# 2016

## Taos County CWPP Update

Connecting Communities and Watersheds



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Community Watershed Planne

Land and Water Clinic

Contracted by Taos County

1/14/2016

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### The Land and Water Clinic "Planning a future that includes the past"

#### Introduction

"To build a better motor we tap the uttermost powers of the human brain; to build a better countryside we throw dice." -

#### - Aldo Leopold

The 2016 Taos County CWPP Update represents a bold step forward in community based wildfire and watershed planning. The work of the Taos County CWPP Update CORE Team has embarked on building that "better landscape" that Aldo Leopold refers to in the above quote, rather than throwing the dice. Wildfire is our primary natural disaster concern for Taos County and northern New Mexico. It is fair to compare fuel breaks in the forest that may protect our communities from devastating fire to the levees that protect communities along flood and hurricane prone rivers.



1996 Hondo-Lama Wildfire on Flag Mountain Wind driven fire flares on leading edge of stand replacing fire Photo Credit Ron Gardiner LWC

Catastrophic wildfires that impact the landscape like those of the Jemez and Ruidoso areas profoundly impact the character of the landscape and community but also the economy that stabilizes a community. Taos CWPP Core Team has taken an 8-year course to address proactively through planning, to mitigate the risk of wildfire and the potential to restore the landscape around our communities.



Taos Pueblo 2012 Encebado Fire
Post burn stand clearing fire conditions impact watershed values

The Taos County CWPP CORE Team is unique in that it is the only form of community based watershed and forest planning. It requires citizens and land managers from the WUI areas and the jurisdictions beyond the boundaries of their community to sit together and work collaboratively. CWPP CORE Team identifies the risks of fire, develops priority areas for fuel reduction treatment and then works together to develop a plan for communities to live with wildfire on a resilient landscape. Through collaboration, the 2016 CWPP Update will begin to integrate planning and implementation to the surrounding landscape and watersheds that our communities depend on.

Taos County has contracted the Land and Water Clinic of Questa N.M. to update the 2009 CWPP through a series of (6) six meetings with the public and the Taos CWPP CORE Team during 2015. (CWPP) Community Wildfire Protection Plans are living documents scheduled for periodic updating that is recommended every five years. Each document can revisit and update the CWPP WUI (Wildlands Urban Interface) maps, the CAR (Community at Risk ratings) and the list of CWPP, FIREWISE and WUI implementation strategies and recommendations.

The CWPP maps and data compiled in this document serve to inform all stakeholders to conditions of the surrounding local forests and watersheds and the planning and management relevant to these areas on private, state, tribal and federal lands. The CORE Team meetings provide an opportunity for community members and managing agencies and governments to prepare, coordinate and collaborate for living with wildfire in the Wild-lands Urban Interface.

To assure community input the 2015 Taos County CWPP Update has been developed through a series of CWPP CORE Team meetings and public meetings, workshops and subcommittee meetings. Drafts were reviewed by the CWPP CORE Team and vetted with the public. The final draft will be presented to the Taos County Commission for amending or adoption and submission to the New Mexico Wildfire Planning Task Force.

CWPPs are intended to be, "living documents" to be updated periodically such as this 2016 update. After reviewing nearly (20) twenty regional CWPPs, the LWC considers the most successful to be those CWPPs that build collaboration around the plan through education and engagement. This document has been written as an informational and networking guide for the community members, decision makers, fire departments and land and water managers.

#### 2016 CWPP CORE Team Vision Statement

The Taos CWPP CORE Team seeks to build fire resilient communities, forests and watersheds through collaboration of all community stakeholders in the WUI areas identified in the Taos County CORE Team Values Statement below.

This 2016 Taos County CORE Team Vision, Values and Goals Statement have aligned themselves with the (NCWS) National Cohesive Wildland Strategy and its three pillars: Manage Resilient Landscapes; Promote Fire Adapted Communities, and Safely and Effectively Respond to Wildfire.

Community education and awareness are the keys to developing effective collaborations for the "Living with Fire" principles of Defensible Space and FIREWISE communities. This plan will take the next steps of, "Connecting Communities and Watersheds" in Taos County into the future and until this 2016 document and plan is updated.

The 2015 CWPP Update CORE Team has identified this CWPP planning area as the source of water for the Taos Region and much of the greater Rio Grande Basin. The CORE Team will rate the risk of wildfire in 65 named communities in Taos County and seek to implement the goals and strategies of the 2016 CWPP Update.

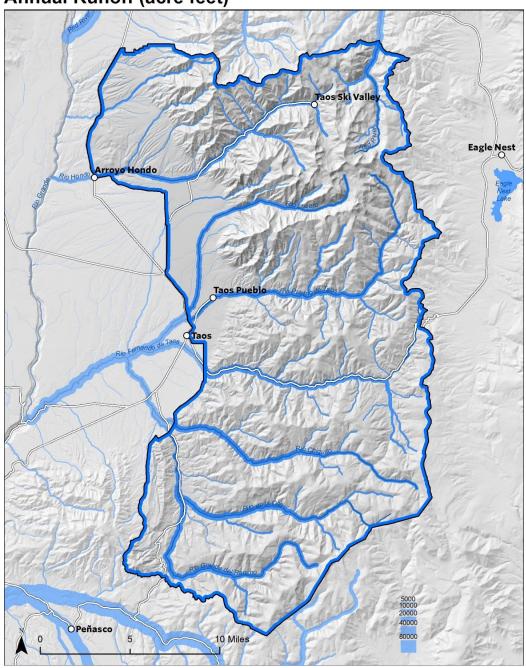
As the, "Area of Origin" for the many Taos County and Rio Grande Basin water uses, the Taos County CORE Team seeks partnerships and the participation of all stakeholders locally and regionally to protect, maintain, enhance, and restore resilient and healthy forests, bosques and watersheds of Taos County and the biodiversity that depend upon them.

The CORE Team will identify and rate the risk to Taos County communities through prioritizing fuel loads to be reduced. It will propose and identify goals and implementation strategies to reduce those risks and enhance fire resilient communities in the Taos County WUI Areas.

Taos County possesses and manages the most water rich productive watersheds in the Rio Grande Basin in New Mexico. Taos County's water bearing headwater-forests are largely managed under Carson National Forest USDA Forest Service jurisdiction. Within the State of New Mexico the western slopes of the Sangre De Cristos in Taos County are the water source and supply for a significant portion of the people living downstream in the Rio Grande Basin. Taos County waters also satisfy a large portion of New Mexico's commitments under the Rio Grande and Rio Costilla Compacts.

### **Taos County WUI and Watershed Values**

### **Annual Runoff (acre feet)**



Area of Origin Streamflow Map Map Credit: NM TNC RGWF, Steve Bassett, GIS Tech

"In a region of the country where land is more abundant than water, the value inheres in the water not the land".....John Wesley
Powell

Taos County watersheds supply the water for four (4) municipal water utilities, thirty-five (35) Mutual Domestic Water associations, two (2) Water and Sanitation Districts, two (2) Tribal communities, (144) acequias or ditch associations, and the Taos Soil and Water Conservation District. All are legal subdivisions of government.

See the Taos Regional Water Plan:

http://www.ose.state.nm.us/Planning/RWP/region\_07.php



Land development patterns of Spanish settlement Acequia fields of the Cerro Ditch Photo Credit: Ron Gardiner Land and Water Clinic

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. There are also three other de facto headwaters wilderness areas in the Valle Vidal, the Rio Costilla Livestock Associations and the NM Game & Fish Urracca Wildlife Unit.

The Tiwa community of the Taos Pueblo successfully fought a 75-year legal battle with the United States and the US Forest Service to repatriate their sacred Blue Lake Watershed. Richard Nixon began the repatriation process and President Clinton finalized the full return of their watershed, the hydrologic watershed unit that supplies all of their community, spiritual, and landscape water needs.

The archeological records reflect that nearly 900 years ago Taos County watersheds at Picuris, Pot Creek, Rio Fernando, Taos Pueblo and the Red River were being used to provide water to irrigated fields and community needs. Since the organization of early local settlements, community water uses such as the streams, ditches, shallow wells and springs were the centers of culture and community. Both cultures viewed their watersheds as communal lands referred to by Spanish settlers as the "Commons." Both tribal and Spanish cultures have used forests and timber for building, heating, cooking and foraging from their local watersheds. These were traditional areas of game and wildlife, timber, medicinal plants, and pasture that were accessible to all.



Taos Pueblo Sacred Blue Lake Watershed
Photo Credit: Chris Dhal Berdine

"The members of the tribe feel an ancient identity, not only with Blue Lake- the headwaters of their life sustaining stream- but with the entire watershed, its plants and animals. Anything which mutilates the valley hurts the tribe. The spiritual kinship with which the tribe feels for the sources of their life and livelihood clearly cannot be localized in any one spot or a few, but extends to the whole region. The aura of sanctity, which has its sources in the water courses where the creators life sustaining water flows out to the inhabitants of a semi arid land, is indivisible from the related lands and the living things that they produce."

#### R.C. Gordon - McCutchan from the Taos Indians and the Battle for Blue Lake

The nearly 65 named communities in the Taos County CAR (Communities at Risk) list have a long heritage as traditional natural resource based communities, dependent on forest products and the water from the mountain snowpack from their local watersheds to grow food. Many of these community names were established under Spanish land grants. Fuel wood gathering has been a part of both the culture and economy for individuals and communities here in Taos County.

#### Taos County CORE Team CWPP Values Statement

These are the community values that were identified by the Taos County CORE Team as priority values for communities that are living with wildfire and the 2016 Taos County CWPP Update, "Connecting Communities and watersheds". These values reflect all of the community cultural and socio-economic values assigned to Taos County forests at risk of wildfire.

The communities in northern New Mexico have long maintained an interdependent relationship with the upland forests and pastures, where they have gathered fuel wood, building materials, and timber for mills; hunted for wild game, pastured livestock, and gathered various food and herbal supplies. In addition, the acequias that divert water from the many streams that arise in the local mountains, deliver water to the verdant fields that characterize traditional agriculture in Taos County.



The stream, pasture, and uplands of the Penasco Valley
Headwaters are in the Pecos Wilderness and Santa Barbara Basin
Photo Credit Ron Gardiner LWC

Local firewood cutters, youth training organizations, and local forest restoration crews should be involved, whenever possible, in the implementation of the recommended restoration strategies. Their participation will engender local support for treatments, and will maintain the practical and economic link between the citizens of Taos County and the forested lands. They have depended upon these lands for a significant part of their sustenance, since people first settled in these mountains valleys. The tri-cultures of Taos County and their forest practices reflect a heritage, 'la herencia,' of forest stewardship.



La Junta Point near Questa, NM
Confluence of the Rio Grande and the Red River
Heart of the Rio Grande del Norte National Monument
Photo Credit Chris Dahl Berdine

#### List of values developed and compiled by the 2016 CWPP Update CORE Team

- 1. Safe communities: Personal, community and property protection from wildfire in the (WUI) Wildland Urban Interface
- 2. Community WUI education: Taos County fire adapted communities educated for "Living with Wildfire"
- 3. Community WUI preparedness: Taos Communities prepared for wildfire events
- 4. Taos County FIREWISE communities in CWPP WUI areas
- 5. Healthy headwater watersheds in Taos County
- 6. Community water source protection of regionally significant mountain forests ecosystems and watersheds
- 7. Traditional uses of forest products and fuel wood harvesting
- 8. Communities educated for "Defensible Space" concepts
- 9. Area of origin head water watersheds for the large population centers of the Rio Grande Basin
- 10. Community stewardship of Taos County forests and watersheds through community collaborations
- 11. Maintain desired conditions in Taos County Forests and watersheds
- 12. Restore Taos County forests and watersheds to resilient forest and watershed functions through community collaborations
- 13. Taos County forest and watersheds ecosystem services and forest products

- 14. Taos County bio diversity and point of destination recreation, hunting, fishing, skiing, herb and medicinal harvesting, hiking and wildlife viewing provided by healthy forests and watersheds
- 15. Taos County watersheds encompass (5) Five wilderness areas; Latir, Columbine, Wheeler, Taos Pueblo Blue Lake and Pecos Wilderness areas and major points of destination: The Rio Grande Del Norte National Monument, Valle Vidal Wildlife Unit, The Red River and the Rio Grande Wild and Scenic Rivers
- 16. Taos County lumber mills and forest jobs for the local economy and traditional communities
- 17.CWPP/WUI collaboration with municipal, county, tribal, acequia, state and federal government.
- 18. Community WUI education and outreach
  - Taos County fire adapted communities educated for "Living with Wildfire"
  - Community WUI preparedness: Taos Communities prepared for wildfire events
  - Communities educated for "Defensible Space" concepts
  - Communities educated for "FIREWISE" concepts
  - Community stewardship of Taos County forests and watersheds through community collaborations
  - CWPP/WUI collaboration with municipal, county, tribal, acequia, state and federal government.

#### Taos County CWPP Update CORE Team's Goals Statement

Citizen planners from eight FIREWISE communities, local forestry contractors and an assortment of local state and federal government planners and coordinators developed these Taos County CORE Team Goals.

#### 2016 Taos County CORE Team goals are to:

- 1. Protect lives and property in the Taos County WUI, Wildlands Urban Interface, through the collaboration of the Taos County CORE Team and all WUI stakeholders.
- 2. Protect, enhance, restore and maintain resilient forests, landscapes and watersheds through the collaboration of the Taos County CORE Team and all WUI stakeholders.
- 3. Promote public awareness for the principles of "Living with Fire" from the 2009 CWPP Update, Defensible Space, community and personal emergency plans, and FIREWISE awareness.
- 4. Create fire resilient communities through the collaboration of the Taos County CORE Team and all WUI stakeholders.
- 5. Provide a planning framework to incorporate community WUI issues with the Carson National Forest Plan Revision.
- 6. Coordinate and prepare with Wildfire First Responders training and resources.
- 7. Recruit and support the development of FIREWISE communities in Taos County.
- 8. Implement the recommendations and implementation strategies from the 2016 Taos County CWPP Update.
- 9. Continue to implement the recommendations and implementation strategies from the 2009 Taos County CWPP Update.
- 10. Identify, pursue match and leverage funding sources for pubic awareness and forestry projects.
- 11. Engage local private property owners through partnerships with Taos County and the Taos Soil and Water Conservation District.
- 12. Engage local forestry contractors and community fuel wood harvesters as stakeholders and partners in the goals of the 2016 CWPP Update.
- 13. Protecting, enhancing, restoring, and maintaining biodiversity and wildlife habitat through forestry, watershed planning and collaboration.



The awareness for FIREWISE principles for Defensible Space education is critical to the goals of 2016 Taos CWPP



Awareness for reducing and removing fuel loads on or adjacent to the home and property is critical for building resilient landscapes living with fire.

