three pillars: Manage Resilient Landscapes; Promote Fire Adapted Communities, and Safely and Effectively Respond to Wildfire.

**Resilient Landscapes** are managed to withstand wildfire and still continue to provide forest products and sustaining water to Taos County and the greater Rio Grande Basin.

**Fire Adapted Communities** are working to be fully prepared for wildfire. Their effectiveness depends on education, outreach and public awareness. Fire protection starts with an informed and knowledgeable citizen base that implements the strategies promoted by Firewise Communities, including defensible space.

**Safe and effective wildfire response** requires planning directed toward the protection of life and the mobilization of firefighting resources. Individual and community wildfire preparedness saves lives.

Goals, recommendations, and implementation strategies are summarized in **Chapter 7- Goals and Recommendations**. That chapter consolidates recommendations that were contained in the 2009 Taos County CWPP Update and later confirmed and updated during CWPP Core Team meetings last year. Input is organized around different relevant topics and includes general recommendations as well as specific strategies.

There are recommendations specific to how the CWPP Core Team operates and is organized. Public education and outreach is the driver for our goals around creating a fire adapted community. The reduction of structural ignitability and improved fire response capability address the fundamental elements of fire preparedness. Fuel reduction priorities focus on fire mitigation and landscape restoration goals. Additionally, there are recommendations that address the economic impact of forest restoration activities.

## Chapter 2 - Background

### CWPP Basics

In response to extreme fire activity across the west, the Federal Government enacted the Healthy Forest Restoration Act (HFRA). This legislation provides meaningful statutory incentives for the U.S Forest Service (USFS) and the Bureau of Land Management (BLM) to give consideration to the priorities of local communities as they develop and implement forest management and hazardous fuel reduction projects across all jurisdictions. The Community Wildfire Protection Plan (CWPP) is the document that focuses those goals. Communities who have developed these plans and who have established hazardous fuel reduction priorities are given preferential consideration for project deployment.

**In response to extreme fire activity across the west, the Federal Government enacted the Healthy Forest Restoration Act (HFRA) in 2004.**

### CWPP Requirements

The **minimum requirements** for a CWPP as described in the HFRA are:

**1. Collaboration**

A CWPP for at risk communities must be collaboratively developed by local and state government representatives and fire departments in consultation with federal agencies responsible for forest management as well as other interested parties.

**2. Prioritized Fuel Reduction**

A CWPP must identify and prioritize areas for hazardous fuel reduction treatments and recommend the types and methods of treatment that will protect one or more at-risk communities and essential infrastructure.

**3. Reduce Structural Ignitability**

A CWPP must recommend measures that homeowners and communities can take to reduce the ignitability of structures by wildfires throughout the area addressed by the plan.

Since the introduction of the HFRA, community wildfire protection planning has been influenced by other federal initiatives such as the development of the National Fire Strategy. Across the country, natural resources and fire managers are increasingly operating under the [National Cohesive Wildland Fire Management Strategy](#). Stated goals have been incorporated into New Mexico's CWPP Update Guidelines document [2015 Community Wildfire Protection Plan Update Guidelines](#), developed by N.M. State Forestry in conjunction with the New Mexico Association of Counties.

**1. Restore and maintain resilient landscapes**

**2. Create and sustain Fire Adapted Communities**

**3. Respond safely, effectively and efficiently to wildfire**

CWPPs are reviewed by the New Mexico Fire Planning Task Force by the end of each year and if approved, they are placed on the NM Energy, Minerals, and Natural Resources Division website <http://www.emnrd.state.nm.us/SFD/FireMgt/cwpps.html>.

## **Taos County Comprehensive Plan**

In addition to being guided by strong national and state directives, at a local level the Taos County Comprehensive Plan (adopted in August, 2004, and in review for update in 2016) outlines a progressive Land and Water Element that informs our planning process. The Comprehensive Plan, developed through extensive public meetings and adopted by the Taos County Commission, confirms the relationship between land and water, recognizing that land use decisions can significantly impact both the quantity and quality of local water supplies. The Land and Water Element promotes the use of recognized best practices regarding the establishment of fire safety buffers for at-risk communities, the protection of valuable soil, watershed and aquifer resources, and the adoption of restoration strategies and treatments that support bio-diversity and the local economy.

## **Wildland Urban Interface (WUI) Definition**

**The Wildland Urban Interface (WUI) is commonly described as the area or zone where structures and other human development meet and intermingle with undeveloped wildland or vegetative fuels.**

It may be most helpful to think of the WUI not as a place, but rather as a set of conditions that can exist in nearly every community. These conditions include the amount, type, and distribution of vegetation; the flammability of the structures (homes, businesses, outbuildings, decks, fences) in the area, and their proximity to fire prone vegetation and other combustible structures; weather patterns and general climate conditions, topography; hydrology; average lot size; road construction; and more.

The WUI zone poses tremendous risks to life, property, and infrastructure in vulnerable communities and is one of the most dangerous and complicated situations firefighters face. The HFRA emphasizes the need for federal agencies to work collaboratively with communities at risk in these fire prone areas, often called “zones of ignition”, where human life is most at risk from fires that can originate from both human and natural causes.

## **CWPP Core Team History and Collaboration**

**The Beginning.** The Taos County CWPP Core Team began convening in 2008 to address community-based wildfire planning in Taos County. Through a series of six quarterly meetings from 2008 to 2009, the 2009 Taos County CWPP Update “Living with Fire” was developed. The initial group of collaborators included representatives from federal, state, local and tribal forestry agencies and managers, Taos County representatives, local forestry contractors, Non-Governmental Organizations (NGOs), as well as other interested groups and individuals.

**Ongoing Collaboration.** Regular quarterly meetings of the Core Team continued from 2009 forward, growing from a handful of people to the 40 plus stakeholders who now meet regularly. Taos County and N.M. State Forestry have been the lead administrative partners, establishing and maintaining the Core Team momentum. The Taos County CWPP Core Team has achieved considerable success both in terms of 2009 recommendations that have been accomplished and in the ongoing collaboration that encourages responsive and effective action. Planning integration is particularly important for our primary land managers in Taos County, the Carson National Forest and their district rangers for the Camino Real and the Questa Ranger Districts and their Fire Management Officer staff as well as the Bureau of Land Management’s Taos office staff that are all within the CWPP planning area.

**2016 CWPP Update.** Starting in early 2015, the CWPP Core Team focused their efforts on updating the existing CWPP. Using the 2009 Taos County CWPP Update “Living with Wildfire” as its foundation, the Land and Water Clinic of Questa, NM facilitated the update process. Led by Ron Gardiner, the CWPP Core Team confirmed prevalent community values, reviewed and analyzed relevant Wildlands Urban Interface (WUI) maps, and updated the Community at Risk (CAR) ratings. The Core Team focused on identifying the risks of fire, establishing priority fuel reduction treatment areas, and developing the implementation plans and strategies to protect our communities and watersheds. Final submission of the 2016 Taos County CWPP Update to the New Mexico Fire Planning Task Force will include new county-wide risk assessment data that was made available subsequent to the initial round of collaborative meetings and document development.

This update effort was collaborative and as with the 2009 update process, relevant land and forestry management agencies, local government and other stakeholders were represented. Broader community outreach and stakeholder participation are responsible for the continued growth of the Core Team, from the handful of people in 2009, to the 40 plus stakeholders who now meet regularly.

**CWPP Core Team Partnerships.** The benefits of regularly scheduled Taos County CWPP Core Team meetings are significant. The Taos Soil and Water Conservation District has been an essential partner in the deployment of collaborative treatment grants. Rocky Mountain Youth Corps have facilitated treatment projects within our at-risk communities on private lands. The two principal land managers in Taos County, the Carson National Forest and the Taos Office of the BLM have been cornerstones of collaborative process, maintaining steady attendance and active participation. Concerned property owners are actively represented by the eight new Firewise communities. Along with community representatives there has also been consistent participation from local forestry contractors, the Village of Taos Ski Valley, and Taos Pueblo. The momentum of the Core Team has created opportunities for new partnerships and funding sources, with the Taos Valley Watershed Coalition as an example of what is possible (**see Stakeholder Profiles, Appendix A**).

## Taos County CWPP Core Team Stakeholders

The Core Team has become a vigorous organization consisting of individuals, interest groups, businesses, non-profit organizations, federal and state agencies, and local governments who are collaborating to address the urgent need to protect lives, reduce hazardous fuel loads, and improve forest resiliency in the wildland-urban interface and in the watersheds of Taos County.

*Thanks to each of the Core Team members for your contributions to the 2016 CWPP Update and your ongoing engagement in wildfire protection in Taos County!*

1. Taos County
2. Carson National Forest, USDA
3. Bureau of Land Management, Taos Field Office, US Department of the Interior
4. NM State Forestry, EMNRD
5. Natural Resource Conservation Service, Taos Service Center, USDA
6. New Mexico Association of Conservation Districts
7. Taos Soil and Water Conservation District
8. Taos Pueblo Division of Natural Resources/Fuels Program (DNR/Fuels)
9. Town of Taos
10. Village of Questa
11. Village of Red River
12. Village of Taos Ski Valley
13. Enchanted Circle Regional Fire Protection Association
14. 4 Municipal Fire Departments, 13 Volunteer Fire Departments, all in Taos County, and 3 Colfax County Fire Departments that help provide regional protection
15. NM Department of Game and Fish
16. Taos County Firewise Communities (Recognized):  
El Salto, Gallina Canyon, Valle Escondido, Taos Canyon, and Town of Taos Ski Valley  
Aspiring: Latir/El Rito, Pot Creek, and San Cristobal
17. NM Forest and Watershed Restoration Institute at NM Highlands University
18. UNM Center of Water and the Environment
19. NM Wildlife Federation
20. Rocky Mountain Youth Corps
21. Taos Community Foundation
22. Taos Ski Valley, Inc.
23. The Nature Conservancy
24. Rio Grande Water Fund
25. Trout Unlimited
26. Amigos Bravos
27. Taos Land Trust
28. Forest Stewards Guild
29. El Salto del Agua Land Association
30. LOR Foundation
31. Local Forestry Contractors
32. Local Wood Processing Businesses
33. Kit Carson Electric Cooperative, Inc.

**Compliance.** The development of the 2016 Taos County CWPP Update has followed the guidelines as outlined in the HFRA, the National Cohesive Wildland Fire Management Strategy, and the NMAC 2015 Community Wildfire Protection Plan Update Guidelines.

*In addition to meeting these requirements, this 2016 Taos County CWPP Update seeks to more directly connect the importance of healthy functioning land for the protection of Taos County water quality and quantity by connecting communities and watersheds.*

### Taos County CWPP Core Team



**Photo credit: Ron Gardiner, Land and Water Clinic**

## About Taos County

**History.** Taos County has a multi-cultural history that reaches back more than 1000 years. Taos is unique and distinct in the history of New Mexico and the United States. It is one of the longest continuously inhabited regions in the country. Pueblo Indians and their ancestors have made their homes here for at least two thousand years. In the sixteenth century, early Spanish settlers traveled north from what is now Mexico. At the end of the Mexican American War in 1848, waves of U.S. citizens started to venture into the territory, joining the trappers that had arrived earlier.

**The People.** According to 2015 Census Bureau estimates, approximately 32,900 people live in the Taos County. The ethnic composition has been shifting over time. In 1970, for example, 80% of the county was Hispanic. By 2015 that percentage had diminished to around 56%. Native Americans represent approximately 7% of the population with the remaining 36% Caucasian.

**Land Use.** Land use in Taos County has revolved around farming, ranching, mining, hunting, and lumbering for hundreds of years. Equitable methods of sharing resources have been practiced by local cultures including ‘*repartamiento*’ where acequia irrigators ‘share the abundance and share the lack’, and on tribal lands where the common lands are used equitably by tribal members.

Cattle ranching and hay production have been predominant activities among local families, often supplemented by an additional job in Taos or Los Alamos. Many ranchers own grazing rights on forest allotments, as they have since the USFS took over ownership of the ‘*mercedes*’, or land grants, that were established in the early 1800’s. Many Taos County families gather fuel wood in the forest, and there are several small mill operators who harvest larger trees for lumber. There are two active sawmills in Taos County.

Today, traditional subsistence agriculture is still practiced, but less so than in the past. Many families depend on jobs in education, government, tourism and construction to prosper. Mining played a role in the county historically, but in modern times only the molybdenum mine, started in Questa in 1923, has been of economic significance, and this mine officially closed in 2014.

**Topography and the Landscape.** Taos County stretches north to the Colorado border and south to Rio Arriba County and the Rio Grande Gorge. It contains part of the most southern range of the Rocky Mountains on its western flank. The Sangre de Cristo Mountains rise up from the near desert of the arid Rio Grande Valley (the Taos Plateau). The highest point in the county is the summit of Wheeler Peak at 13,161 feet. The county has the highest mean elevation of any U.S. county outside of Colorado and contains 17 of New Mexico's highest 25 peaks. Between the harsh high desert and looming mountain peaks lie a wide range of discrete ecological zones. Steep and narrow canyons are common. Taos County has a total area of 2,204 square miles of which 2,203 square miles is land.

**Watersheds and Wilderness.** Taos County watersheds supply the water for four municipal water utilities, 35 Mutual Domestic Water associations, two Water and Sanitation Districts, two Tribal communities, 144 acequias or ditch associations, and the Taos Soil and Water

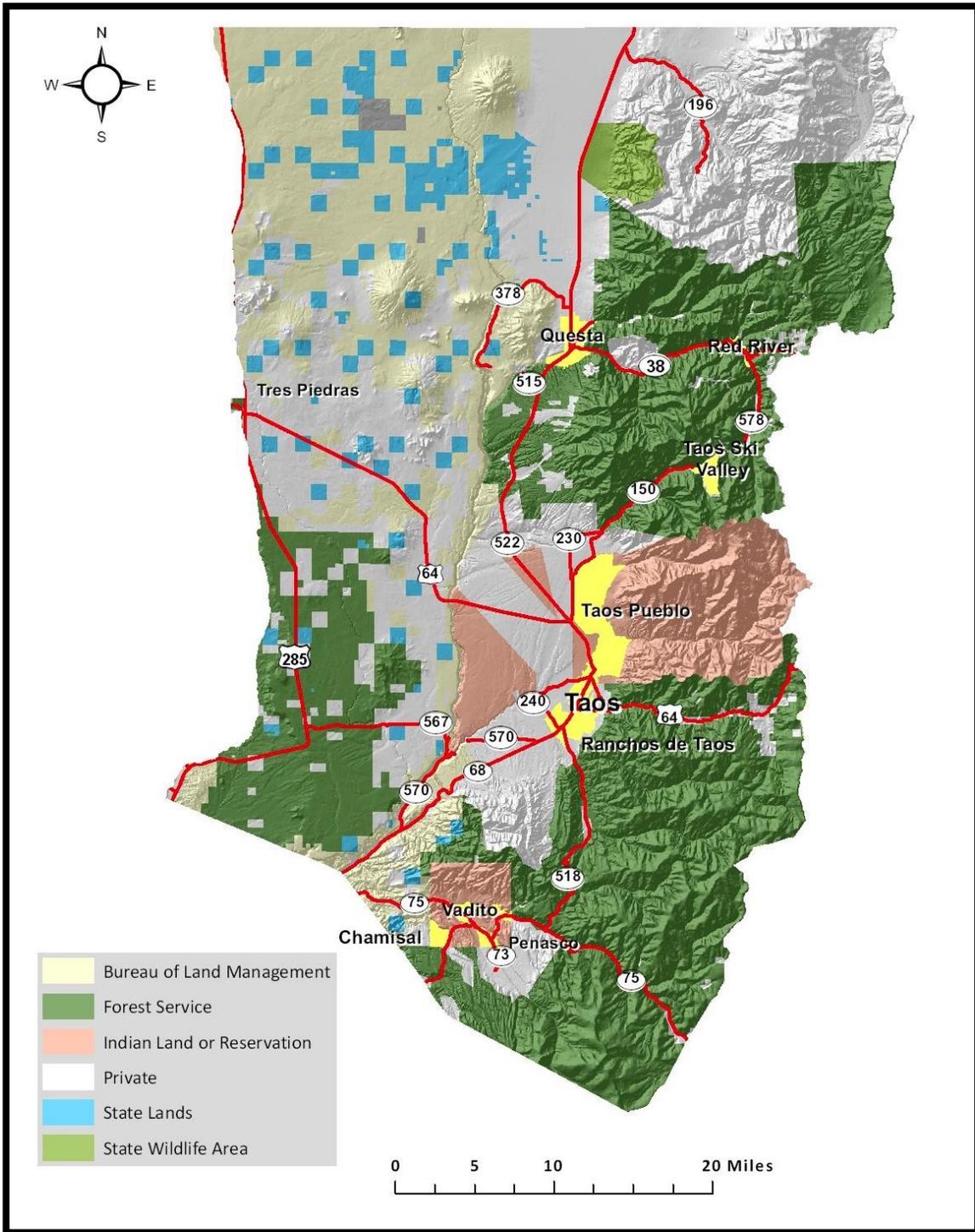
Conservation District. All are legal subdivisions of government. Taos Valley is a vital headwaters region for the greater Rio Grande Basin and a vital source for all downstream water users. **Below is an Annual Runoff map (in acre/feet) of the seven streams of the Taos Valley.**

There are four federal wilderness areas in Taos County; Pecos, Wheeler Peak, Columbine and Latir Peak Wilderness areas, and the Taos Pueblo Blue Lake Wilderness. The Valle Vidal, the Rio Costilla Cooperative Livestock Associations (RCCLA) and the NM Game & Fish Urraca Wildlife Unit are also significant headwaters.



**Land Ownership.** Roughly 50% of Taos County’s 1,444,480 acres is federal land with 37% managed by Carson National Forest. Native American and state lands represent 12% and private owners claim 38%. The National Forest public lands were established and justified under the “Organic Administration of 1897” for the purpose of “securing favorable water flow”, from the federal lands and forests to fulfill the mandates for state and local water rights and uses. Most of the developed private land exists in narrow bands along major drainages and transportation routes, with long and intricate boundaries with federal lands. The Community Inventory is an inventory of watershed, WUI, and fire projects, organized by location (**Appendix F**). The Community Inventory also identifies land ownership, known water users, and identified projects in process.

# Taos County Land Ownership and Jurisdictional Map



Map Credit: New Mexico Forest and Watershed Restoration Institute 2009

## Taos County Wildland Urban Interface (WUI) Challenges

Many Taos County Communities are surrounded or bordered by wildlands, whether Carson National Forest lands or BLM managed properties. Many structures are at the edge of the fields and the forests. A hazardous fuel load can exist both on private and federal lands bordering the community. Firefighting resources, and homeowners who may be attempting to evacuate, are often faced with daunting single access challenges, with ingress and egress through limited roads in narrow mountain canyons.

These beautiful mountain canyons entice builders to develop homes and communities in risky WUI zones. A tremendous wildfire danger exists when homes, structures and supporting infrastructure blend together with the grasses, shrubs, woodpiles, overhanging trees and other fuels typical of a WUI area. Fire suppression strategies typical of the last century have interrupted the natural cycle of wildfires, contributing to a dangerous build-up of old vegetation and increasing the available fuel loads. This trend increases the inherent danger to at-risk communities.

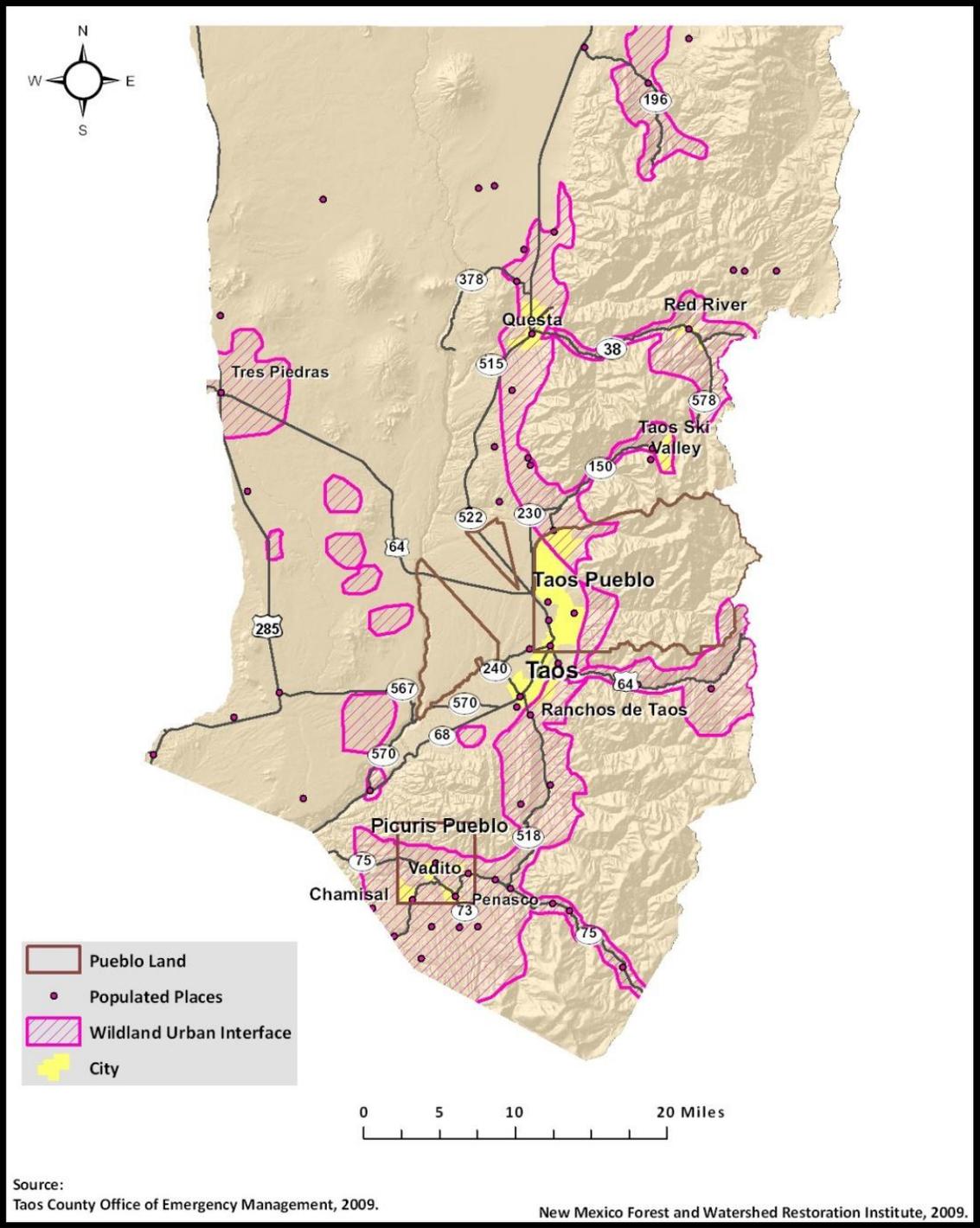
Fuel management is a key defense strategy in response to this danger. Forest managers, government officials and residents living in WUI areas share in this responsibility. This requires a comprehensive effort to reduce fuels in and around at-risk communities. Homeowners must do their part to create defensible space and mitigate flammable situations. Landscape restoration treatment strategies that incorporate the best science available should be adapted to fit local ecological circumstances.

The Taos County CWPP Core Team identifies and rates the risk to all 65 named Taos County communities, primarily by prioritizing fuel loads to be reduced (**see the Communities at Risk, Chapter 4**). This effort has been enhanced by advances in Geological Information Systems (GIS) mapping abilities and services. Other community values such as economic and cultural importance can impact these risk assessments.

Communities within Taos County WUI areas are advised to develop their own specific Community Wildfire Protection Plans to address fire prevention and fire response strategies unique to their neighborhoods, and to justify specific risk ratings. This has become particularly important as home insurance providers have taken a more critical approach to providing fire insurance coverage in neighborhoods in the wildland-urban interface.

Fire risk impacts all communities within Taos County whether they are located in WUI areas or in more agricultural or urban zones. Grassland fires can travel extremely fast. Fire embers can travel long distances based on weather conditions. Los Alamos determined that during recent fires, the most damage occurred because of remote ignition and not direct contact with the fires. This information points to the urgent need for all communities to acknowledge and take responsibility for wildfire risk, implementing appropriate actions and improving fire resilience in Taos County.

# Taos County WUI Boundaries



**Map Credit: New Mexico Forest and Watershed Restoration Institute 2009**



**Representative WUI areas in Taos County – San Cristobal (Above) and La Lama (Below)  
Photo Credits: Ron Gardiner, Land and Water Clinic**

## **Fire History and Current Risk**

We face a great risk of devastating wildfires in Taos County, in part due to decades of suppressed timber harvesting activities and fire suppression policies. Our forests have been transformed during the past century due to land use, forest management practices, and climate. Today our forests are more vulnerable to insect and disease outbreaks, severe fires, and adversely affected biological, cultural and economic values. Fuel loads have grown progressively and our communities are at risk. The Hondo/Lama Wildfire in 1996 and the Taos Pueblo Encebado Wildfire in 2003 manifested the risk of unhealthy forest conditions that had direct impacts on our communities.

The Hondo/ Lama Wildfire ignited on Cinco de Mayo 1996 in a trash barrel on private lands in San Cristobal. At the time it had the highest recorded rate of spread in the Pinyon/Juniper forest type. The fire completely consumed approximately 7500 forested acres within 36 hours of ignition. The fire took about a month to fully contain and cost more than \$3 million for suppression. It destroyed 22 homes and other structures in the community of Lama and seriously threatened the Village of Questa. The post burn conditions impacted the spring box water collection source at the Lama Foundation and compromised Lama's acequia system with siltation from post burn erosion.

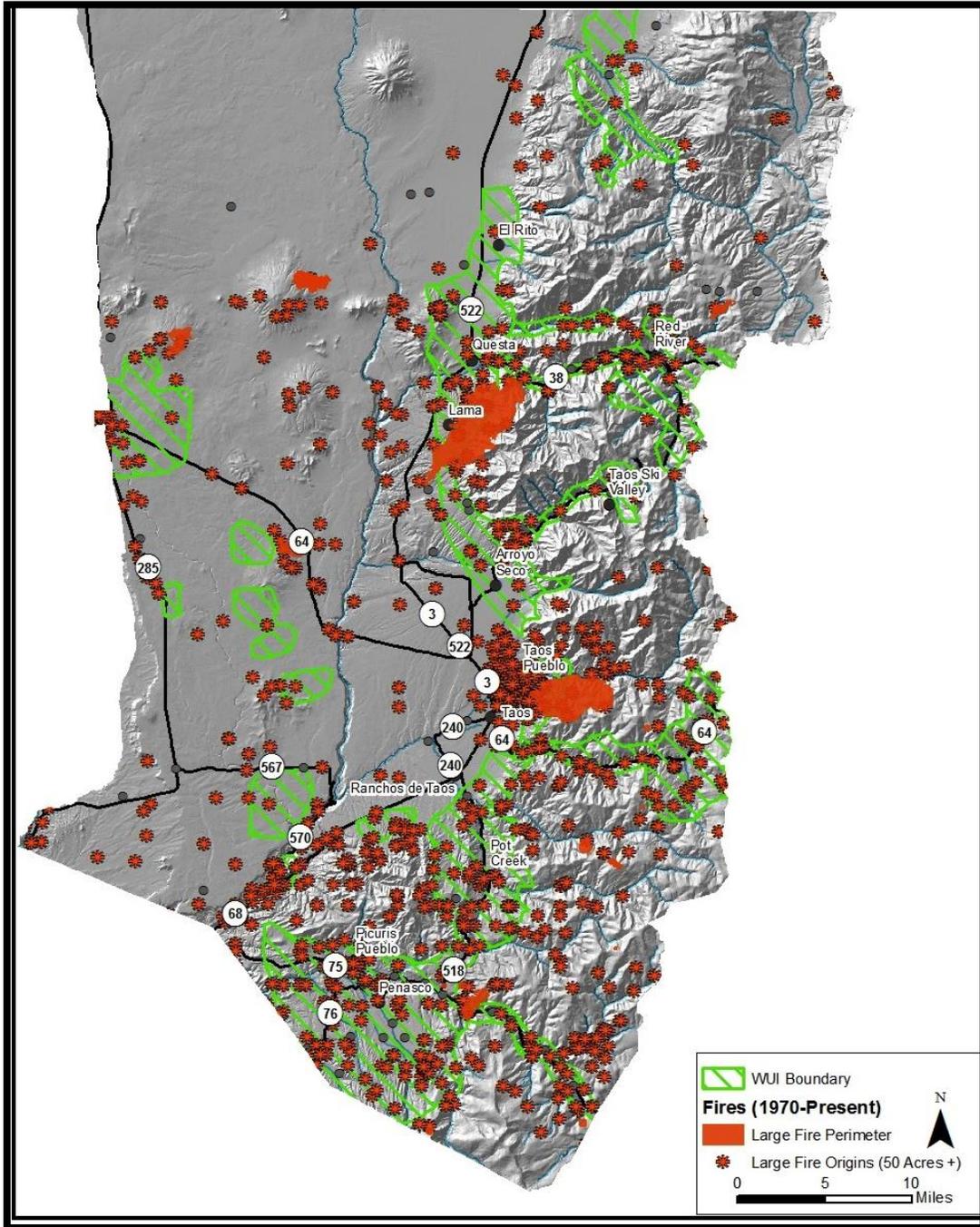
On July 4<sup>th</sup>, 2003, a single lightning strike ignited the Taos Pueblo Encebado Wildfire that burned for 11 days and consumed over 5,400 acres. Considerable post-burn efforts were made to stabilize mountain soils, including aerial seeding and contour falling (cutting trees to fall across the slope to catch debris flows and retain soil). Nonetheless, summer rainstorms filled the retention ponds that were constructed to catch the ash and debris flow and overflowed onto the eastern side of the Pueblo. Another local and more recent wildfire of note was the Osha Fire that started near the community of Sipapu on June 1, 2011 and burned a total of 720 acres. This fire started when a tree fell onto a power line.

