

# EAST MOUNTAIN COMMUNITY WILDFIRE PROTECTION PLAN UPDATE

**June, 2015**

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# Executive Summary

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The rural communities east of the Sandia and Manzano Mountains are collectively referred to as the East Mountains. With approximately 25,000 residents, the area is New Mexico's largest wildland-urban interface community. Fires are common in the forest and residential neighborhoods but rapid response and favorable conditions have generally spared the area from wildfire impacts. However, recent fires in the nearby Manzano Mountains provide a glimpse of the devastation that could result from large-scale wildfire.

In response to the Federal Healthy Forests Restoration Act of 2003, a multi-jurisdictional team developed the East Mountain Area Community Wildfire Protection Plan (EMCWPP) in 2006. In 2012, Ciudad Soil and Water Conservation District completed a partial update to the plan. This update builds upon the 2012 effort and amends rather than replaces 2006 EMCWPP. The goals of the EMCWPP Update were as follows:

- Summarize progress on action items identified in 2006
- Gather public feedback on resident perceptions and needs regarding fire preparedness
- Depict current conditions with updated maps
- Highlight new community resources
- Identify current needs for fuels reduction, education, outreach, and planning

In recent years, the objectives for fire mitigation activities have shifted from preventing fire to accepting the inevitability of, and preparing for, fire. The focus on living with wildland fire is central to efforts such as the National Cohesive Strategy and Fire-Adapted Communities. Ideally, a holistic approach to wildland fire preparedness will improve the resilience of the fire-adapted ecosystems and residential communities of the East Mountains.

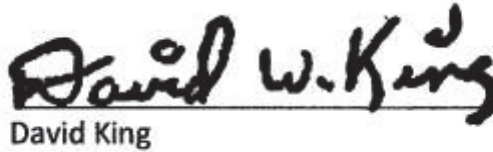
The undersigned entities participated in development of or reviewed and support the East Mountain Community Wildfire Protection Plan:

Ciudad SWCD  
Chairman

  
J. Steven Glass

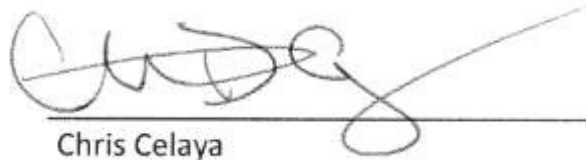
6/10/15  
Date

Edgewood SWCD  
Chairman

  
David King

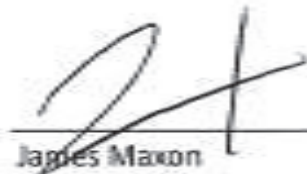
          
Date

Bernalillo County  
Fire Chief

  
Chris Celaya

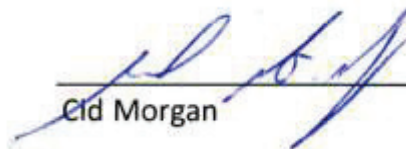
6-15-15  
Date

Sandoval County  
Fire Chief

  
James Maxon

6-15-15  
Date

USDA Forest Service  
Sandia District Ranger

  
Cid Morgan

6/12/2015  
Date

NM State Forestry  
District Forester

  
Todd Haines

6/15/15  
Date

The undersigned entities participated in development of or reviewed and support the East Mountain Community Wildfire Protection Plan:

Bernalillo County  
County Manager

  
\_\_\_\_\_  
Tom Zdunek Date 6/15/15

Sandoval County  
Manager

  
\_\_\_\_\_  
Phillip Rios Date 6/19/15

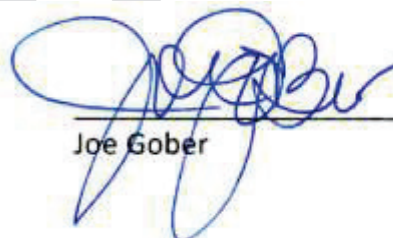
Village of Tijeras  
Mayor

  
\_\_\_\_\_  
Gloria Chavez Date 6-1-15

Village of Tijeras  
Fire Chief

  
\_\_\_\_\_  
Dave Bezy Date 5-28-15

La Madera  
District Chief

  
\_\_\_\_\_  
Joe Gober Date 6-15-2015

EMIFPA  
President

  
\_\_\_\_\_  
Chris Gober Date 15 Jun 2015

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# Introduction

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Since 2006, when the original East Mountain Community Wildfire Protection Plan (EMCWPP) was published, public perceptions about fire have been transformed by several record-breaking fire years. In late November, 2007, the Ojo Peak Fire burned more than 7000 acres in the Manzano Mountains. The following spring, Manzano Mountain communities suffered losses from two more fires and post-fire flood impacts continued for many years.

The 2011 fire season in the Southwest challenged basic assumptions about fire spread and behavior. The Las Conchas fire burned an area larger than the Sandia Mountain Wilderness in less than 12 hours. In the same year, the Track Fire near Raton jumped six lanes of Interstate 25 within two hours of ignition. In 2012, 242 homes were lost in the Little Bear Fire near Ruidoso, NM. In light of these events and ongoing drought, East Mountain residents and emergency responders increasingly recognize the vulnerability of the largest wildland-urban interface in New Mexico. Although progress has been made on most of the action items identified in the original CWPP, there is still plenty of work ahead to make the East Mountains fire-adapted.

The 2015 EMCWPP Update focuses on new information and needs. For detailed background and history, please refer to the 2006 EMCWPP (available at <http://www.emnrd.state.nm.us/SFD/FireMgt/documents/EastMountainCWPP.pdf> ).

## Project Area

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The EMCWPP addresses a 240 square mile area of central New Mexico, east of the Sandia and Manzanita Mountains (see Figures 2 and 3). The project boundaries for the EMCWPP update are identical to the 2006 EMCWPP. About 30 communities are established across Bernalillo and Sandoval Counties. The area is almost evenly split between public and private ownership. The bulk of the public land is managed by the U.S. Department of Agriculture Forest Service (USFS), Cibola National Forest and Grasslands, Sandia Ranger District (see Figure 3).

**Figure 1. East Mountain Area - Looking southeast**



Other jurisdictions include the New Mexico State Land Office, Bernalillo County Open Space, Albuquerque Open Space and the U.S. Department of Defense. The southern portion of the Manzanita Mountains was withdrawn from USFS use in 1943. Public access is prohibited in the “Withdrawal Area” which is used by the U.S. Department of Energy, Department of Defense, and Kirtland Air Force Base for testing, storage, and safety buffer activities.

Across the private land of the East Mountains, 74% of all lots are less than 4 acres and about half the lots are currently vacant (North 14 Forum, 2013). Both new and old developments contain vacant lots with an average of 45% vacancy across all subdivisions. There are pockets of dense residential development scattered throughout the area and separated by large expanses of low population density (see Figure 4). Most of the project area falls within Ciudad Soil and Water Conservation District (SWCD) with smaller portions in Coronado and Edgewood SWCDs (see Figure 7).

## Fire Policy and Perception

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### National Cohesive Strategy

In 2009, Congress passed the Federal Land Assistance, Management and Enhancement or FLAME Act. The FLAME Act directs that a cohesive strategy be developed to address several topic areas. The goal is to create a national wildland fire management policy that incorporates the values and concerns of the public and all governments. The plan accepts that addressing wildfire is not simply a fire management, fire operations, or wildland-urban interface problem — it is a larger, more complex land management and societal issue. The vision for the next century is to:

*Safely and effectively extinguish fire, when needed; use fire where allowable; manage our natural resources; and as a Nation, live with wildland fire.*

Primary factors of the cohesive strategy:

1. **Restoring and maintaining resilient landscapes.** The strategy must recognize the current lack of ecosystem health and variability of this issue from geographic area to geographic area. Because landscape conditions and needs vary depending on local climate and fuel conditions, among other elements, the strategy will address landscapes on a regional and sub-regional scale.
2. **Creating fire-adapted communities.** The strategy will offer options and opportunities to engage communities and work with them to become more resistant to wildfire threats.
3. **Responding to Wildfires.** This element considers the full spectrum of fire management activities and recognizes the differences in missions among local, state, tribal and Federal agencies. The strategy offers collaboratively developed methodologies to move forward.