#### 2016 Taos County CWPP Update CORE Team's Recommendations



#### 1. CORE Team BMPs Best 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 (BMPs) Best Management Practices that include:

- Hazardous fuels reduction by way of tree and brush thinning, employing both manual and mechanical methods.
- 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.
- Forest "type conversion" that shifts the current condition from a predominance of even-aged pioneer species that are susceptible to crown-fire (often juniper and white fir), to a combination of uneven-aged climax species that are fire-dependent and ground fire tolerant (ponderosa pine and Douglas fir). This treatment will include both selective thinning and the inter-planting of fire tolerant tree species within thinned units and under-stocked areas of the existing forest.
- The re-creation, expansion and maintenance of large and small meadows populated by native grasses and forbs throughout the forest mosaic.
- 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 Best Management Practices like those described, and more that will be developed 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.

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.

#### 2. Adopt the Anchor Point Comprehensive Risk Assessment Map

- The Anchor Point resource is a modeling tool and a comprehensive risk assessment map for all of Taos County, extending across all jurisdictions, utilizing National Hazard and Risk Assessment Modeling NO HARM and FLAM-MAP technology, brought down to 250-acre blocks.
- That tool is under development with an expected delivery date of approximately June 1, 2016
- **3.** Provide for continuity of CWPP planning effort
- 4. Update record changes of projects completed, hazards, etc. pursuant to 2016 CWPP
- 5. Maintain central repository of CWPP records at Taos County
- **6.** Designate/assign Planner to monitor, update, maintain records and schedule CORE team meetings on a regular basis at Taos County.
- 7. Continued training and education for safer and more effective wildland firefighters
- 8. Further education for Fire Adapted Communities
- 9. Develop criteria for assessing changes in CAR ratings
- **10.** Bolster an increase in local forestry contractor capacity as more treatment funding becomes available
- 11. Review Wildfire Hazard Severity Form Checklist NFPA 299 / 1144
  - http://afterwildfirenm.org/
    - Experiencing a destructive wildfire can be devastating. This guide was written to help New Mexico communities recover after wildfire. It includes information on how to mobilize your community, a list of resources available to communities and individuals for assistance, and a technical guide with information about post-fire treatments to address the catastrophic effects of a wildfire on the land and to prepare for potential flooding. If you are reading this guide before a wildfire occurs, use it to help you plan ahead.
  - This guide is intended to provide useful information during this difficult time and to start communities on the road to recovery.

#### 2016 Taos CWPP LWC Planner's recommendations

- Collaborative continuity is very important to the implementation of this 2016 Taos CWPP Update
- 2. Formalize the Taos County WUI Coordinator position as a Taos County FTE
- 3. Engage independent CWPP Plan CORE Team coordinator
- 4. Develop user friendly pre-dominate vegetation maps for the Taos County CWPP
- 5. Form CWPP CORE Team GIS mapping/modeling sub committee
- 6. Form CWPP CORE Team CAR ratings sub-committee
- 7. Develop CAR ratings values matrix

- **8.** Integrate the goals and priorities of the 2016 CWPP Update with the 2016 Carson National Forest Plan Revision
- 9. Develop CWPP/WUI yearly calendar and timelines for grants and administration
- 10. Form CWPP CORE Team Post Wildfire Restoration/BAER protocols sub-committee
- 11. Seek greater participation from the Town of Taos and the Taos VFD
- **12.** Continued outreach to the Town of Taos and support a Water Source Protection Resolution
- **13.** Create yearly WUI/CWPP Implementation calendar
- **14.** Review and pursue yearly NMAC/BLM WUI outreach, treatments and update grants opportunities

### Taos County CWPP CORE Team History A Collaborative Framework for Watershed Protection

"No long-term management regime, However technically correct or grounded in the "best" science, is likely to succeed without public support and understanding"....William du Buyes

"This parity of community input, interest and consideration when rating risk, developing priorities, providing recommendations and responding to the group opportunities is the one irreplaceable element of success for the Taos CORE Team."....Land and Water Clinic

Through the administrative authority of CWPPs there are two administrative partners. The two convening stakeholders in this 8 years process of CWPP/WUI planning have been Taos County Government under the leadership of Nathan Sanchez and the NM Forestry Division's, Ernie Lopez. NM Forestry was the administrative.

#### List of collaborating Taos CWPP CORE Team stakeholders and partners

- Taos County Commission
- Taos County Planning Department
- Carson National Forest Supervisor's Office
- CNF Camino Real RD
- CNF Questa RD
- CNF Fuels staff
- CNF Planning staff
- CNF Public Outreach staff
- BLM Taos Resource Area fuels staff
- NM Forest and Watershed Restoration Institute
- Taos Soil and Water Conservation District
- Taos Pueblo Watershed Program
- New Mexico Forestry Division
- Taos County EMS
- Kit Carson Electric Coop
- Town of Taos
- Canon Forestry
- Watershed Dynamics
- NRCS
- The New Mexico Nature Conservancy Rio Grande Water Fund
- Rocky Mountain Youth Corps
- New Mexico Wildlife Association
- NM & Taos Trout Unlimited
- Amigos Bravos
- El Salto FIREWISE Community

- Gallina Canyon FIREWISE Community
- Valle Escondito FIREWISE Community
- Taos Canyon FIREWISE Community
- Pot Creek FIREWISE Community
- Village of Taos Ski Valley FIREWISE Community
- Village of Questa
- Village of Taos Ski Valley
- LOR Foundation
- Headwaters Economics
- Anchor Point Group
- Taos News
- KTAO radio

The Taos County CWPP CORE Team has achieved an unusually successful implementation of the 2009 Taos County CWPP Update. The key to the success of the implementation of the 2016 Taos County CWPP Update will depend on the continuing participation of community members and jurisdictional representatives and land managers in regular meetings of the CORE Team.

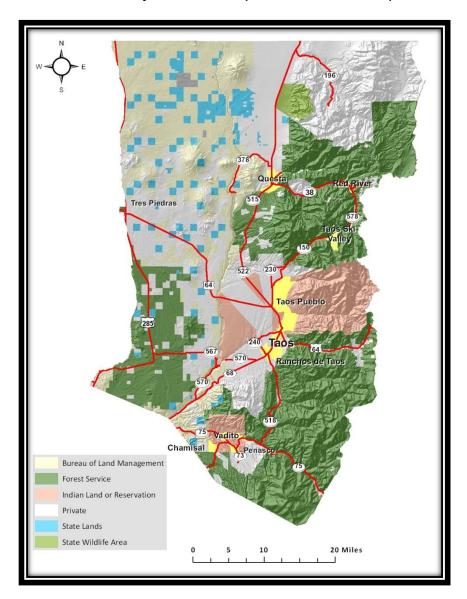
Because the 2016 CWPP Update is a non-regulatory planning process. One of the highest CWPP goals will be the continued planning integration with the predominant land managers in Taos County, the Carson National Forest and their district rangers on both the Camino Real and the Questa Ranger Districts and their (FMO) Fire Management Officer staff that are within the CWPP planning area.

One of the most important developments from the 2009 Taos County CWPP were the addition of (8) FIREWISE communities recruited through the Taos County WUI Coordinator, Chris Cote. The key collaborations of the Taos Soil and Water Conservation District and the Rocky Mountain Youth Corps have enabled the CORE Team partners to address many of the areas prioritized though WUI area identification and the CWPP CAR ratings on private lands within our communities and on private lands. Along with community representatives there has also been a consistent participation from local forestry contractors. The most vigorous of the municipality members of the CORE Team has been the Taos Ski Valley, a driving economic force in Taos County.

The two principle land managers in Taos County, the Carson National Forest and the Taos Office of the BLM staffs have maintained steady attendance and participation through the past 8 years and particularly during the updating of this plan. Taos BLM and the New Mexico Association of Counties provided the original \$80,000 CWPP Planning grant in 2004. CORE Team attendance has generally ranged from 20 to 40 participants during 2015 and has averaged 35 over a seven-year period.

A key to the cohesion and emerging effectiveness of the CORE Team is to assure that community members participate at a level-planning table with the managers that manage the surrounding landscape and forest that they live within.

Taos County Land Ownership and Jurisdictional Map



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

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-levi. 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.

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 80/20 % cost-share thinning program 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 which fuel hazards to remove. 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, which by 2014 has provided cost-share funds to thin 133 acres in Taos Canyon. TSWCD is working currently with the County on another NFL grant for Pot Creek of similar acreage.



Taos County collaborative CWPP CORE Team

#### **Taos Pueblo**

The Taos Pueblo watershed program 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. They developed their own Taos Pueblo CWPP in 2009.

Forest Management Planning on Taos Pueblo Lands

Taos Pueblo lands incorporate large forested lands within (2) two documented watershed noted for their quality of waters in the Southern Rockies. The (2) 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 initial 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.

<u>Project Location:</u> 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.

<u>Funding/ In Kind match</u>: 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.

<u>Scientific Rationale:</u> 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.

<u>Urgency of Project:</u> 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 reached of the Rio Lucero. See maps. 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 premonitoring documentation is critical.

#### **Rocky Mountain Youth Corps**

Rocky Mountain Youth Corps (RMYC) is a not-for-profit youth corps based in northern New Mexico. Rocky Mountain Youth Corps' mission is to recognize and engage the strengths and potentials of youth through team service in the communities, the schools and the landscapes of northern New Mexico. RMYC is a stepping-stone to new opportunities. Following the tradition of the Civilian Conservation Corps from the 1930's, RMYC field crews that revitalize communities, preserve and restore the environment, prepare young people for responsible, productive lives and build civic spirit through service.

#### http://youthcorps.org

RMYC has been awarded a Collaborative Forestry Restoration Program (CFRP) grant to thin 175 acres of dense piñon/juniper forest just north of Taos in Lama, NM. The goal of the project is three fold; improve the functioning of forest ecosystems, promote healthy watersheds and reduce the threat of large, high intensity wildfire, insect infestation, and disease, and train youth in the fields of forestry, ecology, and conservation.

RMYC runs summer youth crews for 10 weeks each June-August to bolster youth employment opportunities to 16-25 year olds who are interested in a summer work experience. RMYC will run 9 crews in the summer of 2015, more than ever before! Crews will be based in Mora, Abiquiu, Taos and Albuquerque.

Crews complete community beautification projects across the state, partnering with NM Department of Energy, Minerals and Natural Resources, Bandelier National Monument and US Fish and Wildlife. RMYC also has trained crews in prescribed fire in 2013 and 2014 that has helped them reduce fuels in the WUI through pile burning in Taos Canyon.

#### Kit Carson Rural Cooperative

Since the Las Conchas fire in the Jemez Mountain in 201(?) New Mexico utility companies have acknowledged their role in landscape forestry and wildfire matters. Kit Carson Coop. is a 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.

#### 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, forester and resource managers.

#### 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, the regional SWERI Southwest Ecological Research Institute 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://www.nmhu.edu

#### 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.

Although the Taos County CORE Team has developed many strengths through partnership there are some areas and stakeholder participation that can be stronger in CWPP plan participation, most noticeable is the Town of Taos and members of the Enchanted Circle Regional Fire Protection Association. Currently Chris Cote the Taos County WUI coordinator is attending regular monthly meetings to serve as a coordinator between the two planning entities.



Taos County Government and the Planning Department's role in WUI planning

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.

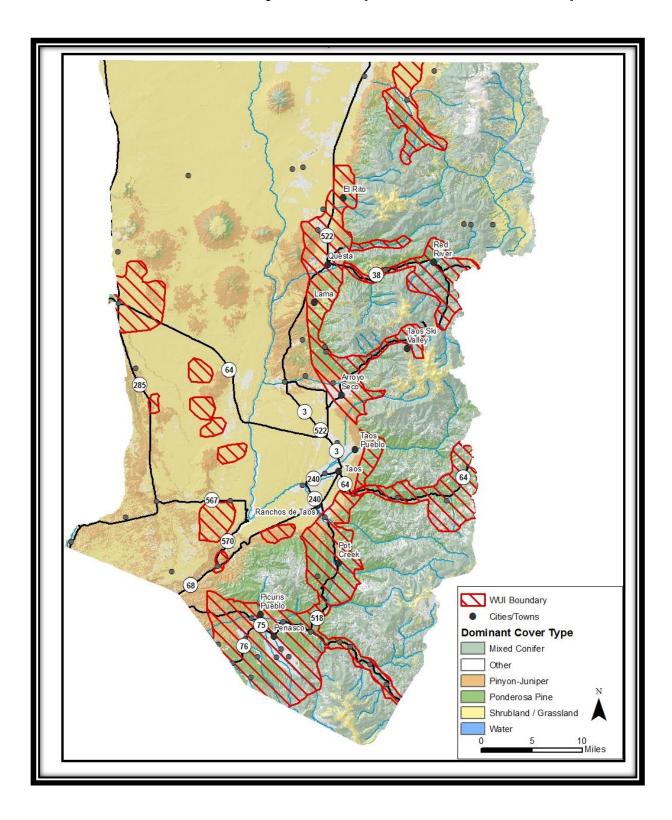
The 2009 Taos County CWPP Update was adopted by the Taos County Commission. The Taos County CWPP CORE Team has maintained vigorous participation by a broad range of local stakeholders in the planning and management forests and watersheds of Taos County since the beginning of the CWPP planning process.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

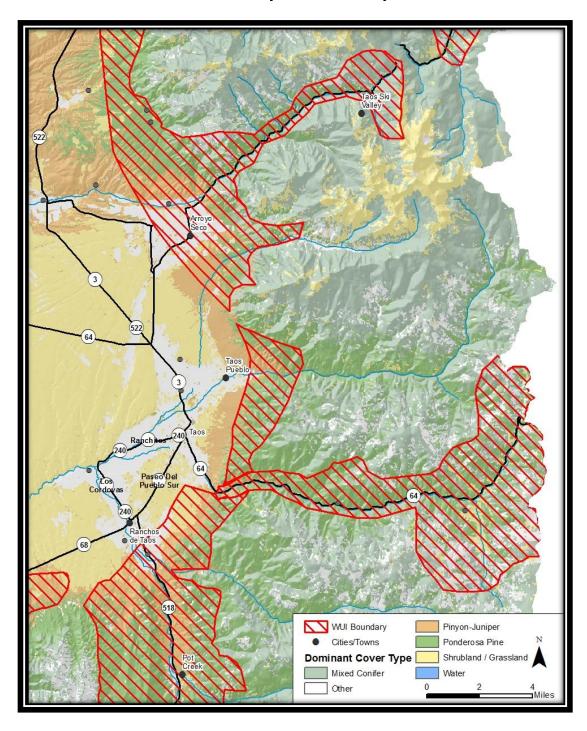
The Taos County has also proffered the Taos Soil and Water Conservation District (TSWCD) an MOU to the Taos County Commission in anticipation of working collaboratively on fuel reduction projects on private lands identified in the Taos County CWPP CAR ratings and WUI maps.