The 2015 Carson National Forest Assessment Report of Ecological, Social, and Economic Conditions, Trends and Sustainability, developed as part of the Forest Plan Revision that is currently underway, can help us understand the current forest condition. "Throughout the southwestern U.S., 20<sup>th</sup> century fire exclusion, selective logging, and intensive unmanaged grazing have significantly altered species composition and stand structure in mixed conifer forests, with frequent fire. [Fires in ponderosa pine prior to 1850 ignited every 6-12 years and typically burned on the surface where they reduced the fuel load and risk of crown fire.] Many large ponderosa pines and Douglas-fir trees have been replaced by dense stands of young trees. Patch size increased drastically as large over story trees were harvested, and mixed-severity fires no longer maintained heterogeneity.

Protecting the public from the dangers of catastrophic wildfire is our first concern, but there are associated hazards, risks and costs that occur post-fire and should be considered such as soil erosion, debris-flows and water source contamination. The cost of catastrophic wildfire is far more than the cost to put it out. The 2011 Las Conchas Fire forced both Albuquerque and Santa Fe to halt water withdrawals from the Rio Grande because the ash-laden waters were unfit for treatment by their water treatment facilities. The long term cost of the 156,000 acre Las Conchas Fire was estimated at \$246 million, with costs still accruing.

The following map illustrates the point location for wildfire ignitions in Taos County since 1970 and their physical relationship to communities.

### Fire History Map (1970-Current)



Map Credit: USGS



**Hondo-Lama Wildfire 1996 (Both Photos)**  
Photo Credits: Ron Gardiner, Land and Water Clinic





**Taos Pueblo Encebado Wildfire 2003**  
Photo Credit: Ignacio Peralta, USFS

## **Chapter 3 - Fire Ecology**

### **Dominant Vegetation Types and Treatment Strategies**

Wildland fuels are the most critical factor in determining fire risk and in prioritizing mitigation treatments. Federal, state and tribal land managers as well as private property owners all face the task of setting priorities and allocating resources to implement treatments. Due to the development of a Taos County CWPP Core Team and its collaborative process, there can be greater coordination among the stakeholders and a cooperative approach to restoration and fire mitigation projects. All can partner toward achieving the land and water goals of the Taos County Comprehensive Plan.

Listed below are the dominant fuels/vegetation types encountered in the Taos County WUI with associated treatment recommendations. Following that are sections on *general treatment guidelines* and a summary of suggested *management practices* directed toward restoration. The map at the end of this section provides a landscape view of dominant vegetation across Taos County. A map with more granular representation of fuel types can be found at the end of this chapter.

## Fuels and Dominant Vegetation Types

The following descriptions are organized beginning with the prevalent forest vegetation types that are found near the farms and villages in the lowest valleys, and then proceeding upslope in ascending elevation. Most categories include a canopy layer or *overstory* of the tallest trees and an *understory* made up of herbaceous plants, shrubs, and shorter trees. Additional information about the composition of forests in the Southwest can be found at the National Park Service website:

<https://www.nps.gov/articles/montane-vegetation.htm>

**Cottonwood Bosques.** Many Taos County communities were historically established along streams for the purposes of irrigation diversion and proximity to water for domestic use and livestock. A bosque, the Spanish word for woodlands, can be found growing along the riparian flood plains of streams and rivers as well as along acequia corridors. Throughout Taos County, most bosques have not been managed, and are heavily overstocked with living vegetation intermixed with dead shrubs and trees. Siberian elms, Russian olives and Rocky Mountain junipers all provide fuel ladders that can carry fire into overstory cottonwoods. The removal of dead wood is critical to reducing fire hazard. Further treatments involve the removal of much of the understory along with the judicious retention of diverse species that are randomly spaced.

**Shrublands & Grasslands.** Various species of herbaceous and woody plants are the dominant vegetation types across the majority of the Taos Plateau, as well as being adjacent to and intermixed with the Bosque, Pinon, and Ponderosa Forest Types. The grasslands of the area have economic significance for ranchers. Certain grazing practices, along with historic fire suppression policies, are the main factors influencing the increase of Sagebrush and the encroachment of Pinon/Juniper into the grassland community. Historically, frequent fires carried by grasses kept Sagebrush densities low and promoted cool - season bunch grasses.

Grassland management with mowing equipment or periodic grazing is an essential component of fire safety around structures and communities. Ignitions in grasslands, particularly during drought conditions, threaten homes and act as a fuse to ignite nearby overstocked forests. Land managers must balance safety and take into consideration the *continuity of fuels* when considering prescribed burns. Grassland restoration treatment strategies are often very challenging to develop and implement, with multiple factors to be considered.

**Piñon-Juniper.** The piñon-juniper (PJ) woodland is among the most heavily overstocked and highest risk areas in the county due to elevated stand densities combined with the concentration of homes in surrounding areas. Pinon-juniper is the dominant fuel type associated with residential portions of Taos County, thereby representing a high risk to life and property. Treatment efforts are directed toward establishing a relatively open savannah landscape, with the goal of creating between 10 and 20 feet of open space between tree canopies. Trimming the lower branches of these trees can reduce their fuel ladder potential. More aggressive trimming and removal strategies are called for in the creation of “defensible space” around residential structures and the fortification of fuel breaks along existing roads.

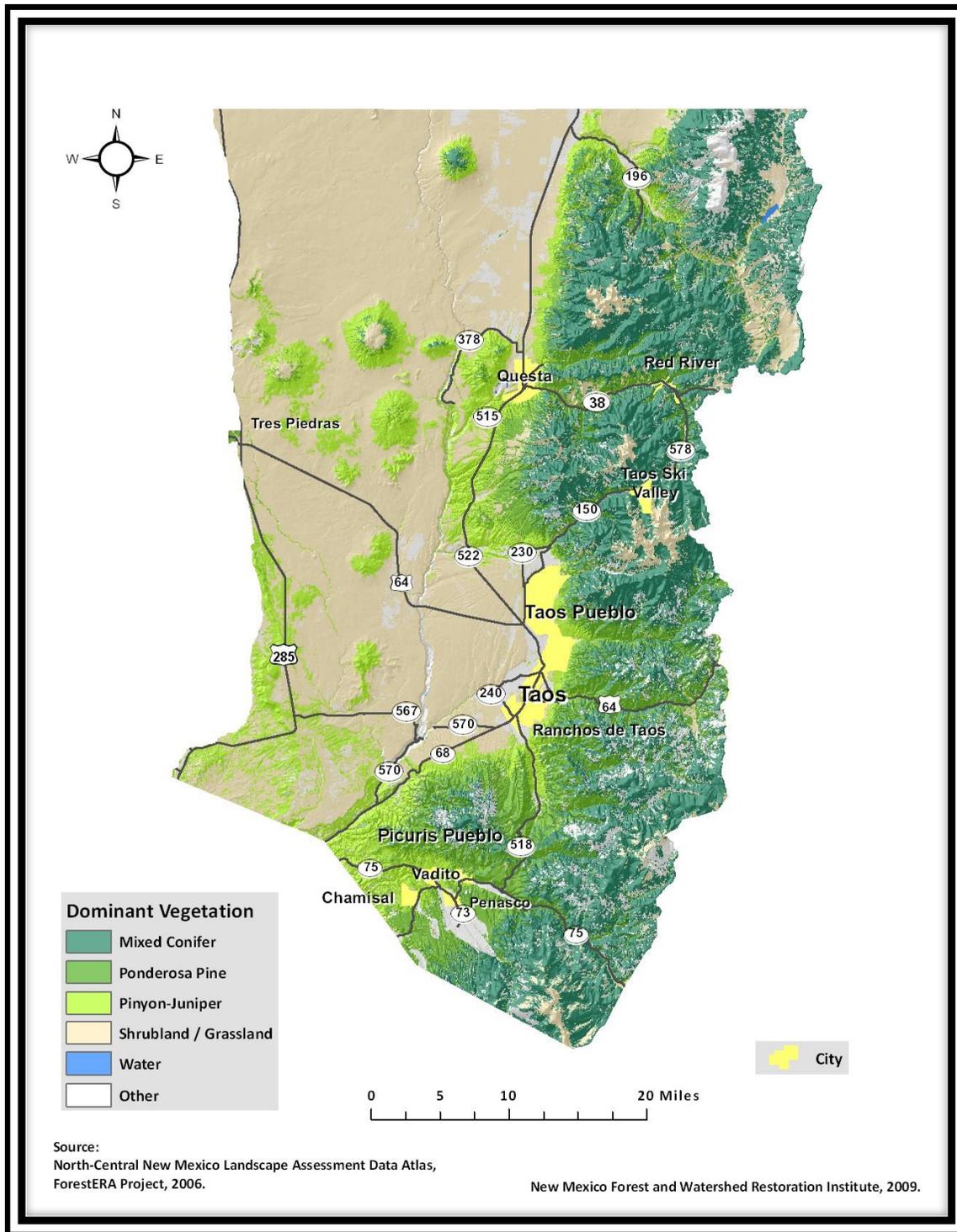
**Ponderosa Pine.** Ponderosa Pine forests are a dominant feature of the Sangre de Cristo Mountains. The composition of this type of forest will vary based on elevation and available soil moisture. In lower elevations, ponderosa pines will typically have pinyon-juniper and oak species in their understory. These particular habitats are very important for wildlife, including, wild turkey, black bear, and passerine birds. Historically, these forests would have had open canopies with a dense grass dominated herbaceous layer, maintained by more frequent fires and the natural fire resilience of the ponderosa pines. Treatment strategies that open the canopy, eliminate fuel ladders, and re-introduce more frequent fires can move these forests toward health and resilience.

**Mixed Conifer.** With increases in elevation, Ponderosa Pine forests transition into Mixed Conifer forests. The species composition is variable, influenced by elevation, topographic position, and slope exposure. Relatively *dry* stands are generally dominated by a mix of ponderosa pine, Douglas-fir, white fir, and quaking aspen. At higher elevations these stands can be found on ridgetops and south and west slope exposures. Relatively *wet* Mixed Conifer stands will have a greater abundance of subalpine fir as well as Engelmann and blue spruce in the canopy. There is a mixed severity fire regime for these forests, with some evidence of frequent low-severity fires and smaller areas of infrequent, high-severity crown fires.

Treatments in mixed conifer stands will depend on management objectives. Historically, significant timber was harvested from the mixed conifer regions in Taos County. Present day timber production has been demonstrated to improve with thinning. The risk of extreme fire is reduced if hazardous fuel loads are removed, and adequate spacing between trees is established. Treatments are recommended around buildings and along roads to protect human structures.

**Spruce-Fir.** This type of forest is typically located in more remote and steep-sloped areas that rise up to timber line and that can be found on all the higher elevations in Taos County. Stand composition is dominated by Engelmann or blue spruce, often with subalpine or corkbark fir and some quaking aspen. Due to average annual precipitation approaching 40 inches, the trees exist in contiguous stands that predispose this forest type to high-severity stand replacement fires that are believed to have occurred every one to three centuries. In general, treatments may be recommended to protect settlements and essential watersheds. Heavy thinning that would include mature timber removal (and usage) may have to be done in stages since spruce and fir are susceptible to wind-throw (sudden canopy opening may result in trees being blown over).

**Quaking Aspen.** Stands of aspen often occur in small to large patches where crown fire has burned a mixed conifer forest, or where other stand-replacing disturbances have occurred. Aspen forest structure depends on successional age and stand-initiating disturbances. Aspen stands are less flammable than a similar mixed conifer counterpart with lower fire frequency and severity. For this reason, it is beneficial to promote the health of existing aspen stands by reducing conifer incursion through clearing, opening up the stand to light. This strategy can help recreate a forest mosaic that is less contiguous and therefore less likely to carry crown fire over large regions.



**Taos County Dominant Vegetation**  
**Map Credit: New Mexico Forest and Watershed Restoration Institute 2009**

## **General Treatment Guidelines**

High levels of fuel loading (a combination of stand density and basal area) in forest stands of all types contribute to vertical and horizontal hazardous fuels continuity. Dense understories consisting of smaller trees and low branches provide ladders that enable crown fires, and continuous dense canopies create conditions for rapidly spreading and difficult-to-control crown fires, especially on steep slopes.

Potential treatments are expected to influence the four primary structural attributes related to woody vegetation: basal area, tree stem density, species mixture (composition) and canopy cover. All of the Taos County CWPP defined treatments may be used in either a restoration or fuels-reduction sustainable management framework.

Treatments should include thinning dense forest stands followed by prescribed burns and when possible, selecting mature timber harvesting combined with stewardship thinning to achieve lower fuel levels and better forest health conditions.

Treatments should be first directed to protect high value resources, reducing risk to communities, thoroughfares, infrastructure, and watersheds. Efforts should first be directed to fire breaks and shaded fuel breaks that protect those resources from potential and likely fire flow, and then applied to landscape scale treatments that reduce fuel loads and foster resiliency in contiguous forest regions.

Prescriptions would best be based on professional evaluation of actual stand conditions. Typically the most vigorous trees with the best structure are retained. It is important to retain a wide diversity of tree species with special emphasis directed to the retention of fire-tolerant species.

## **Management Practices**

Reestablishing forest health, optimum water storage capacity, wood product productivity, and resilience in the forests of Taos County will likely require an ensemble of treatments and practices that include:

1. Hazardous fuels reduction by way of tree and brush thinning, employing both manual and mechanical methods.
2. Erosion control with emphasis on both soil retention and soil accumulation, by establishing check dams in ephemeral gullies, and by contour falling and grounding of thinned trees on slopes.
3. Introduction of diversity to balance the traits of fire sensitive and fire resistant species. Use selective thinning to remove fire sensitive species (juniper and white fir) from the understory and retain uneven aged fire dependent species that are tolerant of surface fire (ponderosa pine and Douglas fir). Provide for the inter-planting of fire tolerant tree species where they are under-represented within thinned units and in under-stocked areas of the existing forest.

4. The re-creation, expansion and maintenance of large and small meadows populated by native grasses and forbs throughout the forest mosaic.
5. The introduction of managed fire, including pile burns, jackpot burns and broadcast burns, and gradually, the return of the frequent fire regime.

The application of management practices like those described will best be guided by careful consideration of specific site conditions and by adaptive management in response to monitoring. These recommendations seek to return resiliency to the upland forests that serve as reservoirs for the precious water we depend upon in our communities.

[http://www.nmffa.org/uploads/4/1/0/7/41075673/best\\_management\\_practices.pdf](http://www.nmffa.org/uploads/4/1/0/7/41075673/best_management_practices.pdf)

The appropriate combinations of treatments will increase the porosity of the forested landscape, restoring its ability to absorb and store increasing quantities of water during episodic storm events, and then release it slowly during long dry cycles. The resulting forest will have reduced flammable biomass, and will be wetter, due to reduced sublimation, and to diminished competition for available moisture. The fully hydrated forest will be characterized by the increase in growth of the remaining trees and by a significantly reduced chance of destructive crown-fire.

## **Fire Behavior Analysis**

The goal of any fire behavior analysis is to provide information about how fire moves through the environment, identifying the areas at greatest risk. Wildland fuels are considered the most critical variable to the fire hazard assessment process. Vegetation patterns are predictive of fuel loads and can be observed in the field as well as with GIS satellite images that have been processed. Topographical features such as the steepness of slopes influences fire hazard assessments. The fire environment is defined as the interaction of fuels, topography and weather, with weather being the most variable factor. Risk takes into account the potential and frequency of wildfire occurrences based on historical ignitions as well as fire behavior patterns that depend on vegetation, fuel loads, and terrain.

A number of data analysis tools are available to model fire behavior. **FlamMap** is widely used by the U.S. Forest Service, National Park Service, and other federal and state land management agencies in support of fire management activities. Flame length, rate of spread, fire line intensity, crown fire activity and fire occurrences over the geographic area create a composite risk assessment. FlamMap can help paint a mixture of need, prove it with data, address critical infrastructure concerns, and provide a vulnerability assessment.

Anchor Point is a Wildfire Hazard Mapping company that uses the National Hazard and Risk Model (**No-HARM**) to analyze the threat from the effects of adjacent fuels. Embers, smoke and direct flame exposure all represent dangers to people and property that are captured in the model. Data maps are created that help manage fire through the prevention, preparedness and response phases and assess exposure of people and property to wildfire impacts. Anchor Point has been hired to provide county-wide hazard and risk assessment that is strongly anchored in historically accepted approaches. Three areas are being analyzed: Wildland, Intermix (where structures and forest both exist) and the Ember Zone, where remote ignition is possible.

Headwaters Economics is working with Taos County CWPP Core Team to develop a fuel system optimization model that will guide hazardous fuel reduction initiatives where the greatest improvement in wildfire risk can be achieved for the smallest expenditure. The mapping process will assist in identifying areas of risk with an analysis of variables such as proximity to roads and fire stations, ember zones and fire behavior

Vegetation patterns, topography, and fire behavior analysis tools inform and provide support for the Communities at Risk (CAR) Ratings that are developed by the CWPP Core Team. This information is the foundational basis for the risk assessment ratings that are used to prioritize mitigation and planning efforts. The information can also be used in the development of the county's comprehensive and land use plans, hazard mitigation planning and in funding applications.



## FUELS MAP: Fuel Type Identification Guide

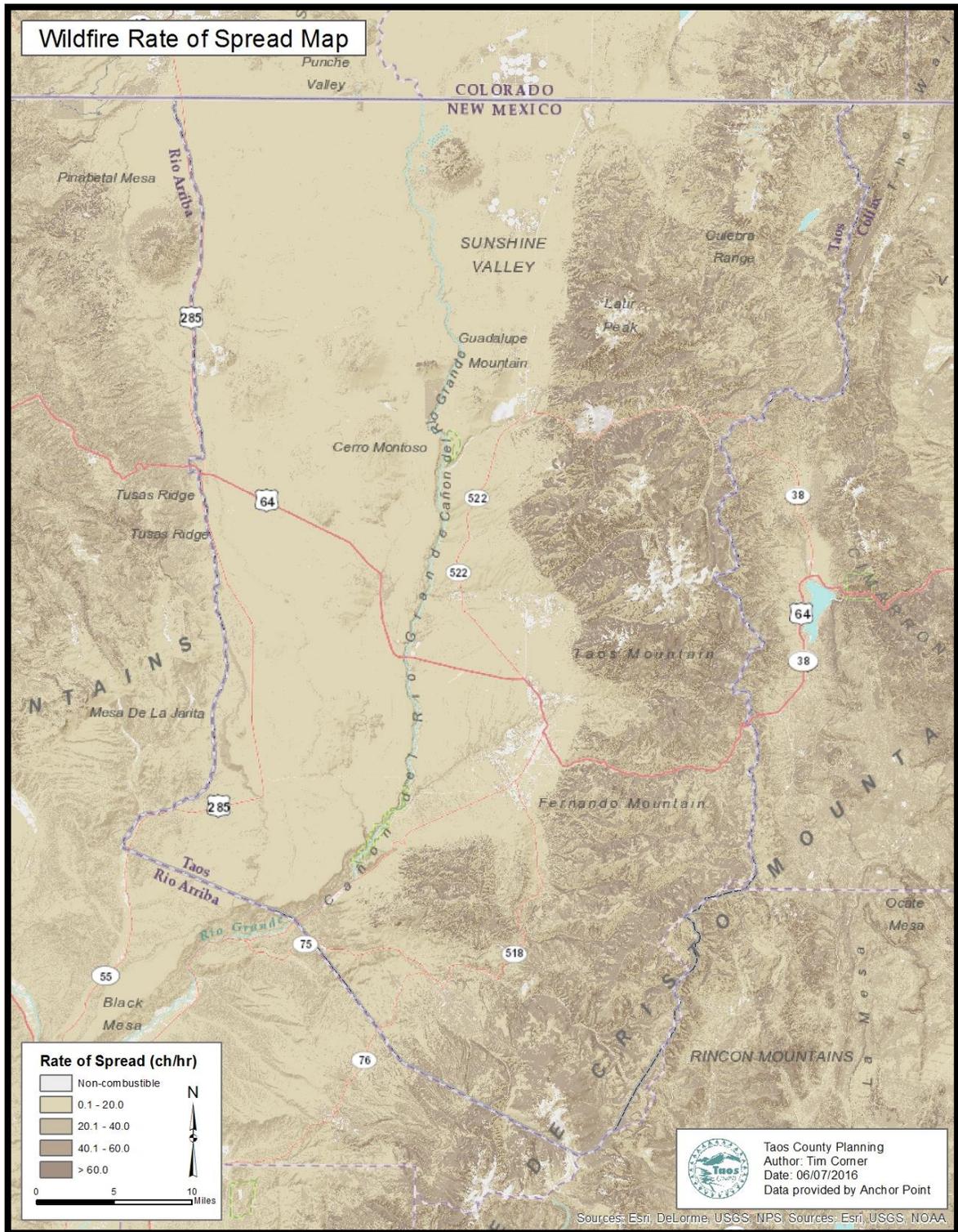
The general fire-carrying fuel type is:

- 1. Nearly pure grass and/or forb type (Grass)**
  - a. Arid to semiarid climate (rainfall deficient in summer). Extinction moisture content is 15 percent.
    - i. **GR1** Grass is short, patchy, and possibly heavily grazed. Spread rate moderate; flame length low.
    - ii. **GR2** Moderately coarse continuous grass, average depth about 1 foot. Spread rate high; flame length moderate.
    - iii. **GR4** Moderately coarse continuous grass, average depth about 2 feet. Spread rate very high; flame length high.
- 2. Mixture of grass and shrub, up to about 50 percent shrub coverage (Grass-Shrub)**
  - a. Arid to semiarid climate (rainfall deficient in summer). Extinction moisture content is 15 percent.
    - i. **GS1** Shrubs are about 1 foot high, low grass load. Spread rate moderate; flame length low.
    - ii. **GS2** Shrubs are 1 to 3 feet high, moderate grass load. Spread rate high; flame length moderate.
- 3. Shrubs cover at least 50 percent of the site; grass sparse to nonexistent (Shrub)**
  - a. Arid to semiarid climate (rainfall deficient in summer). Extinction moisture content is 15 percent.
    - i. **SH1** Low shrub fuel load, fuelbed depth about 1 foot; some grass may be present. Spread rate very low; flame length very low.
    - ii. **SH2** Moderate fuel load (higher than SH1), depth about 1 foot, no grass fuel present. Spread rate low; flame length low.
    - iii. **SH5** Heavy shrub load, depth 4 to 6 feet. Spread rate very high; flame length very high.
    - iv. **SH7** Very heavy shrub load, depth 4 to 6 feet. Spread rate lower than SH5, but flame length similar. Spread rate high; flame length very high.
- 4. Grass or shrubs mixed with litter from forest canopy (Timber-Understory)**
  - a. Semiarid to subhumid climate. Extinction moisture content is 20 percent.
    - i. **TU1** Fuelbed is low load of grass and/or shrub with litter. Spread rate low; flame length low.
    - ii. **TU5** Fuelbed is high load conifer litter with shrub understory. Spread rate moderate; flame length moderate.
- 5. Dead and down woody fuel (litter) beneath a forest canopy (Timber Litter)**
  - a. Fuelbed is recently burned but able to carry wildland fire.
    - i. **TL1** Light to moderate load, fuels 1 to 2 inches deep. Spread rate very low; flame length very low.
  - b. Fuelbed not recently burned.
    - i. Fuelbed composed of broadleaf (hardwood) litter.
      1. **TL2** Low load, compact. Spread rate very low; flame length very low.
      2. **TL6** Moderate load, less compact. Spread rate moderate; flame length low.

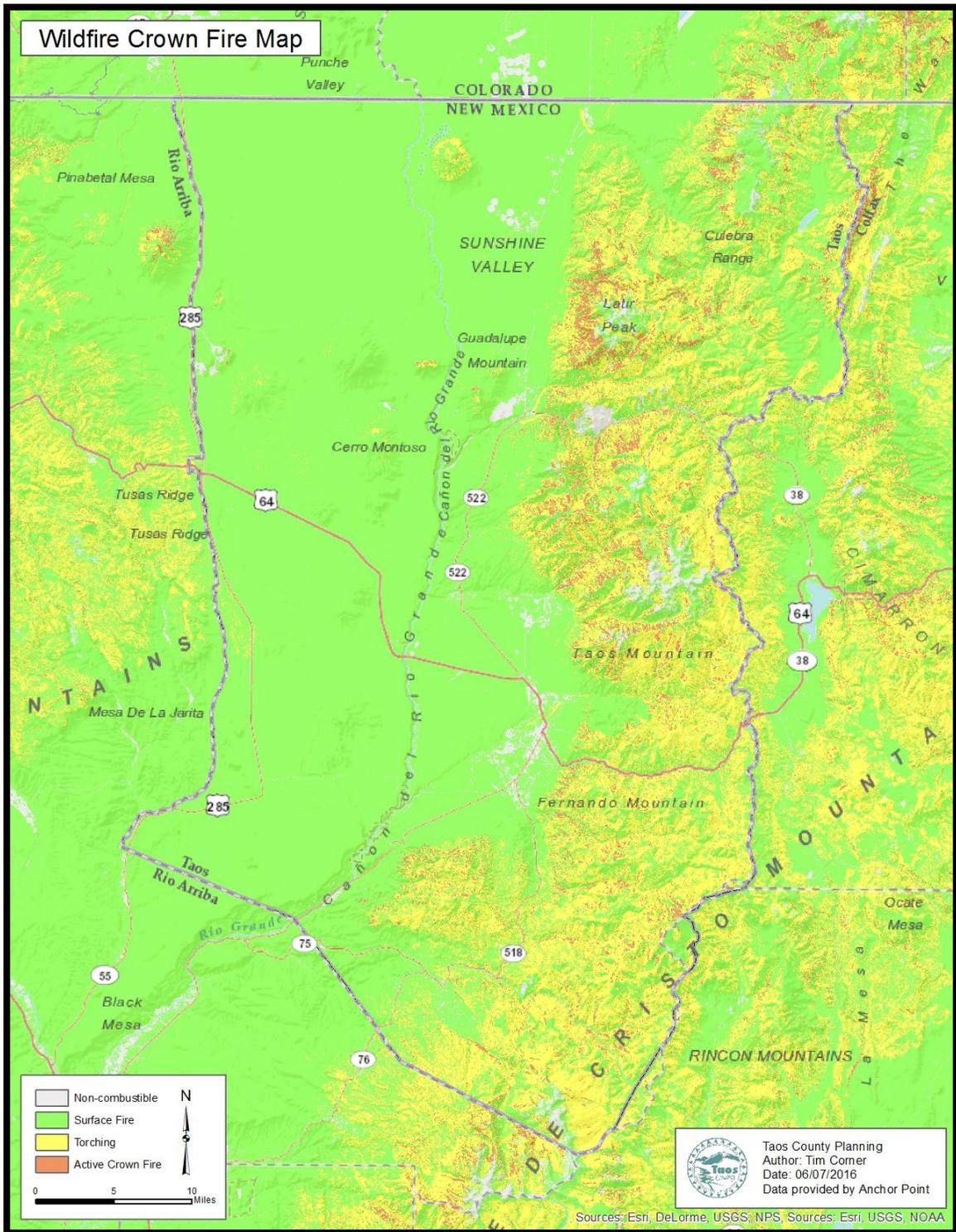
## Continued: Fuel Type Identification Guide

3. **TL9** Very high load, fluffy. Spread rate moderate; flame length moderate.
- ii. Fuelbed composed of long-needle pine litter.
  1. **TL8** moderate load and compactness may include small amount of herbaceous load. Spread rate moderate; flame length low.
- iii. Fuelbed not composed broadleaf or long-needle pine litter.
  1. Fuelbed includes both fine and coarse fuels.
    - a. **TL4** Moderate load, includes small diameter downed logs. Spread rate low; flame length low.
    - b. **TL7** Heavy load, includes larger diameter downed logs. Spread rate low; flame length low.
  2. Fuelbed does not include coarse fuels.
    - a. **TL3** Moderate load conifer litter. Spread rate very low; flame length low
    - b. **TL5** High load conifer litter; light slash or mortality fuel. Spread rate low; flame length low.
    - c. **TL9** Very high load broadleaf litter; heavy needle-drape in otherwise sparse shrub layer. Spread rate moderate; flame length moderate.