Figure 2. Project location map

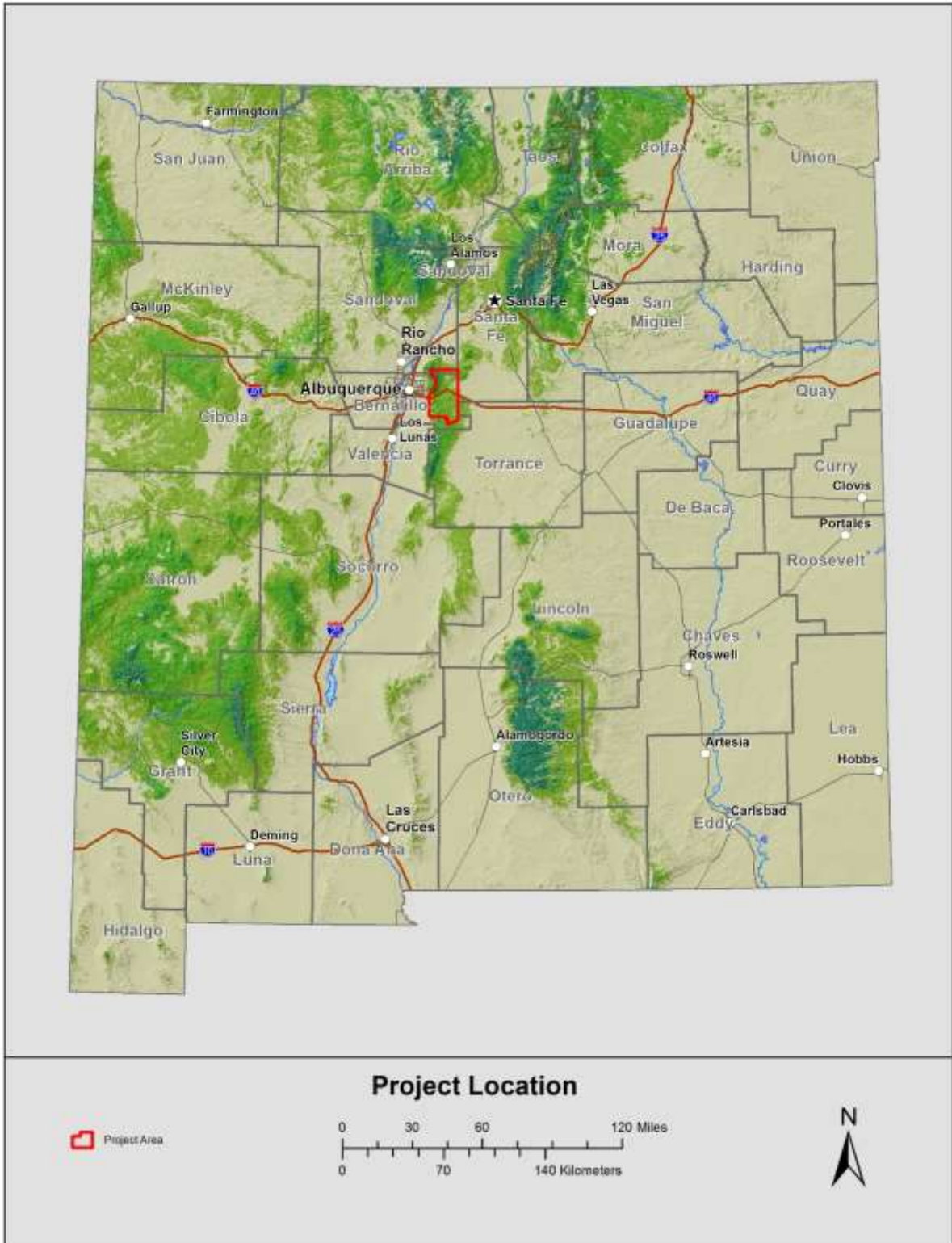


Figure 3. Land ownership map

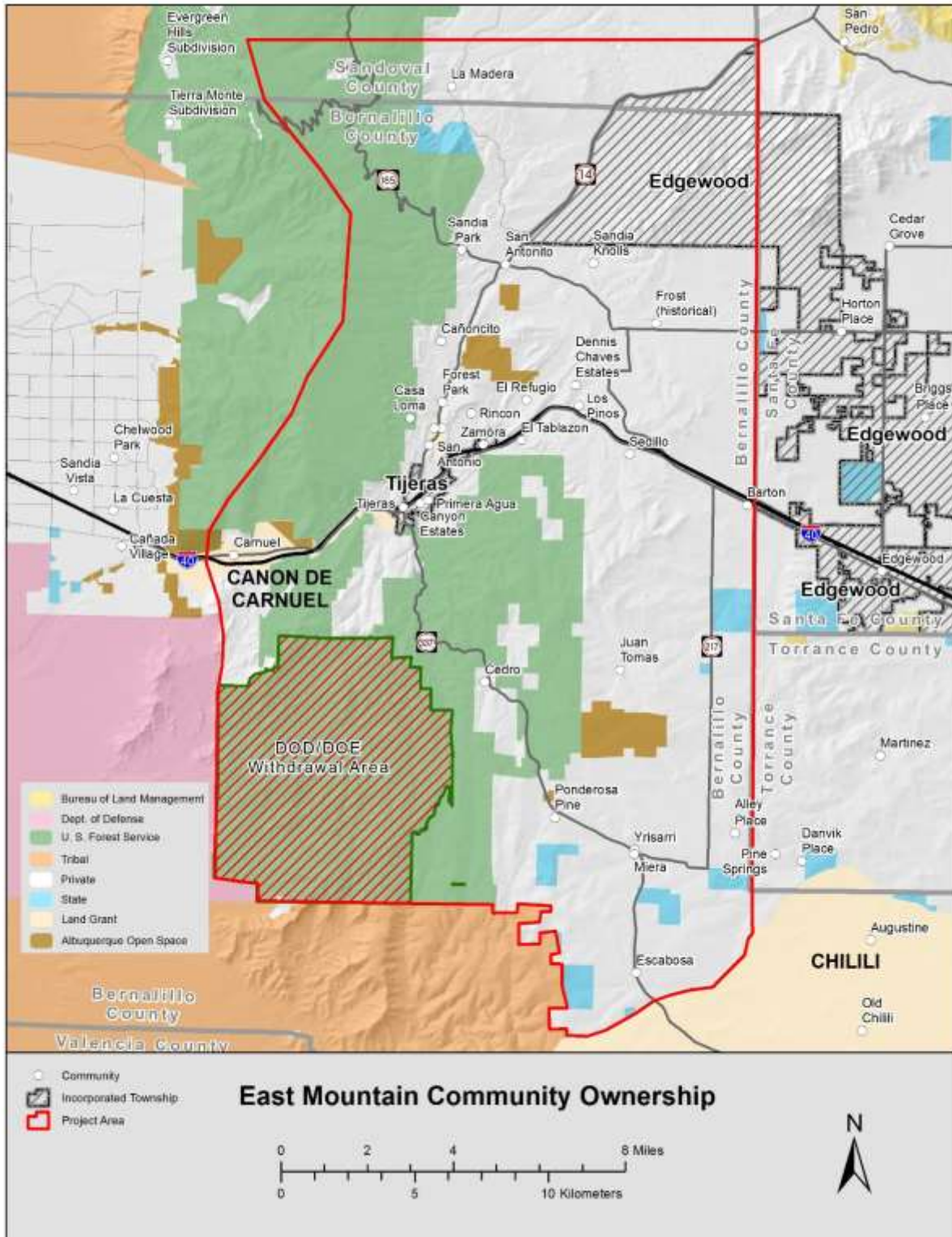
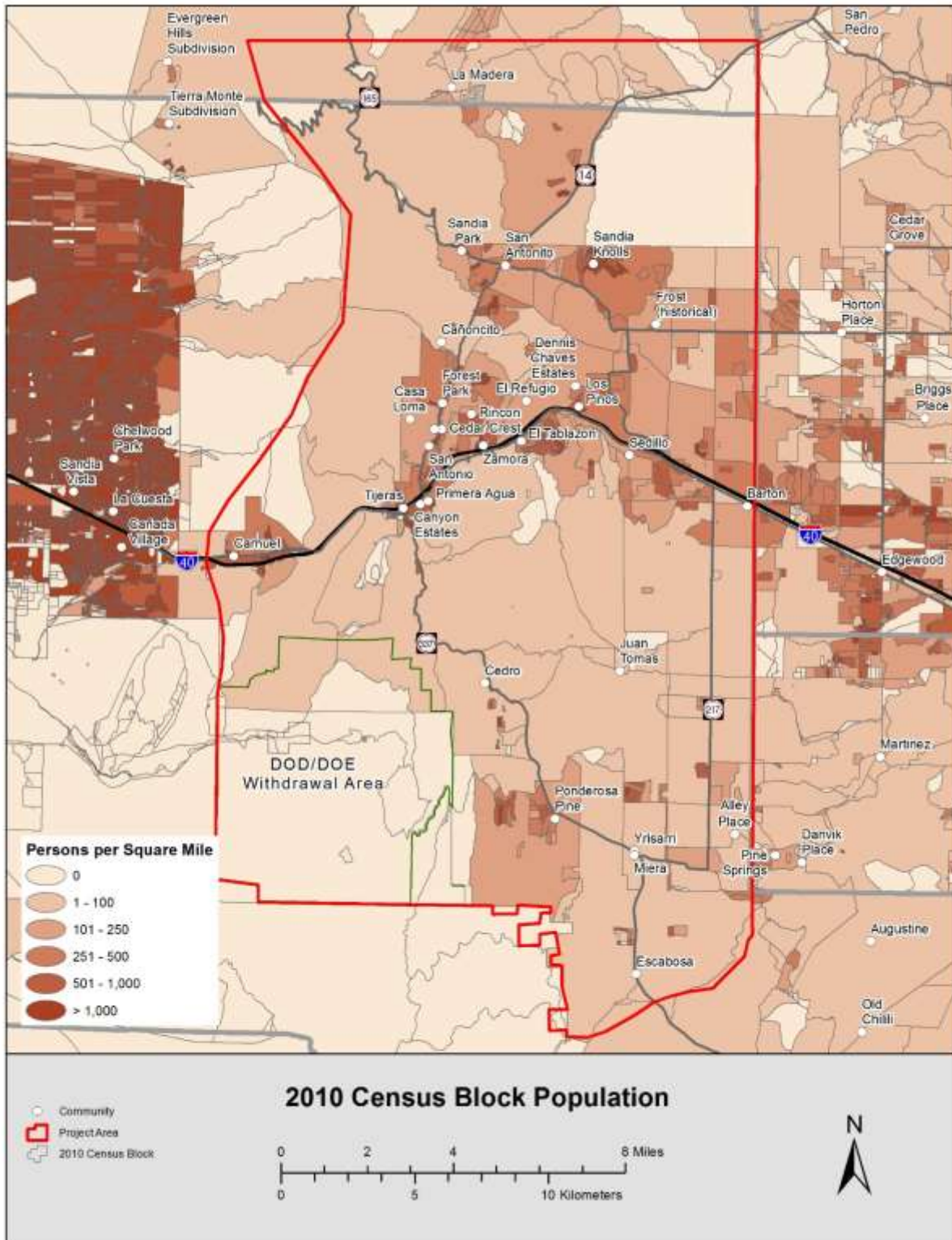