### 2016 Taos County CWPP Update WUI Areas Map



Taos County 2016 Community Wildfire Protection Plan (CWPP) Update "Connecting Communities and Watersheds"

#### **Taos County WUI Areas History**



Taos County WUI areas identified in the 2009 have some broad similarities due to cultural and resource development. Fifteen (15) out of sixty-five (65) Taos County communities were rated at high

risk in 2009. Many of the CAR rated communities are unincorporated and are situated low on the terrain if not along stream corridors and riparian bosques. More often than not the community is surrounded or bordered by the Carson National Forest lands and jurisdiction.

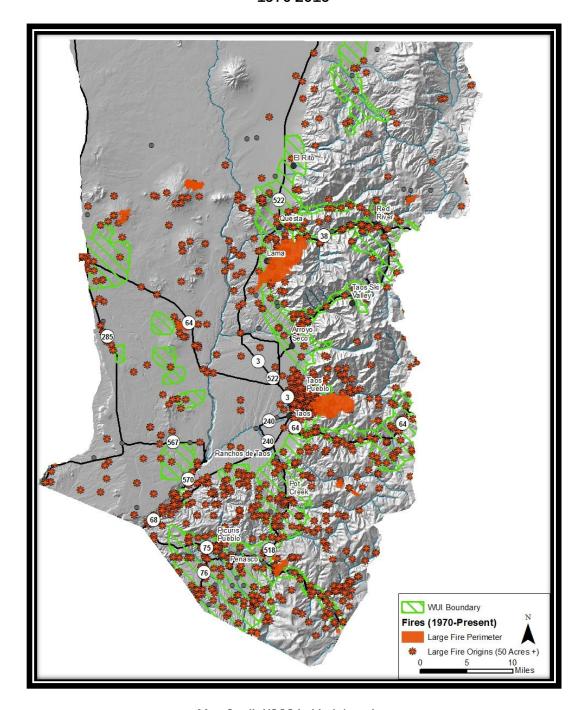


Taos Canyon and the Rio Don Fernando Municipal water supply watershed Single ingress and egress WUI area

Many structures are at the edge of the fields and the forest. In many cases a hazardous fuel load that exists both on private and federal lands borders the community. Often firefighting resources are faced with single access; ingress and egress through roads in narrow mountain canyons. Many homes in Taos County reside in the timbered lands of the WUI.

Due to decades of suppressed timber harvesting activities, forest conditions progressively became overstocked and fuel loaded creating a greater risk of crown fires in Taos County. The Hondo/Lama Wildfire in 1996 and the Taos Pueblo Encebado Wildfire in 2003 manifested the risk of unhealthy forest conditions that had direct impact on communities in the (WUI) Wildlands Urban Interface. Both fires impacted and threatened Taos County communities.

#### Fire History Map 1970-2016



Map Credit USGS in-kind donation

Community development in Taos County has a 900-year-old history beginning with tribal development along the five (5) stream systems of the Taos Valley. This fact most likely establishes the Taos and Picuris Pueblos as some of the first (WUI) Wildland Urban Interface areas in America. Both Pueblo and Spanish settlements were and are communities living with wildfire. Both cultures practiced different forms of intentional or "prescribed" wildfires. Both cultures relied heavily on fuel wood harvesting for home heating and cooking.

Both cultures also practiced logging on their watersheds for subsistence for several centuries. Spanish Land Grants guaranteed community access to the "Commons" to many resources, among them building and fuel wood harvesting.

More recently under federal administration commercial logging became more prominent in Taos County. In the mid and late 19<sup>th</sup> century vast landscape scale headwater areas of Taos County watersheds were extensively logged. Most notoriously was the amount of timber and watershed degradation done on the Santa Barbara watershed by the Santa Barbara Tide and Pole company for the development of southwestern railroads. That timber was floated off the watershed through the Rio Embudo onto the Rio Grande and onto creosote factories in the Espanola Valley in some cases scouring out stream channels and riparian areas for a century through the Penasco Valley.



2009 Ensabado Wildfire Burn Area La Junta, Capulin Peak area Taos Pueblo Watershed

Through the 20<sup>th</sup> century Taos County had timber-milling infrastructure. Much of this activity has come to an end through economic conditions and in part from environmental litigation. There is still independent forestry occurring on private lands in Taos County such as the Rio Costilla Cooperative Livestock Association.

Due to encroachment by development into forested areas of Taos County, the county at large is facing greater risks of ignition and transmission of wild-lands fire and the related liabilities of fire suppression. The Taos County CWPP CORE Team has already initiated public outreach for FIREWISE communities through an NMAC grant into the high-risk areas of the county.

The Taos Soil and Water Conservation District provides subdivision reviews for the Taos County Planning Dept. TSWCD and local contractors have begun to accomplish fuel reduction treatments on private lands throughout Taos County yet much more needs to be achieved to provide effective fuel breaks and personal defensible space.

#### Review of 2008 Implementation strategies and recommendations accomplished

A wide variety of 2009 CWPP Update Implementation strategies were accomplished in the past six (6) years.

Taos County established a Taos County Fire Chief and contracted for a Taos County Wild-lands Urban Interface Coordinator. Five FIREWISE communities were established. Two (2) Taos County WUI Summits and the statewide NMAC/BLM WUI Conference have been held in Taos. USFS CNF Project work accomplished 2009-2015.

A 2012 NFL grant was successfully secured by a coalition of CORE Team partners and projects were effectively implemented in Taos Canyon along the Rio Don Fernando. Another 2015 NFL grant has been submitted and was awarded to Taos County with the assistance of the Taos County Planning Department. There have been several CFRP thinning projects implemented in Taos County and there are several viable proposals in the CFRP process.

Through a variety of Taos CORE Team collaborations with the Taos County Planning Dept., several NMAC WUI outreach and treatment grants were secured and implemented. Taos County forestry contractors and the Rocky Mountain Youth Corps implemented NMAC outreach grants on behalf of the county. Much of that public FIREWISE and Defensible Space outreach set the stage and foundation for the recruitment of the 5 existing FIREWISE communities in Taos County.

Taos County expended Rural Schools Title III funding in creating 2 contracts to hire a WUI coordinator and to hire a contractor to update the 2009 CWPP Plan. Title III funding was also utilized to purchase a commercial chipper. It now provides "Chipper Days" coordinated with the Taos County Solid Waste Department and the Taos County WUI Coordinator. Chipping days have rotated through the county and the CWPP WUI areas are producing many tons of biomass. The Taos County Planning Department and Taos County WUI coordinator, Chris Cote, conducted several, "FIREWISE Days," outreach community-based days in targeted WUI areas that has resulted in 6 communities to be recognized as part of the national Fire Wise Communities USA program. Title II funds were used.

#### Taos County CWPP Wildfire Emergency Response Preparedness and Planning

The (ECRFPA) Enchanted Circle Regional Fire Protection Association and the (LEPC) Local Emergency Planning Committee have taken the initiative to plan for and prepare the fire fighting and regional EMS systems for the events of wildland fire. This group holds regular monthly meetings. Incoordination with the Taos County (EMS) Emergency Management Services director the Taos County Mobilization guide details response capabilities, training and coordination in the event of wildfire.

The 2015 Enchanted Circle Mobilization Guide can be found at the Rio Fernando Fire Department web site. The (ECMG) Mobilization Guide is designed as a reference guide for regional dispatchers to dispatch 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.

Here is a link to the Enchanted Circle Mobilization Guide: <a href="http://www.rffd.org/rffd.org/ECRFPA">http://www.rffd.org/rffd.org/ECRFPA</a> home.htm

Here is a link to the inter agency dispatchers Guide:

http://gacc.nifc.gov/swcc/management\_admin/Agency\_Administrator/AA\_Guidelines/swa\_aa\_guidelines.htm

#### Taos County 2016 Community Wildfire Protection Plan (CWPP) Update "Connecting Communities and Watersheds

#### 2016 CAR Communities at Risk Ratings

The 2016 CAR Communities at Risk ratings were established through a series of CORE Team meetings. A primary requirement of CWPPs is for community members of the CORE Team to identify and fuel loads in the surrounding WUI areas on both private and federal lands. The ratings should be conducted over the details and facts of current vegetation maps. The 2015 CWPP CORE Team began their evaluation of risk in 2015 according to the NM State ratings.

During these ratings CORE Team members expressed a desire to identify values at risk as well as identifying local and critical fuel loads to be reduced. Discussions of ratings are to be conducted over a map of fuel loads. The Taos County CWPP CORE Team has been evolving tools that better assist citizen planners and stakeholders. The Updated CWPP WUI Predominant Vegetation maps in this document were provided by the Jemez Research station of the USGS and are populated with the most current data available from the NAU.



The Taos CWPP Update reviews and rates the CAR List

The CORE Team has recommended that a CAR ratings subcommittee be considered for formation in 2016 to develop a "CAR ratings Matrix" that build ratings according to on the ground assessments. The assessments may be accomplished by the Taos County WUI Coordinator with the assistance of NM Forestry and the TSWC. Systematic Wildfire Hazard Assessments can be accomplished by site visits to private properties and communities by the filling out of Form Checklist NFPA 299 / 1144. A

"Matrix" of CAR ratings could also consider values beyond Public Safety to Public Welfare values such as watershed health, areas of critical economic and infrastructure affected by wildfire and reduction of fuel loads.

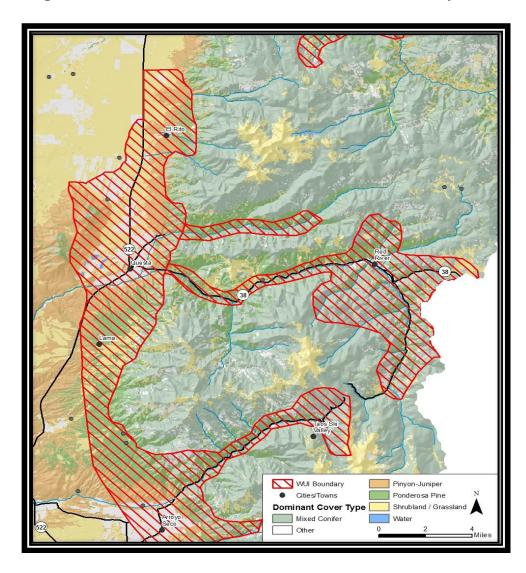
A part of CAR ratings matrix may be the addition of new planning tools such as the Anchor Point, No Harm fuels and fire model. The fuels model offers the CORE Team is an "Ember overlay" that can contribute to a increased community awareness to their communities' potential risk on the landscape.

The intention of the HFRA and the Public Safety authority of CWPPs are for communities to identify risks of wildfire from over stocked forests on all sides of jurisdictional boundaries. Using those identified areas in the WUI areas CORE Team are tasked to develop plans and strategies to reduce those risks through community awareness, and fuel reductions treatments in coordination with local, state, tribal and federal managers and planners.

#	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 Final WUI Risk Rating
1	Amalia	AVFD, CVFD, LVFD	M-L	SEC CWPP WUI Fuel load map, wind	М
2	Arroyo Hondo	HSVFD, SCVFD, LLVFD, TFD	М	SEC CWPP WUI Fuel load map, fuel type model potential, farmlands and bosque	М
3	Arroyo Seco	HSVFD, SCVFD, LLVFD, TFD	М	SEC CWPP WUI Fuel load map, fuel type model potential, farmlands and bosque	M
4	Cabresto Canyon	QFD, LLVFD, CVFD	М	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	н
5	Canon	TFD, RFVFD	L	SEC CWPP WUI Fuel load map, grasses, human factor	М
6	Carson	CVFD, TPVFD, OCVFD	L	Human factor, SEC CWPP WUI Fuel load map	н
7	Cerro	CVFD, LVFD, QFD, LLVFD	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	М
9	Costilla	CVFD, AVFD	M-L	SEC CWPP WUI Fuel load map, wind	М
10	El Prado	TFD, HCVFD	L	SEC CWPP WUI Fuel load map	L

Red River Watershed WUI areas Village of Questa, Town of Red River and the community of Lama



11	El Salto	HSVFD, SCVFD, LLVFD, TFD	Н	SEC CWPP WUI Fuel load map, fuel type model potential, farmlands and bosque, Firewise Community	Н
12	El Valle	PVFD	М	SEC CWPP WUI Fuel load map, fire direction	М
13	Gallina Canyon	HSVFD, SCVFD, LLVFD, TFD	VH	Based on access roads human factor, evacuation, slope, escape routes fuel loads, Firewise Community	VH
14	Greater world/Star	TPVFD, CVFD	L	SEC CWPP WUI Fuel load map, grasses, human factor Low fuel levels	L
15	Kiowa Village	LLVFD, SCVFD, QFD, LVFD, CVFD	Н	Fuels load, no fuels reduction on Southside, prevailing winds	н
16	La Lama	LLVFD, QFD, LVFD, CVFD	Н	Fuels load, ongoing CFRP projects around community, oak regeneration after Hondo Fire, prevailing winds	н
17	Las Trampas	PVFD	М	SEC CWPP WUI Fuel load map, fire direction	М
18	Latir	LVFD. QFD, CVFD	M-L	SEC CWPP WUI Fuel load map, prevailing winds, dense WUI in PJ, probability elevation slope, USFS, BLM	н
19	Llano Largo	PVFD	Н	SEC CWPP WUI Fuel load map, fuel direction, human factor, fire probability map	н
20	Llano Quemado	TFD	Н	SEC CWPP WUI Fuel load map, fuel direction, human factor, fire probability map	М



Cabresto Creek Bosque in Questa

High mortality in cottonwood stand which is adjoined and encroached by one seed juniper in a transition to upland fuel loads on USFS Carson Lands

Photo Credit: Ron Gardiner LWC



The Lama Foundation
Post burn conditions after 1996 Hondo Lama
22 homes were destroyed in a landscape and canopy clearing wildfire

21	Llano San Juan	PVFD	н	SEC CWPP WUI Fuel load map, fuel direction, human factor, fire probability map	М
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	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, CVFD, TPVFD	L	Human factor space between fuel loads	L
27	Ojo Sarco	PVFD	L	SEC CWPP WUI Fuel load map, fuel reductions, Taos/Rio Arriba county	М
28	Penasco	PVFD	М	SEC CWPP WUI Fuel load map Fuel load wind direction topography	M
29	Picuris Pueblo	PVFD	L	Taos County OEM re-contact Taos Pueblo, Dwayne Lefthand.	L
30	Pilar	TFD, CVFD	М	SEC CWPP WUI Fuel load map	М



San Cristol WUI area Ignition site of the 1996 Hondo Lama Fire (Upper Left of picture) Photo Credit: Ron Gardiner LWC