# Wildfire Rate of Spread



# Wildfire Crown Fire





## Chapter 4 - Fuel Reduction Priorities

### Risk Assessment Process

The risk assessment process starts with an understanding of hazardous fuel conditions in our WUI areas, based on vegetation maps and fire behavior modeling results. The determination of hazardous conditions should then take into account the relative degree of defensibility for particular communities, neighborhoods or homes. Many communities will also include other core values unique to the WUI in the assessment process. In addition to people, property, and natural resources, these values can include economic impact, infrastructure, cultural resources, and historic assets

The determination of relative defensibility is driven by site visit assessments that provide visual confirmation of conditions and that create numerical rankings that can then be compared. Key factors such as access, structure type, defensible space, and available water influence the rankings. Systematic Wildfire Hazard Assessments are typically created during the development of community specific CWPPs or during community planning involving Firewise and Fire Adapted Community principles. Taos County WUI communities may influence their own risk ratings through their CWPP process. The Taos County WUI Coordinator follows National Fire Protection Association's recommendations and uses Form Checklist NFPA 299 / 1144 to develop these ratings. **NFPA 299-1144 (Appendix C)**

The risk assessment process started using the original Community at Risk (CAR) ratings from the 2009 CWPP. The original ratings used maps drafted from the Forest Guild ERA collaborative with Northern Arizona University, professional forestry map inputs and consultations, as well as community knowledge and updates.

The 2016 CAR Communities at Risk ratings were reviewed through a series of Core Team meetings during 2015. The CWPP Core Team reviewed the 65 communities from the original CAR ratings and determined if changes were required. During discussions, input from state forestry professionals was considered and it was agreed that NM State ratings would drive the process, reflecting current knowledge of fuel loads on both private and federal lands. The Village of Taos Ski Valley made a compelling case for the ratings to reflect the economic impact of fire in that community.

This year we followed the accepted NM State Communities at Risk Rating System and eliminated the rating of Very High (VH). Changes from very high (VH) to High (H) **do not** indicate that Risk has reduced. Changes from VH to Medium (M) or Low (L) **do** indicate a decrease in perceived risk.

**Pueblos:** The Taos Pueblo and Picuris Pueblo have their own jurisdictional boundaries and have participated in the development of this CWPP document. The CWPP Core Team established a CAR rating for Taos Pueblo and Picuris Pueblo. The CAR rating for Picuris Pueblo has been modified to reflect input from BIA (Bureau of Indian Affairs) review and assessment. The submission of BIA documents, photographs and presentation at the most recent CWPP Core Team meeting (January 2017) led to a rating change from **low to high** for Picuris Pueblo.

## Summary

<b>Communities at Risk Summary</b>		
<b>HIGH</b>	<b>MEDIUM</b>	<b>LOW</b>
Cabresto Canyon	Amalia	Cerro
Carson	Arroyo Hondo	El Prado
El Salto	Arroyo Seco	Greater World/Star
Gallina Canyon	Canon	Lower Des Montes
Kiowa Village	Chamisal	Lower Las Colonias/West Mesa
La Lama	Costilla	Lower Rio Pueblo/Golf Course
Llano Largo	El Valle	North Los Cordovas
Picuris Pueblo	Las Trampas	Ojo Caliente
Pinabete Hills	Latir	Placitas
Pot Creek	Llano Quemado	Ranchos de Taos
Questa	Llano San Juan	Rio Lucero
Shady Brook/Taos Canyon	Ojo Sarco	South Los Cordovas
Sipapu	Penasco	Stagecoach
Taos Canyon/Rio Fernando	Pilar	Taos Mesa
Taos Pueblo	Rodarte	Town of Taos
Tierra Blanca	San Cristobal	Upper Des Montes
Town of Red River	Talpa	Upper Los Colonias
Tres Ritos/Angostora	Three Peaks	Ventero
Valle Esconditio	Tres Piedras	Vista Linda
Village of Taos Ski Valley	Two Peaks	
	Upper Red River Valley	
	Vadito	
	Valdez	
	Vallecitos	
	Versylvia	
	Weimer Heights	

## Taos County Communities At Risk Ratings (CAR)

Important Note: Changes from very high (VH) to High (H) **do not** indicate that Risk has reduced. We simply began following the NM State Communities at Risk Rating System, which does not use a VH rating. Changes from VH to Medium (M) or Low (L) **do** indicate a decrease in perceived risk.

### Communities At Risk Table:

#	Taos County WUI Communities at Risk of Wildfire	Taos County Fire District	CWPP WUI 2009 Rating	Notes: OEM/CORE Team notes. 14 Taos County Fire Districts	2016 Risk Rating
1	Amalia	AVVFD, COVFD	M-L	SEC CWPP WUI Fuel load map, wind	M
2	Arroyo Hondo	HSVFD, LLVFD	M	SEC CWPP WUI Fuel load map, fuel type model potential, farmlands and bosque	M
3	Arroyo Seco	HSVFD, LLVFD, TFD, VTSVFD	M	SEC CWPP WUI Fuel load map, fuel type model potential, farmlands and bosque	M
4	Cabresto Canyon	QFD, CEVFD, LVFD	M	USFS fuels, climate slope based on existing fuel reduction, moisture level, Threat level map showing, north/south vegetation divide, escape routes, shading number days susceptible to burn conditions	H
5	Canon	TFD, RFVFD	L	SEC CWPP WUI Fuel load map, grasses, human factor	M
6	Carson	CAVFD, TPVFD, OCVFD	L	Human factor, SEC CWPP WUI Fuel load map	H
7	Cerro	CEVFD, QFD, LVFD	L	SEC CWPP WUI Fuel load map, probability, map threat level, BLM	L
8	Chamisal	PVFD	M	SEC CWPP WUI Fuel load map, fuel reductions	M

#	Taos County WUI Communities at Risk of Wildfire	Taos County Fire District	CWPP WUI 2009 Rating	Notes: OEM/CORE Team notes. 14 Taos County Fire Districts	2016 Risk Rating
9	Costilla	COVFD, AVFD, LVFD	M-L	SEC CWPP WUI Fuel load map, wind	M
10	El Prado	TFD, HSVFD	L	SEC CWPP WUI Fuel load map	L
11	El Salto	HSVFD, SCVFD, LLVFD, TFD	H	SEC CWPP WUI Fuel load map, fuel type model potential, farmlands and bosque	H
12	El Valle	PVFD	M	SEC CWPP WUI Fuel load map, fire direction	M
13	Gallina Canyon	HSVFD, SCVFD, LLVFD, TFD	VH	Based on access roads human factor, evacuation, slope, escape routes fuel loads	H
14	Greater world/Star	TPVFD, CAVFD, TFD	L	SEC CWPP WUI Fuel load map, grasses, human factor Low fuel levels	L
15	Kiowa Village	LLVFD, SCVFD, QFD, HSVFD	H	Fuels load, no fuels reduction on Southside, prevailing winds	H
16	La Lama	LLVFD, SCVFD, QFD, HSVFD	H	Fuels load, no fuels reduction on south-side, prevailing winds	H
17	Las Trampas	PVFD	M	SEC CWPP WUI Fuel load map, fire direction	M

#	Taos County WUI Communities at Risk of Wildfire	Taos County Fire District	CWPP WUI 2009 Rating	Notes: OEM/CORE Team notes. 14 Taos County Fire Districts	2016 Risk Rating
18	Latir	LVFD, QFD, CEVFD	M-L	SEC CWPP WUI Fuel load map, prevailing winds and ability to respond, probability elevation slope, USFS, BLM	M
19	Llano Largo	PVFD	H	SEC CWPP WUI Fuel load map, fuel direction, human factor, fire probability map	H
20	Llano Quemado	TFD	H	SEC CWPP WUI Fuel load map, fuel direction, human factor, fire probability map	M
21	Llano San Juan	PVFD	H	SEC CWPP WUI Fuel load map, fuel direction, human factor, fire probability map	M
22	Lower Des Montes	HSVFD, LLVFD, TFD	L	Based on fuel loads slope, Pasture lands, windbreaks vegetation	L
23	Lower Las Colonias/West Mesa	TFD, HSVFD	L	SEC CWPP WUI Fuel load map	L
24	Lower Rio Pueblo/Golf course	TFD	L	SEC CWPP WUI Fuel load map, grasses, human factor Low fuel levels	L
25	North Los Cordovas	TFD	L	SEC CWPP WUI Fuel load map	L
26	Ojo Caliente	OCVFD, CAVFD, TPVFD	L	Human factor space between fuel loads	L

#	Taos County WUI Communities at Risk of Wildfire	Taos County Fire District	CWPP WUI 2009 Rating	Notes: OEM/CORE Team notes. 14 Taos County Fire Districts	2016 Risk Rating
27	Ojo Sarco	PVFD	L	SEC CWPP WUI Fuel load map, fuel reductions, Taos/Rio Arriba county	M
28	Penasco	PVFD, TFD	M	SEC CWPP WUI Fuel load map Fuel load Wind direction topography	M
29	Picuris Pueblo	PVFD	H	SEC CWPP WUI Fuel load map	H
30	Pillar	TFD	M	SEC CWPP WUI Fuel load map	M
31	Pinabete Hills	CEVFD, QFD, LVFD	M	Ignition, fuels type, model, SEC CWPP WUI Fuel load map	H
32	Placitas	PVFD	L	SEC CWPP WUI Fuel load map Fuel load Wind direction topography	L
33	Pot Creek	TFD, PVFD	H	Existing fuel reduction, fire reduction, riparian areas wetlands	H
34	Questa	QFD, LLVFD, CEVFD, LVFD	H	Bosque threat level based on map	H
35	Ranchos De Taos	TFD	L	SEC CWPP WUI Fuel load map	L

#	Taos County WUI Communities at Risk of Wildfire	Taos County Fire District	CWPP WUI 2009 Rating	Notes: OEM/CORE Team notes. 14 Taos County Fire Districts	2016 Risk Rating
36	Rio Lucio	PVFD	L	SEC CWPP WUI Fuel load map	L
37	Rodarte	PVFD	M	SEC CWPP WUI Fuel load map	M
38	San Cristobal	SCVFD, HSVFD, LLVFD	M	Based on fuels loads, fire direction wind direction, wildfire history, no fire response capabilities	M
39	Shady Brook (Taos Canyon)	RFVFD, TFD, AFVFD, MVVFD	H	SEC CWPP WUI Fuel load map, human factor	H
40	Sipapu	PVFD	H	USFS Wider drier greater fuel load level fire return interval landscape	H
41	South Los Cordovas	TFD	L	SEC CWPP WUI Fuel load map	L
42	Stagecoach	HSVFD	L	SEC CWPP WUI Fuel load map, grasses, human factor Low fuel levels	L
43	Talpa	TFD, RFVFD	L	SEC CWPP WUI Fuel load map	M
44	Taos Canyon/Rio Fernando	RFVFD, TFD, AFVFD, MVVFD	VH	SEC CWPP WUI Fuel load map, human factor	H

#	Taos County WUI Communities at Risk of Wildfire	Taos County Fire District	CWPP WUI 2009 Rating	Notes: OEM/CORE Team notes. 14 Taos County Fire Districts	2016 Risk Rating
45	Taos Mesa	CAVFD, TPVFD, HSVFD, TFD	L	SEC CWPP WUI Fuel load map, grasses, human factor Low fuel levels	L
46	Taos Pueblo	TPDNR, TFD, RVFD	H	Taos Pueblo War Chiefs/DNR/Fire. Taos Pueblo has developed a CWPP.	H
47	Three Peaks	CAVFD, TPVFD, OCVFD	M	SEC CWPP WUI Fuel load map, grasses, human factor	M
48	Tierra Blanca	TFD	H	Increased population High fuel load no access	H
49	Town of Red River	RRFD, WPVFD, ENVFD, QFD	M	USFS fuels, climate slope based on existing fuel reduction, moisture level, Threat level map showing, north/south vegetation divide	H
50	Town of Taos	TFD, RVFD, HSVFD	L	Because of low fuels, threat level low, WUI map. Predominate winds shifts fire away from town	L
51	Tres Piedras	TPVFD, CAVFD, OCVFD	M	human factor, winds fuel load	M
52	Tres Ritos/Angostora	PVFD	H	USFS Wider drier greater fuel load level fire return interval landscape	H

#	Taos County WUI Communities at Risk of Wildfire	Taos County Fire District	CWPP WUI 2009 Rating	Notes: OEM/CORE Team notes. 14 Taos County Fire Districts	2016 Risk Rating
53	Two Peaks	TPVFD, CAVFD, OCVFD	M	SEC CWPP WUI Fuel load map, grasses, human factor	M
54	Upper Des Montes	HSVFD, LLVFD, TFD	L	Based on fuel loads slope, Pasture lands, windbreaks vegetation	L
55	Upper Los Colonias	TFD, HSVDF	L	SEC CWPP WUI Fuel load map	L
56	Upper Red River Valley	WPVFD, RRFD	VH	SEC CWPP WUI Fuel load map, Escape routes Continuous sunlight (?), wind direction factor USFS	M
57	Vadito	PVFD	M-L	SEC CWPP WUI Fuel load map Fuel load wind direction topography	M-L
58	Valdez	HSVFD, SCVFD, LLVFD, TFD	H	Based on access roads human factor, evacuation, slope, escape routes fuel loads	M
59	Valle Escondito	RFVFD, TFD	M	SEC CWPP WUI Fuel load map, fuel direction, human factor	H
60	Vallecitos	PVFD	M	SEC CWPP WUI Fuel load map	M
61	Ventero	AVFD, COVFD, LVFD	L	SEC CWPP WUI Fuel load map, wind	L

#	Taos County WUI Communities at Risk of Wildfire	Taos County Fire District	CWPP WUI 2009 Rating	Notes: OEM/CORE Team notes. 14 Taos County Fire Districts	2016 Risk Rating
62	Versylvia	LVFD, QFD, CEVFD	M-L	SEC CWPP WUI Fuel load map, grasses, human factor	M-L
63	Village of Taos Ski Valley	VTSVFD, HSVFD	M	USFS fuels climate slope: high elevation, wetter with 1 community surrounded by vegetation aspen drop fire from canopy to ground where fire will be contained, USFS	H
64	Vista Linda	TFD	L	SEC CWPP WUI Fuel load map, grasses, human factor	L
65	Wiemer Heights	TFD, RFVFD	M	SEC CWPP WUI Fuel load map, fuel direction, human factor	M

## CAR Table Acronym List

### Key to Fire District Acronyms:

Full Name	Acronym
<b>Amalia/Ventero Volunteer Fire District</b>	AVVFD
<b>Carson Volunteer Fire District</b>	CAVFD
<b>Cerro Volunteer Fire District</b>	CEVFD
<b>Costilla Volunteer Fire District</b>	COVFD
<b>Hondo/Seco Volunteer Fire District</b>	HSVFD
<b>La Lama Volunteer Fire District</b>	LLVFD
<b>Latir Volunteer Fire District</b>	LVFD
<b>Ojo Caliente Volunteer Fire District</b>	OCVFD
<b>Penasco Volunteer Fire District</b>	PVFD
<b>Questa Fire Department</b>	QFD
<b>Red River Fire Department</b>	RRFD
<b>Rio Fernando Volunteer Fire District</b>	RFVFD
<b>San Cristobal Volunteer Fire District</b>	SCVFD
<b>Village of Taos Ski Valley Fire Department</b>	VTSVFD
<b>Taos Fire Department</b>	TFD
<b>Taos Pueblo DNR/Fire</b>	TPDNR
<b>Tres Piedras Fire District</b>	TPVFD

<b>Wheeler Peak Volunteer Fire District</b>	WPVFD
<b>Eagle Nest Volunteer Fire Department</b>	ENVFD
<b>Moreno Valley Volunteer Fire Department</b>	MVVFD
<b>Angel Fire Fire Department</b>	AFFD

## Chapter 5 - Emergency Fire Response

Taos County government supports the 13 volunteer fire departments administratively. It also supports the communities and private property owners within the county by providing WUI outreach, information and planning (65 communities have been identified in the **CAR Table - Chapter 4**). Taos County supports and partners with the four municipal Fire Departments in the County; Red River, Questa, Village of Taos Ski Valley, the Town of Taos, as well as neighboring counties. The county provides administrative support through the County Fire Chief position. This position is tasked with coordinating the various municipal and volunteer fire departments. Wildfire has no jurisdictional boundaries and collaboration benefits us all.

The Enchanted Circle Regional Fire Protection Association (ECRFPA) and the Local Emergency Planning Committee (LEPC) have taken the initiative to plan for and prepare the fire fighting and regional Emergency Management Systems (EMS) for the events of wildland fire. This group holds regular monthly meetings.

The Taos County Office of Emergency Management Director has created an Emergency Management Coordinator position. Work is underway to develop an All Hazards Mitigation Plan (based on a checklist sent by Homeland Security), that will include all agencies and municipalities and must be approved by FEMA. Wildland Fire Emergency Response Capability and Planning covers topics such as first responder capabilities, OEM integration, and individual responsibilities. Evacuation plans, smoke shelters, livestock and pet sheltering are covered. The plan in force at this time is the 2010 Emergency Operations Plan.

In coordination with the Taos County EMS director, the County utilizes the 2016 Enchanted Circle Mobilization Guide (ECMG). The ECMG is designed as a reference guide for regional dispatchers to deploy the appropriate and available resources for wildland fire events. Taos and Colfax County fire chiefs, under the leadership of Red River Fire Chief, Ron Burnham, compiled the Guide that also details response capabilities, training and coordination.

### Fire Response Capacity

Resources available to respond on initial attack fire starts include federal, state, local fire department, and private contractor resources. Interagency coordination is provided by the Taos Zone Coordination Center. The Enchanted Circle Regional Fire Protection Association (ECRFPA) is an organization composed of Fire Districts within Taos County, Colfax County, Rio Arriba County and Mora County; whom each understand the necessity of collaboration with all Fire Departments and Agencies.

#### Federal Resources

**Forest Service** – Three ranger districts of the Carson National Forest lie within the Protection Zone; the Camino Real Ranger District, the Tres Piedras Ranger District and the Questa Ranger District. Each ranger district staffs a Type 6 Engine, and is capable of recruiting one or two Type 2 crews. In addition, the Forest Service hosts an Interagency Hotshot Crew (Carson Hotshots),

and significant overhead qualifications exist on Forest Staff. During peak season, the Forest typically flies a daily aerial recon, but no Helitack or SEAT capability is routinely staffed locally. There are two staffed Helibases in the Santa Fe area. The USFS stewards a major portion of the wildfire risk areas in Taos County and has a significant amount of experience and qualifications for managing fire.

**BIA** – Taos Pueblo can typically field Type 6 Engines and a Type 2 handcrew. After the Encabado Fire in 1996, the Pueblo has put much work into a large fuel break at the toe of the slope on the tribal land. (See cover photo). Work on Tribal land will continue with grant money.

**BLM** – The Taos Field Office of the BLM maintains a Type 2 Initial Attack (IA) handcrew, several Type 6 Engines, and a Type 3 Engine. Significant overhead positions also exist within their staff, including Burn Bosses and Type 3 Incident Commanders. The Taos BLM has a very progressive prescription burn policy and treats many acres annually to return lands to a more natural fire regime.

## **State Resources**

### **New Mexico State Forestry**

The **Cimarron District** has primary responsibility for non-federal and non-municipal lands within the Protection Zone. They routinely staff two Type 6 Engines from the District Office in Ute Park (east of the Protection Zone). During peak fire season, they often have an aerial recon capability, may host a Type 2 or Type 3 Helicopter and helitack crew, and utilize contract engines for patrol and initial attack. They often utilize local fire department resources through joint powers agreements to meet their initial attack mission.

The **Chama District** is responsible for private lands on the west side of the Rio Grande River within Taos County and also routinely staffs 2 Type 6 engines.

### **Local Fire Department Resources**

Many, but not all local fire departments train and qualify their personnel to National Wildfire Coordinating Group (NWCG) standards. Access to training courses by local FD firefighters is generally good. However, completion of task books in quality training assignments has been more problematic. This is due primarily to two factors. First, most of these local firefighters are volunteers with job and family obligations that limit their ability to accept two week training assignments. Second, there are only a limited number of personnel within the local fire departments who can function as qualified trainers/evaluators to sign off on task book experiences. As a result, many initial attack experiences go unevaluated and undocumented. With time, this qualification bottleneck should resolve, but it has produced a logjam of personnel currently attempting to qualify at the single resource boss level.

There is currently one qualified and experienced structure protection specialist within the membership of the ECRFPA. The association has mounted a concerted effort to increase this capacity. Overhead qualifications beyond the single resource boss level are severely limited

within the ECRFPA, and this group relies heavily on its State and Federal partners to provide incident management and logistical functions.

Significant engine and water tender capacity exists within the member departments of Taos County and the ECRFPA. While engine capacity is strong in this group, it is recognized that most areas within the Protection Zone are not accessible to engines. Therefore, additional resources have been developed that include a Type 2 IA hand crew.

There are a number of private contractors based within the Protection Zone, that provide an important extension of fire suppression capacity in the area. However, they function in a financially precarious environment, have great difficulty maintaining staff, and even greater difficulty providing a recognized qualification system for their employees. The number of contractor resources invariably waxes and wanes with the intensity of each fire season.

## **Mobilization**

Resources within the protection area are dispatched through either Taos Central Dispatch (County) or Taos Dispatch Center (Federal). The mobilization of these resources occurs through a formal dispatch protocol (Enchanted Circle Resource Mobilization Guide) that is updated annually. This protocol utilizes an escalating resource assignment scheme that is tied to Energy Release Component (ERC) and preparedness levels (one to five). This protocol has proven effective for initial attack, however it is recognized that it will probably be inadequate in an extended attack scenario.

For more detailed information, please follow this link to the Mobilization Guide:  
[http://ecrfpa.org/ECRFPA\\_MobGuide.htm](http://ecrfpa.org/ECRFPA_MobGuide.htm)

## **Fire Response Capacity Summary**

Adequate initial attack fire response within the Protection Zone depends heavily on collaboration and coordination between federal, state, local, and private contractor resources. The current level of coordination and collaboration is reasonably good and improving. The ECRFPA annually hosts a Wildfire Coordination meeting with excellent attendance from many agencies and groups and plans to continue the event each spring to organize efforts for the upcoming season. Taos County also hosts quarterly Community Wildfire Protection Plan (CWPP) meetings with diverse community and agency attendance. These meetings discuss ongoing projects and project priorities.

Engine resources are relatively plentiful and generally available across all agencies. However, terrain and large roadless areas, significantly limit the utility of engine resources. Slow mobilization, unpredictable quality, and the need for extensive logistical support can limit the utility of typical Type 2 hand crews for initial attack. Several Type 2 IA hand crews have been developed in the area, and have proven productive. During most of the southwest fire season, Type 1 hotshot crews are relatively available. The development of quality initial attack capable hand crew resources in the area deserves continued emphasis. Call-When-Needed (CWN) ships are generally available, but the flight time from the Santa Fe area is quite long.

Most homes are saved or lost during initial attack and extended attack. Well qualified and experienced overhead personnel are critical to achieving good outcomes. There is a relative shortage of overhead personnel within the Protection Zone. Continued emphasis at the single resource level (ENGB, CRWB) and ICT4 is well justified. However, additional effort should be directed towards developing Strike Team/Task Force Leader, Burn Boss, Division Supervisor, ICT3, and SOF3 qualified personnel. This call for emphasis on developing these overhead positions should not be construed as advocating “fast tracking” the qualification process. Real position skill and confidence comes from well supervised quality training assignments, and rigorous qualification requirements.

### **Burned Area Emergency Response (BAER)**

While many wildfires cause minimal damage to the land and pose few threats to the land or people downstream, some fires cause damage that requires special efforts to prevent problems afterwards. Loss of vegetation exposes soil to erosion; water runoff may increase and cause flooding; sediments may move downstream and damage houses or fill reservoirs, putting endangered species and community water supplies at risk.

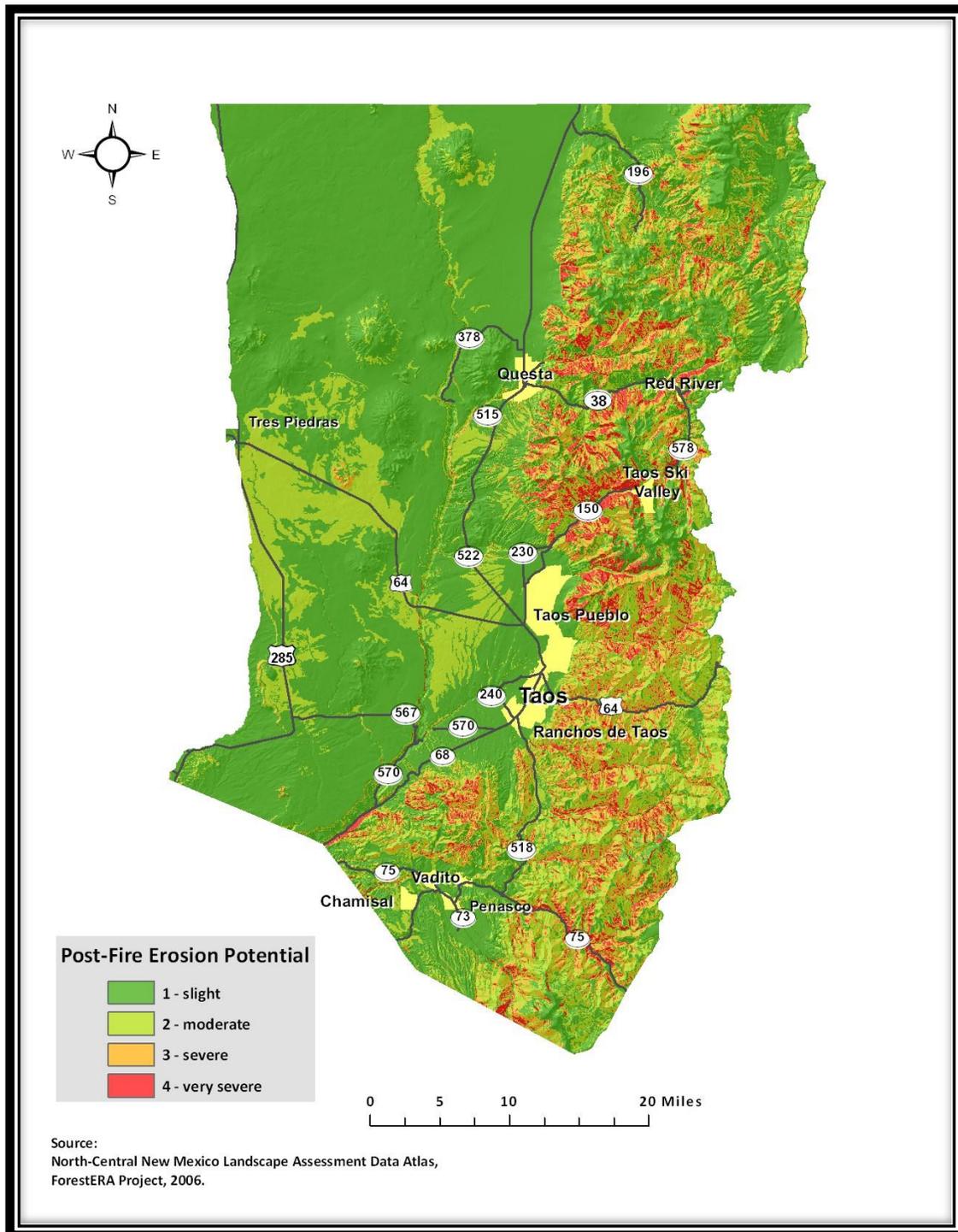
The Burned Area Emergency Rehabilitation (BAER) program is designed to address these situations through its key goals of protecting life, property, water quality, and restoring deteriorated ecosystems. Special Emergency Wildfire Suppression funds are authorized for BAER activities. BAER assessment plans and implementation are often a cooperative effort between federal agencies as well as state, tribal, local forestry and emergency management resources.