Figure 4. Population density map



## Fire Adapted Communities

Fire adapted communities are communities that acknowledge and take responsibility for their wildfire risk, and take actions to protect residents, homes, neighborhoods, businesses, infrastructure, forests, and open spaces. The fire-adapted vision is that:

- Homeowners build the concept of defensible space into their decisions
- Communities integrate wildland fire into land-use planning and infrastructure decisions
- Civic institutions collaborate to be prepared for wildfire
- Architects, planners, landscapers, and developers integrate realities of fire risk into their work flow
- Communities support land managers in their efforts to restore fire-adapted ecosystems with community support.

These long term goals will take years of work and numerous partners. A key component of reaching goals is the Fire Adapted Community Learning Network (FACLN). The Santa Fe FACLN hub is supporting fire-adapted progress in the East Mountains. The FACLN consolidates ideas, innovations, and best practices from wherever they emerge in the country and adapts them to New Mexico. Lessons learned here are also shared to help other communities become fire adapted.

## Public Perceptions

As part of the EMCWPP outreach process, a survey was developed to determine how best to facilitate community wildfire preparedness. A copy of the survey is provided in Appendix A and survey results are provided in Appendix B. The survey was developed by the EMCWPP core team with vital input from USFS Social Scientist and Research Forester, Sarah McCaffrey. Key findings based on 250 resident responses:

- 77% reside on properties 5 acres or smaller
- 95% are concerned about wildfire in the community.
- 85% are concerned about the health of the forest.
- More than half are concerned about the condition of neighboring properties.
- Most residences (83%) are located in pinon-juniper woodland.
- 62% use wood as one of their home heating methods
- Those homes that burn wood use an average of 2 cords per year
- 77% would likely participate in subsidized green waste disposal.
- About 70% have implemented defensible space actions.
- 70% would like to have a free home wildfire risk assessment.
- 64% would participate in evacuation classes and 64% have an evacuation plan.
- Fewer people cooperate with their neighbors on fuel reduction than those who do.
- 27% are unsure about who to call for tree removal work.

# Current Conditions

## Hazard Assessment

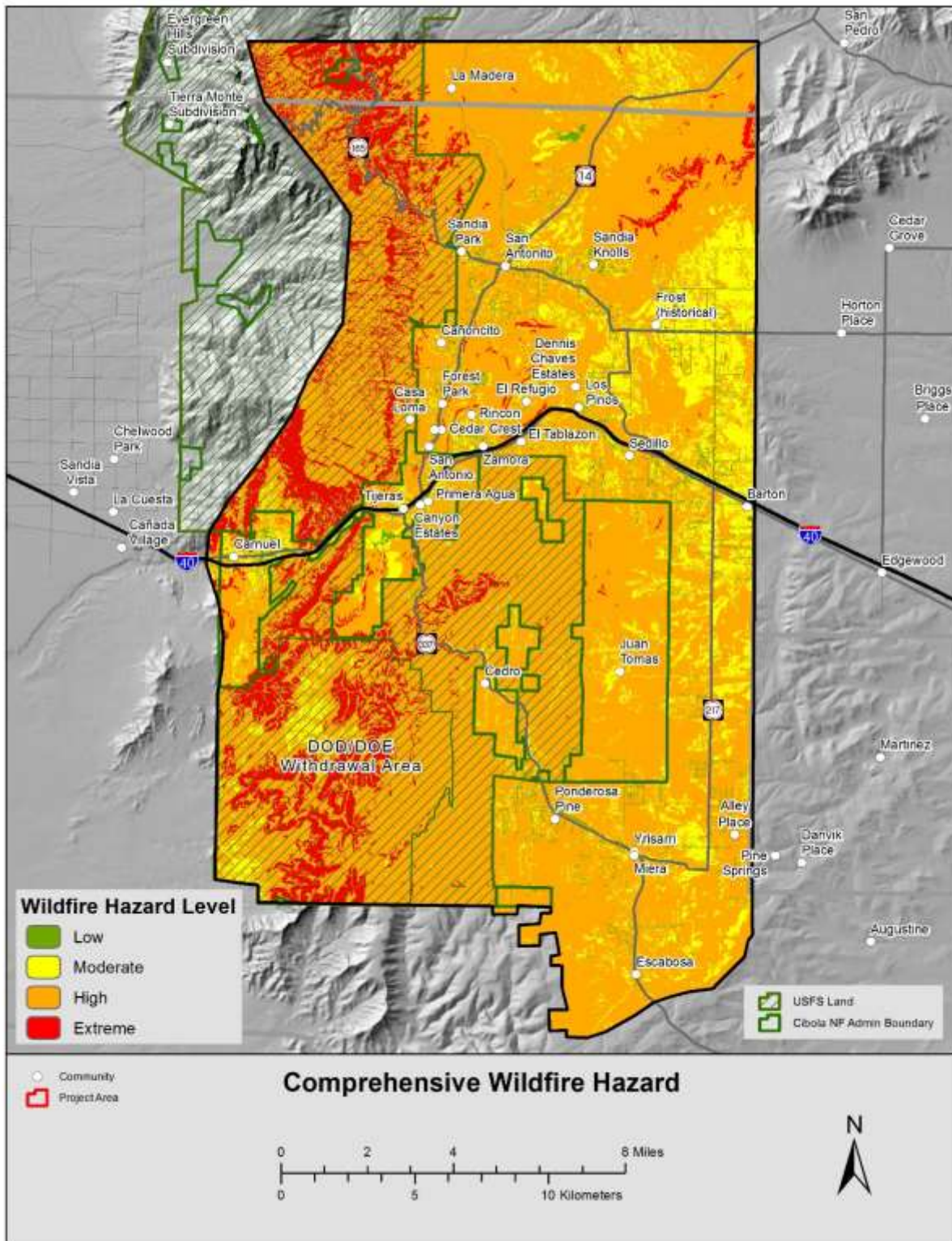
### Comprehensive Wildfire Hazard

Following the methodology used in the 2006 EMCWPP, a comprehensive hazard map was developed with current input data to characterize the risk of wildfire across the project area (see Table 1 and Figure 5). The highest concentrations of extreme hazard occur in the Sandia Mountain Wilderness and the Withdrawal Area. However, high and extreme hazards extend across many residential communities as well.

**Table 1. Hazard analysis layers, sources, and weights**

Layer	Source	Year	Weight (%)	Category (value)
Fuel model	Landfire 2012 Existing vegetation type (recoded by NMFWR and NMHU)	2012	45	1: water, urban, rock outcrops
				2: grassland, prairie, fields
				3: piñon-juniper shrubland, ponderosa
				4: mixed conifer
Slope	National Elevation Dataset USGS	2014	30	1: < 10%
				2: 10 - 20%
				3: 20 - 40%
				4: > 40%
Proximity to fire station	NM RGIS and Bernalillo County	2015	5	1: < 2 miles
				2: 2 - 5 miles
				3: 5 - 10 miles
				4: > 10 miles
Proximity to water sources for firefighting	Bernalillo County	2015	10	1: 500 feet
				2: 500 - 1000 feet
				3: 1000 - 5000 feet
				4: > 5000 feet
Proximity to roads	GIS Program/Bernalillo County Public Works Division, Sandoval County Roads, USFS Cibola NF Roads	2012 - 2015	5	1: < 50 feet
				2: 50 - 100 feet
				3: 100 - 200 feet
				4: > 200 feet
Dead-end roads	GIS Program/Bernalillo County Public Works Division, Sandoval County Roads, USFS Cibola NF Roads	2012 - 2015	5	1: > 0.25 miles from dead-end road
				4: < 0.25 mile from dead-end road

Figure 5. Comprehensive hazard map



In 2013, CoreLogic produced a report that evaluated residential wildfire exposure across several western states (CoreLogic, 2013). The report identified approximately 8000 East Mountain properties in Tijeras, Cedar Crest, and Sandia Park, worth a combined \$945,000,000, at high risk of loss to wildfire. Although massive, the CoreLogic estimate only includes potential residential losses. Commercial and industrial values at risk in the East Mountains are also significant.

## Community Assessments

As part of the 2006 EMCWPP, six Community Zones were designated to evaluate and discuss vulnerability to wildfire across East Mountain residential communities (see Figure 6). In 2011, Ciudad SWCD and Bernalillo County personnel reassessed conditions across the Zones. During that process, 10 additional communities were recognized and added to their appropriate Zones. Community risk ratings were generally consistent with the 2006 EMCWPP. Complete descriptions of each zone are provided in Appendix D.