31	Pinabete Hills	QFD, LVFD, CVFD, LLVFD	М	Ignition, fuels type, model, SEC CWPP WUI Fuel load map	н
32	Placitas	PVFD	L	SEC CWPP WUI Fuel load map Fuel load wind direction topography	L
33	Pot Creek	TFD	н	Existing fuel reduction, fire reduction, riparian areas wetlands, has a CWPP, 2015 NFL project on SMU campus	н
34	Ranchos De Taos	TFD	Ĺ	SEC CWPP WUI Fuel load map	L
35	Rio Lucio	PVFD	L	SEC CWPP WUI Fuel load map	L
36	Rodarte	PVFD	М	SEC CWPP WUI Fuel load map	М

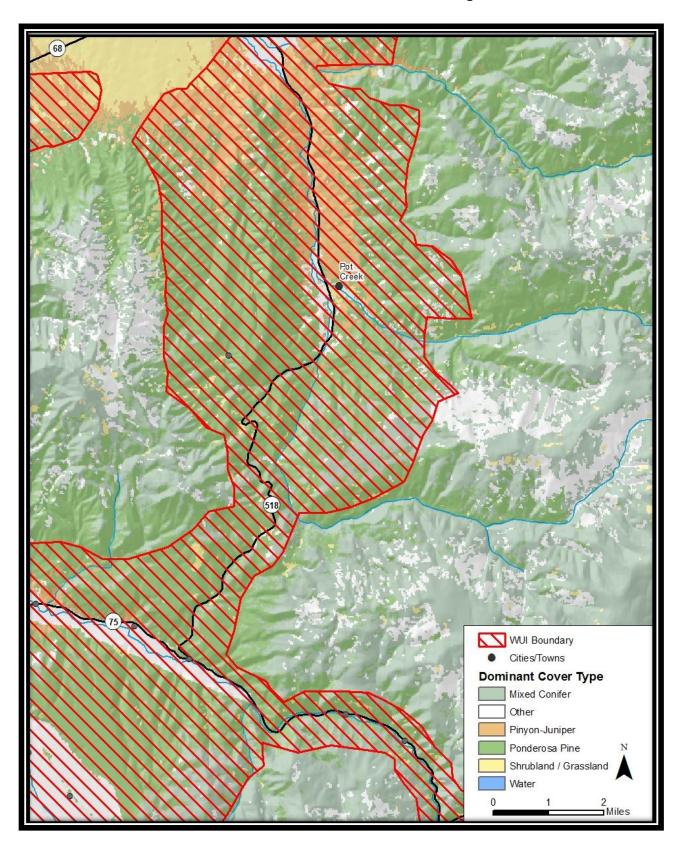
37	San Cristobal	SCVFD, HSVFD, LLVFD	М	Based on fuels loads, fire direction wind direction, wildfire history	н
38	Shady Brook	RFVFD, TFD	н	SEC CWPP WUI Fuel load map, human factor	н
39	SiPaPu	PVFD	Н	USFS Wider drier greater fuel load level fire return interval landscape	н
40	South Los Cordovas	TFD	L	SEC CWPP WUI Fuel load map	L

## Pot Creek WUI Area Map



Mouth of the Pot Creek WUI area Single ingress and egress Photo Credit: Ron Gardiner LWC

## Pot Creek WUI Area Map



37	San Cristobal	SCVFD, HSVFD, LLVFD	М	Based on fuels loads, fire direction wind direction, wildfire history	н
38	Shady Brook	RFVFD, TFD	Н	SEC CWPP WUI Fuel load map, human factor	н
39	SiPaPu	PVFD	Н	USFS Wider drier greater fuel load level fire return interval landscape	н
40	South Los Cordovas	TFD	L	SEC CWPP WUI Fuel load map	L
41	Stagecoach	HSVFD	L	SEC CWPP WUI Fuel load map, grasses, human factor Low fuel levels	L
42	Talpa	TFD	L	SEC CWPP WUI Fuel load map	M
43	Taos Canyon/Rio Fernando	RFVFD, TFD	VH	SEC CWPP WUI Fuel load map, human factor, Firewise Community	VH
44	Taos Mesa	HSVFD	L	SEC CWPP WUI Fuel load map, grasses, human factor Low fuel levels	L
45	Taos Pueblo	TPFD		Taos War Chiefs/TVFD.Fire history, Taos County OEM re- contact Taos Pueblo, Dwayne Lefthand, Ann Sandoval, Rene Romero. Taos Pueblo has a CWPP	н
46	Three Peaks	CVFD, TPVFD, OCVFD	М	SEC CWPP WUI Fuel load map, grasses, human factor	M
47	Tierra Blanca	TFD	н	Increased population High fuel load no access	н



Penasco Valley and Picuris WUI Area Pasture and grass fuels surrounded by Pinon Juniper Private, Tribal and USFS Carson NF Lands

48	Town of Red River	RRFD, WPVFD	М	USFS fuels, climate slope based on existing fuel reduction, moisture level, Threat level map showing, north/south vegetation divide, response capability	M
49	Town of Taos	TFD	L	Because of low fuels, threat level low, WUI map.Predominate winds shifts fire away from town	L
50	Tres Orejas	CVFD, TPVFD	М	SEC CWPP WUI Fuel load map, grasses, human factor	М
51	Tres Piedras	TPVFD, CVFD, OCVFD	М	human factor, winds fuel load	М
52	Tres Ritos/ Angostora	PVFD	Н	USFS Wider drier greater fuel load level fire return interval landscape	н

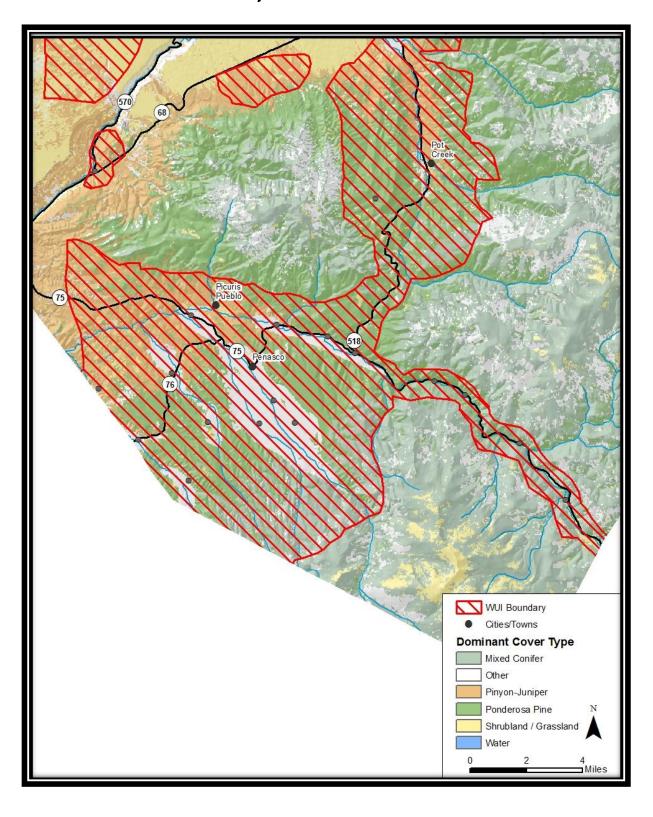
53	Two Peaks	CVFD, TPVFD, OCVFD	М	SEC CWPP WUI Fuel load map, grasses, human factor	М
54	Upper Des Montes	HSVFD, LLVFD, TFD	L	Based on fuel loads slope, Pasture lands, windbreaks vegetation	L
55	Upper Los Colonias	TFD	L	SEC CWPP WUI Fuel load map	٦
56	Upper Red River Valley	WPVFD, RRFD	VH	SEC CWPP WUI Fuel load map, Escape routes Continuous sunlight (?), wind direction factor USFS, fuel reduction projects, response capability	М
57	Vadito	PVFD	M-L	SEC CWPP WUI Fuel load map Fuel load wind direction topography	M-L
58	Valdez	HSVFD, SCVFD, LLVFD, TFD	н	Based on access roads human factor, evacuation, slope, escape routes, fuel loads	н



Penasco Valley WUI Single Ingress and Egress

59	Valle Escondido	RFVFD, TFD	М	SEC CWPP WUI Fuel load map, fuel direction, human factor, Firewise Community	н
60	Vallecitos	PVFD	М	SEC CWPP WUI Fuel load map	М
61	Ventero	AVFD, CVFD	L	SEC CWPP WUI Fuel load map, wind	L
62	Versylvia	LVFD, QFD, CVFD	M-L	SEC CWPP WUI Fuel load map, grasses, human factor, Dense WUI in PJ	н
63	Village of Taos Ski Valley	TSVFD, HSVFD	М	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. Decadent mixed conifer stands prone to replacement fires. Economic driver for Taos County. Firewise Community	Н
64	Vista Linda	TFD	L	SEC CWPP WUI Fuel load map, grasses, human factor	L
65	Wiemer Heights	TFD, RFVFD	М	SEC CWPP WUI Fuel load map, fuel direction, human factor	М

## Penasco Valley and Picuris Pueblo WUI Area



## Taos County 2016 Community Wildfire Protection Plan (CWPP) Update "Connecting Communities and Watersheds"

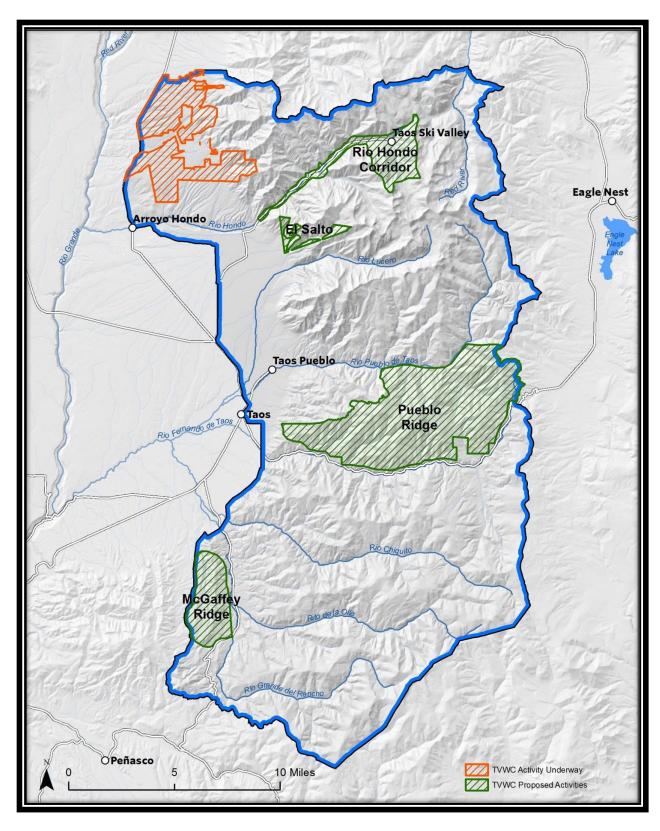
#### 2016 Taos County CWPP Implementation Strategies

The Taos CWPP CORE team through community stakeholder collaboration has developed a planning and administrative resiliency. Due to this resiliency and collaboration Taos County government has now been very effective at responding to a wide array of grants and funding opportunities. The Taos CWPP CORE Team has now successfully responded to RFPs, for; community outreach, NMAC WUI grants, NFL (Non federal lands) grants, USFS CFRPs and the RGWF/TNC. The total outcomes of implementation strategies from the 2009 Taos County CWPP Update now is approaching nearly \$3 million dollars of project work achieved through competitively leveraging funding.

Taos County government has now responded to these funding opportunities through CORE Team members' volunteer time and the Taos County Planning Department providing administration and grant writing support. This is a critical role that the Taos County Planning Department contributes to the success of the Taos CWPP CORE Team.

The most prominent implementation strategy to develop in meetings of the 2015 CORE Team was an opportunity to respond to an RSI (Request for interest) from the Rio Grande Water Fund which is a public private partnership program of the New Mexico Nature Conservancy. The program has been very active and effective at connecting water users groups in the greater Rio Grande basin and the treatment of forests and watersheds in the upper reaches of the basin and its headwaters.

Through a series of CWPP CORE Team sub committee meetings the Taos Valley Watershed Coalition was established to respond to the RGWF/RSI funding opportunity. Taos County provided key grant writing along with volunteer time from several CORE Team members. Key stakeholders and partners in this proposal was the Taos County, the Taos Pueblo, (2) districts of the Carson National Forest, (3) three of the Taos County FIREWISE communities and the EI Salto Land Owners Association. Through the RGWF, Taos County has leveraged an additional funding of \$225,000 from the LOR Foundation for studies and treatments under the RGWF/TVWC proposal to address NEPA and landscape planning.



Taos Valley Watershed Coalition Project Area Rio Grande Water Fund RSI Proposal Area 7 streams of the central Taos Valley

**Project Title:** Planning and Implementation of Restoration Treatments on 23,800 acres Across Multiple Jurisdictions within the Taos Valley Watershed

**Project Location:** The Taos Valley Watershed Coalition (TVWC) has identified a focus area of 280,000 acres of contiguous landscape including piñon-juniper woodland to spruce-fir forest on the west slope of the Sangre de Cristos, embracing the Taos Valley from Rio Grande del Rancho on the south to San Cristóbal Creek on the north (Map 1). Forest restoration is needed to return resilience to this region's beautiful, culturally significant, and productive watersheds. In this statement of interest we propose forest restoration in priority areas that are approved and ready for treatment, as well as planning and clearance activities in other priority areas that will enable future restoration treatments. The TVWC has developed a Landscape Restoration Strategy (LRS) that prioritizes areas for restoration treatments. Prioritized Phase I projects will anchor long-term restoration work and lay the groundwork for subsequent projects, while galvanizing our coalition and developing local public support for forest restoration and returning natural fire to the landscape. The two priority areas are:

- Pueblo Ridge 23,540 acres including large portions of the Taos Pueblo Reservation and Carson National Forest (CNF) and
- 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's (TVWC) Landscape Restoration Strategy (LRS)

The Taos Valley Watershed Coalition (TVWC) drafted this Landscape Restoration Strategy (LRS) and it reflects a strong overlap, nexus and extension of the values, goals and planning principles of the Taos county CWPP CORE Team. Essentially it is CORE Team planning that extends to the landscape and the watersheds beyond the WUI Areas. Its' planning map and area is predominately the five stream watershed of the Taos Central Valley with small sections of two other watersheds that provide the vast majority of irrigated lands in Taos County.

#### Introduction

The Taos Valley Watershed Coalition (TVWC) developed this Landscape Restoration Strategy (LRS) over seven months during 2014-2015.

Coalition members manage or provide land use consultation on all of the adjoining jurisdictions within our focus area, which extends from the Rio Grande del Rancho on the south to the San Cristobal drainage on the north and also includes the Rio Fernando, Rio Pueblo, Rio Lucero, Rio Arroyo Seco, and Rio Hondo stream systems.