BAER can be considered as “first aid” – immediate stabilization that often begins before a fire is fully contained. BAER does not seek to replace what is damaged by fire, but to reduce further damage due to the land being temporarily exposed and in a fragile condition. Please see the following map to observe the post-fire erosion potential across Taos County.



**Post Crown Fire Erosion and Flooding Potential**

# Post-Fire Erosion Potential



Map Credit: New Mexico Forest and Watershed Restoration Institute 2009

## Chapter 6 - Preparing for Fire

### It Starts with You

#### Fire Adapted Communities

**Fire adapted communities** depend on education and outreach to inform the public on how to be responsive to the threat of wildfire. The underlying premise is that everyone, no matter what their role, can play a part to reduce fire risk in our communities. Communities in wildfire prone areas can work together to be fully prepared for wildfire. Recommended actions address resident safety, homes, neighborhoods, businesses and infrastructure, forests, parks, open spaces and other community assets. Homeowners and communities, working as partners with firefighters, can effectively reduce losses caused by wildland fires.

Learn more at the Fire Adapted Communities website.

<http://www.fireadapted.org>

#### Firewise Principles

**Neighbor to neighbor** we are linked by our wildfire risk. If one home is adequately prepared, the risk level to the entire neighborhood is improved, and everyone is safer. And conversely, careless or inadequately prepared neighbors increase the risk to the whole neighborhood.

With the help of New Mexico State Forestry Division, Cimarron District Fire Management Officer and the Taos County WUI Coordinator, at least nine communities are embracing the key principles associated with the Firewise Recognition Program and six of those have been certified. Using a five-step process, communities develop an action plan that guides their residential risk reduction activities, while engaging and encouraging their neighbors to become active participants in building a safer place to live.

Learn more about the Firewise Recognition Program:

<http://www.firewise.org/usa-recognition-program>

#### Firewise Communities

The Firewise Communities Program has been implemented across the United States since 2002. The Firewise Communities/USA Recognition Program has empowered neighbors to work together in reducing their wildfire risk. Join the growing network of more than 1300 recognized Firewise communities from across the nation taking-action and ownership in preparing and protecting their homes against the threat of wildfire. Scientific research has shown the effectiveness and benefits of implementing wildfire mitigation concepts across individual property boundaries and throughout communities.

Using a five-step process, communities develop an action plan that guides their residential risk reduction activities, while engaging and encouraging their neighbors to become active

participants in building a safer place to live. Neighborhoods throughout the United States are embracing the benefits of becoming a recognized Firewise Community – and you can too!

The following steps will get your community started and on their way to receiving their official Firewise Communities USA recognition status, and the honor of proudly displaying their own high-profile signage along with many other benefits. Firewise recognition for communities is confirmation that wildfire risk is taken seriously by its residents. The safety of the community is enhanced and that commitment is a consideration when treatment programs and other resources are allocated.

The five steps of Firewise recognition:

- Obtain a wildfire risk assessment as a written document from your state forestry agency or fire department.
- Form a board or committee, and create an action plan based on the assessment.
- Conduct a “Firewise Day” event.
- Invest a minimum of \$2 per capita in local Firewise actions for the year.
- Submit an application to your State Firewise Liaison. The NM State Firewise Liaison is based out of our NM State Forestry office in Santa Fe, NM.

Neighbor to neighbor we are linked by our wildfire risk. If one home is adequately prepared, the risk level to the entire neighborhood is improved, and everyone is safer. And conversely, careless or inadequately prepared neighbors increase the risk to the whole neighborhood.

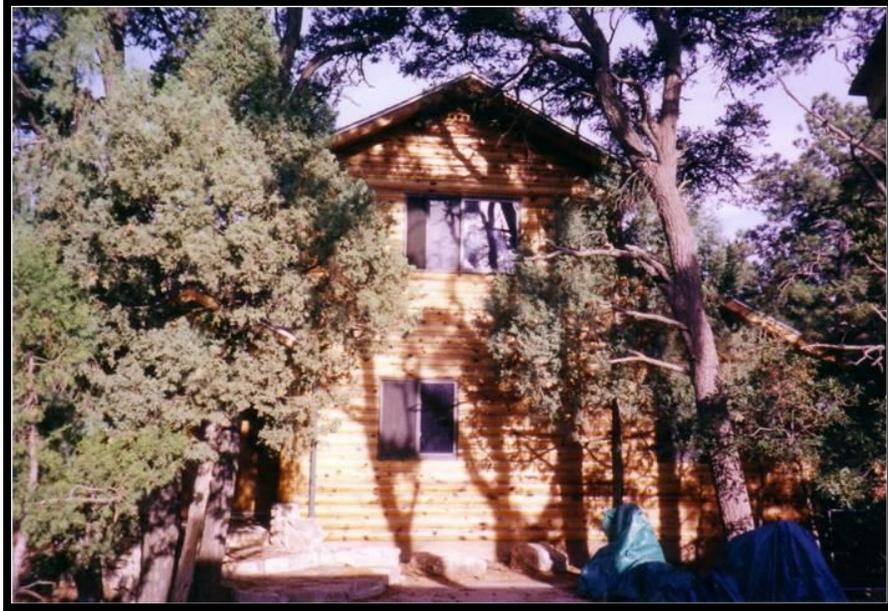
### **Risk Assessment**

A critical component of the Firewise recognition process is the creation of a wildfire risk assessment report for the neighborhood. Individual home and property owners are encouraged to use the assessment process to determine structural ignitability, to create defensible space, and to identify other factors that can improve survivability. The planner that conducts the assessment follows National Fire Protection Association (NFPA) recommendations and uses Form Checklist NFPA 299 / 1144 to develop these risk assessments (**See Appendix C**)

### **Defensible Space**

Increase the chances of your home’s survival by making the right decisions now about defensible space. Defensible space is a series of buffer zones that surround a structure. Different fire prevention treatments are appropriate for each zone. There is the Access Zone, the Defensible Space Zone, and the Build Zone.

The greatest danger to a home exists from direct contact with wildfire but structures are also vulnerable to ignition from traveling embers that can ignite common items found on structures and around properties such as roofs, decks, wood piles, fences and pine needles. Work done around a home before a fire starts can save property and lives.



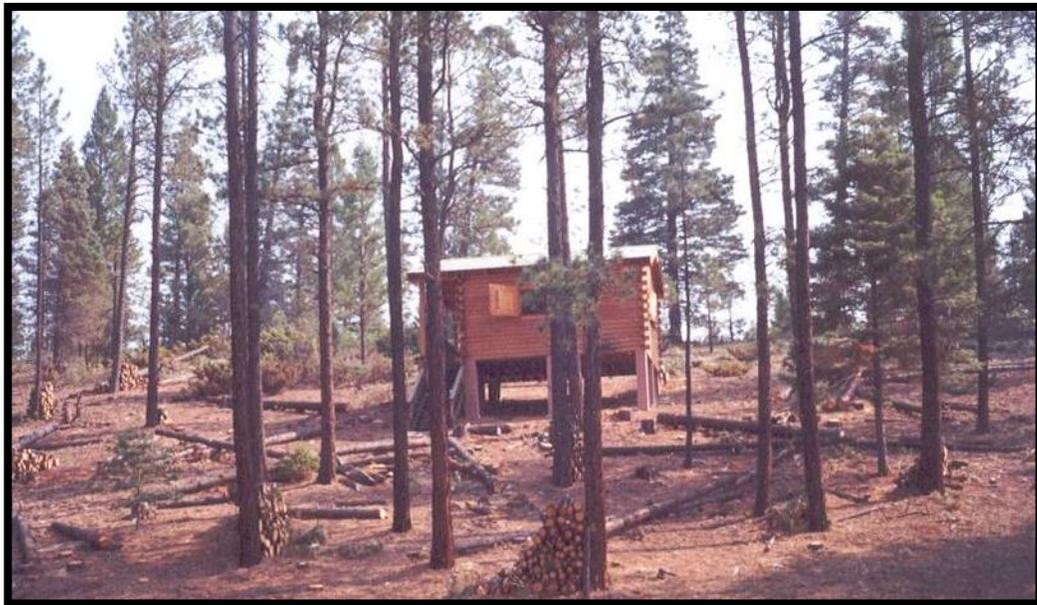
**High danger for Home Ignition (Above Photo)**



**Defensible Space efforts have taken place (Above Photo)**



**No Defensible Space (look for the cabin!)**



**Defensible Space has now been established**



**Taos Canyon Firewise Community Meeting**

### **Structural Ignitability**

A human built structure can be considered a type of fuel. How a building is constructed and the adjacent fuels can determine whether the structure will ignite or not. If one structure ignites, it can burn with enough intensity to ignite adjacent structures. Most homes ignite either by *direct flame impingement* or by *firebrand ignition*. A “Fire Hardened” home can prevent this fate.

### **Direct Flame Impingement**

Depending on the intensity of the fire and the building construction, direct contact with flame and heat can result in ignition. Reducing hazardous fuels around a structure can prevent ignition from flame impingement. Separation of the structure from other human created fuels (sheds, woodpiles, wood fences, etc.) can make a difference. “If it’s attached to the house, then it is a part of the house,” states Jack Cohen, Research Physical Fire Scientist with the USDA Forest Service Missoula Fire Sciences Laboratory. Find more information here:

<http://firewise.org/wildfire-preparedness/wui-home-ignition-research/the-jack-cohen-files>

### **Firebrand Ignition**

Most wind driven fires, especially crown fires, will have firebrands (flaming embers) preceding the flame front. These firebrands emulate snow in a blizzard and accumulate in, on and around structures. Susceptibilities include flammable roofs, roof gutters loaded with leaves and needles, open gable-end vents, flammable decks and porches with ignitable items on them (furniture, wood piles, etc.); anyplace where firebrands can drift, settle and pile up. Any fuel beds within

several feet of the structure, which are receptive to firebrands, could also ignite and spread to susceptible parts of the structure.

Learn how simple landscaping and home construction techniques can improve your chances of your home surviving a wildfire encounter:

<http://www.firewise.org/wildfire-preparedness/be-firewise/home-and-landscape/defensible-space>

## **Ready, Set, Go!**

The Ready, Set, Go! (RSG) Program seeks to develop and improve the dialogue between fire departments and the residents they serve. Launched nationally in March 2011, the program helps fire departments to teach individuals who live in high risk wildfire areas – and the wildland-urban interface – how to best prepare themselves and their properties against fire threats.

**READY:** be fire-adapted and ready

Take personal responsibility and prepare long before the threat of a wildland fire so your home is ready in case of a fire. Create defensible space by clearing brush away from your home. Use fire-resistant landscaping and harden your home with fire-safe construction measures. Assemble emergency supplies and belongings in a safe place. Plan escape routes and make sure all those residing within the home know the plan of action.

**SET:** situational awareness

Pack your emergency items. Stay aware of the latest news and information on the fire from local media, your local fire department and public safety.

**GO:** act early

Follow your personal wildland fire action plan. Doing so will not only support your safety, but will allow firefighters to best maneuver resources to combat the fire.

Learn more about being prepared:

<http://www.wildlandfirersg.org>

<https://nmfireinfo.files.wordpress.com/2009/04/rsg-action-plan-nm-april.pdf>

## **Post Fire Recovery**

The first consideration after a fire has passed is Immediate Safety. Damage and trauma resulting from a wildfire can be immense. It is important to consider that the danger is not necessarily over once the flames are extinguished. Flash flooding, damage to structures, dangerous trees, and road instability are some of the dangers that residents and travelers should monitor and avoid.

NM State Forestry has teamed up with the USDA Forest Service and numerous additional stakeholders to compile an excellent guide for communities seeking to recover after a wildfire has struck. For more information go to:

<http://afterwildfirenm.org>

## **Community Wildfire Protection Plan (CWPP)**

Taos County communities that face significant risks from wildfires should consider developing their own CWPP, particularly if there is a desire to seek grant and other funding opportunities for thinning and restoration projects, to protect significant community assets, or to fortify volunteer fire response capabilities. Currently five additional CWPP documents exist including one for the Enchanted Circle Regional Fire Protection Association, Penasco, Taos Pueblo, the Village of Taos Ski Valley and Pot Creek.

### **New Mexico State Forestry Division**

The New Mexico State Forestry Division (NMSF) under the Energy, Minerals and Natural Resources Department (EMNRD) is a state and federal funded agency. The Cimarron District is responsible for lands located in Taos, Colfax and Union counties. The primary focus in the Cimarron District is the protection of life and property in the wildland urban interface. Other priorities include the protection of watershed and timber resources, as well as maintaining healthy and productive forests. NMSF has statutory suppression responsibility for all wildfires that are burning on private and state lands within the state.

Cimarron District staff collaborate with other agencies and municipalities to implement fuels treatment projects to mitigate the threat of catastrophic wildfire. They also provide technical assistance to partner organizations and private landowners, and proudly work with communities to improve urban forests through the Re-Leaf Program.

NMSF participates in several nationally-recognized programs that guide home and landowners with wildfire prevention and preparation. District liaisons work with communities in their area to develop individual wildland fire prevention and preparedness plans. Interagency programs--such as Ready, Set, Go!, Smokey Bear, Living with Fire, Fire Adapted Communities, and Firewise USA--allow communities to tailor programs to fit their population size and local landscape.

To find out more about NM State Forestry:

<http://www.emnrd.state.nm.us/SFD>

Additional information about fire preparation and response can be found in “Living with Fire: A Guide for the Homeowner”:

<http://www.emnrd.state.nm.us/SFD/documents/NMLivingwFireOct.2008.pdf>

### **Taos Soil and Water Conservation District**

The Taos Soil and Water Conservation District is a taxpayer funded resource that provides technical and financial assistance to local landowners to develop defensible space areas around homes and structures located in the wildland urban interface. Utilizing a professional forestry consultant, the District implements fire prevention strategies as well as overall improvement of forest health in critical areas of Taos County. The District provides for professional terrain risk assessment and private landowners can apply for Fire Prevention Program grants that provide cost share assistance for up to three acres of defensible space work. The District is also called on

to assist in the deployment of Non Federal Land Grants (NFL) that may be available for properties adjacent to Carson National Forest.

For more information about the Taos Soil and Water Conservation District:

<http://tswcd.org>

**Other Resources and Funding Sources.** The Taos County CWPP Core Team is the primary point of contact to discover resources and funding that may be available to help private property owners and at-risk communities. Grant opportunities exist for the implementation of hazardous fuel reduction projects, education, NEPA clearances, volunteer fire department resources, and CWPP development. **See Appendix C** for a comprehensive list. Most grant opportunities require coordination among the agencies and stakeholders of the CWPP Core Team and NM State Forestry funding requires Core Team approval.

## **Other Resources**

### **New Mexico Fire Information**

This website is an interagency effort by federal and state agencies in New Mexico to provide timely, accurate fire and restriction information for the entire state. The agencies that support this site are National Park Service, Fish and Wildlife Service, Bureau of Indian Affairs, State of New Mexico, Forest Service, and Bureau of Land Management. The aim is to provide one website where the best available information and links related to fire and restrictions can be accessed.

Learn more about NM Fire:

<https://nmfireinfo.com>

### **Insurance Institute for Business and Home Safety.**

Here are some recommendations from the insurance industry perspective:

<https://disastersafety.org/wildfire/>

[http://disastersafety.org/wp-content/uploads/wildfire-checklist\\_IBHS.pdf](http://disastersafety.org/wp-content/uploads/wildfire-checklist_IBHS.pdf)

## **Our Local Government**

Taos County government plays a significant role in coordinating local, state, and federal efforts for emergency response to fires and for fuel reduction and mitigation projects. The County's WUI coordinator is the focal point for education and outreach efforts, for fire response readiness, and for risk assessments and other Firewise related activities. Taos County Long Range Planning is responsible for integrating CWPP recommendations into the Taos County Comprehensive Plan and Emergency Management and Hazard Mitigation Plans.

## Codes and Standards

Land use planning directives and building ordinances play a critical role in determining the structural ignitability of homes that are being built in WUI areas. Consensus developed codes and standards can provide criteria for planning development in areas that are threatened by wildfire. Two important sources of information are the National Fire Protection Association's main wildland fire standard and the International Code Council's wildland urban interface code.

National Fire Protection Association (NFPA 1144)

<http://www.nfpa.org/codes-and-standards/document-information-pages>

International Code Council's International Wildland-Urban Interface Code (IWUIC)

<http://shop.iccsafe.org/media/wysiwyg/material/3850X12-toc.pdf>

## Chapter 7 - Goals and Recommendations

This section consolidates the goals, recommendations, and implementation strategies as contained in the 2009 Taos County CWPP Update, and later confirmed and updated during CWPP Core Team meetings last year. *Input is organized around different relevant topics and includes general recommendations as well as specific strategies.*

There are recommendations specific to how the CWPP Core Team operates, is organized and sets its priorities. Public education and outreach is the driver for our goals around creating a fire adapted community. The reduction of structural ignitability and improved fire response capability address the fundamental elements of fire preparedness. Fuel reduction priorities focus on fire mitigation and landscape restoration goals. Additionally there are recommendations that address the economic impact of restoration activities.

## **CWPP Core Team Related**

1. Implement the recommendations and implementation strategies from the 2016 Taos County CWPP Update and follow through with remaining 2009 CWPP recommendations.
2. Maintain and expand the collaboration. Collaborative continuity is essential for all stakeholders including municipal, county, tribal, acequia, state and federal government representatives.
3. Continue planning integration with the predominant land managers in Taos County.
4. Integrate the goals and priorities of the 2016 CWPP Update with the Carson National Forest Plan Revision.
5. Seek greater participation from the Town of Taos and consider supporting a Water Source Protection Resolution.
6. Expand the stakeholder base with stakeholder focus groups and reach out to local forestry contractors, community fuel wood harvesters, and NGOs with complimentary interests.
7. Growth challenges (stakeholders, grants, projects, initiatives) need additional staffing commitments.
8. Sub-committees can be focused on implementing key recommendations and strategies. Education and outreach, program development, grant applications, risk assessments, GIS mapping, Post Wildfire Restoration/BAER protocols are all good examples of work that can be addressed by sub-committees.
9. Consider creating a central repository for data and information related to the CWPP mission: projects completed (type, acreage), potential new projects, meeting minutes, etc. A calendar and timelines for grant applications would be helpful.
10. Explore organizational and structural recommendations and communication protocols that can improve CWPP Core Team operations and decision-making processes.

## **Public Education and Outreach**

1. Promote and expand education and outreach that emphasizes wildfire preparedness and ecosystem function, including direct contact, public meetings, newspaper articles, mailings. Consider information packets for home buyers.
2. Promote public awareness for the principles of Fire Adapted Communities, building on recommendations from “Living with Fire” and the 2009 CWPP Update.
3. Educate the public about Defensible Space concepts and how to reduce structural ignitability.
4. Recruit and support the creation of Firewise communities in Taos County WUI areas.
5. Focus on WUI preparedness for wildfire events.
6. Encourage the development of community-specific CWPPs in high risk areas.
7. From the Forest Stewards Guild: We would like to see a greater community understanding of the natural role fire plays in the ecosystem, a greater acceptance of responsibility for wildfire risks, a greater acceptance of some smoke from controlled burns, and the proliferation of fire adapted communities
8. From Valle Escondito Firewise
  - The general public seems minimally aware of the efforts of the CWPP Core team, or of the emergency resources (or lack thereof) within the community.

- More broad and public communication of the key “Firewise Practices” would serve to reinforce and validate the message being delivered by the individual community committees.

### **Improve Fire Response & Emergency Management Capability**

1. Coordinate and prepare with Wildfire First Responders training and resources.
2. Explore innovative approaches for continued training and education for safer and more effective wildland firefighters.
3. Promote public awareness of community emergency plans and the necessity for individuals to have their own personal emergency plan.
4. Incorporate relevant information from the county’s Hazard Mitigation Plan into the CWPP.
5. Well qualified and experienced overhead personnel are critical to achieving good outcomes from our volunteer fire departments.
6. Emergency Communication – a wildfire would likely eliminate our telephone and internet communication links yet this aspect of a wildfire emergency is rarely discussed.

### **Structural Ignitability**

1. Strengthen Taos County Land Use Regulations and promote the adoption of WUI specific building codes to support safe and responsible home construction and site access.
2. Adopt measures to create road safety within WUI areas, specifying road width, ingress and egress standards and turnaround opportunities.
3. Consider roads that are well maintained with cleared vegetation perimeters as a factor in fire control, operating as a fuel break for neighborhoods.

### **Fuel Reduction Priorities**

1. Protect lives, property, infrastructure and natural resources from catastrophic fires.
2. Protect, enhance, restore and maintain resilient forests, landscapes, watersheds and communities while reducing fuel loads.
3. Fire Mitigation and Landscape Restoration are expected outcomes from setting priorities
4. Merge compatible USFS Carson NF priority watershed maps with Taos County WUI maps for better alignment of forest planning and management and NEPA compliance for USFS treatments.

A general theme from Firewise and other stakeholders is a push for **more** thinning, maintenance and restoration projects in Taos County.

## **Restore and Maintain Resilient Landscapes**

1. Provide community water source protection of regionally significant mountain forests ecosystems and watersheds. Healthy headwater watersheds of the Rio Grande Basin are possible through community stewardship of forests.
2. Restore Taos County forests and watersheds to resilient forest and watershed functions through community collaborations.
3. Maintain Taos County's biodiversity and point of destination for recreation, hunting, fishing, skiing, herb and medicinal harvesting, hiking and wildlife viewing provided by healthy forests and watersheds.
4. Maintain biodiversity and wildlife habitat through forestry, watershed planning and collaboration.
5. Use the jointly developed Landscape Restoration Strategy recommendations (Link?) to inform treatment plans.
6. Consider the newest science and recommended practices when designing treatments.

## **Risk Assessment**

1. Risk assessment is driven by topography, weather and fuels.
2. Consider ways to improve the process that creates CAR ratings and explore how community values can modify relative rankings.
3. Encourage the use of risk assessment forms and checklists such as the NFPA 209-1144 to determine defensible space for homes, groups of homes, and neighborhoods.
4. Adopt the Anchor Point Comprehensive Risk Assessment Map and modeling tool to provide better risk assessment information.
5. Develop criteria for assessing changes in CAR ratings that relies on fire behavior modeling, defensible space risk and community values.
6. Develop user friendly predominate vegetation maps for the Taos County CWPP.
7. Form CWPP Core Team GIS mapping/modeling sub committee.
8. Form CWPP Core Team CAR ratings sub-committee.

## **Restoration Economy**

1. Recognize traditional uses of forest products and fuel wood harvesting.
2. Encourage sustainable industry and growth with our timber resources including ecosystem services and forest products.
3. Support Taos County lumber mills and forest jobs for the benefit of the local economy and traditional communities.
4. Bolster an increase in local forestry contractor capacity as more treatment funding becomes available.
5. Create a sub-committee to focus on planning and research of a new local forest industry.

## **Funding Opportunities**

1. Identify funding sources and work to secure funding for prioritized treatments, public awareness projects, forestry initiatives and fire response training and equipment.
2. Engage local private property owners through partnerships with Taos County and the Taos Soil and Water Conservation District.
3. Review and pursue yearly NMAC/BLM WUI outreach, treatments and update grants opportunities.
4. There is a need for greater and clearer communication regarding local, regional, and national resources available for communities. Identify grant monies, or Federal Aid like FEMA. It is possible that communities within Taos County could unite or collaborate on projects in order to attract greater funds to the area, but some education, communication and coordination is needed to help make that happen.

**General comments theme.** Stakeholders would like to see the community better prepared for the event of wildfires. All of our natural resources need to be conserved for future generations. To that end it is important to continue collaboration efforts with all partners involved in fire and natural resource protection and expand hazardous fuel reduction projects.

## Chapter 8 - Taos Valley Watershed Coalition

### Landscape Restoration Strategy

Representatives of the Rio Grande Water Fund (RGWF) and The Nature Conservancy have attended Core Team meetings regularly since March of 2014. The RGWF seeks to scale up forest restoration treatments within the Rio Grande basin by 10 fold during the next 20 years, in an effort to secure water resources for the future. In response, the CWPP Core Team formed a sub-committee, the Taos Valley Watershed Coalition (TVWC), to focus restoration planning efforts and funding development on a focused landscape area within Taos County.

A “landscape restoration strategy” was collaboratively developed from January to August 2015 and funding was secured from the Rio Grande Water Fund for implementation through a partnership effort between the Carson National Forest, Taos Pueblo, and the El Salto Land Association. The work that was funded includes NEPA clearances for planned work in the Pueblo Ridge area of the Carson, Comprehensive Forest Inventory plots on Taos Pueblo lands, and the El Salto Foothills Shaded Fuel Break Project. The completed work will be the foundation for strategic landscape restoration and fire protection at a landscape scale within the 285,000 acre planning area (**see map below**) that extends along the west slope of the Sangre de Cristo Range from San Cristobal Creek on the north to the Rio Grande del Rancho watershed on the south.

The landscape restoration strategy document provides a strong overlap, nexus with, and extension of the values, goals and planning principles of the Taos County CWPP Core Team. A link to the TVWC Landscape Restoration Strategy provides additional information. :

<http://allaboutwatersheds.org/library/inbox/tvwc-landscape-restoration-strategy/view>

A link to the Rio Grande Waterfund webpage is

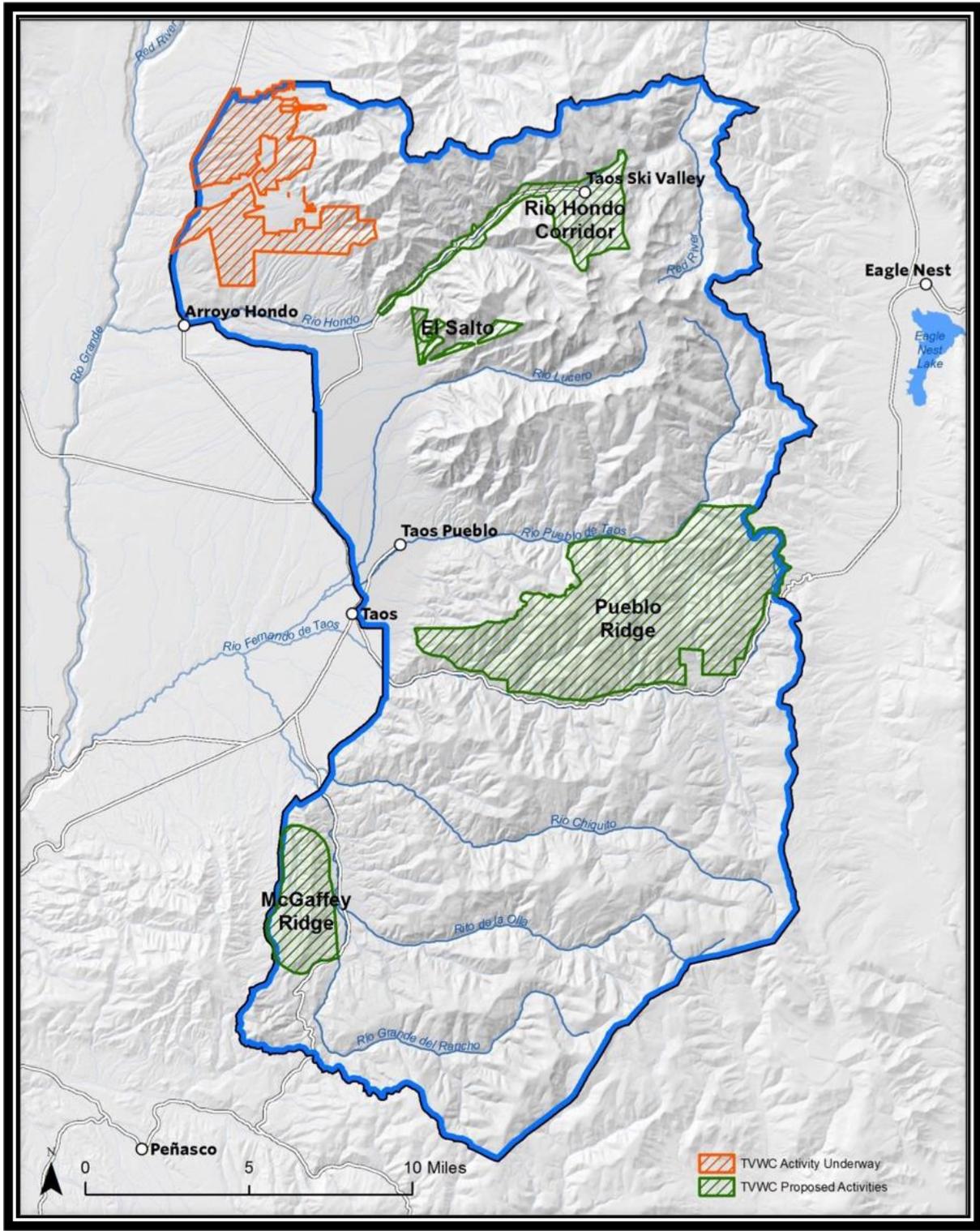
<http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/newmexico/new-mexico-rio-grande-water-fund.xml> and can be found in **Appendix E**.