## Post-Fire Flood Risk

The U.S. Geological Survey produced a report in 2014 that assessed the potential for post-fire flooding throughout the Sandia and Manzano Mountains (Tillery et al. 2014) (see Figure 7) Many of the subwatersheds in the East Mountains have a high probability of debris flow due to the combined effects of forest condition and topography. A high probability of debris flow extends across most of the subwatersheds that drain the west face of the Sandias and empty into Albuquerque. The impact of post-fire flooding is potentially much greater than that of wildfire alone in terms of geographic extent and number of people affected. To date, very little planning has taken place to prepare East Mountain communities for rapid post-fire response. This issue is discussed in more detail under “Post-Fire Preparedness.”

## Firewise Communities

Since 2006, three Firewise Communities have been designated in the East Mountains, all in Sandia Park. Fox Hills was designated in 2007 and Paako was recognized in 2008. Sandia Park Scenic Byway Neighborhood joined the program in 2015. More information about Firewise is available at [www.firewise.org](http://www.firewise.org).

Figure 6. Community zone map

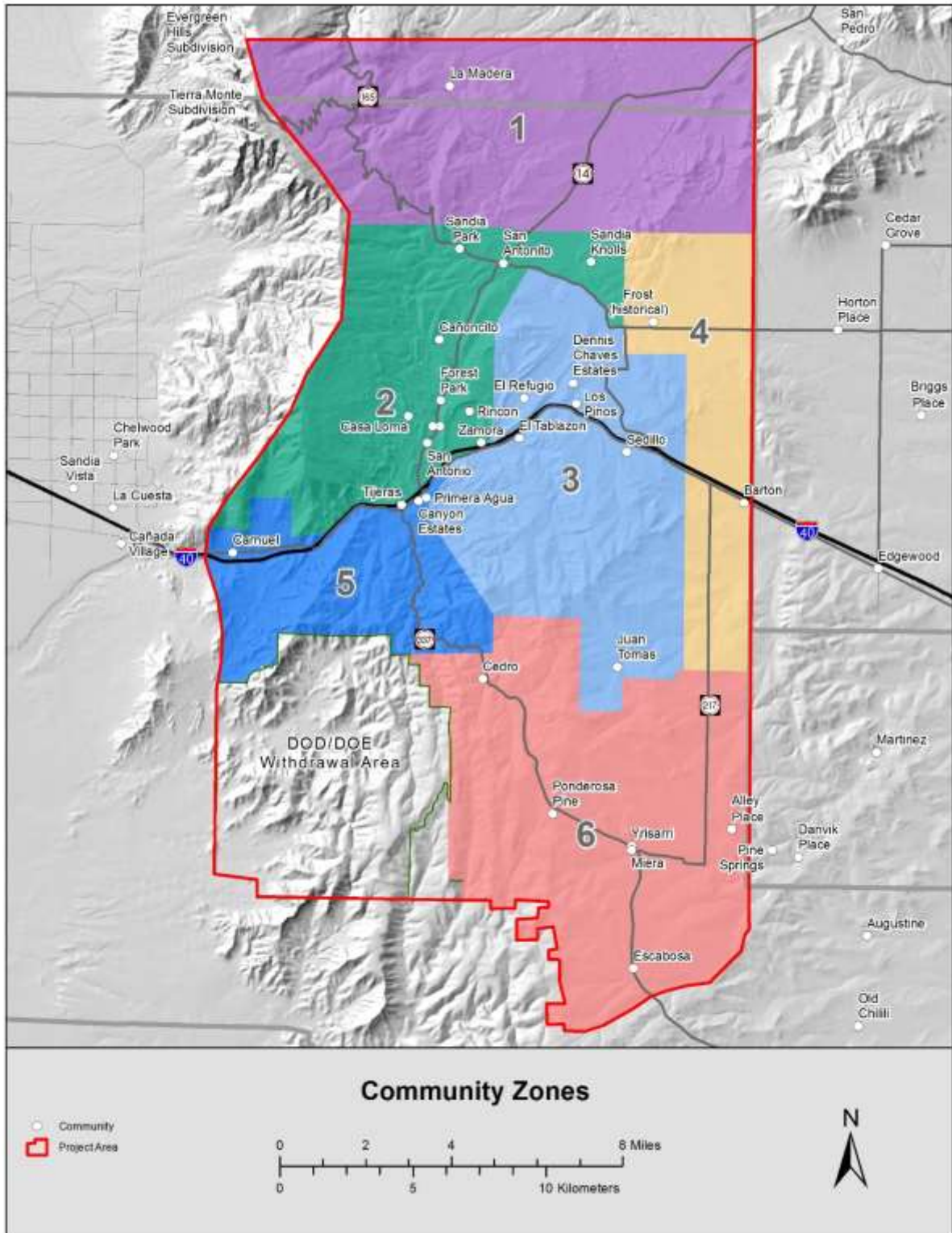
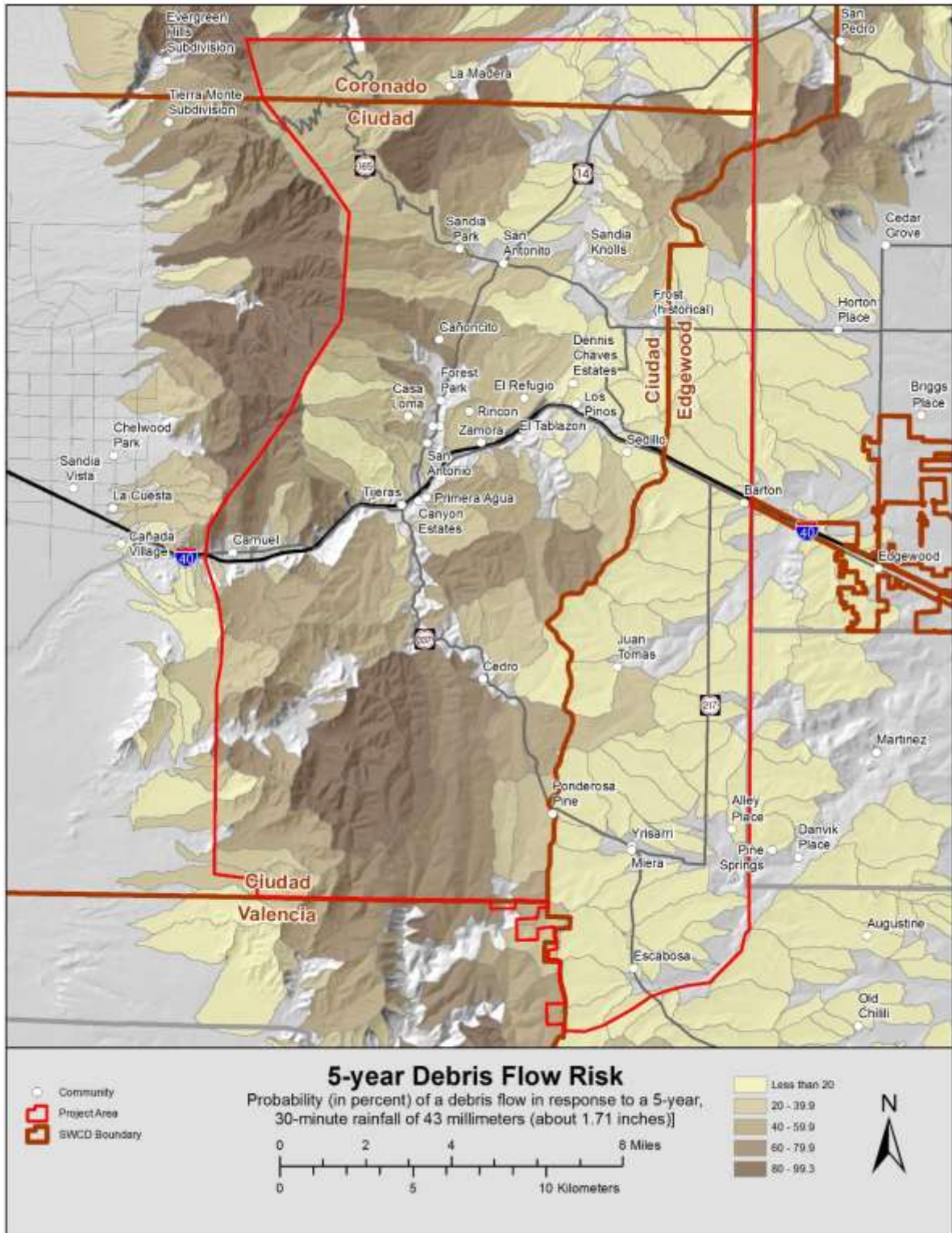




Figure 7. Debris flow risk map



## Forest Pests and Disease

Forest pests and pathogens have reshaped local forests over the last decade and are an ongoing concern for land managers and homeowners in the East Mountains. Forest pests are defined as forest insects that will in some way degrade the overall health of the forest. Of primary interest are those that attack tree species. Together, Douglas fir tussock moth, and several bark beetle species have caused widespread impacts across the East Mountains (see Figure 8). It should also be noted, however, that many trees that are weakened or dying are victims of the prolonged drought or mechanical damage due to home construction or other activities, not insects. Tree diseases such as parasitic plants, fungi, and bacteria can also affect the forest in the CWPP project area. These diseases impact forest systems by degrading the productivity and health of the forest. Dead trees are more flammable only as long as the needles are attached. However, over the years, as dead trees fall they become part of the surface fuel loading and increase the fire hazard. A detailed description of local forest pests and pathogens is provided in Appendix C.