Coalition members agree to focus on the goals of protecting, improving, and restoring the water quality, quantity, and ecological function of the forests and streams in the Rio Grande watershed within Taos County, to the benefit of both local and downstream water users. This LRS was developed by our membership to document our shared understanding of scientific data and community values, and to guide coordinated actions within our local watersheds.

#### **Executive Summary**

(see TVWC RSI map)

**TVWC GOAL:** Protect, improve and restore the water quality, quantity, and ecological function of the forests and streams in the Rio Grande watershed within Taos County to the benefit of both local and downstream beneficiaries of the water supply arising from these watersheds.

**TVWC APPROACH:** The Coalition is using ecological reference conditions as a guide to develop a proactive landscape scale strategy that goes beyond the restoration of historical conditions. We seek to implement projects that increase forest and watershed resilience, where mega-fires and insects threaten long-term impairment to ecological function. The Coalition recognizes that the current ecological conditions are highly departed from the reference conditions across the TVWC landscape. Our strategy will expand and connect recent projects that have improved forest structure and have mitigated threats in the wildland-urban interface and in the upland watersheds, to the benefit of regional communities, economies, and ecosystems.

#### **TVWC STRATEGY:**

- 1. Restore fire to frequent-fire forest types, such as ponderosa pine and some pinon-juniper and drymixed conifer, with treatments that include mechanical thinning, controlled burns, and natural fire ignitions when and where it is safe to do so.
- 2. Adaptively manage dry-mixed-conifer forests, seeking to retain and enhance ponderosa pine and Douglas fir where they are underrepresented, and to increase the percentage of open canopy seral stages toward the reference condition; treatments will include mechanical thinning, controlled burns, and management of natural fire ignitions to benefit the ecosystem when and where it is safe to do so.
- **3.** Use the USDA Forest Service research report, *Restoring Composition and Structure in Southwestern Frequent Fire Forests (GTR-310)* (Reynolds et al. 2013) to guide our landscape management, coupled with the collaboratively-developed NM Forest Restoration Principles (Bradley 2009) where appropriate.
- **4.** Learn more about the wet-mixed-conifer forests and the historical frequency and intensity of fire, in order to determine how to best restore and adaptively manage in this forest type; treatments are not determined yet, but may include mechanical thinning and fire management as appropriate.
- 5. In spruce-fir forest types we are seeking to learn more about historical aspen patch size and distribution, so that we might use aspen to break up fuel continuity and connect to natural anchor points, such as rocky outcrops. Our treatments in aspen may include tree cutting followed by controlled burning and managing natural fire ignitions as weather and fuel conditions allow.

A demonstration of collaboration, planning and prioritization is required for almost all funding opportunities. This sub committee has now produced a forward-looking planning approach to connecting the Taos CWPP WUI areas and communities with their surrounding landscape and watersheds. Many of these implementation strategies are now listed and organized by watershed and community water uses and their associated WUI/FIREWISE activities.

Through the WUI Watershed Inventory the CORE Team has taken a significant next step in this 2016 CWPP Update to connecting communities to their watersheds. The concept generated from CORE Team member, Mark Schuetz in a reference to the many WUI related project work that has been initiated in Taos County and the idea that they treatment areas need to strung together such a string of pearls to develop a buffers of bio diverse mosaics and fuel break treatments around our communities.

## Taos County 2016 Community Wildfire Protection Plan (CWPP) Update "Connecting Communities and Watersheds"

#### **WUI Watershed Implementation Inventory**

#### Taos County Community based WUI/Watershed Inventory

Catastrophic wildfire not only threatens our public safety to home and lives, but it also can threaten the source of water from the watershed above the community. Because most all of Taos County communities are near or within the Sangre de Cristo mountains, communities are closely connected to these upland forests for their water uses. The 2016 Taos CWPP addresses that connection between the public safety of communities and the public welfare of watersheds and their source of water.



The Hondo/Lama wildfire consumed 22 homes and 10,000 acres in 36 hours completely removing the forest from several watershed that source from Flag Mountain

Photo Credit: Ron Gardiner

Through the **WUI Watershed implementation** inventory, the CWPP organizational outline and structure will serve the integration of CWPP goals and WUI areas into a broader watershed organization. While this 2016 CWPP Update has an authority to identify WUI areas and fuel loads that create a risk to local communities, more often these neighborhood interests are being connected to their greater watershed and the mountain forest source of water.

This element of the 2016 CWPP Update will serve to organize Taos County's ongoing WUI activities on a watershed basis. It will be organized on the map and in text by their common named streams and watersheds that provide water to these communities. It will be organized from upstream in Taos County to

downstream, progressively along the Rio Grande. The goal of the 2016 Taos CORE Team will be to merge the 2009 WUI areas that supply our communities with drinking and irrigation water source watersheds or their "areas of origin".

This inventory enables the CORE Team to identify WUI Planning by both the community involved or affected and the watershed at risk of catastrophic wildfire. Currently the Carson National Forest is in the process of identifying and rank priority watersheds under their own criteria. This inventory is an attempt to organize WUI areas and planning according to the community based socio-economic values identifies in the CWPP CORE Team values Statement.

#### 2016 CWPP Update/CORE Team Goals

- Community FIREWISE awareness
- Community defensible space
- Community fuel breaks
- Community firefighting capacity and coordination
- Community landscape resilience
- Community watershed protection
- Community Water source protection
- Local forest mosaics of diversity

The Taos County CWPP CORE team is expanding into a broader landscape approach to the CORE team's planning efforts through the Landscape Restoration Strategy developed through a sub committee of the CORE Team, the Taos Valley Watershed Coalition. It is a unique planning opportunity to connect community water use and areas of origins with hazardous fuels areas and plan for the greater landscape context for protection and restoration of Taos County watersheds and landscape.

Another goal of the 2016 Taos CORE Team will be to merge compatible USFS Carson NF maps of their priority watersheds so that Taos County WUI Stakeholders may better align forest planning and management and NEPA compliance for USFS treatments on their watersheds with community goals.

Many of the activities below have been an outcomes and implementation strategies of the 2009 Taos CWPP Update, "Living with Fire" and a growing awareness of the cost in the aftermath of wildfire in northern New Mexico. This inventory in the 2016 Taos CWPP Update "Connecting Communities and watersheds" will serve as the next step in evaluating hazardous fuels risks to communities and their watersheds.



The Taos CWPP CORE Team works around maps and the planning table identifying risk to community and forests.

Photo Credit: Ron Gardiner

In an article published by Forest Guild's Eytan Krasilovsky in the Fire Adapted Communities web site, Eytan makes the below observations about the collaborative strength of the Taos County CWPP CORE Team.

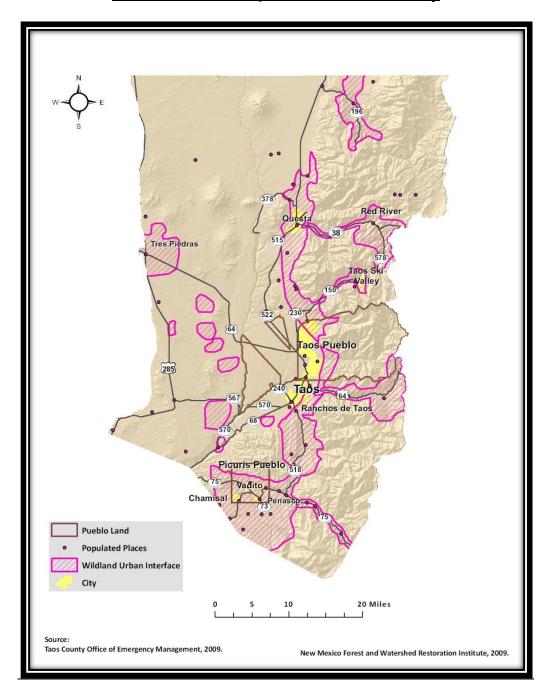
(Read the article in full @ http://facnetwork.org/learning-in-taos-new-mexico-part-2-cwpp-updates-and-leveraging-resources/)

This (2016 Taos CWPP) update is unique in that it is organizing community risk by watershed, described by the Land and Water Clinic planner Ron Gardiner as a "WUI Watershed Inventory." Ron's rationale is that most of the resource-based communities in Taos County have deep connections to their watershed through their agricultural sector that used, or still use, the acequia (ditch) irrigation system. The acequia system uses a complex series of ditches and feeder ditches to deliver precious surface water to agricultural users. It also allocates water and maintains the system through democratic community cooperation.

While wildfires can and do cross-watershed boundaries, post-wildfire effects such as flooding, erosion and sedimentation do not, unless they travel down from a smaller watershed to a larger one. So in this approach, the CWPP will both evaluate and address each community's risk and organize communities and wildlands-urban interface areas by watershed. Each community needs to pursue the planning and

mitigation efforts that best address its needs. But, when they do experience wildfire, they will experience post-wildfire effects together as residents of one watershed.

### **WUI Watershed Implementation Inventory**



#### Rio Costilla WUI Watershed

#### \*Major land ownership:

- USFS Carson National Forest/Valle Vidal Unit
- Rio Costilla Cattle and Livestock Association
- Turner Vermejo Ranch
- Private lands (Communities of Amalia/Costilla)
- Ski Rio Subdivision

#### \*WUI/forestry/watershed work

- Private lands logging on RCCLA
- Private lands logging on Vermejo Ranch
- Comanche Creek Riparian Restoration
- Amalia VFD sprinklers/VFA grant

#### \*Water Users:

- Costilla MDWCD
- Amalia MDWCD
- Acequia Madre Ditch
- Rio Costilla Ditch
- Jaroso Ditch Colo.
- Recreational Trout Fishery

#### **Latir Creek WUI Watershed**

#### \*Major watershed land ownership:

- USFS Carson NF/ Latir Wilderness Area
- Private lands/Latir/El Rito
- Latir Mountain Ranch

#### \*WUI/Forestry/watershed work:

- Developing FIREWISE community
- 3 LVFD red card firefighters
- Private thinning

#### \*Watershed Water Users:

Cerro Ditch/Latir/Buena Vista/Cerro

<sup>\*</sup>Projects in Planning: None known

<sup>\*</sup>Proposed Implementation strategies: None known

- Latir MDWCD
- Cerro MDWCD

#### Cerro/Buena Vista

#### \*Major watershed land ownership:

- BLM/Wild Rivers Area
- Private unincorporated lands
- NM SLO

#### \*WUI/Forestry/watershed work

 BLM Guadalupe Mtn. fuels treatments- WUI thinning, Burns within the Guadalupe mtns.

#### \*Watershed Water Users:

- Cerro Ditch Acequia Assoc.
- Cerro MDWCD

#### <u>Pinabete/ Buen Pastor</u> (<u>Unincorporated subdivision</u>)

#### \*Major watershed land ownership:

- USFS Carson NF/ Latir Wilderness Area
- Private unincorporated subdivision lands

#### \*WUI/Forestry/watershed work:

None known

#### \*Watershed Water Users:

Private lands wells

\*Projects in Planning: None known

\*Proposed Implementation strategies: None known

#### **Red River WUI Watershed**

#### \*Major watershed land ownership:

- USFS Carson NF Questa RD
- Private lands ownerships
- Chevron Mining

<sup>\*</sup>Projects in Planning: None known

<sup>\*</sup>Proposed Implementation strategies: None known

<sup>\*</sup>Projects in Planning: BLM Thinning project/ Pile, Jackpot and broadcast burns

<sup>\*</sup>Proposed Implementation strategies: Proposed thinnings and burns to move environment to proper functioning

#### \*WUI/Forestry/watershed work:

• (See below)

#### \*Watershed Water Users:

- Town of Red River
- Village of Questa
- Citizen Acequia Ditch Assoc.
- Llano Ditch
- \*Projects in Planning: (See below)
- \*Proposed Implementation strategies: (See below)

#### **Upper Red River Valley**

#### \*Major watershed land ownership:

- USFS Carson NF/Wheeler and Columbine wilderness areas
- Private lands (Majority absentee landowners)

#### \*WUI/Forestry/watershed work:

- Wheeler Peak VFD
- Legacy Mining CERLA clean up
- NFL/Fourth of July Canyon
- NFL/Bob Cat Pass

#### \*Watershed Water Users:

- Private wells/septic tanks
- Recreational trout fishery

#### \*Proposed Implementation strategies:

Future thinning and maintenance of existing projects

#### **Town of Red River WUI**

#### \*Major watershed land ownership:

- USFS Carson NF/ Wheeler Peak/Columbine Wilderness
- Red River Ski Area
- Private lands

#### \*WUI/Forestry/watershed work:

1996 Enchanted Circle CWPP

<sup>\*</sup>Projects in Planning: None known

- Town of Red River/USDA/NFL Grant
- USDA/NFL/Pioneer Canyon
- Municipal Type #2 IA Firefighter crew
- USFS/EPA CERCLA legacy mining mitigation
- Town acquired public wood Chipper
- (2) Town of Red River/NMED river restoration projects

#### \*Watershed Water Users:

- Town of Red River municipal wells
- Town of Red River Water Waste Water Treatment Plant
- Recreational trout fishery

#### \*Projects in Planning:

- Secondary use of forest products slash/chips from NFL and private property thinning etc.
- Upper Bitter Creek

\*Proposed Implementation strategies: None known

#### Red River Canyon

#### \*Major watershed land ownership:

- USFS Carson NF/Columbine Wilderness
- Chevron Mining/Molycorp

#### \*WUI/Forestry/watershed work:

• Chevron CWPP...Anchor Point / Chris White..(Chris/Ernie follow up)

#### \*Watershed Water Users:

- Chevron Mining
- Recreational trout fishery

#### \*Projects in Planning:

Kit Carson utility line easement clearing

\*Proposed Implementation strategies: None known

#### Village of Questa WUI/Cabresto Creek Watershed

#### \*Major watershed land ownership:

Village of Questa/Private properties

USFS Carson NF/Questa RD/Columbine/Latir Wilderness

#### \*WUI/Forestry/watershed work:

- Village of Questa CWPP
- Village of Questa/Rocky Mtn. Youth Corps. El Medio CFRP (Ask Ernie)
- Taos Soil and Water Conservation District/private lands defensible space/fuel breaks...ongoing TSWCD Fire Prevention 80/20 cost share program
- NMAC Village of Questa Bosque Restoration Project
- Midnight Meadows Riparian Restoration
- Village of Questa/NM Game and Fish Eagle Rock Lake River Restoration
- Village of Questa/NM Game and Fish Red River Fish Hatchery River Restoration
- 1 Red Card Fire Fighter

#### \*Watershed Water Users:

- Village of Questa community wells
- Cabresto Dam and Reservoir
- Llano Acequia Ditch Assoc.
- Citizens' Acequia Ditch Assoc.
- Recreational trout fishery
- NM Game & Fish Red River Trout Hatchery

\*Proposed Implementation strategies: None known Lama WUI Watershed

#### \*Major watershed land ownership:

- USFS Carson NF/Questa RD
- Private lands Unincorporated community
- Lama Foundation

#### \*WUI/Forestry/watershed work:

- Lama/Questa/El Medio CFRP
- Lama VFD
- (5) 131-90 trained VFD members
- Lama Community WUI Task Force Proposal

#### \*Watershed Water Users:

- Private property wells
- Lama Foundation Spring Box
- Lama Acequia Ditch Assoc.