#### **Phase 1: Landscape Restoration Strategy, Prioritization of 23,800 acres**

**Pueblo Ridge – 23,540 acres** including large portions of the Taos Pueblo Reservation and Carson National Forest (CNF)

**El Salto Restoration – 250 acres** of the communally owned former land grant property of the El Salto de Agua Land Association. Additional priority areas identified in the LRS will be included in subsequent phases of restoration.

# Taos Valley Watershed Coalition: Landscape Restoration Project Area



Map Credit: Taos Valley Watershed Coalition



## Chapter 9 - Accomplishments Since 2009

1. Taos County CWPP Core Team meetings have been held quarterly since 2008, with consistent attendance at recent meetings averaging approximately 30 members from a comprehensive stakeholder list of over 100 members.
2. The Enchanted Circle Regional Fire Protection Association, Penasco, Taos Pueblo, Pot Creek, and the Village of Taos Ski Valley have developed CWPP documents
3. Taos County has consistently secured Title III funding that has been utilized on behalf of the ongoing Firewise Communities Program including facilitating a series of public meetings to familiarize stakeholders and landowners in the wildland urban interface (WUI) challenges.
4. Taos County created and filled a Wildland Urban Interface Coordinator position and a Fire Chief position.
5. Taos County Title III funds were provided to contract *The Land and Water Clinic* to facilitate the Taos County 2016 CWPP Update.
6. Taos County and NM State Forestry have assisted with the establishment of 5 FIREWISE Communities, including El Salto, Gallina Canyon, Taos Canyon, Village of Taos Ski Valley, and Valle Escondido, with at least 3 additional communities on track to be recognized in the future (Latir/El Rito, Pot Creek, & San Cristobal).

Comments: Firewise certification supports the creation of a Fire Adapted Community. A key benefit is education and the sharing of ideas and experiences. Knowledge is gained about the preservation of watershed areas and the resources already available within Taos County for “Firewise Practice” support. Introductions to key members of neighboring communities, National Forest personnel, forestry contractors, and Taos County officials are an additional benefit.

7. The Enchanted Circle Regional Fire Protection Association has continued its monthly meetings, including an annual Wildfire Preparedness Meeting held each spring. Members have advanced their training and accrued additional equipment since 2009.
8. Three Wildland Urban Interface Summits were held in Taos, one sponsored by NM Association of Counties and two sponsored by Taos County.
9. The Taos County Soil and Water Conservation District (SWCD) has increased funding for its Fire Prevention Program, providing professional forestry consultation and funding for defensible space work on private land. The program has expanded to include development of shaded fuel breaks that protect neighborhoods and essential watersheds by linking hazardous fuel reduction with existing projects on private and federal land.

10. Four Collaborative Forest Restoration Program projects (CFRPs) have been implemented or are currently underway on the Carson National Forest in Taos County, resulting in 755 acres treated based on an investment of \$1,440,000
11. Two Non-Federal Land (NFL) grants were developed by the Core Team and approved by State Forestry for private land work. Work has been completed in Taos Canyon (124 acres) and is starting in Pot Creek (135 acres).
12. The 2011 and 2012 Secure Rural Schools Title II funding was awarded to Northern Rio Grande Resource Conservation and Development, Inc., and the Taos Community Foundation, respectively, for the completion of 360 acres within the La Jara Fuels Treatment Area in upper Taos Canyon.
13. Taos Pueblo invested \$1.9 million over five years in the Taos Pueblo Foothills Fire Break which extends from the Encebado Fire Scar on the east around the base of the Taos Mountain to the mouth of Rio Lucero Canyon.
14. The El Salto Land Association has secured funding from the Taos SWCD and the Rio Grande Water Fund to initiate a shaded fuel break
15. The Bureau of Land Management (BLM) has completed significant implementation work on Copper Hill near the Mora County line and is currently focusing forest stand improvement work in the ponderosa and pinon/juniper woodlands on Guadalupe Mountain near Questa
16. The Natural Resources Conservation Service (NRCS), in collaboration with NM State Forestry, has provided technical expertise and funding assistance for *Forest Stand Improvement* and *Woody Residue Treatment* practices for private landowners on the Taos Plateau and most recently in the Rio Grande del Rancho watershed.
17. The Taos Valley Watershed Coalition, a CWPP Core Team subcommittee, was created to focus planning efforts and funding development for landscape scale treatment areas
18. The project work that has resulted since the 2009 Taos County CWPP Update is now approaching nearly \$3 million dollars of support, achieved through competitive leveraging of funding.
19. Development of the Taos County WUI-Community Inventory by the *Land and Water Clinic*



**Taos County Chipper Days**

## **Chapter 10 - Appendices**

### **Appendix A: Stakeholder Profiles**

Since its inception during the CWPP development process in 2009, the Taos County CWPP Core Team has continued to facilitate an increase in public understanding of the potential for wildfire in and adjacent to our communities. The Core Team has become a vigorous organization consisting of individuals, interest groups, businesses, non-profit organizations, federal and state agencies, and local governments who are collaborating to address the urgent need to reduce hazardous fuel loads and improve forest resiliency in the wildland urban interface and in the watersheds of Taos County. Following are Profiles from some of our Stakeholders.

## **Taos Soil and Water Conservation District (TSWCD)**

One of the key partners in the Taos County CWPP Core Team is the Taos Soil and Water Conservation District, which has national and statewide recognition for its work under an independent mill-levy. Taos County has also offered the Taos Soil and Water Conservation District (TSWCD) a Memorandum of Understanding (MOU) to the Taos County Commission in anticipation of working collaboratively on fuel reduction projects on private lands.

Because of the NM anti donation clause, the TSWCD is the only subdivision of local government that can apply public funds on private lands, as is the case for many fuel reduction proposals in the Taos CWPP WUI areas. This program and project work addresses the needs of property owners who may not be able to afford the work otherwise. It also has helped develop and sustain local foresters and contractors.

### **TSWCD Fire Prevention program**

Taos Soil and Water Conservation District provides technical and financial assistance to local landowners to develop defensible space areas around homes and structures located in the wild land/urban interface. Utilizing a professional forestry consultant, the District was able to implement fire prevention strategies as well as improve overall forest health in critical areas of Taos County. The program provides for a professional terrain risk assessment and cost-share thinning programs for private property owners in Taos County.

Since its creation in 2001, the Taos SWCD Fire Prevention Program has assisted approximately 175 private landowners with cost-share assistance to help reduce fuel loads on over 270 acres with an average project size of 1.54 acres per property in Taos County. Additional landowners have been helped with technical assistance to identify fuel hazards to be removed. The District also provides technical assistance to Taos County with regard to the Community Wildfire Protection Plan (CWPP) and grants awarded to Taos County for fuel hazard reduction projects, including the NFL Grant program that provided cost-share funds to thin 123 acres in Taos Canyon. TSWCD is working currently with the County on another NFL grant for Pot Creek to treat 133 acres.

## **Taos Pueblo**

The Taos Pueblo Division of Natural Resources/Fuels Program (DNR/Fuels), managed by tribal member, Renee Romero is a critical partner of the two landscape planning collaborative groups in Taos County, the Taos County Core Team and the newly formed Taos Valley Watershed Coalition. The Tribe developed a CWPP specific to Taos Pueblo in 2009.

### **Forest Management Planning on Taos Pueblo Lands**

Taos Pueblo lands incorporate large forested lands within two documented watersheds noted for their quality of waters in the Southern Rockies. The two watersheds provide more than half the irrigation water for the Taos Valley based on flow measurements. (See Steam Flow Map)

A world heritage site sits at the mouth of the Rio Pueblo drainage; the approximate age of this site is at least 1000 years. The tribe would like to create current planning documents to correct policies that do more harm to their lands. The land is a 'pure' wilderness that has no grazing

allowed within its upper boundaries with no logging or mining. The tribe controls the headwaters to below the village site, truly unique ownership.

The tribe is currently working on the Comprehensive Forest Inventory (CFI) plots for all tribal lands. The Southwest Regional Office (SWRO) of the BIA is supporting the inventory for a new Forest Management Plan. The current plan/extended-forest plan was last updated in 1993. The funding currently available is not adequate for this inventory and Forest Inventory Analysis (FIA) to produce a Management Plan.

The lands in question are the FIRST lands given back to any Native American entity and set that legal precedent that has become the basis of other native land claims. This project is not about possible funding or jobs etc., the primary reason is to protect a special, sacred land. Taos Pueblo has never wavered in its belief to protect and preserve this land. We see an opportunity to do the work needed to preserve this land for the next millennium. This was the desire of our forefathers and continues to be the only motivation.

The Southwest is ground zero, according to the experts for global warming. The threat of a large fire is real; due to the absence of fire, current fuel loading. The question is not 'if' but when. We have already attacked a fire on tribal lands that took 11 hours to reach due to the inaccessibility of Taos Pueblo wilderness lands. The resulting flooding from a major fire would be disastrous to our land. The time is, now, to allow work within the wilderness that will affect all users along the Rio Grande.

Project Location: The watersheds/wilderness contains two watersheds, the Rio Pueblo, with its source at our Blue Lake, and the Rio Lucero watershed. The combined acreage of these two watersheds is 50 K acres. An adjacent area included is the Taos Pueblo Ranch; an area recently purchased with the intent of protecting the Blue Lake area is also included in the CFI planning plots, another 16.5 K acres. The vegetation type is Pinyon-Juniper progressing to Ponderosa Pine, to Mixed Conifer/ Sup Alpine Fir in the upper reaches. The proposed strategy would be to break up the fuels with natural fuel breaks, using terrain and topography to control the reintroduction of fire, currently the only approved means of changing wilderness ecology.

Funding/ In Kind match: The tribe currently has \$75 K appropriated to conduct the CFI and FIA. The BIA is requesting some additional dollars, unknown whether this request will be funded. Our Tribal government on a recent January visit to Washington DC has also requested additional dollars for this project, also unknown if additional funding will be granted.

Scientific Rationale: The CFI plots will be collect data according to the approved BIA 531IAM (Indian Affairs Manual). All data will be sent to the BOFART offices in Denver Colorado for analysis. This finished Forest Management planning document will allow Taos Pueblo to alter our other plans, including the Fire management plan, to include current policies. All documents are approved internally by the Tribal Council and externally by the DOI/BIA; both have trust lands responsibility.

Urgency of Project: A major fire would damage a world Heritage Site, acequia systems, and private property along both drainages; both on and off trust lands. Most importantly, the ability

of the land to bank the water, to hold and maintain temperature gradients that are beneficial to a recently discovered species of Rio Grande Cutthroat that is 99.6 % pure found in the upper reaches of the Rio Lucero. The Threat of Fire to this prized land that could be a classroom to all future endeavors of restoring wilderness land, National Parks that have limited impact by humans would be lost. The chance to do the pre-monitoring documentation is critical.

### **Rocky Mountain Youth Corps**

Rocky Mountain Youth Corps is a local training and employment program that engages 16 to 25 year old men and women in conservation work while providing them with training opportunities. *Rocky Mountain Youth Corps is a stepping-stone to new opportunities. We inspire young adults to make a difference in themselves and their communities. Through training and service, Corps members discover their potential for a healthy, productive future.*

RMYC crews have been engaged in forest restoration and wildland urban interface projects since 1995. In this time frame RMYC has successfully worked on six Collaborative Forestry Restoration Projects (CFRPs) treating more than 1,200 acres. In addition, RMYC has participated in thinning work on private property throughout Taos County as related to WUI activity and planning.

As part of this project work RMYC has a robust training program that prepares members for successful careers in the related field. Trainings that have been offered include: S-212 Chainsaw Certification, NM Forest Workers Certification, Wilderness First Responder / Wilderness first aid, S-130-180 Wildland Firefighting Certification, as well as professional trainings such as interview skills, resume workshops, and job searching.

<http://youthcorps.org/>

### **Kit Carson Electric Cooperative, Inc.**

Since the Las Conchas fire in the Jemez Mountains in 2011, New Mexico utility companies have acknowledged their role in landscape forestry and wildfire matters. Kit Carson Coop. is the key CWPP Core Team member when it comes to identifying infrastructure at risk of fire and they implement a vigorous easement thinning program throughout the county. The planning document and management guide is the Kit Carson Electric Cooperative Inc. Operations Management Plan for Vegetative Management. They have been helpful in sharing GIS files that identify infrastructure corridors and their risk of fire.

### **Village of Taos Ski Valley**

The Village of Taos Ski Valley is one of four municipalities in Taos County. The Village provides a variety of services to residents and visitors, including infrastructure and utility services as well as police and fire protection. The Village was recognized as a Firewise Community in 2014.

In recognizing the potentially devastating impacts of a forest fire to the community, the Village is preparing a CWPP that is specific to the risks and resources available to the Village and

regional stakeholders. The Village's CWPP will serve as the local implementation plan for the broader Taos County CWPP. Staff and elected leaders work closely with the Taos County CWPP Core Team to implement the recommendations of the Taos County CWPP.

The CWPP outlines several objectives for reducing the risks of forest fire and improving watershed resiliency, including public education activities, forest fuel treatments, training and equipment purchases for the Volunteer Fire Department, and continued collaboration with regional stakeholders.

### **Taos Ski Valley, Inc.**

Our mission at Taos Ski Valley, Inc. is to foster the best possible experience for our guests and fellow employees. We draw our energy from the incredible mountain we enjoy on a daily basis and from the lasting relationships we build here. The diverse, talented, and creative people in our Taos Ski Valley family encourage one another to be our best and to make each year even better than the one before. Together we strive to carry on the traditions and values that have made Taos an extraordinary place. Let us continue to make Taos Ski Valley a truly authentic, one-of-a-kind experience that reminds us there is no place else we would rather be.

Partnering with numerous external entities, we are proactively seeking out ways to mitigate the devastating effects of climate change to the community and our business by:

- Training our sawyer crew and trail crew to be Type 2 certified to become a resource to the community;
- Increase glading on our Special Use Permit Areas to address dead and diseased trees which also helps with watershed resiliency
- Burying utilities (natural gas, electric, and fiber optic) in an underground utility trench up Hwy 150
- The Taos Ski Valley Foundation has helped fund fire history studies in the area;
- Trail work to address erosion control;
- Increasing the efficiency of our snowmaking system and snow harvesting (fencing) to improve watershed resilience.

The partnerships that have been formed via the CWPP Core Team and the TVWC have been invaluable to us as we have learned a great deal from those entities involved. Continuing to partner together to reduce the risks of climate change to our community and livelihoods.

### **The New Mexico Nature Conservancy: Rio Grande Water Fund**

In 2015 a new regional CWPP stakeholder, the New Mexico Nature Conservancy and the Rio Grande Water Fund joined the Core Team and invited project proposals that help extend CWPP planning from near or within the WUI areas to a greater landscape scale consideration, often encompassing entire watersheds.

The Rio Grande Water Fund is a groundbreaking program of the New Mexico Nature Conservancy that is engaging private and public partners in protecting watersheds in northern

New Mexico. The Rio Grande Water Fund will generate sustainable funding for a 10-30 year program of large-scale forest and watershed restoration treatments—including thinning overgrown forests, restoring streams and rehabilitating areas that flood after wildfires.

In addition the Headwaters Economics and the Anchor Point Group also joined the planning team through the support of the LOR Foundation with an offer to provide in-kind mapping and forest modeling to the Core Team. Some of their in-kind resources are a staff that includes fire behavior analysts, structure-protection specialists, forestry and resource managers.

## **Forest Stewards Guild**

The Forest Stewards Guild practices and promotes responsible forestry as a means of sustaining the integrity of forest ecosystems and the human communities dependent upon them. The Guild engages in education, training, policy analysis, research, and advocacy to foster excellence in stewardship, support practicing foresters and allied professionals, and engage a broader community in the challenges of forest conservation and management. We are concerned about the risk to communities, watersheds, and forests from uncharacteristically high severity fires. The CWPP planning process will help Taos County reduce wildfire hazard and build fire adapted communities.

## **Valle Escondido, a Firewise Community**

Valle Escondido is a community of approximately 140 full and part-time homeowners located in the wooded hills and valley adjacent to Carson National Forest and just above the Rio Fernando river. The Firewise committee of this community holds as its mission to:

- Educate home and lot owners regarding the proper maintenance of wooded properties for the mitigation of fire risk , and in the event of a wildfire, to reduce the risk of a “running crown fire” as well as to maximize the long term beauty and health of the forest .
- Educate home owners in the proper development and maintenance of “defensible space” so as to improve the probability of properties sustaining a wildfire without destruction and to enhance the safety of the entire community.
- Prepare homeowners and vacationers in the event of a wildfire, for evacuation procedures to safety zones.
- Research and provide resources to property owners for the proper development and maintenance of “Firewise Practices” as described above for their lots and homes.
- Collaborate with neighboring property owners and communities within Taos County for the sharing of information, opportunities, research and resources focused on these same objectives.

## **New Mexico Forest and Watershed Restoration Institute**

An important partnership that Taos County has developed is with the New Mexico Forestry and Watershed Restoration Institute (FWRI), the regional Southwest Ecological Research Institute

(SWERI) located at New Mexico Highlands University. The New Mexico Forestry and Watershed Restoration Institute have been providing Taos County in-kind GIS mapping and forestry consultations during the development of this CWPP. NM FWRI will be providing forestry and planning guidance and assistance for fuel reduction treatment monitoring as this CWPP is implemented.

<http://nmfwri.org/>

## **Regional sportsmen's (NGO) organizations**

Other key partners joined the CWPP Core Team from the New Mexico sportsmen's NGO community, the New Mexico Trout Unlimited and the New Mexico Wildlife Federation has also joined the planning team because of their concerns of wildfire and commitments to habitat and upland watershed project that impact Taos County game and fish populations. The New Mexico Wildlife Federation works on behalf of sportsmen, to protect wildlife and wildlife habitat. The New Mexico Trout Unlimited mission is to conserve, protect and restore North America's cold-water fisheries and their watersheds.

## **Taos County Government**

Due to the fact that Taos County government owns little land in Taos County the most effective role that the county can play in WUI matters is coordination and planning. It has the ability to support the 14 volunteer fire departments administratively and 65 communities of Taos County by providing WUI planning and information and providing outreach and information to private property owners within the county.

Taos County can also have a significant role in coordinating local, state, federal efforts for fuel reduction and providing grants writing and support through a County Wildfire Urban Interface Coordinator's position. Land use planning and ordinances are a critical role in the type of encroachment into forested WUI areas that development presents. Nathan Sanchez, Taos County long-range planner has been integrating CWPP planning and recommendations into the developing Taos Land Use Plan.

In October 2008 Taos County convened the Taos County CWPP Core Team to develop the 2009 CWPP Update through a planning contract with the Land and Water Clinic. The 2009 CWPP Update was developed through (6) quarterly meetings during that time.

With the support of the New Mexico Forestry Division, the Taos County Planning Department has taken the lead role of convening the Taos County Core Team. This Core Team has been meeting on a regular basis from 2008 through the drafting of this 2015 Taos County CWPP Update. The original CWPP planning grant came to Taos County in 2005 through an \$80,000 BLM and NMAC partnership grant program, dedicated to developing the CWPP document and Core Team process.

The 2009 Taos County CWPP Update was adopted by the Taos County Commission. The Taos County CWPP Core Team has maintained vigorous participation by a broad range of local stakeholders in the planning and management forests and watersheds of Taos County since the

beginning of the CWPP planning process. Attendance has fluctuated between 10-15 and 45-50 participants. A continuing planning and collaborative process is necessary for the implementation of CWPPs.

All local, state, federal and tribal governments have been engaged. The staffs of the Carson National Forest and the BLM Taos Resource Area attended Core Team meetings regularly providing critical forest conditions information and planning and management of project work. The New Mexico State Forestry attended all meetings and provided meeting support for many of the 2009 CWPP Update and access to resources.

The Taos County Planning Dept. Staff provided logistical support for meetings and WUI Summits and served as a liaison with the Taos County Commission for the CWPP recommendations.

Taos County has also proffered the Taos Soil and Water Conservation District (TSWCD) an MOU to the Taos County Commission in anticipation of working collaboratively on fuel reduction projects on private lands identified in the Taos County CWPP CAR ratings and WUI map.

### **Amigos Bravos**

The mission of Amigos Bravos is to protect and restore the waters of New Mexico. Formed in 1988, Amigos Bravos is a statewide water conservation organization guided by social justice principles and dedicated to preserving and restoring the ecological and cultural integrity of New Mexico's water and the communities that depend on it. Catastrophic wildfire would be unbelievably damaging to the water quality of the Rio Grande and its tributaries. Creation of a functional and informative CWPP that drives healthy forest management practices is vital to the future well-being of our waterways. The projects completed with the help of this document will increase the health of these watersheds, making them more resilient in the case of catastrophic fire and climate change.

[www.amigosbravos.org](http://www.amigosbravos.org)

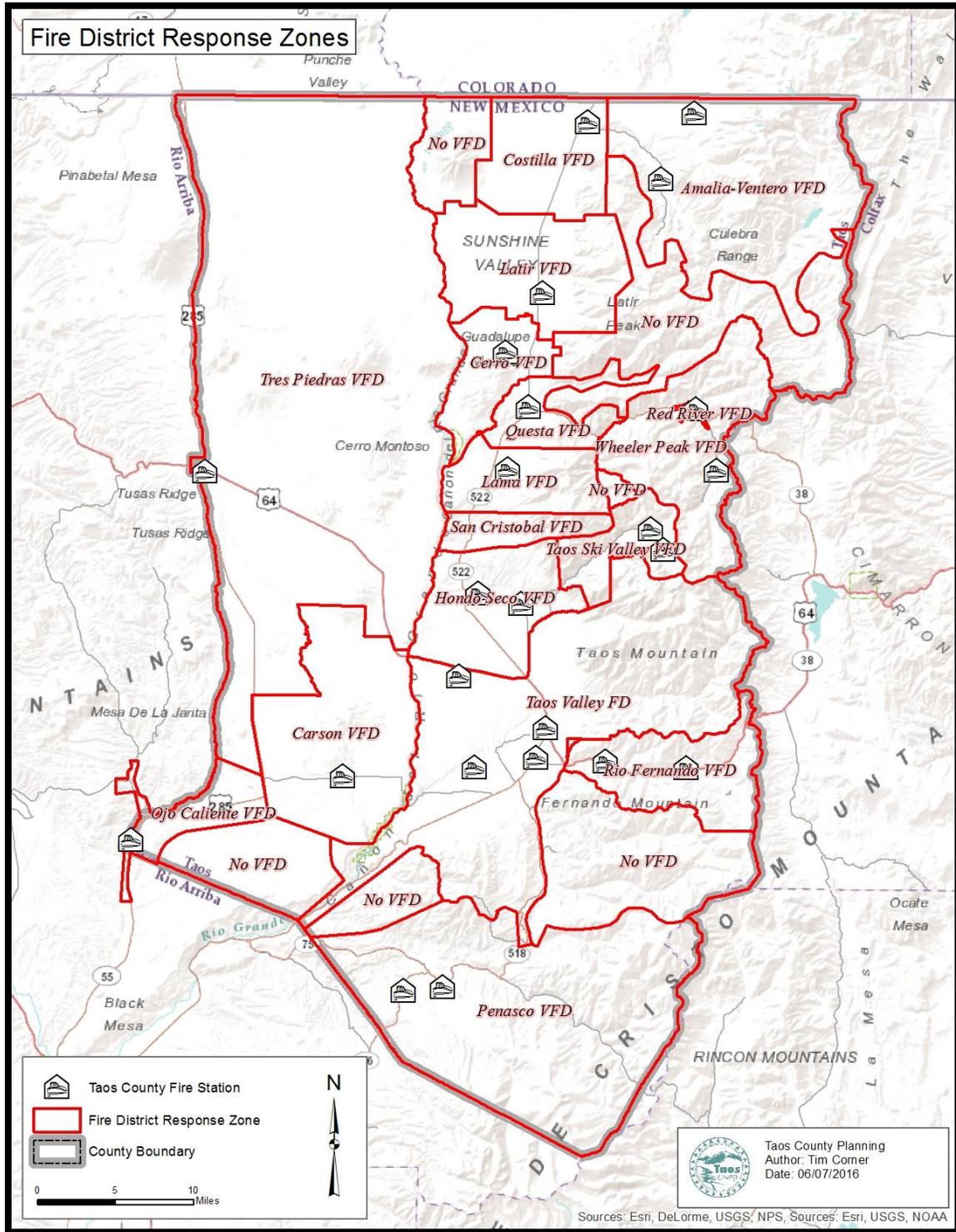
### **Taos Land Trust**

The Taos Land Trust is dedicated to conserving open, productive, and natural lands for the benefit of the community and culture of northern NM. We are concerned and support countywide wildfire defense and watershed protection planning in northern NM. We have partnered with the county to provide resources to the CWPP Core Team and have actively engaged in this vital planning conversation. Our organization is also currently occupied with two community-planning processes of our own that prioritize trails in the Taos Valley and Enchanted Circle and another process to prioritize the community's conservation values to protect private lands. Our engagement in the CWPP Core Team planning process has provided additional outreach and insight that we believe has served both the Core Team and the Taos Land Trust in our mutual efforts to protect our precious lands and water.

<https://www.taoslandtrust.org/>

# Appendix B: Fire Response Resources

## Taos County Volunteer Fire Department Zones



Map Credit: Tim Corner, Taos County Planning Department

## Taos County Volunteer Fire Departments

### Fire Departments Protecting Taos County

The following table identifies the Fire Departments in our region ready to protect our communities. There are four municipal Fire Departments (Town of Taos, Town of Red River, Village of Questa, and Village of Taos Ski Valley). In addition, there are numerous Volunteer Fire Departments around Taos County, some directly responsible for our WUI communities at risk (**see Chapter 4, Community at Risk Table**). Three other Fire Departments associated with the Enchanted Circle Regional Fire Protection Association (ECRFPA) respond to fire incidents in Taos County (Eagle Nest, Moreno Valley, and Angel Fire).

Taos County utilizes the **ECRFPA Mobilization Guide** to dispatch resources, based on a formal dispatch protocol. The Mobilization Guide is the source for all current information regarding Fire Departments in our region. Organized by Fire Department, each entry documents **dispatch** protocols, **administrative** information and fire response inventories, as well as **maps** that include mile marker information.

Follow this link to connect to the Mobilization Guide:

[http://ecrfpa.org/ECRFPA\\_MobGuide.htm](http://ecrfpa.org/ECRFPA_MobGuide.htm)

A direct link to Administrative information about individual Fire Departments is provided in this table.