## Fuels

High fuel loads have accumulated across public and private lands in the East Mountains due to the absence of natural fire cycles. Current efforts to rearrange and reduce fuels are discussed in more detail in the “Fuel Treatments” section.

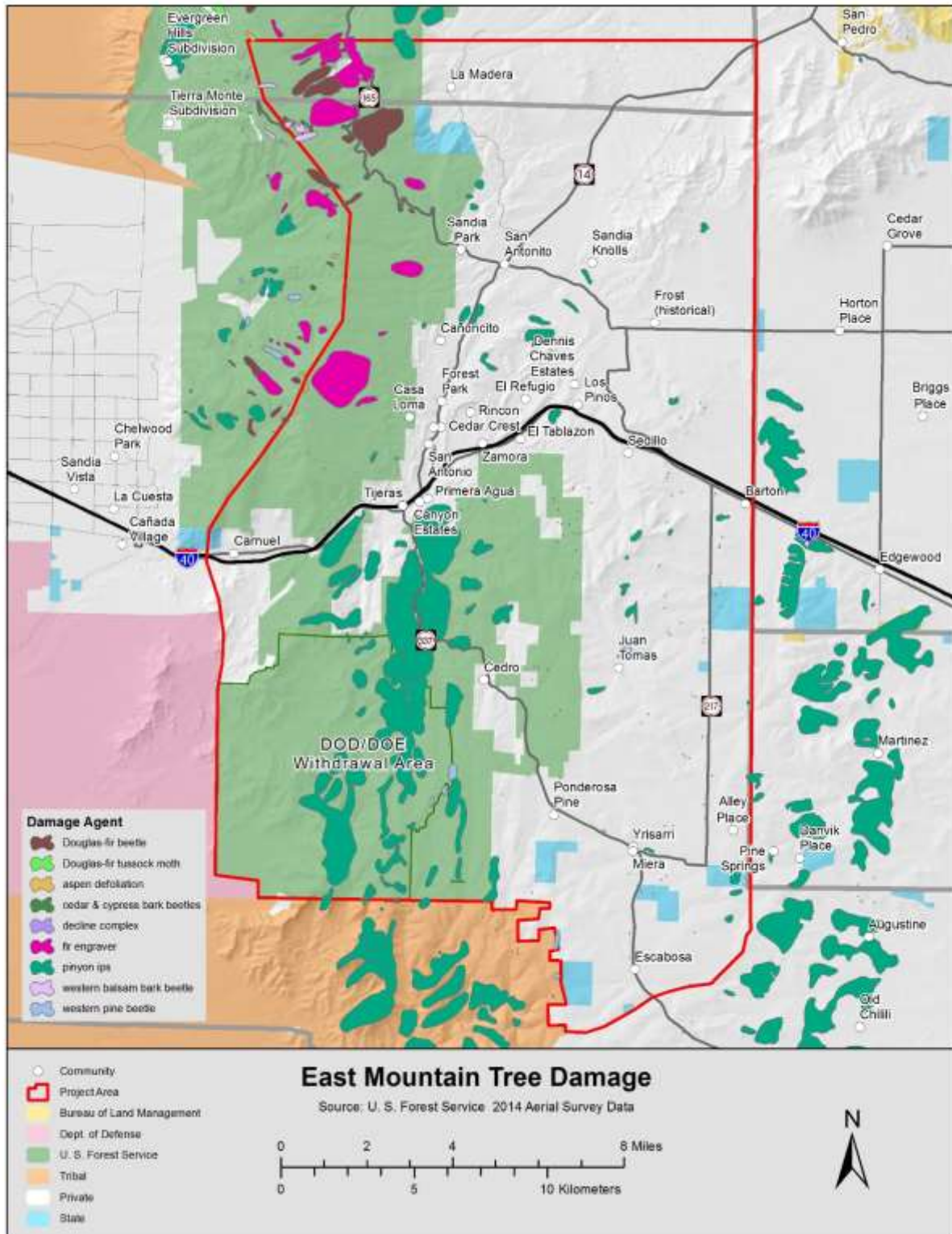
Unnatural tree densities coupled with high surface fuel loads are common in the Sandia Mountain Wilderness. Established in 1978, much of the 37,000 acre wilderness is made up of fire-adapted ecosystems that have not burned for over a century. Management actions to reduce fuels are constrained by the wilderness designation and limited data have been collected to establish the historical fire regime (Baisan and Swetnam, 1997).

In other more remote wilderness areas such as the Gila Wilderness, fire is frequently used to manage fuels. The management of fire for multiple resource benefit is allowable under the Cibola National Forest Plan of 1985 but full suppression remains the prevailing management action due to the combined conditions of the forest and the surrounding communities.

## Communication

The East Mountain Interagency Fire Protection Association (EMIFPA) is composed of fire protection, emergency management, and law enforcement agencies. They are dedicated to working together in the East Mountain communities to provide information outreach, education and fire training opportunities to all local and cooperating agencies, volunteers, local residents and businesses. EMIFPA ([www.emifpa.org](http://www.emifpa.org)) provides a variety of services to the community including interagency coordination, community outreach, education, training, and project coordination. The group meets monthly to maintain tight communication between emergency response organizations and to coordinate public outreach efforts.

Figure 8. Forest pest and pathogen map



# Fuel Treatments

Fuel reduction treatments are used to mitigate wildfire hazards, reduce the risk of catastrophic fire and its threat to public and firefighter safety, and reduce property losses. Fuel treatments rearrange and remove enough vegetation so that when a wildfire burns, it is less severe and can be suppressed more easily. When dead and live fuels accumulate, they allow fires to burn hotter, faster, and with higher flame lengths. When fire encounters dense brush or small trees, it can ignite these “ladder fuels” and more easily transition from a surface fire into a crown fire that travels through the tree tops. Although changing the arrangement or pattern of fuels can alter fire behavior, treatments that include prescribed fire and/or wood removal are most effective at mitigating wildfire hazard.

## Public Land

### Thinning

Since 2006, approximately 3000 acres of private and public land have been thinned within the boundaries of the EMCWPP. All fuel reduction work completed since 2006 is summarized graphically in Figure 11. Strategic fuel treatment on USFS land provides a buffer between neighborhoods and the adjacent forest. USFS is managing fuels on the Sandia Ranger District with hand felling, mastication, and prescribed fire. The National Environmental Policy Act (NEPA) process has either been completed or is underway for most USFS land in the area. Current and upcoming projects are summarized in Table 2.

Thinning on county, state, and private land has been facilitated primarily through programs offered by the SWCDs under various grant funding. Hundreds of acres have been treated across the project area since 2006 (Figure 11, orange polygons).

**Table 2. Public land projects pending and in progress, June 2015**

Agency	Project Name	Year	Area (acres)	Treatment Method
U.S. Forest Service	Cedro	Planned FY2016	18,500 (analysis area)	Fuel reduction, trails, forest & riparian restoration, invasive species control
U.S. Forest Service	La Madera	Planned FY2017	20,000 (analysis area)	Thinning, habitat improvement, trails, spring development, invasive species control
New Mexico State Land Office	La Madera	?	686	Forest restoration, fuel reduction, prescribed fire, and habitat improvement

## Prescribed Fire

Prescribed fire is an important fuel reduction tool that is being applied more frequently on public land in the East Mountains with each passing year. As prescribed fires have become more common, public concern has diminished substantially. Many attribute this evolution in large part to outreach efforts by EMIFPA. Through their extensive email list and Facebook page, EMIFPA announces planned burns before they take place and provides frequent updates throughout the burning period. The communication helps build public confidence in the practice and provides a warning to anyone who may need to make special arrangements due to potential smoke exposure.

Although widespread concern over prescribed fire has diminished, smoke exposure will always be a problem for residents with certain health conditions. Smoke production from prescribed fire is regulated by the City of Albuquerque Environmental Health Department's Air Quality Division. Air Quality staff assess a range of conditions including ventilation on a daily basis, prior to the implementation of any burning in the area. They report current air quality conditions at <https://www.cabq.gov/airquality> . Additional air quality resources are available from the New Mexico Environment Department's Air Quality Bureau (<https://www.env.nm.gov/aqb/> ). Outreach efforts by EMIFPA, USFS, and NM State Forestry strive to provide timely information to help sensitive individuals make wise choices about smoke exposure. Residents can receive notifications from EMIFPA by providing an email address to the organization ([www.emifpa.org](http://www.emifpa.org)).