<sup>\*</sup>Projects in Planning: None known

<sup>\*</sup>Projects in Planning: None known

<sup>\*</sup>Proposed Implementation strategies: None known

#### San Cristobol/Kiowa Village WUI watershed

#### \*Major watershed land ownership:

- USFS Carson NF Questa RD
- Private lands
- UNM DH Lawrence Ranch

#### \*WUI/Forestry/watershed work:

- San Cristobol FIREWISE Community
- Developing CWPP candidate
- Developing a VFD, probationary
- USFS Carson NF/Kiowa/San Cristobol Treatment Area

#### \*Watershed Water Users:

- San Cristobol Acequia Ditch Assoc.
- San Cristobol MDWCD

#### \*Projects in Planning:

2015 RGWF/TVWC fuel break proposal

#### \*Proposed Implementation strategies:

UNM DH Lawrance Ranch forest treatments

#### Rio Hondo WUI Watershed

#### Taos Ski Valley WUI

#### \*Major watershed land ownership:

- USFS Carson NF/Questa RD/Wheeler Peak/Columbine Wilderness Areas
- Village of Taos Ski Valley
- Taos Ski Valley Ski Area
- Patison Land

#### \*WUI/Forestry/watershed work:

- Developing a Taos Ski Valley CWPP
- Community private lands thinning
- TSV incinerator slash
- TSV ski slopes fuel breaks/pile burns
- (19) Red Card Fire fighters TSV VFD
- TSWCD 80/20 costs share fire program
- Pile burning

#### \*Watershed Water Users:

- Private wells
- Village of Taos Ski Valley Water wells
- Village of Taos Ski Valley's water waste treatment plant
- Downstream Rio Grande water users
- Recreational trout fishery

#### \*Projects in Planning:

2016 RGWF/TVWC fuel break proposal

\*Proposed Implementation strategies: (?)

#### Rio Gallina/Deer Mesa Unincorporated subdivision

#### \*Major watershed land ownership:

- USFS Carson NF
- Gallina Canyon/Deer Mesa Subdivision

#### \*WUI/Forestry/watershed work:

- Greater Gallina Canyon/Deer Mesa FIREWISE community
- TSWCD 80/20 cost share fire prevention program
- Chipper days
- USFS Carson NF/Kiowa/San Cristobol Treatment Area
- Kiowa/San Cristobol Treatment Area NEPA
- Community ingress egress thinning

#### \*Projects in Planning:

USFS Carson NF/Kiowa/San Cristobol Treatment Area

### \*Proposed Implementation strategies:

- Reapply for NFL Grant opportunities
- Address ingress/egress single road issues

#### \*Watershed Water Users:

Private lands wells

#### Hondo/Des Montes WUI

#### \*Major watershed land ownership:

- USFS Carson NF/Questa RD
- Traditional communities/private lands

#### \*WUI/Forestry/watershed work: None known

#### \*Watershed Water Users:

- Several acequia ditches
- Recreational trout fishery

Greater VFD involvement in FIREWISE/WUI/CWPP

#### **Rio Pueblo Watershed**

#### Taos Pueblo Blue Lake Watershed/ Rio Lucero

#### \*Major watershed land ownership:

- Taos Pueblo Tribal Government
- Scared Blue Lake Watershed Wilderness

#### \*WUI/Forestry/watershed work:

- 2009 Taos Pueblo CWPP
- Dept. Natural Resources Wilderness Program that maintains boundaries trails
- Taos Pueblo War Chief Office
- Taos Pueblo Environmental Office Wetlands Restoration EPA
- Water Adjudication Division/Buffalo Pasture/flushing meadows
- Fire management program/DNR wildlands/20 man IA Snowballs crew thinning crew
- Taos Pueblo NFL Grant/NM Forestry 350 acres \$ 750K
- Taos Pueblo Fuel Break project one and two USFS hazard mitigation funds for wildfire implemented by fire crews

#### \*Watershed Water Users:

- 1000 vr. continuous traditional water uses
- Taos Pueblo Water Utility Services
- Agricultural and irrigated lands
- Sustainable fishery (Unique Rio Grande Cutthroat)
- Rio Grande downstream water users
- Buffalo pastures

#### \*Projects in Planning:

- 2015 RGWF/TVWC proposal/update forest management plan
- Taos Tribal Forest Protection Act/ boundary
- RTRL Reserve Treat Rights lands Partnerships with boundaries

<sup>\*</sup>Projects in Planning: None known

<sup>\*</sup>Proposed Implementation strategies: None known

#### \*Proposed Implementation strategies:

 Acquiring administrative access to the wilderness for forest fuels treatments/ecological studies and monitoring

#### El Salto WUI Watershed

#### \*Major watershed land ownership:

- El Salto Land Assoc.
- USFS Carson NF/Questa RD/Wheeler Peak Wilderness

#### \*WUI/Forestry/watershed work:

- 2015 RGWF/TVWC proposed project
- TSWCD 80/20 cost share Fire prevention/El Salto Private logging
- El Salto FIREWISE Community

#### \*Watershed Water Users:

- Acequia Madre Arroyo Seco
- Arroyo Seco MDWCD
- Temporal Acequia
- Trout fishery

#### \*Projects in Planning:

- RGWF/Taos Valley Watershed Coalition
- TSWCD 1-4 ac projects
- Private lands contract thinning 10 ac ingress egress thinning (10 land owners)
- Bosque initiatives

#### \*Proposed Implementation strategies:

- Acequia maintenance slash disposal
- · Grasslands, fields treatment and management
- RGWF/TVWC proposal Fuels break project

#### Rio Fernando/Taos Canyon

#### \*Major watershed land ownership:

- USFS Carson NF / Camino Real RD
- Private lands

#### \*WUI/Forestry/watershed work:

- Valle Escondito FIREWISE community
- Taos Canyon/Rio Fernando FIREWISE Community

- 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
- Taos Pines CFRP/Coulfax County Watershed boundary
- USDA \$280K NFL Grant/Taos County cross canyon fuel breaks (124 acres) (30 private properties)
- USFS (Call Gabe/Neihmeyer)
- Demonstration Watershed/Heinrich Bill
- 2015 RGWF/TVWC Pueblo Ridge proposal
- TSWCD 80/20 cost share Fire Prevention Program (#\_\_\_\_\_Private properties)

#### \*Watershed Water Users:

- Town Taos Water Utility
- Canon MDWCD
- Canon Del Sur diversion
- 6 acequia
- Private wells
- Recreational trout fishery

#### **Projects in Planning:**

• 2015 RGWF/TVWC Pueblo Ridge proposal

#### \*Proposed Implementation strategies:

- RGWF
- Engage Town of Taos government in water source watershed protection

#### <u>Wiemer Heights</u> Unincorporated subdivision WUI

#### -----

- \*Major watershed land ownership:
  - USFS Carson NF Camino Real RD
  - Unincorporated subdivision

<sup>\*</sup>WUI/Forestry/watershed work: None known

<sup>\*</sup>Watershed Water Users: Private lands wells

<sup>\*</sup>Projects in Planning: None known

<sup>\*</sup>Proposed Implementation strategies: None known

#### Pot Creek/Little Rio Grande Watershed

#### \*Major watershed land ownership:

- USFS Carson NF/Camino Real RD
- SMU Ft. Burgwin
- Private lands

#### \*WUI/Forestry/watershed work:

- 2005 Pot Creek CWPP
- Happy Potters American Recovery Act thinning treatment
- 2015 NFL grant 135 ac SMU Cross Canyon fuel breaks
- TSWCD 80/20 cost share Fire Prevention Program
- Developing FIREWISE Community

#### \*Watershed Water Users:

- El Valle MDWCD
- Ranchos Acequia
- Recreational trout fishery

#### \*Projects in Planning:

- Turkey Park Treatment area
- 2015 RGWF/TVWC proposal/Green fuel wood harvesting

#### \*Proposed Implementation strategies:

2015 RGWF/TVWC proposal

#### **Petaca Watershed**

#### **Tres Piedras**

#### \*Major watershed land ownership:

- USFS Carson NF/Tres Piedras
- BLM Taos Office
- Private lands
- \*WUI/Forestry/watershed work:
- \*Watershed Water Users:
- \*Projects in Planning:
- \*Proposed Implementation strategies: Proposed thinnings and burns to move environment to proper functioning

#### Wind Mtn.

#### **Unincorporated subdivision WUI**

#### \*Major watershed land ownership:

- BLM Taos office
- Private unincorporated subdivision

#### \*WUI/Forestry/watershed work:

- BLM Wind Mtn. fuels treatments- WUI thinning, Burns within the Wind mtn.
- \*Watershed Water Users:
- \*Projects in Planning: BLM Thinning project/ Pile, Jackpot and broadcast burns
- \*Proposed Implementation strategies: Proposed thinnings and burns to move environment to proper functioning

#### Rio Grande Del Norte National Monument

#### \*Major watershed land ownership:

- BLM Taos Office
- NM State Land Office

#### \*WUI/Forestry/watershed work:

- Cerro Montoso thinning and burning projects
- Cerro Olla prescribed burn projects
- Cerro Chiflo prescribed burn projects

#### \*Watershed Water Users:

Wildlife

#### \*Projects in Planning:

- Rio Grande Del Norte National Monument Management Plan
- BLM Thinning project/ Pile, Jackpot and broadcast burns

#### \*Proposed Implementation strategies:

- Proposed thinnings and burns to move environment to proper functioning
- Rio Grande Del Norte National Monument Management Plan

#### Three Peaks

#### Unincorporated subdivision WUI

- \*Major watershed land ownership:
- \*WUI/Forestry/watershed work:
- \*Watershed Water Users:
- \*Projects in Planning:
- \*Proposed Implementation strategies:

#### **Two Peaks**

Unincorporated subdivision WUI

#### Major watershed land ownership:

WUI/Forestry/watershed work:

Tony Benson Ranch

**Watershed Water Users:** 

Projects in Planning:

Proposed Implementation strategies:

#### Carson

**Unincorporated subdivision WUI** 

#### \*Major watershed land ownership:

- BLM/Taos Office
- Private lands

#### \*WUI/Forestry/watershed work:

- Carson VFD
- Carson VFD (8) Red Card Firefighters

#### \*Watershed Water Users:

- West Rim water users
- \*Projects in Planning:
- \*Proposed Implementation strategies:

#### Pilar

Unincorporated traditional community WUI

- \*Major watershed land ownership:
  - BLM Taos Office
- \*WUI/Forestry/watershed work:
- \*Watershed Water Users:
- \*Projects in Planning:
- \*Proposed Implementation strategies:

#### Rio Embudo/Rio Santa Barbara Watershed

- \*Major watershed land ownership:
  - BLM Taos Office
- \*WUI/Forestry/watershed work:
  - BLM Copperhill fuels treatments- WUI thinning, Burns within the Copperhill
- \*Watershed Water Users:
- \*Projects in Planning:
  - BLM Thinning project/ Pile, Jackpot and broadcast burns
  - CFRP EA and implementation
- \*Proposed Implementation strategies: Proposed thinnings and burns to move environment to proper functioning

- Template:
  \*Major watershed land ownership:
  \*WUI/Forestry/watershed work:
  \*Projects in Planning:

- \*Proposed Implementation strategies: \*Watershed Water Users:

# Taos County 2016 Community Wildfire Protection Plan (CWPP) Update "Connecting Communities and Watersheds"

#### **FIREWISE Guide**

#### Actions to Reduce Structure Ignitability

What you can do as Taos County resident and property owner?

#### • <u>Create a Survivable Space</u>

Do you have 30 to 100 ft of space surrounding your home that is Lean, Clean and Green?

- 1. Lean: Prune shrubs and cut back tree branches, especially within 15 ft of your chimney.
- **2. Clean:** Remove all dead plant material from around your home; this includes dead leaves, dry vegetation and even stacked firewood. Prune large trees 6 to 10 ft high to prevent ground fires from spreading to tree tops.
- 3. Green: Plant <u>fire-resistant vegetation</u> that is healthy and green throughout the year.



#### • Fire Resistant Construction

Brick, cement, plaster, stucco and concrete masonry resist heat and flames. Tempered and double pane glass windows can also make a home more resistant to the heat and flames of a wildfire.

Class A asphalt shingles, metal, tile and concrete roofing is also good protection for your home. A fire-resistant sub-roof can add an extra layer of protection.

Attachments to your home such as decks, porches or fences that are not made of a fire resistant material can start on fire and spread to the rest of your home.



#### • Emergency Access

Identify your home and neighborhood with legible and clearly marked street names and numbers so response vehicles can rapidly find the location of the emergency. Include a driveway that is at least 14 ft wide with a vertical clearance of 13 ft 6 in (per 1997 UFC, section 902.2.2.1) to provide access for emergency apparatus.

#### • Private Property Owner's "Fire Wise" Plan

A personal "Fire Wise Plan" should include, at a minimum, the following information:

- 1. A copy of the site plan.
- 2. Methods and timetables for controlling, changing or modifying areas on the property. Elements of the plan shall include removal of slash, snags, dead and/or vegetation, vegetation that may grow into or provide a hazard to overhead electrical lines, removal of ground fuels including forest litter, ladder fuels and the thinning and arrangement of live trees and planting of fire-resistive vegetation.
- **3.** A plan for maintaining these fuel reduction/management measures via the subdivision covenants throughout the existence of the subdivision.

The vegetation management plan shall also include the following values as they relate to the subdivision and shall consider the overriding requirement that the plan shall improve the overall health of the area ecosystem:

- **1.** Fire risk reduction
- 2. Aesthetic consideration
- 3. Functional aspects of the vegetation/environment
- 4. Cultural/Spiritual aspects

#### Have a Family Disaster Plan

The time to plan for an emergency is before the emergency happens. Take a few minutes to discuss with your family your personal evacuation plans. Pre-determine places to meet, secure critical medications, documents personal possessions and pets.

#### • Important Fire Wise concepts

"Fire Wise" practices increase the likelihood that homes, office buildings, and other community resources (watersheds, infrastructure such as roads or communication lines, and other resources) will survive wildland fire damage.