Fire Department	Link
<b>Amalia/Ventero VFD</b>	<a href="http://www.ecems.org/pdf/Amalia-14.pdf">http://www.ecems.org/pdf/Amalia-14.pdf</a>
<b>Carson VFD</b>	<a href="http://www.ecems.org/pdf/Mob%20Guide%20Admin%20Info_Carson-16.pdf">http://www.ecems.org/pdf/Mob%20Guide%20Admin%20Info_Carson-16.pdf</a>
<b>Cerro VFD</b>	<a href="http://www.ecems.org/pdf/Mob%20Guide%20Admin%20Info_Cerro-16.pdf">http://www.ecems.org/pdf/Mob%20Guide%20Admin%20Info_Cerro-16.pdf</a>
<b>Costilla VFD</b>	<a href="http://www.ecems.org/pdf/Mob%20Guide%20Admin%20Info_Costilla-12.pdf">http://www.ecems.org/pdf/Mob%20Guide%20Admin%20Info_Costilla-12.pdf</a>
<b>Hondo/Seco VFD</b>	<a href="http://www.ecems.org/pdf/Mob%20Guide%20Admin%20Info_Hondo-Seco-16.pdf">http://www.ecems.org/pdf/Mob%20Guide%20Admin%20Info_Hondo-Seco-16.pdf</a>
<b>La Lama VFD</b>	<a href="http://www.ecems.org/pdf/Mob%20Guide%20Admin%20Info_Lama-16.pdf">http://www.ecems.org/pdf/Mob%20Guide%20Admin%20Info_Lama-16.pdf</a>
<b>Latir VFD</b>	<a href="http://www.ecems.org/pdf/Mob%20Guide%20Admin%20Info_Latir-16.pdf">http://www.ecems.org/pdf/Mob%20Guide%20Admin%20Info_Latir-16.pdf</a>
<b>Ojo Caliente VFD</b>	
<b>Penasco VFD</b>	<a href="http://www.ecems.org/pdf/Mob%20Guide%20Admin%20Info_Penasco-12.pdf">http://www.ecems.org/pdf/Mob%20Guide%20Admin%20Info_Penasco-12.pdf</a>
<b>Questa FD</b>	<a href="http://www.ecems.org/pdf/Mob%20Guide%20Admin%20Info_Questa-16.pdf">http://www.ecems.org/pdf/Mob%20Guide%20Admin%20Info_Questa-16.pdf</a>
<b>Red River FD</b>	<a href="http://www.ecems.org/pdf/Mob%20Guide%20Admin%20Info_Red%20River-16.pdf">http://www.ecems.org/pdf/Mob%20Guide%20Admin%20Info_Red%20River-16.pdf</a>

<b>Rio Fernando VFD</b>	<a href="http://www.ecems.org/pdf/Mob%20Guide%20Admin%20Info_Rio%20Fernando-16.pdf">http://www.ecems.org/pdf/Mob%20Guide%20Admin%20Info_Rio%20Fernando-16.pdf</a>
<b>San Cristobal VFD</b>	<a href="http://www.ecems.org/pdf/Mob%20Guide%20Admin%20Info_San%20Cristobal-16.pdf">http://www.ecems.org/pdf/Mob%20Guide%20Admin%20Info_San%20Cristobal-16.pdf</a>
<b>Taos Ski Valley FD</b>	<a href="http://www.ecems.org/pdf/Mob%20Guide%20Admin%20Info_TSV-16.pdf">http://www.ecems.org/pdf/Mob%20Guide%20Admin%20Info_TSV-16.pdf</a>
<b>Taos FD</b>	<a href="http://www.ecems.org/pdf/Mob%20Guide%20Admin%20Info_Taos-16.pdf">http://www.ecems.org/pdf/Mob%20Guide%20Admin%20Info_Taos-16.pdf</a>
<b>Taos Pueblo DNR/Fire</b>	
<b>Tres Piedras FD</b>	<a href="http://www.ecems.org/pdf/Mob%20Guide%20Admin%20Info_TresPiedras-14.pdf">http://www.ecems.org/pdf/Mob%20Guide%20Admin%20Info_TresPiedras-14.pdf</a>
<b>Wheeler Peak VFD</b>	<a href="http://www.ecems.org/pdf/Mob%20Guide%20Admin%20Info_Wheeler%20Peak-16.pdf">http://www.ecems.org/pdf/Mob%20Guide%20Admin%20Info_Wheeler%20Peak-16.pdf</a>
<b>Eagle Nest VFD</b>	<a href="http://www.ecems.org/pdf/Mob%20Guide%20Admin%20Info_Eagle%20Nest-16.pdf">http://www.ecems.org/pdf/Mob%20Guide%20Admin%20Info_Eagle%20Nest-16.pdf</a>
<b>Moreno Valley VFD</b>	<a href="http://www.ecems.org/pdf/Mob%20Guide%20Admin%20Info_Moreno%20Valley-16.pdf">http://www.ecems.org/pdf/Mob%20Guide%20Admin%20Info_Moreno%20Valley-16.pdf</a>
<b>Angel Fire FD</b>	<a href="http://www.ecems.org/pdf/Mob%20Guide%20Admin%20Info_Angel%20Fire-16.pdf">http://www.ecems.org/pdf/Mob%20Guide%20Admin%20Info_Angel%20Fire-16.pdf</a>

## Firefighting Equipment Summary

A survey was done of all ECRFPA members regarding wildfire equipment. The data from the responding departments appears on the following below.

<b>Taos County and Enchanted Circle Fire Association Fire Apparatus List</b>								
Agency	Engines					Water Tenders		Total
	Type 1 & 2 Structure	Type 3 Wildland	Type 4 Wildland	Type 5 Wildland	Type 6 Wildland	Type 1	Type 2	
Amalia-Ventero Fire Department	2				1			3
Angel Fire Fire Department	2	1			3	1		7
Carson Fire Department	1				1			2
Cerro Fire Department	1				2	1		4
Moreno Valley, Colfax District 6	3		1		2		2	8
Costilla Fire Department	2				1			3
Eagle Nest Fire Department	2				1		1	4
Hondo Seco Fire Department	4				1		1	6
La Lama Fire Department	1				1		1	3
Latir Fire Department	2				1		1	4
Molycorp Mine Rescue					1	1		2
Ojo Caliente Fire Department	2						2	4
Penasco Fire Department	3		1		1			5
Questa Fire Department	3				1	1		5
Red River Fire Department	2				1			3
Rio Fernando Fire Department	1				2		1	4
San Cristobal Fire Department	1	1			1			3
Taos Ski Valley Fire Department	2				1			3
Taos Fire Department	4	2			2	1	2	11
Tres Piedras Fire Department	2				1		1	4
Wheeler Peak Fire Department	1					1	1	3
<b>Total</b>	<b>41</b>	<b>4</b>	<b>2</b>	<b>0</b>	<b>25</b>	<b>6</b>	<b>13</b>	<b>91</b>

## Appendix C: Form NFPA 299/1144

### Wildfire Hazard Severity Form Checklist

<b>Wildfire Hazard Severity Form Checklist NFPA 299 / 1144</b>				
This form may be used for individual houses or larger areas like developments or other types of applications.				
<b>Name of area or address receiving assessment</b>				
<b>A. Subdivision Design</b>	Points	Risk	Reduction	Notes
<b>1. Ingress and egress (Main Road)</b>				
Two or more roads in/out	0			
One road in/out	7			
<b>2. Road width (Main Road)</b>				
Greater than 24 feet	0			
Between 20 and 24 feet	2			
Less than 20 feet wide	4			
<b>3. All-season road condition (Main Road)</b>				
Surfaced, grade < 5%	0			
Surfaced, grade > 5%	2			
Non-surfaced, grade < 5%	2			
Non-surfaced, grade > 5%	5			
Other than all-season	7			
<b>4. Fire service access (Driveway)</b>				
< = 300ft, with turnaround	0			
> = 300ft, with turnaround	2			
< = 300ft, no turnaround	4			
> = 300ft, no turnaround	5			
<b>5. Street signs (Main Road, ie; address, deadend)</b>				
Present (4 in. in size and reflectorized)	0			
Not present	5			
<b>B. Vegetation ( Fuel Models, 300' and beyond)</b>				
<b>1. Predominant vegetation</b>				
Light ( grasses, forbs )	5			
Medium ( light brush and small trees)	10			
Heavy ( dense brush, timber, and hardwoods)	20			
Slash ( timber harvest residue)	25			
<b>2. Defensible space (0 to 300')</b>				
More than 100 ft of treatment from buildings	1			
More than 71 -100 ft of treatment from buildings	3			
30-70 ft of treatment from buildings	10			
Less than 30 feet	25			
<b>C. Topography</b>				
<b>1. Slope</b>				
Less than 9%	1			
Between 10-20%	4			
Between 21-30%	7			
Between 31-40%	8			
Greater than 41%	10			
<b>Totals for this page</b>		0	0	

<b>D. Additional Rating Factors</b>	Points	Risk	Reduction	Notes
1. Topography that adversely affects wildland fire behavior	0 - 5			
2. Area with history of higher fire occurrence	0 - 5			
3. Areas of unusually severe fire weather and winds	0 - 5			
4. Separation of adjacent structures	0 - 5			
<b>E. Roofing Materials</b>				
1. Construction material				
Class A roof ( metal, tile)	0			
Class B roof ( composite)	3			
Class C roof ( wood shingle)	15			
Non-rated	25			
<b>F. Existing Building Construction</b>				
1. Materials ( predominant)				
Noncombustible siding/ deck	0			
Noncombustible siding/ wood deck	5			
Combustible siding and deck	10			
2. Setback from slopes > 30%				
More than 30 feet to slope	1			
Less than 30 feet to slope	5			
Not applicable	0			
<b>G. Available Fire Protection</b>				
1. Water source availability ( on site)				
500 gpm pressurized hydrants < 1000ft apart	0			
250 gpm pressurized hydrants < 1000ft apart	1			
More than 250 gpm non-pressurized, 2 hours	3			
Less than 250 gpm non-pressurized, 2 hours	5			
No hydrants available	10			
2. Organized response resources				
Station within 5 miles of structure	1			
Station greater than 5 miles	3			
3. Fixed fire protection (interior, some exception to outside)				
Sprinkler system (NFPA 13, 13R, 13D)	0			
None	5			
<b>H. Utilities ( Gas and Electric)</b>				
1. Placement				
All underground utilities	0			
One underground, one aboveground	3			
All aboveground	5			
<b>Totals for this page</b>		0	0	
<b>I. Totals for Risk Assessments</b>				
<b>Totals for page 1 and 2</b>		0	0	
1. Low Hazard: < 39 points				
2. Moderate Hazard: 40-69 points				
3. High Hazard: 70-112 points				
4. Extreme Hazard: 113 > points				
<b>Census Data</b>				
Track number				
Block group number				
Block number (s)				

## **Appendix D: Funding & Grant Opportunities**

The following list summarizes some of the funding and grant opportunities for private and public landowners, communities, non-profit organizations, conservation groups, emergency management, first responders, and others seeking to receive financial assistance. Programs such as public outreach and education, land restoration, fire mitigation, and emergency response are included.

The list is not exhaustive and information may change at any time due to changes in agency programs and/or budget adjustments. Grant information changes quickly. All grant information should be reviewed for eligibility, applicability, deadlines, funding limits, etc.

There are many factors that influence what programs are potentially available. Land ownership (public vs. private), goals (public outreach, conservation, fire mitigation, watershed restoration, emergency and fire response), and single entity vs. collaborative applications are the most important determinants of grant eligibility.

**Private landowners** who pay local taxes may qualify for the TSWCD cost sharing Fire Prevention program. Non-industrial private forest land may qualify for assistance from USDA's Natural Resources Conservation Service (NRCS) programs. As a private landowner, adjacency to either Carson NF (USDA NFLgrants) or BLM (NM Association of Counties grants) will determine qualifications for certain grants. NM State Forestry can assist in locating financial assistance based on the existing circumstances and available programs. Private landowners can benefit from associating with a Firewise community that has developed a CWPP in order to receive more preferential consideration for grant awards. The Taos County CWPP Core Team is the primary resource for initiating and coordinating grant application efforts.

### **Local Sources**

#### **Taos Soil and Water Conservation District (TSWCD)**

Private landowners with one to three acre parcels who pay property taxes in Taos County need to fill out an application with TSWCD. Applications are accepted at any time, with two funding cycles during the program year. Applications are reviewed after June 30 and December 31 and are ranked based on a site assessment. This assessment consists of resource priorities such as project location, on-site structures, fuel types, fuel densities and fuel hazard ratings. Once an application is approved by Taos TSWCD, the project is put out to bid to private contractors. Approved applicants may receive both technical assistance and funding for private property fuel reduction treatments. Waste material, referred to as "slash", is usually piled and burned in the winter or it may be chipped. Any useable firewood is left for the property owner.

<http://tswcd.org>

#### **TITLE III Forest Service Reserves**

This fund is managed by Taos County under the Secure Rural Schools and Community Self-Determination Act of 2000. These funds can be used to educate homeowners in “fire-sensitive” ecosystems with assistance in implementing home siting, home construction, and home landscaping to increase protection from wildfire. Many communities have already benefited from this program through technical assistance provided by the Taos County WUI Coordinator.

### **The Nature Conservancy - Rio Grande Water Fund**

The Rio Grande Water Fund provides funding for the restoration of forested lands to secure clean water for communities in the Rio Grande watershed. This fund is managed by The Nature Conservancy, whose goal is “to generate sustainable funding over the next 20 years to proactively increase the pace and scale of forest restoration, including the most high-risk areas in the Rio Grande watershed.

The Rio Grande Water Fund uses a Request for Statements of Interest to identify possible projects within four focal areas. Proposals are reviewed by a Technical Review Panel to determine if eligibility criteria detailed in the Comprehensive Plan have been met. Eligible projects are added as approved to the Candidate List of Projects.

*Rio Grande Water Fund* website:

<http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/newmexico/new-mexico-rio-grande-water-fund.xml>

### **Rocky Mountain Youth Corp (RMYC)**

RMYC is part of the New Mexico Youth Conservation Corps, created in response to the Youth Conservation Corps Act of 1992. The mission is to “Promote the education, success and well- being of the youth in our communities and provide community benefits of lasting value through the conservation and enhancement of New Mexico’s natural, cultural and recreational resources.”

RMYC has been active in many restoration and thinning projects in Taos County since 1995. RMYC projects preserve, maintain, and enhance natural resources by protecting air, fish, forest land, water, and wildlife. Grants are awarded through a competitive Request for Proposals process.

[www.youthcorps.org](http://www.youthcorps.org)

## **State (and state administered) Sources**

### **Conservation Partnership**

The partnership is a consortium of governmental agencies that derive their enabling legislation from Federal, State and Local authorities. Additional entities, such as advocacy groups, can also collaborate with the partnership. Taos Soil and Water Conservation District is a long standing member of the Conservation Partnership (1941). The partnership was created to promote conservation and stewardship regardless of jurisdiction, border or ownership.

## **Natural Resources Conservation Service (NRCS)**

NRCS offers financial and technical assistance to make and maintain conservation improvements on agricultural lands and non-industrial private forests. NRCS works with partners to leverage additional conservation assistance for agricultural producers and forest landowners in priority conservation areas. Farm Bill programs such as the Environmental Quality Incentives Program (EQIP) and the Wildlife Habitat Incentive Program (WHIP) are voluntary conservation programs for conservation-minded landowners on agricultural land and nonindustrial private forest land, and are implemented using locally-led conservation priorities.

Each NRCS field office provides outreach to local conservation partners to provide opportunities for improving conservation efforts. NRCS can provide technical and financial assistance to create Forest Management Plans and conservation program payments for forest stand improvement projects that address natural resource concerns such as reducing the risk of wildfire and improving wildlife habitat.

<http://www.nrcs.usda.gov/wps/portal/nrcs/site/nm/home/>

## **New Mexico Water Trust Board**

The 2001 NM Legislature enacted the Water Project Finance Act which created the Water Project Fund in the NMFA and charged the NMFA with the administration of the Fund and the Water Trust Board. The Water Trust Board is a diverse 16-member Board that recommends to the Legislature projects to be funded through the Water Project Fund. Under the Act, the Board recommends to the Legislature funding within five project categories: (1) water conservation or reuse, (2) flood prevention, (3) endangered species act (ESA) collaborative efforts, (4) water storage, conveyance and delivery infrastructure improvements, and (5) watershed restoration and management initiatives. Since its creation, the WTB has recommended more than \$228 million of funding for 221 projects statewide

[www.nmfa.net/governance/water-trust-board/](http://www.nmfa.net/governance/water-trust-board/)

## **New Mexico Environment Department (NMED) River Stewardship Program**

The River Stewardship Program funds projects that enhance the health of rivers by addressing the root causes of poor water quality and stream habitat. River Stewardship Program projects are distributed statewide. Projects are selected through a *Request for Proposals* using the state procurement system. Evaluation criteria ensure that projects are technically sound, community-based and stakeholder driven. Evaluation criteria favor projects that improve water quality, enhance fish and wildlife habitat, support local economies, and that reduce downstream flood hazard.

[www.env.nm.gov/swqb/RiverStewards](http://www.env.nm.gov/swqb/RiverStewards)

## **New Mexico Association of Counties (NMAC)**

The **Wildfire Risk Reduction Program for Rural Communities** was the first formal program established through the NMAC/BLM Partnership. Beginning in 2005, funding was provided through the National Fire Plan to assist communities throughout New Mexico in reducing their risk from wildland fire. The program targets at-risk communities by offering seed money to help defray the costs of preparing Community Wildfire Protection Plans (CWPP), a pre-requisite to all other activities. Once a CWPP is in place, fuel reduction, fire prevention, and community outreach projects identified in the plan can be funded. These projects must be adjacent to and/or benefit BLM managed lands. Grants are available annually to local government and nonprofit entities and require a minimum 10% cost share. Funded projects must be completed within 12 months of award.

<http://www.nmcounties.org/homepage/local-state-and-federal-collaboration/fire/>

## **New Mexico Game and Fish**

The State's Wildlife Board budgets \$ 1 million annually to support conservation and other efforts through their State Wildlife Grants program. They have constructed a Comprehensive Wildlife Conservation Strategy for New Mexico.

<http://www.wildlife.state.nm.us/>

## **State Fire Marshal**

Community Fire Departments can apply for financial assistance to purchase equipment and to provide training (no salaries). Unused funds are carried over into a vehicle replacement fund. Funding is contingent on submitting an annual plan and reports. The amount of funding from the State Fire Marshal is determined by the Fire Department's ISO Rating.

## **New Mexico State Forestry**

*NM State Forestry is the Forestry Division of the Energy, Minerals and Natural Resources Department (EMNRD). State Forestry is a primary partner for all projects related to forest and watershed health in the county and they are involved with multiple grant programs.*

[www.emnrd.state.nm.us](http://www.emnrd.state.nm.us)

## **State Forestry: Hazardous Fuels Treatments on Non-Federal Lands (NFL)**

The State Forestry manages the Hazardous Fuels Treatments on Non-Federal Lands (NFL) grants. The NFL grant is used for removing hazardous fuels on private land that compliment fuel reductions on USFS land when the area has been identified as a high priority areas within a CWPP. Individual properties must be "procured" through a competitive process, such as a

Request for Proposals or a public notice prior to being considered as a part of the application. A 10% non-federal cash or in-kind match is required. EMNRD submits the highest scoring applications to the US Forest Service. Applications are accepted in March every year and may provide up to \$300,000 per application.

#### **State Forestry: Wildland-Urban Interface (WUI)**

The Wildland Urban Interface (WUI) program supports planning and implementation of hazardous fuel reductions that reduce fire threat. The program emphasizes fuel reduction, information and education, as well as community and homeowner action. Applications are due in August of each year and may fund up to \$300,000 but require a 50% non-federal match of funds.

#### **State Forestry: Urban and Community Forestry Program**

This program provides technical assistance for development of local community forestry programs, tree care, training for professionals, planning and outreach efforts, and support of community events. Other initiatives include grant funding for tree planting and support of local urban forestry programs, K-12 education opportunities and coordinating volunteer events.

#### **State Forestry: Invasive Plants**

This grant can be used for invasive plant management activities where noxious weeds threaten forest health. Applications should identify the noxious species that are identified on the NM Department of Agriculture's "Noxious Weed List" and are within a Cooperative Weed Management Area on non-federal lands. Projects may include weed management, mapping and inventory, monitoring, early detection and prevention, and awareness and education. A Request for Proposals is typically issued in August or September of every year. Applications require a 50% non-federal match.

#### **State Forestry: Re-Leaf Program**

The New Mexico Forest Re-Leaf Program has awarded more than \$500,000 to support tree planting projects in communities and schools across New Mexico. In 18 years, the Re-Leaf Program has funded (80% donor / 20% grantee) the planting of more than 18,000 trees through 190 projects in communities and schools across the state. Annual applications are solicited in April and submittals are due in August. Trees must be planted on public land.

[www.emnrd.state.nm.us/SFD/ReLeaf/ReLeaf.html](http://www.emnrd.state.nm.us/SFD/ReLeaf/ReLeaf.html)

#### **State Forestry: Forest Health Initiative**

The Forest Health Initiative (FHI) is a cost share program for private properties (minimum of 10 acres) that provides reimbursement funding for the improvement of forested lands to prevent forest health issues like bark beetle attacks and fungal infections. The applicant must provide a 30% match toward the total cost of the project. A property owner is required to have a management plan prior to receiving funding. Once a Stewardship Plan is in place, the landowner can begin the process of applying for treatment funding. The program is a first-come, first-served program and applications are considered in the order that they are received until the funding is fully allocated. There is a program five (5) year maximum of \$100,000 for each landowner and property.

#### **State Forestry: Forest Legacy**

The Forest Legacy program provides grant funds to property owners (at least 40 acres) who voluntarily apply a conservation easement on their property. Its purpose is to protect environmentally important forest lands that are threatened by present or future conversion to non-forest uses. A conservation easement is held in perpetuity by the state and effectively retires the rights to subdivide and develop the properties for non-forest uses. Participating landowners retain all other rights to their properties including occupancy, use for enjoyment or profit, and transfer to heirs or sale to new owners. Property taxes are paid on the retained rights, as determined by the County Assessor. Up to 75% of the easement purchase price is provided through a federal grant and the state or other non-federal sources provide the remainder.

### **State Forestry: Land Conservation Tax Credits**

State Forestry, in consultation with the Natural Lands Protection Committee, can approve applications for a conservation easement for private property owners. The maximum tax credit is 50% of the appraised value of the donation and a maximum of \$250,000 per individual donor. A taxpayer has a maximum of 20 years to fully use the tax credit following the taxable year in which the donation was made. Alternatively, the tax credit may be transferred (sold) to another taxpayer through a tax credit broker in minimum increments of \$10,000.

## **National Sources: Restoration and Watershed**

### **Collaborative Forest Restoration Program (CFRP)**

Local governments are eligible for a cost-share grant that reduces the threat of wildfire, improves watershed conditions, and provides jobs and training to local communities. The purposes of the Collaborative Forest Restoration Program are:

1. To promote healthy watersheds and to reduce the threat of large, high intensity wildfires, insect infestation, and disease.
2. To improve the functioning of forest ecosystems and to enhance plant and wildlife biodiversity by reducing the unnaturally high number and density of small diameter trees on forest lands.
3. To improve communication and joint problem solving among individuals and groups who are interested in restoring the diversity and productivity of forested watersheds.
4. To improve the use of, or add value to, small diameter trees.
5. To encourage sustainable communities and sustainable forests through collaborative partnerships whose objective is forest restoration.
6. To develop, demonstrate, and evaluate ecologically sound forest restoration techniques.

Individual awards range from \$120,000 to \$360,000 and require a non-federal match of 20%. An advisory panel evaluates grant applications and provides recommendations to the Secretary of Agriculture, who will make the final decision on project funding. The budget must not exceed \$450,000 over 4 years (including match). Total annual costs must not exceed \$150,000 (including match).

[www.fs.usda.gov/goto/r3/cfrp](http://www.fs.usda.gov/goto/r3/cfrp)

### **Collaborative Forest Landscape Restoration Fund (CFLR)**

In 2009, the U.S. Congress established the Collaborative Forest Landscape Restoration (CFLR) fund to create more opportunities for large scale (50,000 acres or greater), collaborative, science-based ecosystem restoration through a competitive funding process. The CFLR objectives are to focus on leveraging local resources with national and private resources; reducing the risk of uncharacteristic wildfire; demonstrating the degree to which various restoration techniques achieve ecological and watershed health objectives; and encouraging the use of restoration by-products to offset treatment costs; benefit local rural economies and improve forest health. The CFLR fund may only be used on National Forest System (NFS) lands. The fund may be used to pay for up to 50 percent of the cost of carrying out and monitoring ecological restoration treatments on NFS lands.

<http://www.fs.fed.us/restoration/CFLRP>

### **Integrated Resource Restoration (IRR)**

The Integrated Resource Restoration Program aligns with USDA's vision for an integrated approach to maintaining or restoring the ecological integrity of terrestrial and aquatic ecosystems and watersheds necessary to manage National Forest System lands so that they are ecologically sustainable. Integrated Resource Restoration takes a holistic approach to addressing the broad spectrum of restoration work by bringing it together under one budget line item. It expedites the application of funding to address integrated landscape work while allowing the agency the flexibility to address emerging ecological issues as needed.

The Forest Service has already begun to implement the Integrated Resource Restoration program partially. The passage of the 2012 Interior Appropriations Act has provided the resources and authorization necessary to implement the Integrated Resource Restoration program in three pilot regions of the Forest Service. This will enable the Forest Service to increase the pace of restoration and management in those regions. Additionally, the Fiscal Year (FY) 2012 budget package more clearly recognizes the importance of leveraging forest products and woody biomass utilization to provide jobs and strengthen the economic infrastructure for needed restoration work over the long term.

[www.fs.fed.us/restoration/IRR/overview.shtml](http://www.fs.fed.us/restoration/IRR/overview.shtml)

### **Stewardship Contracting**

The 2013 Farm Bill included permanent approval for stewardship contracting authority. Stewardship contracting helps achieve land management goals while also meeting local and rural community needs for economic sustainability. Contracts focus on desired end results, or ecological outcomes of projects, rather than the amount of wood removed.

[www.fs.fed.us/restoration/Stewardship\\_Contracting/faqs.shtml](http://www.fs.fed.us/restoration/Stewardship_Contracting/faqs.shtml)

### **Model Forest Policy Project**

Model Forest Policy Program is a national nonprofit organization that helps communities create *climate adaptation plans* that are ready for implementation. In our planning process, urban and rural communities with a shared dependence on ecosystem services partner with one another. They work to protect vulnerable citizens and natural resources while increasing resilience to climate change. Over 30 communities have worked through the program to conserve water resources, protect vulnerable citizens from floods and drought, preserve watershed health, stabilize micro climates, maintain species habitat, preserve the economy, and ensure community climate resilience.

<http://www.mfpp.org/>

### **National Forest Foundation**

Through its on-the-ground conservation programs, the National Forest Foundation supports action-oriented projects that directly enhance the health and well-being of America's National Forests and Grasslands and that engage the public in stewardship. Nonprofit organizations dedicated to addressing natural resource issues on National Forests and Grasslands can apply for support to complete projects through three distinct grant programs.

[www.nationalforests.org/grant-programs](http://www.nationalforests.org/grant-programs)

### **National Sources: Fire Prevention and Hazard Mitigation**

Homeland Security funding through the Federal Emergency Management Agency (FEMA) is contingent on having a Hazard Mitigation Plan in place for Taos County. Taos County has received a grant to help create this Plan.

#### **Fire Prevention and Safety Grants (FEMA)**

The Fire Prevention and Safety Grants (FP&S) are part of the Assistance to Firefighters Grants (AFG), and are administered by the Federal Emergency Management Agency (FEMA). FP&S Grants support projects that enhance the safety of the public and firefighters from fire and related hazards. The primary goal is to target high-risk populations and reduce injury and prevent death. Eligibility includes fire departments, local organizations, and/or community organizations recognized for their experience and expertise in fire prevention and safety programs and activities. Private non-profit and public organizations are also eligible. The typical application window for these grants is 30 days.

#### **Pre-Disaster Mitigation Grant Program (FEMA)**

The Department of Homeland Security, which includes the Federal Emergency Management Agency (FEMA) and the U.S. Fire Administration (USFA), administers Pre-Disaster Mitigation Planning and Project Grants. This competitive grant program, known as PDM, provides funds

and technical assistance to local governments to help develop multi-hazard mitigation plans and to implement projects identified in those plans. Individual communities can apply for PDM grants, but they are advised to work with their state contacts in emergency management or mitigation as they are developing their plans and projects.

### **Hazard Mitigation Grant Program**

The Hazard Mitigation Grant Program (HMGP) provides grants to local governments to implement long-term hazard mitigation measures after a major disaster declaration. The purpose of the HMGP is to reduce the loss of life and property due to natural disasters and to enable mitigation measures to be implemented during the immediate recovery from a disaster. The HMGP is authorized under Section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act. Communities interested in the HMGP should contact their State Hazard Mitigation Officer (SHMO). A SHMO serves as the state-level connection to various grants and assistance related to natural hazard preparedness and planning as well as some post-disaster activities.