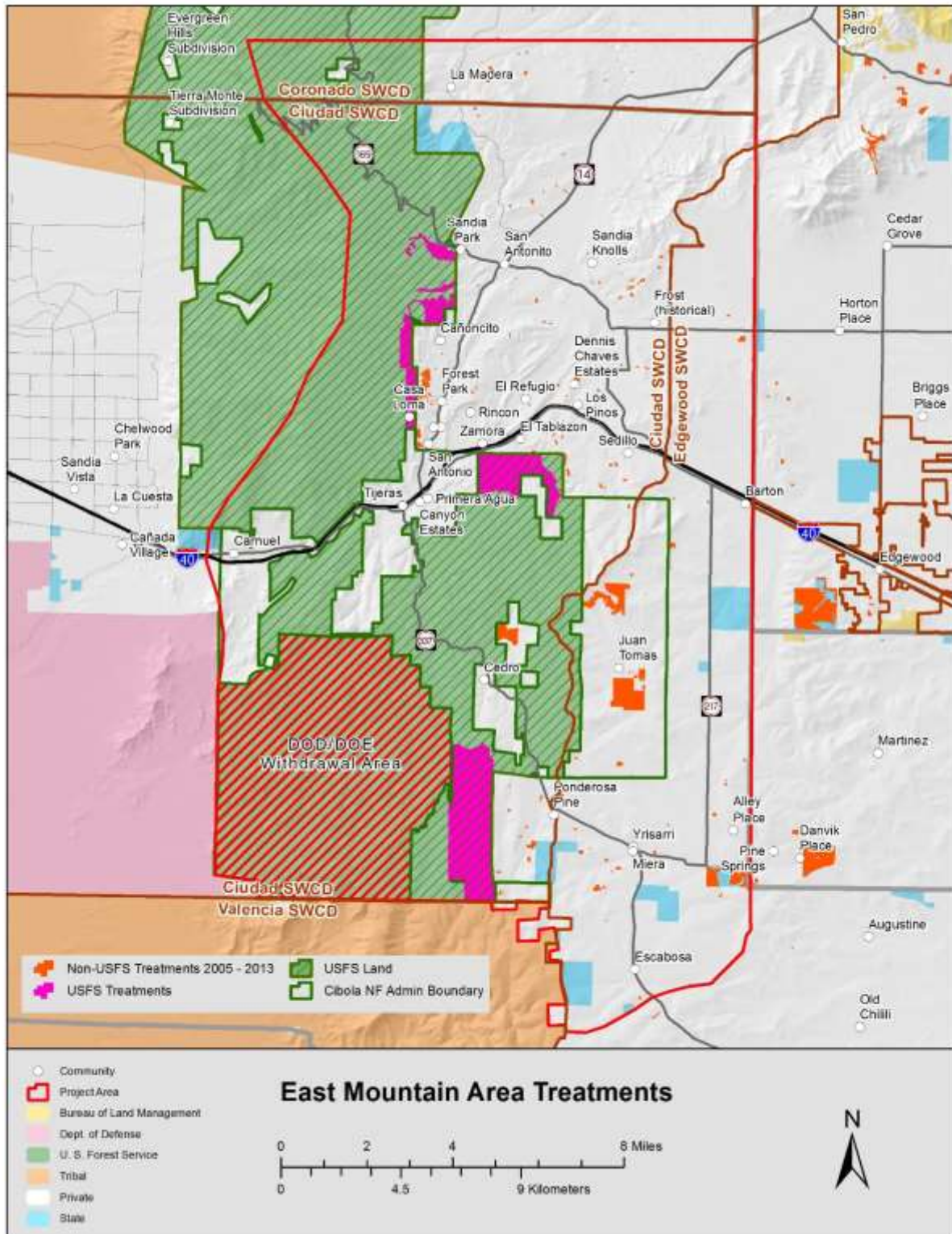
**Figure 9. Pile burning near Cedro Peak**



**Figure 10. Raven Road, David Canyon**



Figure 11. Completed fuel reduction projects. June, 2015



## Residential Fuel Reduction

Despite the growing comfort level of residents with prescribed fire, policy makers are hesitant to use fire to reduce fuels off the forest. Burning on private land currently is not supported within the project area. Residents can reduce fuels by utilizing and hauling small trees and branches from their properties but many find green waste disposal to be a significant hurdle.

Green Waste Days, a popular weeklong event that offers East Mountain residents the opportunity to dispose of their green waste for free at their local transfer station, began in 2002 and was offered once for 4 days. In 2007, growing demand and awareness justified holding Green Waste Days twice annually. Since 2011, four events of 9 days duration have been offered annually to meet the growing needs of East Mountain residents. Ciudad and Bernalillo County co-host, and Edgewood SWCD co-sponsors, two to four Green Waste events per year depending on the availability of grant funding.

Cost-share programs for residential thinning are extremely popular and well utilized. Since 2006, Ciudad SWCD has assisted 287 homeowners with thinning their properties through the agencies' cost share program. Edgewood SWCD operates a similar cost-share program across their District. Many residents have personally thinned their properties using the knowledge gained through hands-on workshops offered by the SWCDs and EMIFPA. The 2006 EMCWPP identified several projects to reduce fuels and prepare East Mountain communities for fire. Table 3 summarizes progress made on residential fuel reduction activities since 2006.

**Table 3. 2006 EMCWPP fuel reduction action item update**

Project	2006 Goals and Objectives	Priority Level	Agencies or Groups	2015 Update
Green Waste Disposal at Bernalillo County Transfer Station	Obtain funding to allow free green waste disposal and assist Bernalillo County with processing green waste at East Mountain transfer station	High	EMIFPA, Ciudad SWCD, Edgewood SWCD, NM Assc. Of Counties, Bernalillo County	Free green waste disposal is provided for 4 weeks each year at the East Mountain Transfer Station through grant funding obtained by partner organizations
Private Land Thinning Assistance	Increase funding to assist homeowners with thinning on private land	High	Ciudad SWCD, Edgewood SWCD, NM Assc. Of Counties, NM State Forestry	Cost share program for residential property thinning is very popular but funding grant-based and inconsistent
Roadside Mowing Program	Reduce flammable fuels along roadsides	High	Bernalillo County, Neighborhood Associations	Mowing takes place on a schedule and by request

## Community Hazardous Fuel Reduction Priorities

At a series of public meetings held by EMIFPA in spring 2015, attendees were asked to develop and evaluate action items for the EMCWPP Update. Approximately 70 residents used stickers to vote for their preferences across all project types. Table 4 describes the hazardous fuel reduction activities in order of their popularity. Green waste disposal continues to be the priority concern for the community. Because treatments on public land take place according to agency budgets and schedules, the public was not asked to rank hazardous fuel reduction projects on public land.

**Table 4. Community fuel reduction project priorities (from most popular to least)**

Project	Goals and Objectives
Green Waste Disposal at Bernalillo County Transfer Station	Obtain funding to allow expanded free green waste disposal and assist Bernalillo County with processing green waste at East Mountain transfer station
Private Land Thinning Assistance	Increase funding to assist homeowners with thinning on private land
Right of Way Clearing	Work with utility companies to remove limbs and trees within right of way
Green waste Disposal at Bernalillo County Transfer Station	Offer residents green waste coupons by mail that could be redeemed along with address verification
Special Needs Defensible Space Assistance	Provide free assistance to help elderly and disabled residents create defensible space
Green Waste Pick-Up	Facilitate green waste removal by picking up and hauling away slash throughout the area
Public Fuelwood	Improve public access & increase wood utilization from local thinning projects
High School Community Service Project	Provide free assistance to help residents move brush away from house
Boy and Girl Scouts Community Service Project	Provide free assistance to help residents move brush away from house
Clean Up Saturdays in Tijeras	Obtain funding to continue and expand Clean Up Saturdays to facilitate green waste and trash removal in and around Tijeras



# Preparing for Fire

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## Suppression Resources

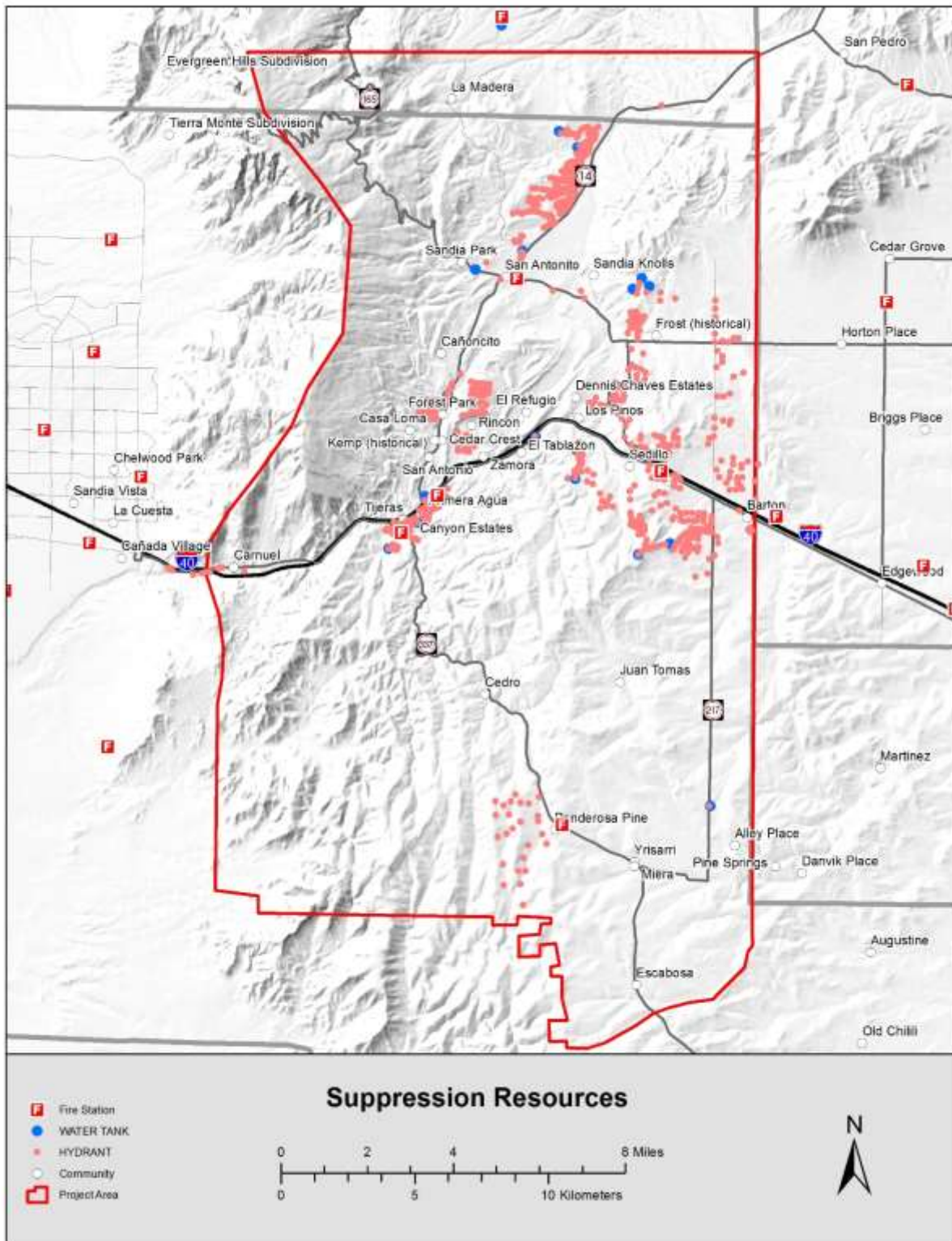
Suppression infrastructure has improved in the East Mountains with upgrades to all Bernalillo County fire stations (Figure 12). The McGrane complex near the Village of Tijeras is now an integrated incident command center and helibase.