#### • Three elements that are present in the WUI Wild-Land-Urban Interface zone are:

- (1) Wild-land fuels (trees and shrubs),
- (2) Urban fuels (homes and landscape plants), and
- (3) Limited fire protection resources.

In short, this zone is "where the leaves meet the eaves." The zone can be a house in the woodlands, a subdivision on the edge of a community, or a home with a combustible roof surrounded by large amounts of landscape vegetation. As people move into areas where fire plays a role, homes become a possible fuel source and the potential for human-caused ignitions increases.

• <u>Firefighters can't do it alone!</u> Communities need to balance the needs and values of both People and natural resources by taking action before fires start.

#### • Fire Wise practices can provide a survivable space for homes and communities.

- (1) use fire-resistant building materials, especially on the roof;
- (2) remove flammable materials from around homes;
- (3) create fire breaks with lawns, driveways, and walkways;
- (4) install screens on chimneys and burn barrels;
- (5) stack firewood away from homes;
- (6) provide appropriate space between plants and remove lower branches from trees;
- (7) make sure the home address is visible from the street.

#### Factors that may limit the access of firefighting resources

- 1. long narrow drives
- 2. continuous fuel loads that can carry from ground to crown
- 3. proximity of homes to fuels
- 4. Gravel vs paved
- 5. Grade steep vs flat
- 6. One way in, one way out
- 7. Street signs
- 8. Limitations (bridges, curves, locked gates)
- 9. Response time / distance
- 10. Water supply

#### Homes don't have to burn!

Work done around a home before a fire starts can save property and lives. Homeowners and communities, working as partners with firefighters, can effectively reduce losses caused by wild-land fires.

#### **NM Fire**

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.

Further NM Wildfire information may be accessed through a newly developed web site. This site will be updated as often as new information is available from the Southwest Coordination Center, individual forests, national parks, state lands, tribal lands and BLM offices. Our aim is to provide one website where the best available information and links related to fire and restrictions can be accessed

http://nmfireinfo.wordpress.com/















http://www.emnrd.state.nm.us

# Taos County 2016 Community Wildfire Protection Plan (CWPP) Update "Connecting Communities and Watersheds"

# **CWPP 2016 APPENDIX**

# CWPP Stakeholders Contact List (Contact information to be compiled and populated 2016)

Key CWPP Stakeholders		Affiliation	Phone	
1.	James Duran	CNF SO		
2.	Ray Corral	CNF FMO		
3.	Tammy Malone	CNF CRRD		
4.	Gabe Romero	CNF SO		
5.	Jack Lewis	CNF QRD		
6.	Furr	CNF TPRD		
7.	Dorotea Martinez	CNF WUI Outreach		
8.	Ray Coral	CNF Fuels		
9.	Steve Miranda	CNF Fuels		
10.	Ernie Lopez	NM Forestry		
11.	Dr. Kent Reid	NM FWRI ED		
12.	Pattie Dappin	NM FWRI GIS		
13.	Adrian	NM FWRI GIS		
14.	Linda Calhoun	Mayor RR		
15.	Adrian Ogelsby	UNM Utton Center		
16.	Sam Fernal	NMSU WRRI		
17.	Catherine Klett	NMSU WRRI		
Orteg				
18.	Russell Church	RR admin		
19.	Ron Burnham	RR Fire Chief		
20.	Renee Romero	Taos Pueblo		
21.	Mark Gallegos	Questa Mayor		
22.	Max Ortega	Questa Fire Chief		
23.	Mark Ortega	Dep. Questa Fire Chief		
24.	Jona Olson	Latir FD		
25.	Chris Cote	Taos WUI		
26.	Nathan Sanchez	Taos Planning		
27.	Jim Fambro	Taos County Commission		
28.	Edward Vigil	Taos Planning		
29.	Taos GIS	Taos Planning		
30.	Anita Padilla			
31.	Taos County EMS	Joaquin Gonzales		
32.	Taos County Fire			
Marshall				
33.	Dan Barrone	Taos Town mayor		
34.	Leroy Gonzales	Taos FD		
35.	Rick Bellis	Town manager		

36.	Judi Cantu	Town Council				
37.	Luiz Reyes	Kit Carson Coop				
38.	Dave Wallace	Taos Ski Valley FD				
39.	David Elliot	Taos Fire Chiefs Assoc.				
40.	Kathy Benett	Village of Taos Ski Valley				
41.	Roy Blaz	Lama FD				
42.	Jim Gilroy	San Cristobol				
43.	Peggy Nelson	San Cristobol				
44.	Fabie Romero	San Cristobol				
45.	Kyle Sahd	BLM				
46.	Mark Schuetz	El Salto Land associa				
47.	Martha Brown	El Salto				
48.	Pat Pacheco	BLM FMO				
49.	Mark Schuetz	TSWCD				
50.	Peter Vigil	TSWCD				
51.	Kurt Swearingen	TSWCD				
52.	Laura McCarthy	TNC/RGWF				
53.	Steve Bassett	TNC/GIS				
54.	Ernie Atencio	TNC				
55.	JR Logan	Taos News				
56.	Greg Medina	Pot Creek				
57.	Toni Hippeli	SMU				
58.	Bobbie Gonzales	Taos Rep./Pot Creek				
59.	Ben Thomas	RMYC				
60.	Carl Colonius	RMYC				
61.	Charles Ferguson	Taos Forest contractor				
62.	Shannon Romley	Amigos Bravos				
63.	Rachel Mondragon	Taos Forest contractor				
64.	Rachel Conn	Amigos Bravos				
65.	Cisco Gueverra	Amigos Bravos				
66.	Rosemary Romero	ISC Regional water Plan				
67.	Allen Vigil	ISC Regional water Plan				
68.	Joy Esparsen	NMAC				
69.	Trudy Healy	Healy Foundation				
70.	Jerry Yeargin	Taos canyon				
71.	Garrett Vene	NM Wildlife Federation				
	KLausen					
72.	Toner Mitchell	NM Trout Unlimited				
73.	Jacob Caldwell	LOR				
74.	Brad Hockmeyer	KTAO				
75.	J.R. Logan	Taos News				

# Taos County 2016 Community Wildfire Protection Plan (CWPP) Update "Connecting Communities and Watersheds"

# **CWPP-WUI/List of 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

# Taos County 2016 Community Wildfire Protection Plan (CWPP) Update "Connecting Communities and Watersheds"

# Appendix F: Taos CWPP 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 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:** The prime CWPP requirement is that 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 atrisk 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 <u>United States environmental laws</u> passed in the 1970s. As stated in section 2 of the act, it was designed to protect critically <u>imperiled species</u> from <u>extinction</u> as a "consequence of economic growth and development untendered by adequate concern and <u>conservation</u>.

# **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 a**lso 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 wild-land 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 <u>United States environmental law</u> that was signed into law on <u>January 1</u>, <u>1970</u> by <u>U.S. President Richard Nixon</u>. 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 <u>environmental impact statements</u> (EISs) for major U.S. federal government actions.

# Old growth tree

This is an old tree, 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 in 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.

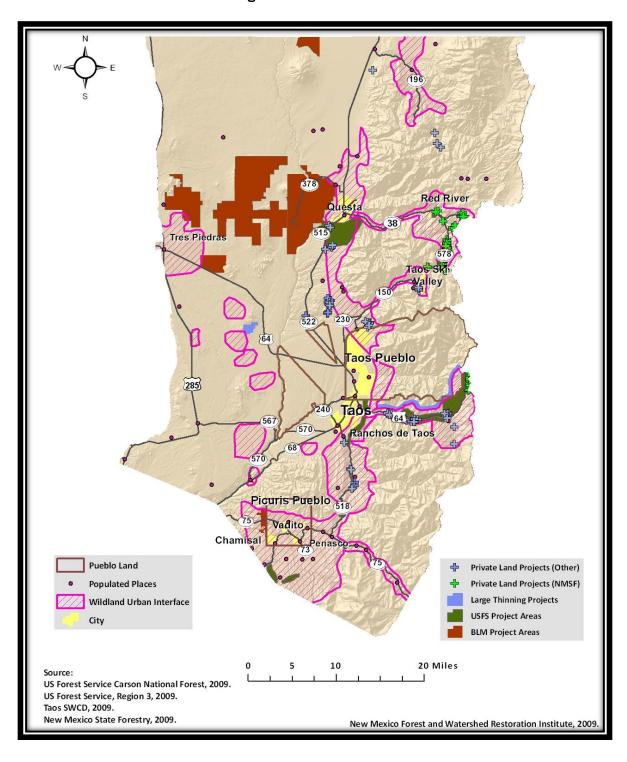
# Wild-land fire use

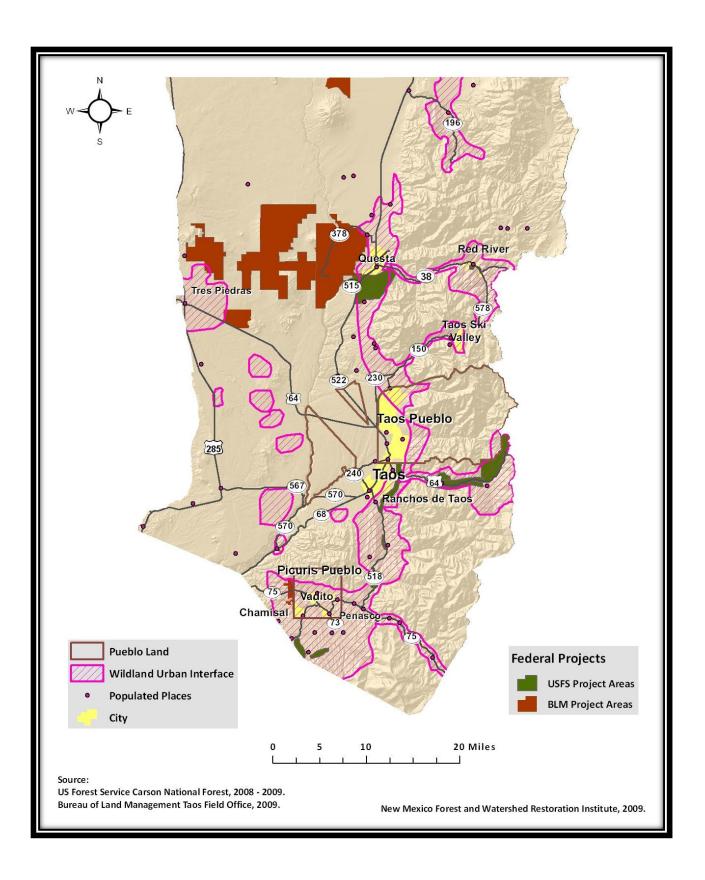
The management of naturally ignited wild-land fires to accomplish specific pre-stated resource management objectives in pre-defined geographic areas outlined in Fire Management Plans.

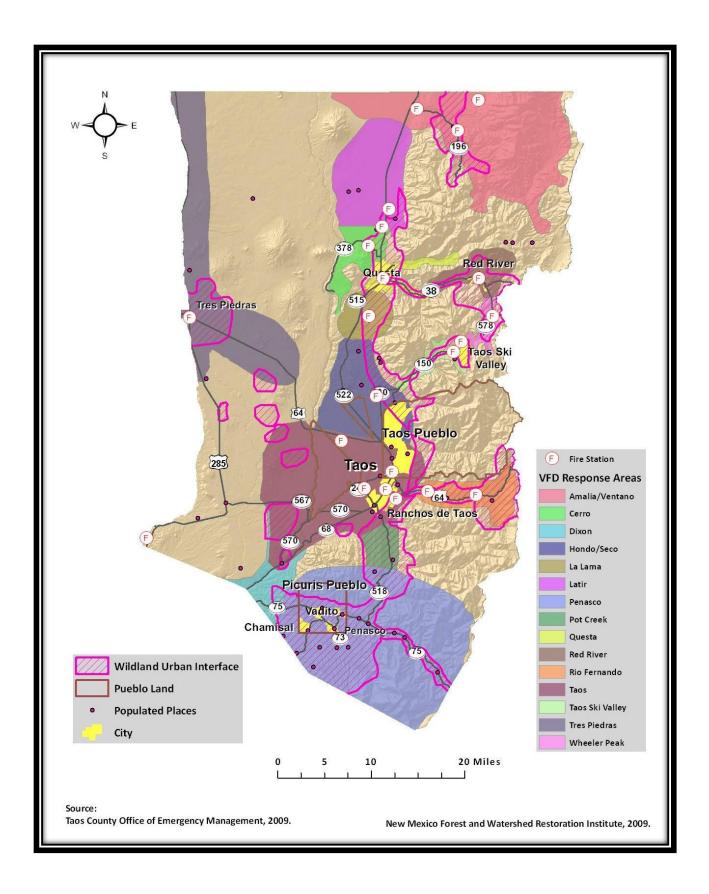
#### Wild-lands-urban interface

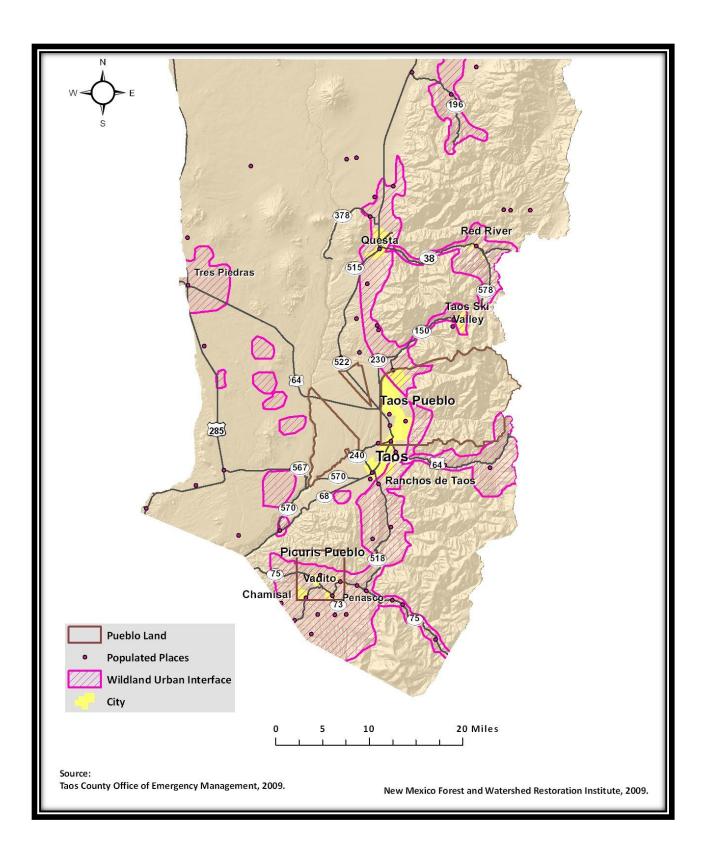
The WUI is the area or zone where structures and other human development meet to intermingle with undeveloped wild-lands or vegetative fuel. When homes blend together with the wild-land, a tremendous wildfire danger can exist. This creates the Wild-land/Urban Interface (WUI). It is the addition of homes 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.