### **Wildland Urban Interface Community and Rural Fire Assistance**

This program is designed to implement the National Fire Plan and assist communities at risk from catastrophic wildland fires. The program provides grants, technical assistance, and training for community programs that develop local capability, including:

1. Assessment and planning, mitigation activities, and community and homeowner education and action;
2. Hazardous fuels reduction activities, including the training, monitoring or maintenance associated with such hazardous fuels reduction activities, on federal land, or on adjacent nonfederal land for activities that mitigate the threat of catastrophic fire to communities and natural resources in high risk areas;
3. Enhancement of knowledge and fire protection capability of rural fire districts through assistance in education and training, protective clothing and equipment purchase, and mitigation methods on a cost share basis.

### **NRCS: Emergency Watershed Protection Program (USDA)**

The U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS) administers the Emergency Watershed Protection (EWP) Program. The purpose of the EWP Program is to respond to emergencies created by natural disasters. The Program is designed to relieve imminent hazards to life and property caused by floods, fires, drought, windstorms, and other natural occurrences. Public and private landowners are eligible for assistance. The Program may pay up to 75 percent of the construction cost of emergency measures. The remaining 25 percent must come from local sources and can be in the form of cash or in-kind services.

[www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/financial/ewp/](http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/financial/ewp/)

### **Chiefs' Joint Landscape Restoration Partnership**

This grant opportunity is a multi-year partnership between the U.S. Forest Service and the Natural Resources Conservation Service to improve the health and resiliency of forest ecosystems where public and private lands meet across the nation. These two USDA agencies are restoring landscapes, reducing wildfire threats to communities and landowners, protecting water quality and enhancing wildlife habitat. The partnership began in 2014, and each year, the agency selects new three-year projects. Right now, the partnership has 39 ongoing projects in 30 states.

<http://www.nrcs.usda.gov/wps/portal/nrcs/detail/wa/newsroom/releases/?cid=stelprdb1244394>

## **National Sources: Firefighting**

### **Fire Management Assistance Grant (FEMA)**

Fire Management Assistance is available to local governments for the mitigation, management, and control of fires on publicly or privately owned forests or grasslands, which threaten such destruction as would constitute a major disaster. The Fire Management Assistance declaration process is initiated when a State submits a request for assistance to the Federal Emergency Management Agency (FEMA) Regional Director at the time a "threat of major disaster" exists. The entire process is accomplished on an expedited basis and a FEMA decision is rendered in a matter of hours.

The Fire Management Assistance Grant Program (FMAGP) provides a 75 percent Federal cost share and the State pays the remaining 25 percent for actual costs. Before a grant can be awarded, a State must demonstrate that total eligible costs for the declared fire meet or exceed either the individual fire cost threshold that applies to single fires, or the cumulative fire cost threshold, that recognizes numerous smaller fires burning throughout a State. Eligible firefighting costs may include expenses for field camps; equipment use, repair and replacement; tools, materials and supplies; and mobilization and demobilization activities.

[www.fema.gov/fire-management-assistance-grant-program](http://www.fema.gov/fire-management-assistance-grant-program)

### **The International Association of Fire Chiefs (IAFC) American International Group, Inc. (AIG)**

These organizations offer direct funding no-cost share grants of up to \$1,000 to help our members with Ready, Set, Go! implementation and outreach. They also offer two different grants to enhance community fuels mitigation programs and educate their community. Applicants must be members of the Ready, Set, Go! Program

### **Fire Prevention and Safety Grants**

The Fire Prevention and Safety Grants are part of the Assistance to Firefighters Grants, and are administered by the Federal Emergency Management Agency (FEMA). FP&S Grants support projects that enhance the safety of the public and firefighters from fire and related hazards. The

primary goal is to target high- risk populations and reduce injury and prevent death. Private non-profit and public organizations are eligible.

### **Staffing for Adequate Fire & Emergency Response Grants (SAFER)**

The Staffing for Adequate Fire and Emergency Response (SAFER) Grants was created to provide funding directly to fire departments and volunteer firefighter organizations to help them increase the number of trained, "front line" firefighters.

[www.fema.gov/welcome-assistance-firefighters-grant-program](http://www.fema.gov/welcome-assistance-firefighters-grant-program)

### **Assistance to Firefighters Grants - FEMA**

The primary goal of the Assistance to Firefighters Grants is to enhance the safety of the public and firefighters with respect to fire-related hazards by providing direct financial assistance to eligible fire departments, nonaffiliated Emergency Medical Services (EMS) organizations, and State Fire Training Academies (SFTA) for critically needed resources to equip and train emergency personnel to recognized standards, enhance operation efficiencies, foster interoperability, and support community resilience.

[www.fema.gov/welcome-assistance-firefighters-grant-program](http://www.fema.gov/welcome-assistance-firefighters-grant-program)

## **Other Sources**

### **Ski Conservation Fund**

The National Forest Foundation (NFF) Ski Conservation Fund gives ski areas and lodges an easy way for guests to be stewards of the lands they enjoy. Ski-related businesses collect small, voluntary donations from their guests to support conservation and restoration work on local National Forests. Together with businesses and forest visitors, we meet local conservation challenges—whether improving wildlife habitat, securing riverbanks, planting native seeds, or fixing trails. Every dollar contributed by guests is matched by the NFF with \$0.50, increasing the impact of this signature program.

<https://www.nationalforests.org/get-involved/stewardship-funds>

### **Rocky Mountain Elk Foundation - Habitat Stewardship Program**

The RMEF helps fund and conduct a variety of projects to improve essential forage, water, cover and space components of wildlife habitat, and supports research and management efforts to help maintain productive elk herds and habitat.

### **Needs additional research**

## **National Disaster Resilience Competition (NDRC)**

### **Environmental Protection Agency**

#### **Clean Water Act**

Section 319 Base Grant to State Entities and Indian Tribes Agency: Environmental Protection Agency. Website: <http://www.epa.gov> Description: Funding under this program is often used for reduction of nonpoint-source pollution; however, one community successfully used the grant to obtain funding to reduce hazardous fuels to protect the municipal watershed. To learn about obtaining this type of funding for your community, contact New Mexico's 319 Grant Coordinator, Dave Hogge, New Mexico Environmental Dept. (505) 827-2981.

### **All Hands All Lands USDA**

#### **Economic Action Programs Agency: USDA Forest Service**

Website: <http://www.fs.fed.us/spf/coop/programs/eap/index.shtml> Description: USDA Forest Service funding will provide for Economic Action Programs that work with local communities to identify, develop, and expand economic opportunities related to traditionally under-utilized wood products and to expand the utilization of wood removed through hazardous fuel-reduction treatments. Information, demonstrations, application development, and training will be made available to participating communities.

### **Catalog of Federal Funding Sources for Watershed Protection Agency**

<http://cfpub.epa.gov/fedfund/>

### **Targeted Watershed Grants Program**

<http://www.epa.gov/owow/watershed/initiative/>

### **Firewise Information**

The Firewise Communities/USA recognition program page (<http://www.firewise.org/usa>) provides a number of excellent examples of different kinds of projects and programs.

## Appendix E: Resource List

1. Healthy Forest Restoration Act (HFRA)  
<http://www.fs.fed.us/emc/applit/includes/hfr2003.pdf>
2. NFPA 209-1144: document that CAR (communities at risk) ratings  
[https://northyakimacd.files.wordpress.com/2009/12/template\\_nfpa-299-1144.pdf](https://northyakimacd.files.wordpress.com/2009/12/template_nfpa-299-1144.pdf)
3. The National Hazard and Risk Model (No-HARM) is a versatile, nationwide sets that accurately identify the boundaries of the WUI and analyze the threat to these areas from fire effects present in adjacent fuel.  
<http://anchorpointgroup.com/wordpress/wp-content/uploads/2014/12/AP-No-Harm-USFA-2.pdf>
4. All About Watersheds website: Taos Valley Watershed Coalition's- Landscape Restoration Strategy webpage:  
<http://allaboutwatersheds.org/library/inbox/tvwc-landscape-restoration-strategy/view>
5. Forest Guild's Eytan Krasilovsky, makes observations about the collaborative strength of the Taos County CWPP Core Team. Read the article in full @  
<http://fireadaptednetwork.org/learning-in-taos-new-mexico-part-1-a-passionate-and-motivated-cwpp-core-team/>
6. Fire Adapted Communities website <http://fireadaptednetwork.org/>
7. National Cohesive Wildland Fire Management Strategy  
<https://www.forestsandrangelands.gov/strategy/>
8. [2015 Community Wildfire Protection Plan Update Guidelines](http://allaboutwatersheds.org/library/inbox/2015-community-wildfire-protection-plan-cwpp-update-guidelines)  
<http://allaboutwatersheds.org/library/inbox/2015-community-wildfire-protection-plan-cwpp-update-guidelines>
9. Listing of Approved CWPP's in NM from the Energy, Minerals, and Natural Resources Division (EMNRD) - State Forestry Website  
<http://www.emnrd.state.nm.us/SFD/FireMgt/cwpps.html>
10. *Carson National Forest Service Assessment Report*  
[http://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/fseprd475212.pdf](http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd475212.pdf)
11. *Carson National Forest's Needs to Change Management Direction of Its Existing 1986 Forest Plan* [http://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/fseprd475213.pdf](http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd475213.pdf)

12. *Rio Grande Water Fund* website:  
<http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/newmexico/new-mexico-rio-grande-water-fund.xml>
13. *Enchanted Circle Regional Fire Protection Association (ECRFPA) Mobilization Guide*  
[http://ecrfpa.org/ECRFPA\\_MobGuide.htm](http://ecrfpa.org/ECRFPA_MobGuide.htm)

## Appendix F: Community Inventory

### Watershed and Fire Projects by Location

Locations	Land-Ownership	WUI/Forestry/Fire Efforts	Water-Users	Project Notes
<b>Carson</b>	BLM: Taos Office Private lands	Carson VFD with 8 Red Card Firefighters	West Rim water users Community well	
<b>Cerro Buena Vista</b>	BLM: Taos Office: Wild Rivers Area NM State Land Office Private lands	BLM: Guadalupe Mountain fuels treatments and burns WUI thinning  Cerro Fire District	Cerro Ditch Acequia Cerro MDWCD	BLM: Thinning project Pile, jackpot and broadcast burns to move environment to proper functioning
<b>Copper Hill Rio Embudo Rio Santa Barbara</b>	BLM: Taos Office: Copper Hill ACEC Private lands	BLM: Copper Hill fuels treatments and burns WUI thinning	Land owners Agriculture Wildlife	BLM Thinning project Pile, jackpot and broadcast burns to move environment to proper functioning CFRP EA and implementation
<b>Costilla Amalia Rio Costilla</b>	USFS Carson NF: Valle Vidal Unit Rio Costilla Cattle & Live-stock Assn (RCCLA) Turner Vermejo Ranch Ski Rio Subdivision Private lands	Private logging: RCCLA & Vermejo Ranch Comanche Creek Riparian Restoration  Analia Fire District: Sprinklers, VFA grant Costilla Fire District	Acequia Madre Ditch Rio Costilla Ditch Jaroso Ditch CO Costilla MDWCD Analia MDWCD Recreational trout fishery	
<b>El Salto Arroyo Seco Rio Hondo</b>	USFS Carson NF: Questia RD Wheeler Peak Wilderness El Salto Land Association Private lands	TSWCD cost share program El Salto private logging  Hondo/Seco Fire District El Salto FIREWISE	Acequia Madre Arroyo Seco Arroyo Seco MDWCD Temporal Acequia Recreational trout fishery	RGWF/TWVC fuels project TSWCD cost share program Private lands ingress/egress thinning 10 acres/10 land owners Bosque initiatives Acequia maintenance slash disposal Grasslands, fields treatments

Locations	Land-Ownership	WUI/Forestry/Fire Efforts	Water-Users	Project Notes
Gallina Canyon Deer Mesa Rio Hondo	USFS Carson NF: Gallina Canyon Deer Mesa Subdivision Private lands	TSWCD cost share program Chipper days Community ingress egress thinning  Gallina FIREWISE	Private property wells	USFS Carson NF:Kiowa/San Cristobal Treatment Area Reapply for NFL Grant opportunities
Hondo Des Montes Rio Hondo	USFS Carson NF: Questa RD Traditional communities Private lands	Hondo/Seco Fire District	Private property wells Acequia ditches Recreational trout fishery	Hondo/Seco Fire District: Greater involvement in FIREWISE, WUI matters & CWPP
Lama	USFS Carson NF: Questa RD Lama Foundation Private lands	Lama/Questa/El Medio CFRP  La Lama Fire District: (5) 131-90 trained members WUI Task Force Proposal	Private property wells Lama Foundation Spring Box Lama Acequia Ditch	Rocky Mountain Youth Corps CFRP project
Latir El Rito Latir Creek Pinabete	USFS Carson NF: Latir Wilderness Area Latir Mountain Ranch Private lands	Private thinning  FIREWISE in development Latir Fire District: 3 LVFD red card firefighters	Cerro Ditch Latir Buena Vista Cerro Latir MDWCD Cerro MDWCD	
Pot Creek Rio Grande del Rancho Rito de la Olla	USFS Carson NF: Camino Real RD SMU in Taos Fort Burgwin Campus Tribal (Cultural Center) Private lands	American Recovery & Reinvestment Act 124 acres Turkey Park WUI 160 acres CNF 49 acres TSWCD cost share program Private thinning  2005 Pot Creek CWPP FIREWISE in development	Private property wells El Valle MDWCD Ranchos Acequia Recreational trout fishery	2015 NFL grant 135 acres @ SMU 3 cross canyon fuel breaks SMU Forest Health Initiative 10 acre treatment Proposed SARCO Green Fuelwood SMU NRCS EQIP grants 2015 RGWF/TVWC proposal

Locations	Land-Ownership	WUI/Forestry/Fire Efforts	Water-Users	Project Notes
<b>Questa Cabresto Creek</b>	USFS Carson NF: Questa RD Columbine Latir Wilderness Village of Questa Private lands	Lama/Questa/El Medio CFRP Bosque Restoration Project Midnight Meadows Riparian Restoration Eagle Rock Lake River Restoration Red River Fish Hatchery Restoration TSWCD cost share program Private thinning Questa VFD Village of Questa CWPP	Community wells Cabresto Dam and Reservoir Llano Acequia Citizens' Acequia Red River Fish Hatchery Recreational trout fishery	
<b>Red River Town of Red River Upper Red River Valley Red River Canyon Bitter Creek</b>	USFS Carson NF: Questa RD Wheeler Wilderness Columbine Wilderness Town of Red River Red River Ski Area Chevron Mining Molycorp Private lands	NFL Town of Red River NFL Pioneer Canyon NFL Fourth of July Canyon NFL Bob Cat Pass NMED river restoration (2) EPA CERCLA legacy mining mitigation Enchanted Circle CWPP Red River Fire Department Type #2 IA firefighter crew Wheeler Peak Fire District Molycorp Mine Rescue Town acquired wood chipper	Town of Red River Municipal wells Waste water treatment Village of Questa Private property wells Citizens' Acequia Llano Ditch Recreational trout fishery	Exploring secondary use of forest products Future thinning and maintenance of existing projects Upper Bitter Creek Chevron CWPP Anchor Point FU Kit Carson utility line easement work
<b>Rio Grande Del Norte National Monument</b>	BLM: Taos Office NM State Land Office	Cerro Montoso thinning and burning projects Cerro Olla prescribed burn projects Cerro Chiflo prescribed burn projects	Wildlife	Rio Grande Del Norte National Monument Management Plan BLM Thinning project Pile, jackpot and broadcast burns to move environment to proper functioning

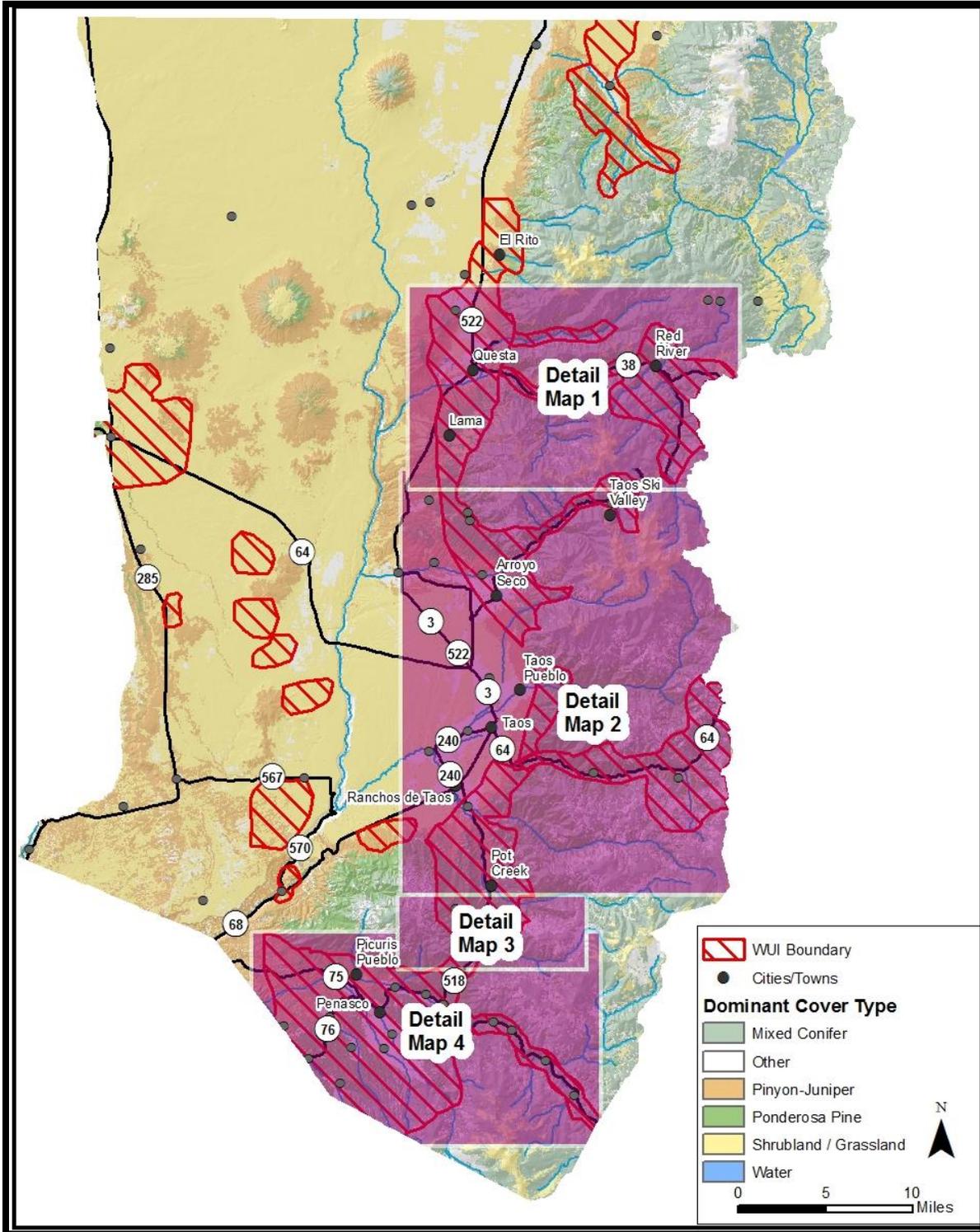
Locations	Land-Ownership	WUI/Forestry/Fire Efforts	Water-Users	Project Notes
<b>San Cristobal Kiowa Village</b>	USFS Carson NF: Questa RD UNM DH Lawrence Ranch Private lands	USFS Carson NF: Kiowa/San Cristobal Treatment Area NEPA  FIREWISE in development CWPP in development San Cristobal VFD in development (probationary)	San Cristobal Acequia Ditch San Cristobal MDWCD	2015 RGWF/TWVC fuel break proposal USFS Kiowa/San Cristobal project UNM DH Lawrence Ranch forest treatments
<b>Taos Canyon Valle Escondito Rio Fernando</b>	USFS Carson NF: Camino Real RD Private lands	Secure Rural Schools Grant: Apache Canyon/Northern RGRCD/grazing permit holders (117 acres) Secure Rural Schools Grant: La Jara/Northern RGRCD/ Taos Community Foundation (250 acres) CFRP: Sustain Taos cross canyon fuel break CFRP: Wildfire Urban Interface Solutions cross canyon fuel Break CFRP: Taos Pines Colfax County watershed boundary NFL: Taos Canyon cross canyon fuel breaks (124 acres, 30 private properties) TSWCD cost share program Demonstration Watershed (Heinrich Bill)  Valle Escondito FIREWISE Taos Canyon FIREWISE Rio Fernando Fire District	Town Taos Water Utility Canon MDWCD Canon Del Sur diversion 6 acequias Private property wells Recreational trout fishery	2015 RGWF/TWVC Pueblo Ridge proposal NFL successfully completed in 2015 Engage Town of Taos government in water source watershed protection!

Locations	Land-Ownership	WUI/Forestry/Fire Efforts	Water-Users	Project Notes
<p><b>Taos Pueblo</b> <b>Blue Lake</b> <b>Rio Lucero</b></p>	<p>Taos Pueblo Tribal Govt. Sacred Blue Lake Watershed Wilderness</p>	<p>Taos Pueblo: DNR/Fire &amp; DNR/Fuel: fire management program/DNR wildlands/20 man IA Snowballs thinning crew Wilderness Program maintains boundaries trails Taos Pueblo War Chief Office Taos Pueblo Environmental Office Wetlands Restoration EPA Water Adjudication Division Buffalo Pasture/flushing meadows NFL Grant/NM Forestry: 350 acres \$ 750K Fuel Break project one and two: USFS hazard mitigation funds for Wildfire by fire crews</p>	<p>1000 yr. continuous traditional water uses Water Utility Services Agricultural irrigated lands Sustainable fishery/Rio Grande Cutthroat (unique) Rio Grande downstream ...water users Buffalo pastures</p>	<p>2015 RGWF/TVWC proposal Pueblo Ridge Update forest management plan Taos Tribal Forest Protection Act/boundary Reserve Treat Rights Lands (RTRL) Partnerships with boundaries Acquiring administrative access to the wilderness for forest fuels treatments, ecological studies and monitoring</p>
<p><b>Taos Ski Valley</b> <b>Village of TSV</b> <b>Rio Hondo</b></p>	<p>Village of Taos Ski Valley Taos Ski Valley, Inc. USFS Carson NF: Questa RD Wheeler Peak Wilderness Columbine Wilderness Pattison Land Private lands</p>	<p>2009 Taos Pueblo CWPP  TSV incinerator slash TSV ski slopes: fuel breaks, pile burns, erosion control, work on watershed resilience TSV Foundation fire history studies TSWCD cost share program Community private lands thinning Village of TSV Firewise Village of TSV CWPP Village of TSV Fire Department (19) Red Card Fire fighters</p>	<p>Village of TSV water wells Village of TSV waste water treatment plant Private wells Downstream Rio Grande water users Recreational trout fishery</p>	<p>2015 RGWF/TVWC fuel break proposal</p>

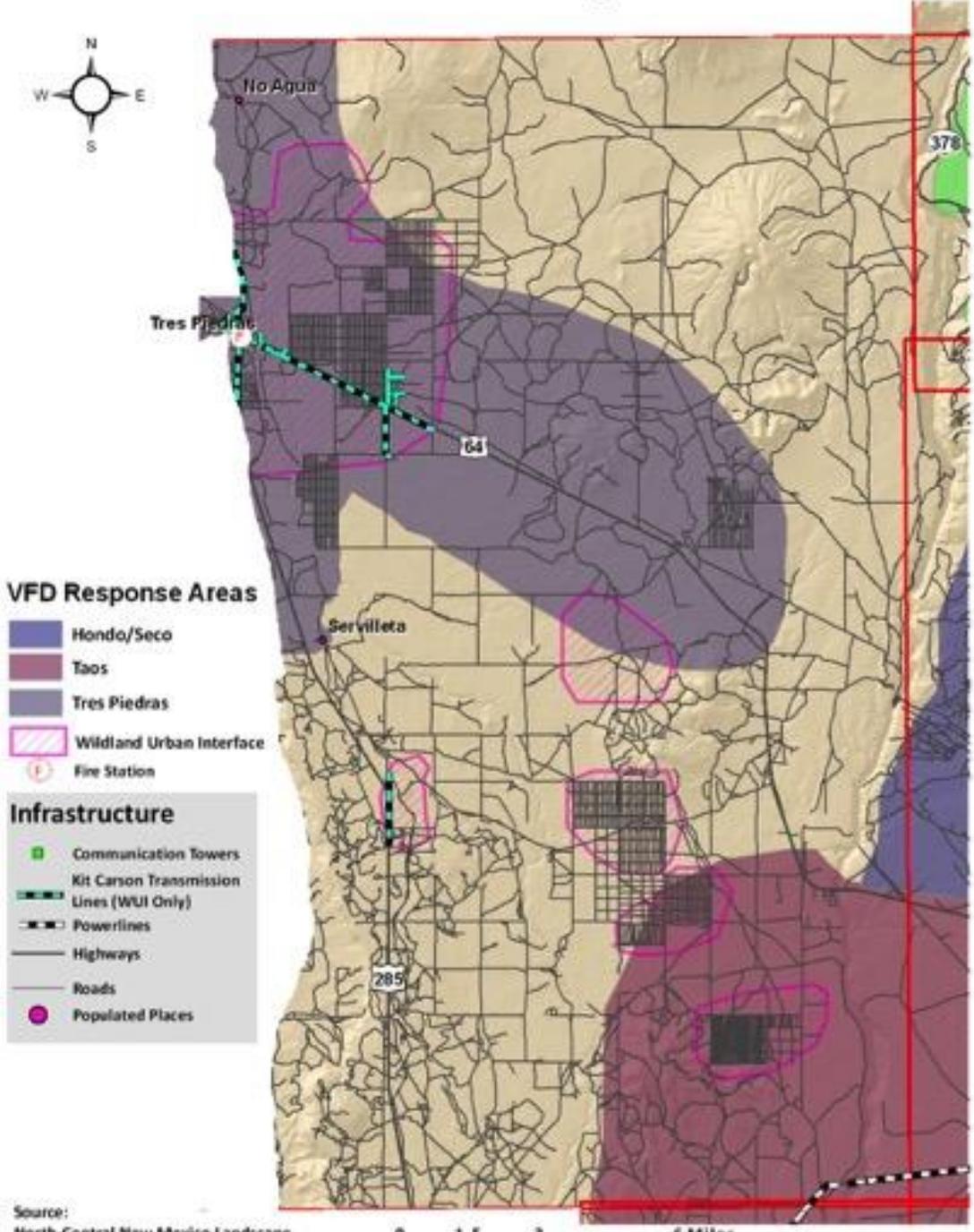
Locations	Land-Ownership	WUI/Forestry/Fire Efforts	Water-Users	Project Notes
Tres Piedras Petaca Wind Mountain	BLM: Taos office USFS Carson NF: Tres Piedras Private Lands	BLM: Wind Mountain fuels treatments and burns WUI thinning	Private wells	BLM Thinning project Pile, jackpot and broadcast burns to move environment to proper functioning

# Appendix G: Maps

## Infrastructure Maps: Identification Key



# Infrastructure Map 1

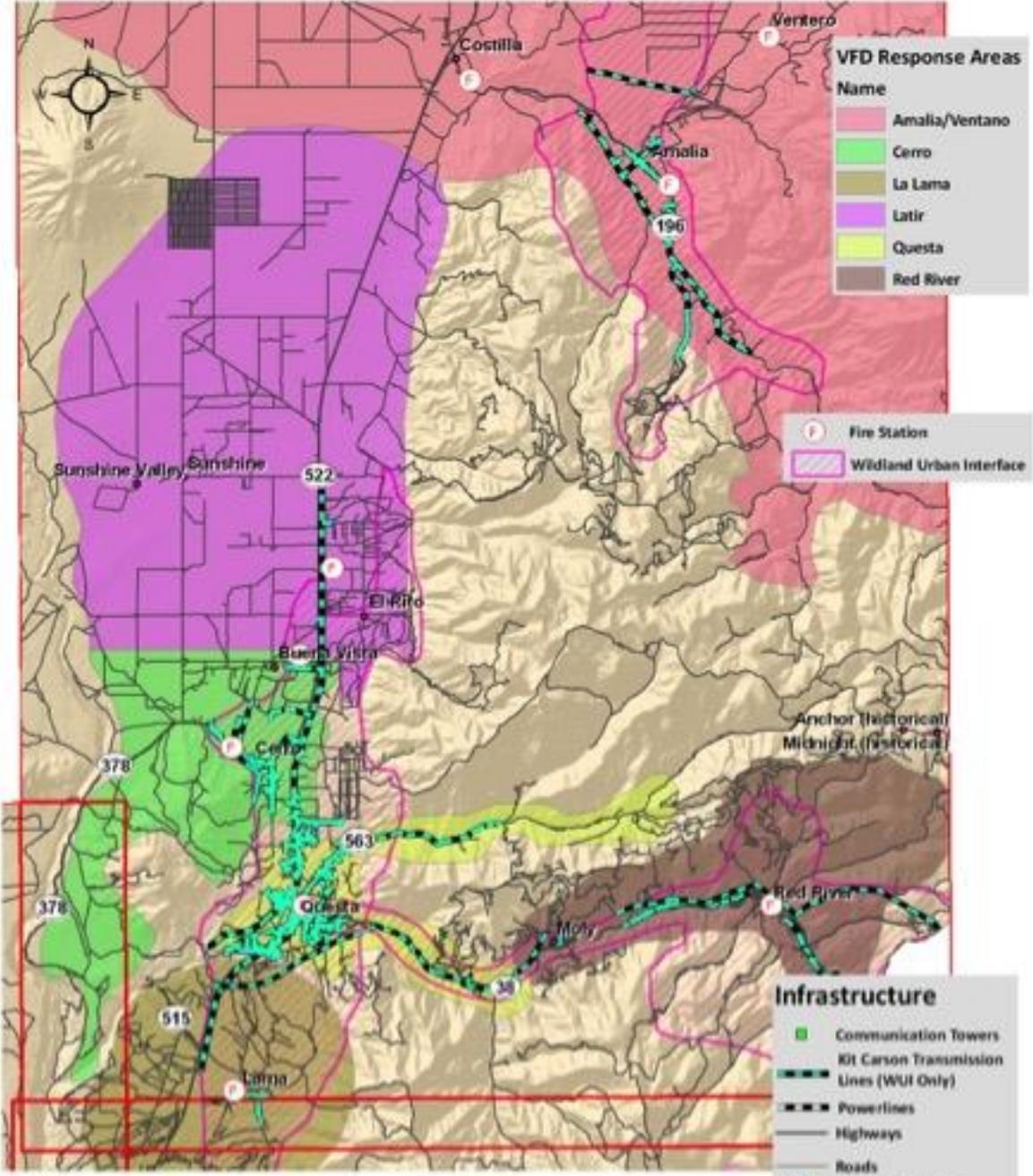


Source:  
 North-Central New Mexico Landscape  
 Assessment Data Atlas, ForestERA Project, 2006.  
 Kit Carson Electric Cooperative, 2009.