Water is supplied to East Mountain hydrants by a diverse set of providers. Ongoing assessment and mapping help to ensure that fire engines can readily locate and access reliable water supplies. Access to water remains a significant challenge across such a vast area so improving and expanding water supplies for fire suppression continues to be a priority.

EMIFPA and various agency partners have executed several mock wildfire incident exercises since 2006. Improved interagency radio communication was identified as a need over the course of these events. As a result, EMIFPA has worked with agency partners to develop an Incident Emergency Response Radio Frequency Guide to improve communication during an incident.

Bernalillo County has submitted a hazard mitigation plan to the Federal Emergency Management Agency (FEMA). Final approval is expected in Fall 2015.

Figure 9. Suppression resources map



## Emergency Response Assistance

Emergency response agencies in the East Mountains now have an important partner, the Community Emergency Response Team or CERT. Authorized under the U.S. Department of Homeland Security, the CERT program educates people about disaster preparedness and response. The training for community members of CERT teams includes skills such as fire safety, light search and rescue, team organization, and disaster medical operations. East Mountain CERT has filled a significant void in local fire preparedness by focusing on the issue of livestock evacuation. East Mountain CERT members work year-round to prepare for disaster and help their neighbors be better prepared. More information is available at: <https://www.citizencorps.fema.gov/cc/showCert.do?id=58202> .

As a dispersed rural community, safe and prompt evacuation presents a challenge for residents that have mobility issues. In response to the needs of the community, EMIFPA has formed a task force to address special needs evacuation. The Bernalillo County Sheriff's Department, Office of Emergency Management, and Bernalillo County Fire are working with residents and caregivers to problem solve and prepare for efficient evacuation response.

## Education and Outreach

All education and outreach action items rated as "high" in the 2006 EMCWPP have taken place thanks to EMIFPA and other community outreach organizations (see Table 5). EMIFPA offers a diverse range of educational events throughout the year. Residents can receive notifications from EMIFPA by providing an email address to the organization. More information is available at [www.emifpa.org](http://www.emifpa.org).

**Table 5. 2006 EMCWPP education action item progress update**

Project	2006 Goals and Objectives	Priority Level	Agencies or Groups	2015 Update
Homeowner's Guide Publishing	Produce and distribute a copy of the CWPP Homeowner's Guide to all East Mountain residents and provide copies to the Chamber of Commerce for future residents	High	EMIFPA, Ciudad SWCD, NM Association of Counties, Bernalillo County, Village of Tijeras	EMIFPA produced and distributed the Homeowner's Guide on CD. The CDs have been widely distributed and the contents are posted on EMIFPA website. New residents remain difficult to reach due to reticence of the real estate industry.
East Mountain Area CWPP	Produce copies of the CWPP on CDs to distribute to interested parties	High	EMIFPA	
Highway Signage Installation	Educate visitors traveling to national forests about wildfire risk by installing at least two permanent signs, one on North 14, one on 337	High	EMIFPA, USFS, NM Department of Transportation (NMDOT)	NMDOT installed signs that provide notifications of closures. To date, other agencies have not been able to utilize the signs for other notifications.
Forest Health Workshop	Use the Backyard Tree Farm (BYTF) Program to expand homeowner understanding of forest health issues and silviculture treatments	High	EMIFPA, USFS, Bernalillo County, Sandoval County, NM State Forestry, local schools	The BYTF program offers frequent and diverse hands-on training to local residents on land management and forest health topics

### Community Education Priorities

At a series of public meetings held by EMIFPA in spring 2015, attendees were asked to develop and evaluate action items for the EMCWPP Update. Approximately 70 residents used stickers to vote for their preferences across all project types. Table 6 summarizes the education and outreach activities evaluated in order of their popularity.

**Table 6. Community education priorities (from most popular to least)**

Project	Goals and Objectives
National Wildfire Awareness Day in schools	Send out preparedness packets to all school kids in East Mountains & schedule educational events in schools
Public Fire Kiosks	Purchase, stock, and maintain kiosks throughout East Mountains to raise awareness of wildfire mitigation and preparation
Limbwood Festival	Host public outreach event that combines small-diameter wood removal with fun education
"FireWorks" Curriculum	Work with Missoula Fire Lab and local schools to get a FireWorks activity trunk ( <a href="http://www.firelab.org/project/fireworks-educational-program">http://www.firelab.org/project/fireworks-educational-program</a> ) and implement locally

## Firewise Ambassadors Program

Based on a successful program in Southwest Colorado, EMIFPA is beginning development of a Firewise Volunteer Ambassador program. Ambassadors receive training, support, ongoing education, access to wildfire information experts, and notice of grant opportunities to turn their high-wildfire risk neighborhoods into Fire Adapted Communities. Volunteer ambassadors lead by example and serve as catalysts within their neighborhoods, encouraging their neighbors to become more aware, active, and prepared for wildfires. Through peer-to-peer learning, the Ambassadors will broaden and strengthen local fire preparedness education.

## Resources

### *Free Emergency Notification: Nixle*

Residents in and around Bernalillo County can sign up to receive free emergency notification via text and email. Subscribers can choose their method of delivery. Enrollment is quick and easy at [www.nixle.com](http://www.nixle.com).

### *Bernalillo County CARE form*

Residents can provide instructions for emergency responders regarding special needs or access by submitting a 9-1-1 CARE form to Bernalillo County ([www.bernco.gov/911-CARE/](http://www.bernco.gov/911-CARE/)). The CARE form can be used to provide a gate code and notifying responders of latchkey kids and special needs residents is especially important.

### *Reverse 911 – Opt-In*

In the event of an emergency, Bernalillo County may issue evacuation notices using an automated phone message. Notifications may include fire, flood or other environmental hazard or dangerous situations in the area, such as a law enforcement investigation or other instance where residents may be instructed to remain in the home. Only those residents in Bernalillo County that have CenturyLink phone service can automatically receive Reverse 911 calls in the event of an emergency. Those residents with other phone service providers need to opt-in at: <http://www.bernco.gov/emergency-notification-opt-in/>

### *East Mountain Interagency Fire Protection Association*

EMIFPA provides timely information on wildfire preparedness and response through their website ([www.emifpa.org](http://www.emifpa.org)), Facebook page, and Twitter feed (@EMIFPA\_NM). They maintain a pre-incident checklist for residents ([http://emifpa.org/PDF/Pre-Incident\\_Checklist.pdf](http://emifpa.org/PDF/Pre-Incident_Checklist.pdf)).

### *Southwest Fire Science Consortium*

The Southwest Fire Science Consortium (SWFSC) coordinates research and outreach activities to improve fire science and management in the Southwest. The SWFSC website ([www.swfireconsortium.org](http://www.swfireconsortium.org)) includes videos, workshop announcements, and fact sheets.

## Post-Fire Preparedness

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New Mexico communities often face a greater threat from post-fire flooding than from wildfire itself. Post-fire floods in the Southwest can be orders of magnitude larger than the base flow in any given stream system. Mitigating flood and debris flow impacts often involves a complex suite of organizations and institutions. Funding and implementing mitigation activities on private land can be especially problematic. A brief summary of the services offered by various organizations is provided in Appendix E.

To help plan for wildfire and cope with its aftermath, New Mexico has a useful online guide. The guide is available at [www.afterwildfirenm.org](http://www.afterwildfirenm.org). The sections on “Mobilizing Your Community” and “Financial Tips” are helpful for pre-fire planning. There are links to additional planning resources at: <http://afterwildfirenm.org/additional-resources>. The more that can be done by communities, organizations, and agencies prior to the fire, the more efficient and effective the post-fire response.

The impacts of wildfire on life, resources, and property can be reduced by accepting the inevitability of fire in the wildland urban interface. By working together to prepare for fire, public and private partners can make the East Mountains a fire adapted community.