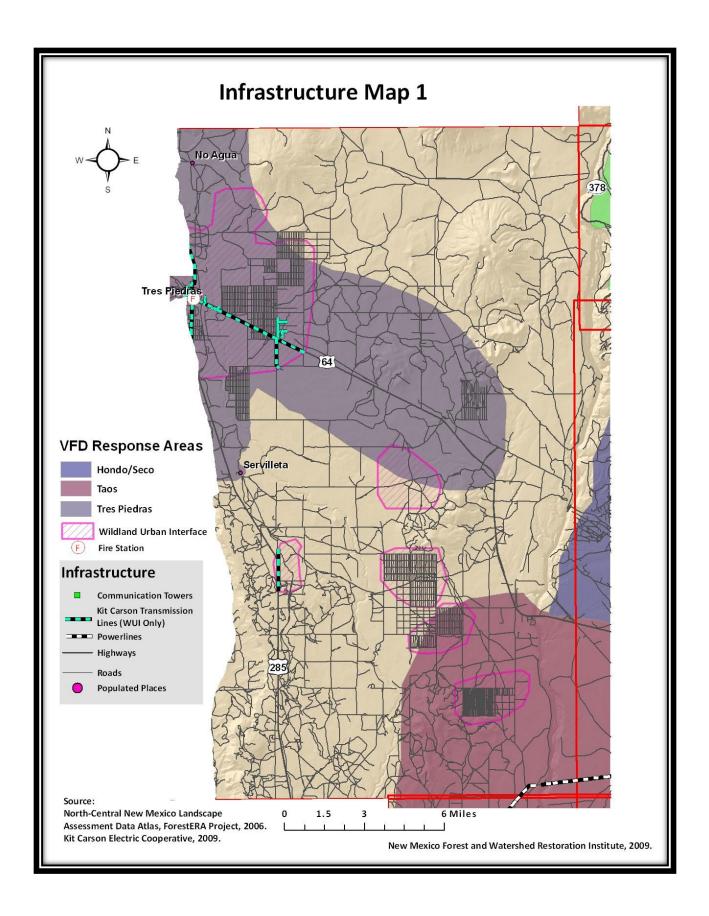
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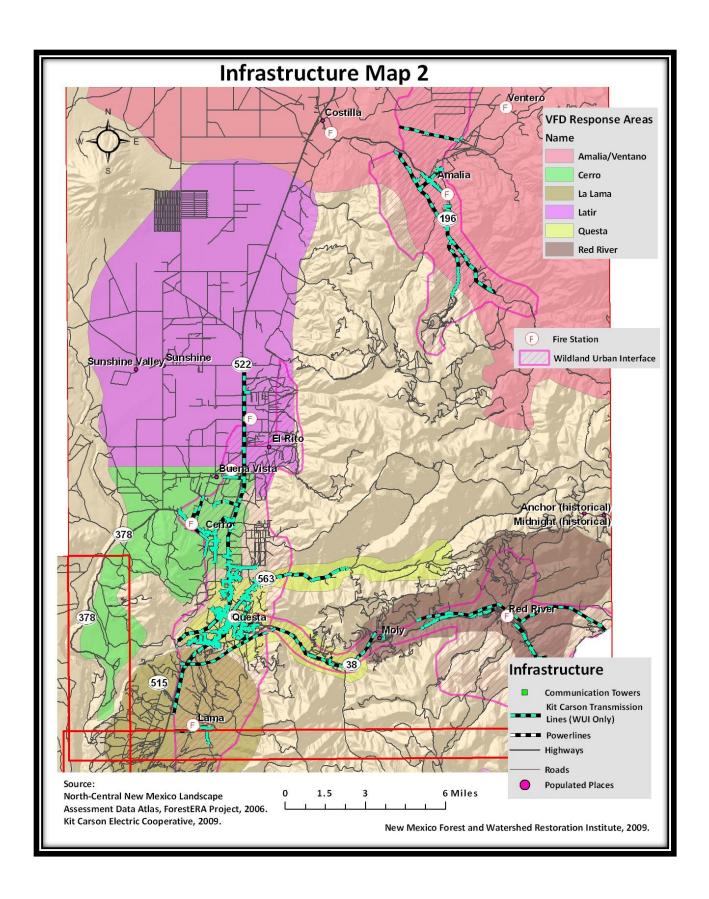


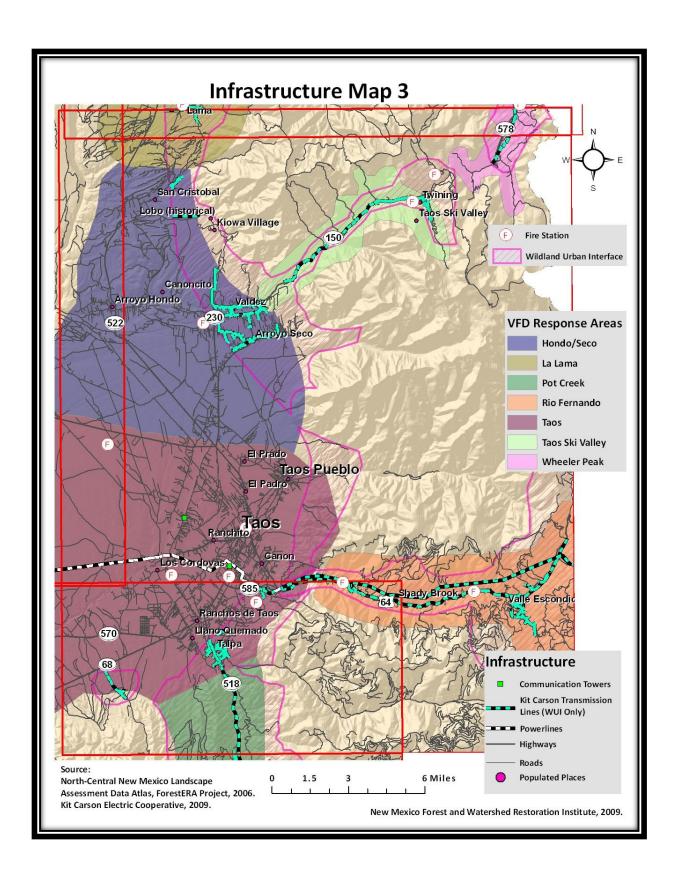


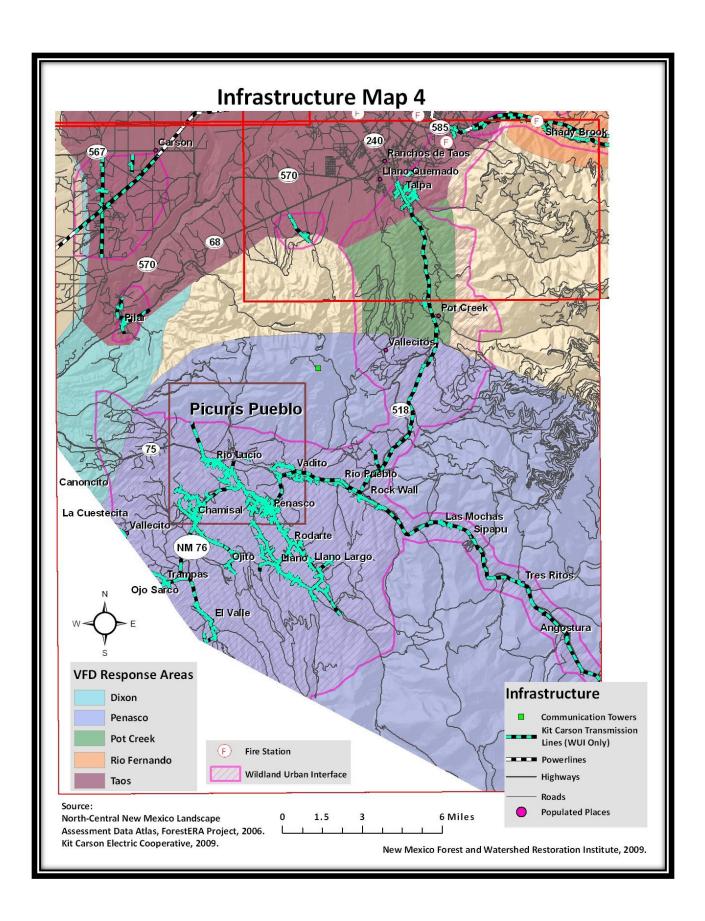


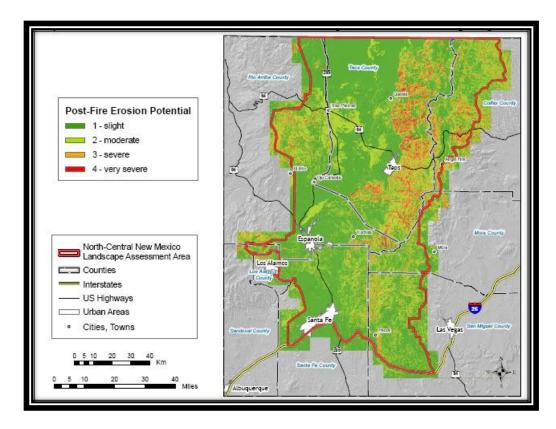


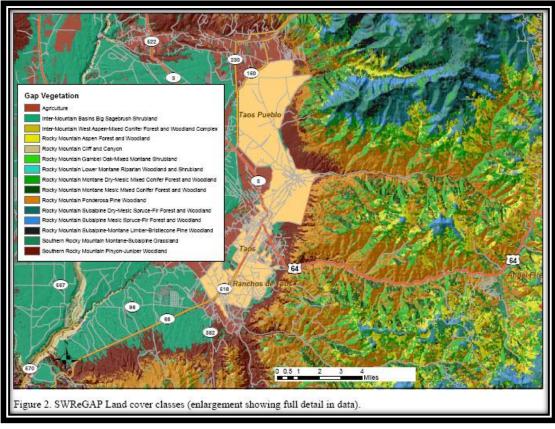


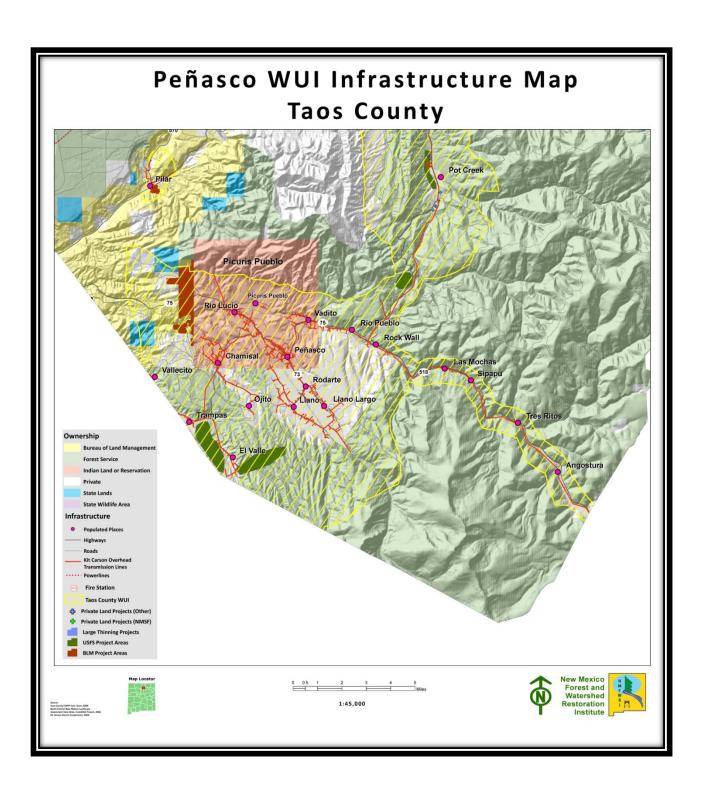


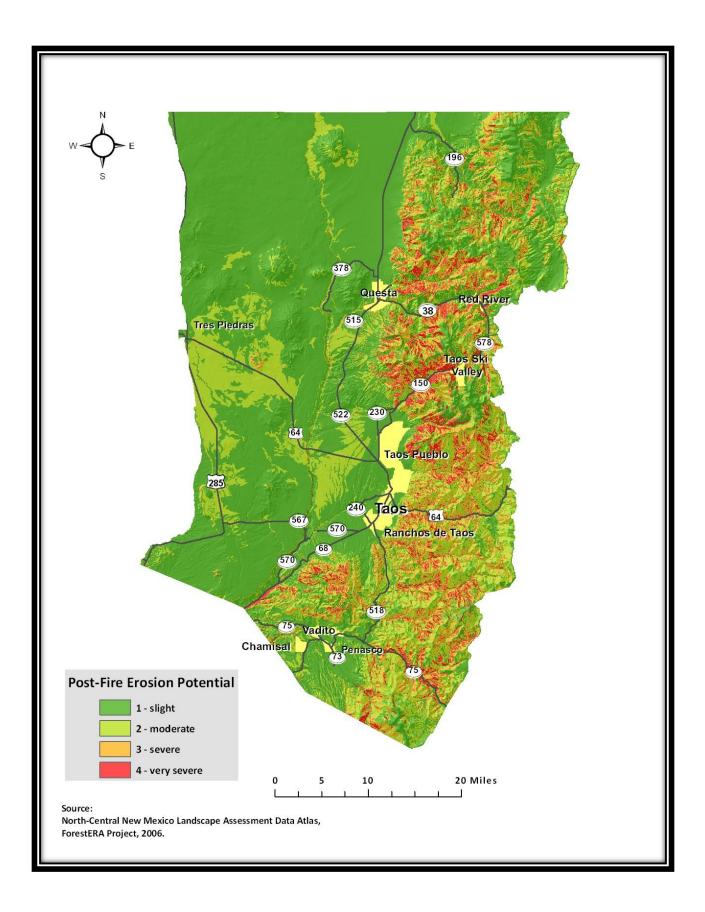












# **Map Appendix**

- Page 1 2009 WUI Projects Map
- Page 2 2009 Federal WUI Projects Map
- Page 3 20009 Fire District Response Map
- Page 4 2009 WUI Area Map
- Page 5 2009 WUI Area Infrastructure Map 1
- Page 6 –2009 WUI Area Infrastructure Map 2
- Page 7 –2009 WUI Area Infrastructure Map 3
- Page 8 –2009 WUI Area Infrastructure Map 4
- Page 9 –2009 Soil Erosion Map, 2009 Predominant Vegetation Type
- Page 10 2009 Penasco CWPP WUI Infrastructure Map
- Page 11 2009 Taos Valley Post-Fire Erosion Potential