New Mexico Forest and Watershed Restoration Institute, 2009.

# Infrastructure Map 2

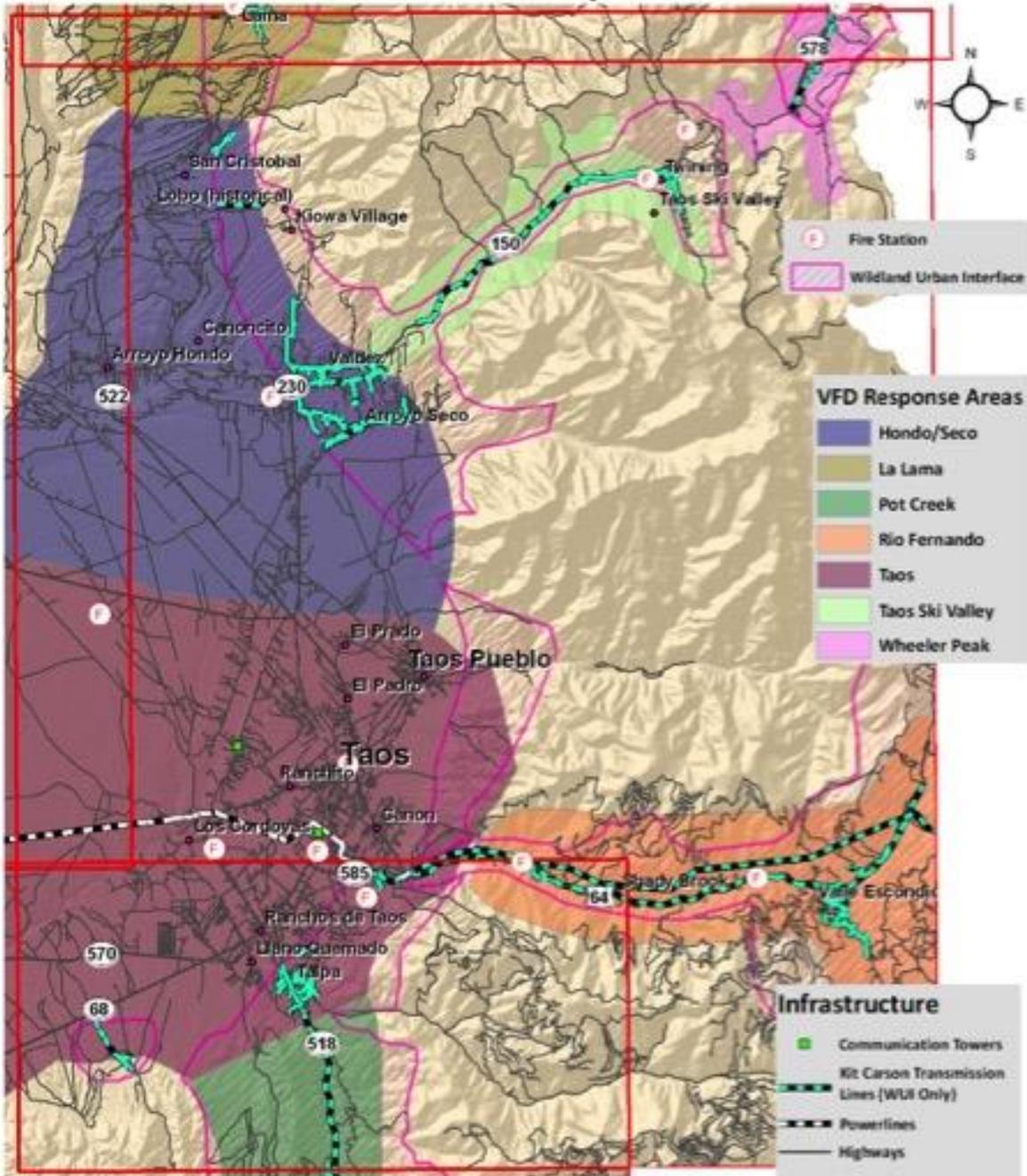


Source:  
 North-Central New Mexico Landscape  
 Assessment Data Atlas, ForeSTERA Project, 2006.  
 Kit Carson Electric Cooperative, 2009.



New Mexico Forest and Watershed Restoration Institute, 2009.

# Infrastructure Map 3





## Appendix H: Acronyms & Glossary

### Acronyms

**BLM:** Bureau of Land Management  
**CFRP:** Collaborative Forestry Restoration Projects  
**CDBG:** Community Development Block Grants  
**CWPP:** Community Wildfire Protection Plan  
**EA:** Environmental Assessment  
**ECRFPA:** Enchanted Circle Regional Fire Protection Association  
**GIS:** Geospatial information Systems  
**ICC Codes:** International Codes Council  
**NEPA:** National Environmental Policy Act  
**NMED:** New Mexico Environment Dept.  
**NMFD:** New Mexico Forestry Division  
**NM EMNRD:** New Mexico Energy and Natural Resource Dept.  
**NMHU:** New Mexico Highlands University  
**NRCS:** Natural Resource Conservation Service  
**NMSU:** New Mexico State University  
**NMAC:** New Mexico Association of Counties  
**NM FWRI:** New Mexico Forestry and Watershed Institute  
**QVFD:** Questa Volunteer Fire Department  
**RCCLA:** Rio Costilla Cattle and Livestock Association  
**RFP:** Request for Proposal  
**RGWF:** Rio Grande Water Fund  
**RMYC:** Rocky Mountain Youth Corps  
**RRFD:** Red River Fire Department  
**RSI:** Request for Proposal  
**TNC:** The New Mexico Nature Conservancy  
**TSVI:** Taos Ski Valley Inc.  
**TVFD:** Taos Volunteer Fire Department  
**TSWCD:** Taos Soil and Water Conservation District  
**TVWC:** Taos Valley Watershed Coalition  
**TVAA:** Taos Valley Acequia Association  
**UNM- T:** University of New Mexico/Taos  
**USFS CNF:** US Forest Service, Carson National Forest  
**VTSV:** Village of Taos Ski Valley  
**WUI:** Wildlands Urban Interface  
**WRAS:** Watershed Restoration Action Strategy  
**WSA:** Wilderness study area  
**319:** US EPA/NMED Non Point Source Program and funding

## Glossary

### **Acequia**

Spanish system of gravity feed ditches established by Spanish law. The ditch systems are earthen channels mostly designed to carry waters to the high perimeters of the flood plains. They are managed by common labor of water rights shareholders known as “Parcientes”.

### **Adaptive management**

Adaptive management is implementing policy decisions as an ongoing process that requires monitoring the results. It applies scientific principles and methods to improve resource management activities incrementally as the managers and scientists learn from experience and new scientific findings and adapt to social changes and demands.

### **Biodiversity (biological diversity)**

Biodiversity is the variety of life and its process, including the variety in genes, species, ecosystems, and the ecological processes that connect everything in the ecosystem.

### **Bosque**

A “Bosque” is the traditional name for cottonwood forest galleries. Many northern New Mexico stream corridors are composed of mature broad and narrow leafed cottonwoods. There are still remnant areas of willow along these stream courses with more frequent woodlands species invasions such as junipers and Chinese elms.

### **CFRP Community Forestry Restoration Program**

The Community Forest Restoration Act of 2000 (Title VI, Public Law 106-393) established a cooperative forest restoration program in New Mexico to provide cost-share grants to stakeholders for forest restoration projects on public land to be designed through a collaborative process (the Collaborative Forest Restoration Program)

### **CWPP**

A community based wildfire protection plan (CWPP) includes hazardous fuels assessments, Communities at risk assessment and fuel reduction plan. The process is intended to rely heavily on local input as risk to communities and neighborhoods are assessed.

The *minimum requirements* for a CWPP as described in the HFRA are:

**Collaboration:** Local and state government representatives, in consultation with federal agencies and other interested parties, must collaboratively develop a CWPP.

**Prioritized Fuel Reduction:** A CWPP must identify and prioritize areas for hazardous fuel reduction treatments and recommend the types and methods of treatment that will protect one or more at-risk communities and essential infrastructure.

**Treatment of Structural Ignitability:** A CWPP must recommend measures that homeowners and communities can take to reduce the ignitability of structures throughout the area addressed by the plan.

**Critical habitat**

According to Federal Law, the ecosystem upon which endangered and threatened species depend. Endangered Species Act

**Crown fire**

This is a fire that travels from one crown (or tree top) to another in dense stands of trees, killing most trees in its path. However, even in intense crown fires, unburned strips may be left due to powerful, downward air currents. A passive (or dependent) crown fire relies upon heat transfer from a surface fire burning below crowns. An active (or independent) crown fire does not require transfer of heat from below the crowns (See Surface fire).

**Defensible space**

This is the area around a structure where fuels and vegetation are treated, cleared or reduced to slow the spread of wildfire towards the structure. It also reduces the chance of a structure fire moving from the building to the surrounding forest. Defensible space provides room for the firefighters to do their jobs. Many communities are taking a more holistic approach of creating defensible neighborhoods rather than just individual properties.

**Disturbance**

A discrete event, either natural or human induced, that causes a change in the existing condition of an ecological system.

**Disturbance pattern**

Is an arrangement of disturbances over space and time.

**Ecology**

Ecology is the study of interactions between organisms and their environment, to include humans.

**Eco-region**

An eco-region is a continuous geographic area over which the macroclimate is sufficiently uniform to permit development of similar ecosystems on sites with similar properties. Eco-regions contain multiple landscapes with different spatial patterns of ecosystems.

**Ecosystem**

Living organisms interacting with each other and with their physical environment, usually described as an area for which it is meaningful to address these interrelationships.

**Ecosystem function**

Ecosystem function is the process through which the constituent living and nonliving elements of ecosystems change and interact, including biochemical processes and succession.

**Ecosystem / ecological integrity**

Ecosystem / ecological integrity is the completeness of an ecosystem that at a multiple geographic and temporal scales maintains its characteristic diversity of biological and physical components, spatial patterns, structure, and functional processes within its approximate range of historic variability.

**Ecosystem process**

Ecosystem process is the actions or events that link organisms and their environment, such as predation, mutualism, successional development, nutrient cycling, carbon sequestration, primary productivity, and decay. Natural disturbance processes occur with some periodicity.

**ESA**

ESA (Endangered Species Act) is the most wide-ranging of the dozens of United States environmental laws passed in the 1970s. As stated in section 2 of the act, it was designed to protect critically imperiled species from extinction as a "consequence of economic growth and development untended by adequate concern and conservation.

**Ecosystem sustainability**

The ability to sustain diversity, productivity, resilience to stress health, renewability, and/or yields of desired values, resource uses, products, or services from an ecosystem while maintaining the integrity of the ecosystem over time.

**Ecological restoration**

The process of assisting the recovery of an ecosystem that has been degraded, damaged, or destroyed.

**Exotic (non-native) species**

A species introduced into an ecosystem through human activities.

**Fire Environment**

Fire Environment is also known as the surrounding conditions, influences, and modifying forces that determine wildfire behavior. There are three components of the Fire Environment that Firefighters recognize: 1) **weather**; 2) **topography**; and 3) **fuel**.

Each of these components affect the possibility of a fire starting, the speed and direction a wildfire will travel, the intensity at which a wildfire burns and the ability to control and extinguish a wildfire. Although weather and topography cannot be changed, the fuels (vegetation) can be. Therefore, many of our opportunities to reduce wildfire threat lie in the proper management and manipulation of wild-land vegetation.

**Fire frequency (fire return interval)**

How often fire burns a given area; often expressed in terms of fire return intervals (e.g. fire returns to a site every 5-15 years).

**Fire regime group**

A generalized description of the role fire plays in an ecosystem. It is characterized by fire frequency, predictability, seasonality, intensity, duration, and scale (patch size), as well as regularity, or variability.

**FRCC**

Fire Regime Condition Class is a natural fire regime general classification of the role fire would play across a landscape in the absence of modern human mechanical intervention, but including the influence of aboriginal burning.

**Ecosystem Resilience**

Ecosystem Resilience is the ability of a system to respond to disturbances. Resiliency is one of the properties that enable the system to persist in many different states or succession stages.

**Fire Frequency (Fire Return Interval)**

How often fire burns a given area; often expressed in terms of fire return intervals (e.g., fire returns to a site every 5-15 years). (see also Fire Regime Group).

**Fire Regime Group**

A generalized description of the role fire plays in an ecosystem. It is characterized by fire frequency, predictability, seasonality, intensity, duration, and scale (patch size), as well as regularity or variability. (See also Fire Frequency)

**Fuel**

Fuel is required for any fire to burn. In relation to wildfires, fuels almost always consist of living vegetation (trees, grass, shrubs, and wildflowers) along with dead plant material. Houses, when involved in a wildfire, become a source of fuel. The amount, size, moisture content, arrangement and other fuel characteristics can influence ease of ignition, rate of fire spread, length of flames produced and other fire behaviors.

**Fine filter analysis**

Fine filter analysis is an analysis of components of aggregates such as plant communities in a cover type or species in a plant community.

**Forest ecosystem health**

Forest ecosystem health is a condition where the parts and functions of an ecosystem are sustained over time and where the system's capacity for self-repair is maintained, allowing goals for uses, values, and services of the ecosystem to be met.

**Forest Ecosystem Restoration**

Forest ecosystem restoration is the holistic actions taken to modify an ecosystem to achieve desired, healthy, and functioning conditions and processes. Generally refers to the process of enabling the system to resume acting, or continue to act, following the effects of a disturbance. Restoration management activities can be active (such as control of invasive species, thinning of over-dense tree stands, or redistributing roads) or more passive (more restrictive, hands-off management direction that is primarily conservation oriented). Frequently, a combination or number of actions is used sequentially to achieve restoration goals.

**Greater ecosystems**

Greater ecosystems are a regional complex of ecosystems with common landscape-level characteristics linked by wide ranging wildlife, landscape scale disturbance regimes, and, yes, human communities as keystone citizens among the community of organisms.

**Healthy ecosystem**

A healthy ecosystem is a ecosystem in which structure and functions allow the maintenance of the desired condition of biological diversity, biotic integrity, and ecological processes over time.

**Hazardous fuel**

Hazardous fuels are excessive live and dead trees and other vegetation and organic debris that increase the potential for uncharacteristically intense wildland fire and decrease the capability to protect life, property, and natural resources.

**Human impact or influence**

A disturbance or change in ecosystem composition, structure, or functions caused by humans.

**Invasive or Noxious weed**

Any species of plant, which is, or is liable to be, detrimental or destructive and difficult to control or eradicate and shall include a species and through investigation and hearing, shall be determined to be a noxious weed.

**Landscape**

An area composed of interacting ecosystems that are repeated because of geology, landform, soils, climate, biota, and human influences throughout the area. Landscapes are generally of a size, shape and pattern, which are determined by interacting ecosystems.

**Natural disturbance regime**

A natural disturbance regime is natural disturbance (e.g. wildfires, avalanches, insect outbreaks, floods) with a characteristic frequency, intensity, size, and type that has influence on an ecosystem over evolutionary time.

**NEPA**

The National Environmental Policy Act (NEPA) is a United States environmental law that was signed into law on January 1, 1970 by U.S. President Richard Nixon. The focus of the law was the establishment of a U.S. national policy promoting the enhancement of the environment, but its most significant effect was to establish the requirement for environmental impact statements (EISs) for major U.S. federal government actions.

**Old growth tree**

An old growth tree is one that exhibits the complex structural characteristics associated with the oldest age class of trees in a group, clump or stand. In today's forests, an old growth tree is one that has been present since before the onset of commercial logging and fire exclusion. These trees are sometimes referred to as pre-settlement trees. These trees typically have orange or yellow platy bark.

**Prescribed fire**

A management fire ignited to meet specific fuel reduction or other resource objectives. All prescribed fires are conducted in accordance with prescribed fire plans.

**Range of natural variability**

That range is the spectrum of possible natural conditions in ecosystem composition, structure, and function considering both temporal and spatial factors that would have existed if the dominant Euro-American culture had never arrived.

**Reference conditions**

Reference conditions are conditions characterizing ecosystems composition, structure, and their variability.

**Remote sensing**

Remote sensing is any technique for analyzing landscape patterns and trends using low altitude aerial photography or satellite imagery. It can also be any environmental measurement that is done at a distance.

**Resilience**

Resilience is the ability of an ecosystem to maintain the desired condition of diversity, integrity, and ecological processes following disturbance.

**Restoration**

Restoration actions are taken to return proper functioning conditions to either watersheds or riparian areas. They are actions taken to modify an ecosystem in whole or in part to achieve a desired condition.

**Risk to communities**

The risk associated with adverse impacts to communities resulting from unwanted wildfire.

**Scale**

Scale is the degree of resolution at which ecological processes, structures, and changes across space and time are observed and measured.

**Surface fire**

A fire that burns over the forest floor, consuming litter, killing aboveground parts of herbaceous plants and shrubs, and typically scorching the bases and crowns of trees.

(See Crown Fire)

**Sustainability**

Sustainability is the ability of an ecosystem to maintain ecological processes and functions, biological diversity, and productivity over time.

**Topography**

Steepness of a slope most influences fire behavior. As the steepness of a slope increases, the fire spreads more quickly. Other important topographic factors include: aspect and steep, narrow drainages.

**Watershed**

An area of land with a characteristic drainage network that contributes surface or ground water to the flow at that point: a basin or a major subdivision of a drainage basin.

**Wildland fire use**

The management of naturally ignited wild-land fires to accomplish specific pre-stated resource management objectives in pre-defined geographic areas outlined in Fire Management Plans.

**Wildlands-urban interface**

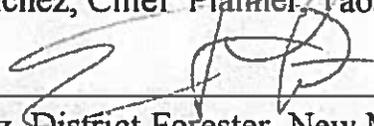
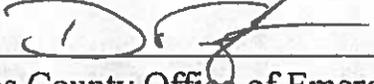
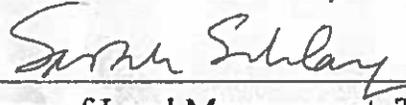
The WUI is the area or zone where structures and other human development meet to intermingle with undeveloped wild-lands or vegetative fuel. When homes blend together with the wild-land, a tremendous wildfire danger can exist. This creates the Wildland/Urban Interface (WUI). It is the addition of homes in this area that interrupts the natural cycle of wildfires. Ultimately, this contributes to a dangerous build-up of old vegetation, which can contribute to an uncontrollable wildfire.

## **Chapter 11 - Approvals & Signatures**

# Chapter 11 - Approvals & Signatures

## Signature Page

### Required Approvals:

 _____ Jim Fambro, Chairman, Taos County Commission	8-2-2016 Date
 _____ Nathan Sanchez, Chief Planner, Taos County Planning Dept.	7-21-2016 Date
 _____ Ernie Lopez, District Forester, New Mexico State Forestry	7/20/16 Date
 _____ Taos County Office of Emergency Management	7/26/16 Date
 _____ Carson National Forest Acting Forest Supervisor	7/20/16 Date
 _____ Bureau of Land Management, Taos Field Office	7/22/16 Date

**COUNTY OF TAOS  
STATE OF NEW MEXICO**

JIM FAMBRO  
MARK GALLEGOS  
GABRIEL ROMERO  
TOM BLANKENHORN  
CANDICE O'DONNELL

DISTRICT I  
DISTRICT II  
DISTRICT III  
DISTRICT IV  
DISTRICT V

LEANDRO CORDOVA, ICOUNTY MANAGER



**TAOS COUNTY PLANNING DEPARTMENT**

EDWARD VIGIL – DIRECTOR  
NATHAN J. SANCHEZ-CHIEF PLANNER  
VACANT – SENIOR PLANNER  
JESSICA GUTIERREZ – CHIEF BUILDING OFFICIAL  
RACHEL ROMERO – BUILDING OFFICIAL  
REBECCA PARRAZ – ADMINISTRATIVE MANAGER  
RUDY PEREA – PLANNER II  
DAVID MARTINEZ – BUILDING OFFICIAL  
TIM CORNER – RURAL ADDRESSING/FPM  
ERIC MONTOYA – GIS TECH

105 ABRIGHT STREET, SUITE – H  
TAOS, NM 87571  
OFFICE: (575) 737-6440  
FAX: (575) 737-6449

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**LETTER OF APPROVAL**

**Date:** July 28, 2016  
**To:** Taos County Board of Commissioners  
**From:** Nathan Sanchez, Chief Planner  
**CC:** Leandro Cordova, County Manager  
**Re:** 2016 Taos County CWPP update.

I was the Facilitator of the Taos County CWPP Core Team meeting on July 14, 2016. This letter is to affirm that that the Taos County CWPP Core Team approved by unanimous vote the “2016 Taos County CWPP update”. Please consider this document for adoption as per your August 2, 2016 meeting. If you have questions concerning the document please contact me.

**Affirmed by:**

Nathan Sanchez Nathan Sanchez, Chief Planner

**Attested by:**

Edward Vigil Edward Vigil, Planning Director



**TAOS COUNTY  
RESOLUTION NO. 2016-36**

**A RESOLUTION ADOPTING THE “COMMUNITY  
WILDFIRE PROTECTION PLAN FOR TAOS COUNTY, CALENDAR YEAR 2016”**

**WHEREAS**, the Taos County Board of County Commissioners is the duly authorized governing body of Taos County, a New Mexico political subdivision, and;

**WHEREAS**, The Forest Reserve Title III funds were utilized to update County Wildfire Protection Plans (CWPP) by contracting with Ron Gardiner d/b/a/ Land & Water Clinic to facilitate and to reconvene the collaborative work group known as the Taos County CWPP Core Team; and

**WHEREAS**, The Healthy Forest Restoration Act of 2003 requires the development of a plan entitled a Community Wildfire Protection Plan (“CWPP”) through a collaborative process involving local state and federal government agencies and other stakeholders as a minimum qualifications for approval; and

**WHEREAS**, The Land & Water Clinic in collaboration with the Taos County CWPP Core team held numerous public meetings to review the CWPP plan; and

**WHEREAS**, The Taos County CWPP Core Team established a sub-committee to assist with the CWPP update consisting of core team members Chris Cote, Mark Shuetz, Toni Hippeli, Shannon Romelling and Hannah Miller when Ron Gardiner’s contract expired in February 2016; and

**WHEREAS**, The sub-committee presented the 2016 CWPP update to the Taos CWPP Core team on July 14, 2016, at which the update was accepted to be presented for approval to the required agencies by an unanimous vote; and

**WHEREAS**, the member governments of The Taos County Fire Districts, The New Mexico Energy, Minerals and Natural Resources Department, The Carson National Forest, The Taos Field office of the Bureau of Land Management, and other entities included in the Taos County CWPP Core Team within the geographic area have collaboratively signed a letter of approval for the “Community Wildfire Protection Plan for Taos County – Calendar Year 2016”, attached hereto; and

**NOW THEREFORE BE IT RESOLVED**, by the Taos County Board of Commissioners that the attached “Community Wildfire Protection Plan for Taos County – Calendar Year 2016” be adopted and forwarded to the New Mexico EMNRD for inclusion in their “2016 Communities at Risk Plan”.

**SIGNATURE PAGE TO FOLLOW**

TAOS COUNTY  
ANNA MARTINEZ, CLERK  
000414111  
Book 919 Page 566  
1 of 2  
08/03/2016 02:48:54 PM  
BY BLANCAL

PASSED AND ADOPTED this 2nd day of August, 2016.

TAOS COUNTY  
ANNA MARTINEZ, CLERK  
000414111  
Book 919 Page 567  
2 of 2  
08/03/2016 02:48:54 PM  
BY BLANCAL

BOARD OF COUNTY COMMISSIONERS  
OF TAOS COUNTY, NEW MEXICO

  
\_\_\_\_\_  
Jim Fambro, Chairman

**ABSENT**

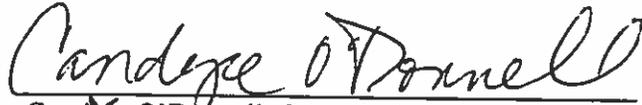
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Mark Gallegos, Vice Chairman

VOTE RECORD:			
J. Fambro	<input checked="" type="radio"/> yes	<input type="radio"/> no	<input type="radio"/> abstain <input checked="" type="radio"/> absent
M. Gallegos	<input checked="" type="radio"/> yes	<input type="radio"/> no	<input type="radio"/> abstain <input checked="" type="radio"/> absent
G. Romero	<input checked="" type="radio"/> yes	<input type="radio"/> no	<input type="radio"/> abstain <input checked="" type="radio"/> absent
T. Blankenhorn	<input checked="" type="radio"/> yes	<input type="radio"/> no	<input type="radio"/> abstain <input checked="" type="radio"/> absent
C. O'Donnell	<input checked="" type="radio"/> yes	<input type="radio"/> no	<input type="radio"/> abstain <input checked="" type="radio"/> absent

  
\_\_\_\_\_  
Gabriel Romero, Commissioner

**ABSENT**

\_\_\_\_\_  
Tom Blankenhorn, Commissioner

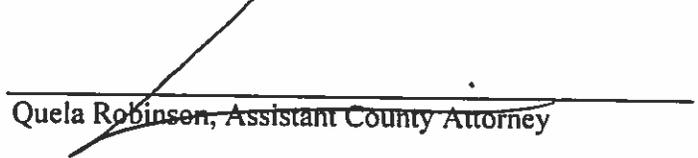
  
\_\_\_\_\_  
Candace O'Donnell, Commissioner

ATTEST:

  
\_\_\_\_\_  
Anna Martinez, County Clerk



APPROVED AS TO FORM:

  
\_\_\_\_\_  
Quela Robinson, Assistant County Attorney