**Figure 10. Trash rack constructed with ponderosa pine**



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## Appendix A. Community Survey

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### Are we ready for wildfire?

EMCWPP  
PO Box 1326  
Cedar Crest, NM 87008



**Please complete this survey to provide input for YOUR Community Wildfire Protection Plan.**

**Electronic survey available at: [www.surveymonkey.com/s/emcwpp](http://www.surveymonkey.com/s/emcwpp)**

**Please respond by January 15<sup>th</sup>, 2015. Thank you!**

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1. **Property location:** Bernalillo County  Sandoval County  Torrance County  Santa Fe County

2. **Please enter your zip code:**

3. **I would describe my property as primarily:**

Grassland

Piñon-juniper woodland

Ponderosa pine forest

Other  Please briefly describe:

4. **My property is:** Less than 2 acres

2-5 acres

More than 5 acres

5. **I have lived in the East Mountains for:**

Less than 1 year

1-5 years

6-10 years

More than 10 years

6. **Do you rent or own your home?**

Rent

Own, full-time residence

Own, part-time residence

Other  Please briefly describe:



**7. What ways do you heat your home?** (please select all that apply)

Propane  Wood  Wood pellets  Electric

Other  Please briefly describe:

**8. How many cords of wood does your household use per year?**

**9. Is the amount of firewood available to harvest locally:**

Too much  Too little  About right  I don't know

**10. How much do the following statements apply to you?** (Please circle the appropriate number)

Statement	Strongly disagree		Neither agree or disagree		Strongly agree
I am concerned about wildfire in our community	1	2	3	4	5
I am concerned that my property and home are at risk from wildfire	1	2	3	4	5
I am concerned about the condition of neighboring properties	1	2	3	4	5
I regularly talk to my neighbors about preparing for fire	1	2	3	4	5
I am worried about the health of the nearby forest	1	2	3	4	5
My neighbors and I help each other with removing trees and transporting green waste	1	2	3	4	5
I know who to call to have trees removed from my property	1	2	3	4	5

**11. How likely would you be to participate in the following activities if they were available?**

Activity	Not at all likely	Somewhat likely	Reasonably likely	Very likely
Free green waste days at transfer station	1	2	4	5
Free shared dumpsters for green waste disposal in my neighborhood	1	2	4	5
Free forest health classes	1	2	4	5
Free home wildfire risk assessment	1	2	4	5
Cost-share program to reduce cost of thinning my property	1	2	4	5
Free classes on evacuation	1	2	4	5

**12. Does your house currently have:** (Please circle the appropriate number)

	YES	NO – but would like to have	NO- doesn't need it	I don't know
Asphalt shingles or a metal roof	1	2	3	4
Enclosed eaves	1	2	3	4
Screened vents	1	2	3	4
Non-flammable siding	1	2	3	4
An evacuation plan	1	2	3	4

**13. On your property, have you:**

Removed dead or dying vegetation within 30 feet of the house.	1	2	3	4
Trimmed trees (to keep their branches a minimum of 10 feet from structures and other trees).	1	2	3	4
Removed dry leaves and pine needles from yard, roof and rain gutters.	1	2	3	4
Relocated woodpiles or other flammable materials 30 feet from the house.	1	2	3	4
Removed flammable material and vegetation from around and under decks.	1	2	3	4
Removed or pruned vegetation near windows.	1	2	3	4
Removed low-level vegetation that allows the fire to spread from the ground to the tree canopy (ladder fuels).	1	2	3	4

**If you circled a '2" (No but would like to have) for any of the above items, for each item please briefly describe the main challenge to making each change:**

**14. Do you have other thoughts or concerns that you would like to share?**

***By providing contact information, you will be entered in a drawing to win a free cord of wood.***

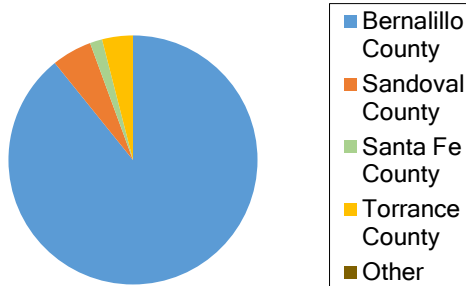
**Name (optional):**

**Phone:**

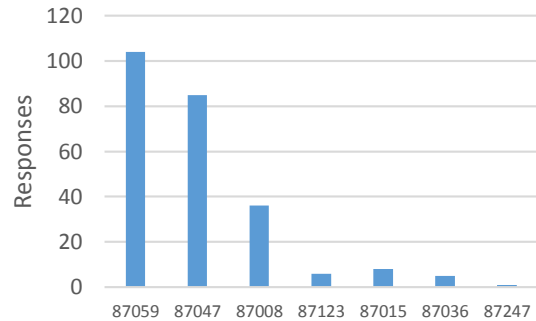
**Email:**

# Appendix B. Community Survey Results

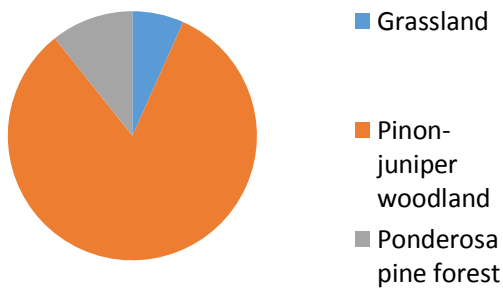
## 1. My property is in:



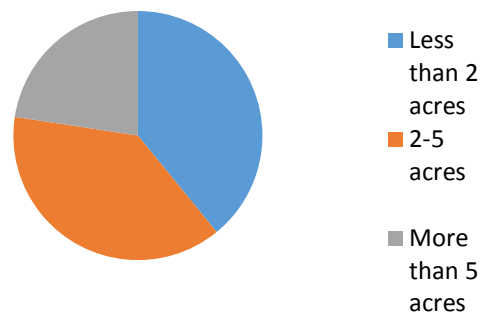
## 2. Please enter your zip code:



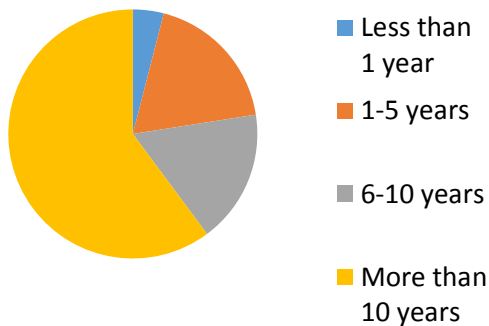
## 3. I would describe my property as:



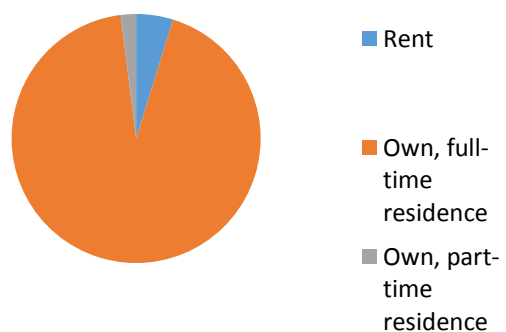
## 4. My property is:



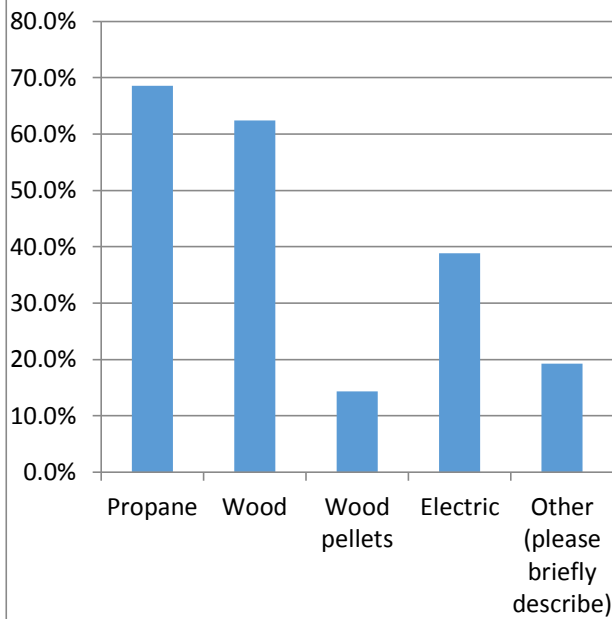
## 5. I have lived in the East Mountains for:



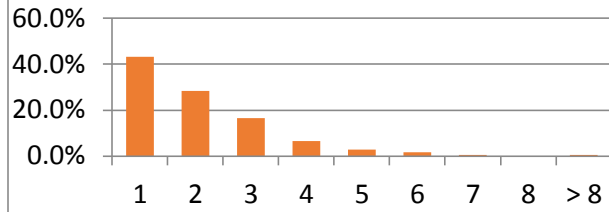
## 6. Do you rent or own your home?



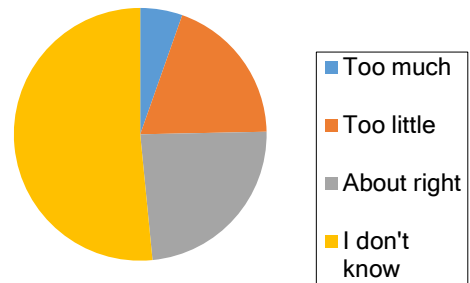
**7. What ways do you heat your home? (Please select all that apply)**



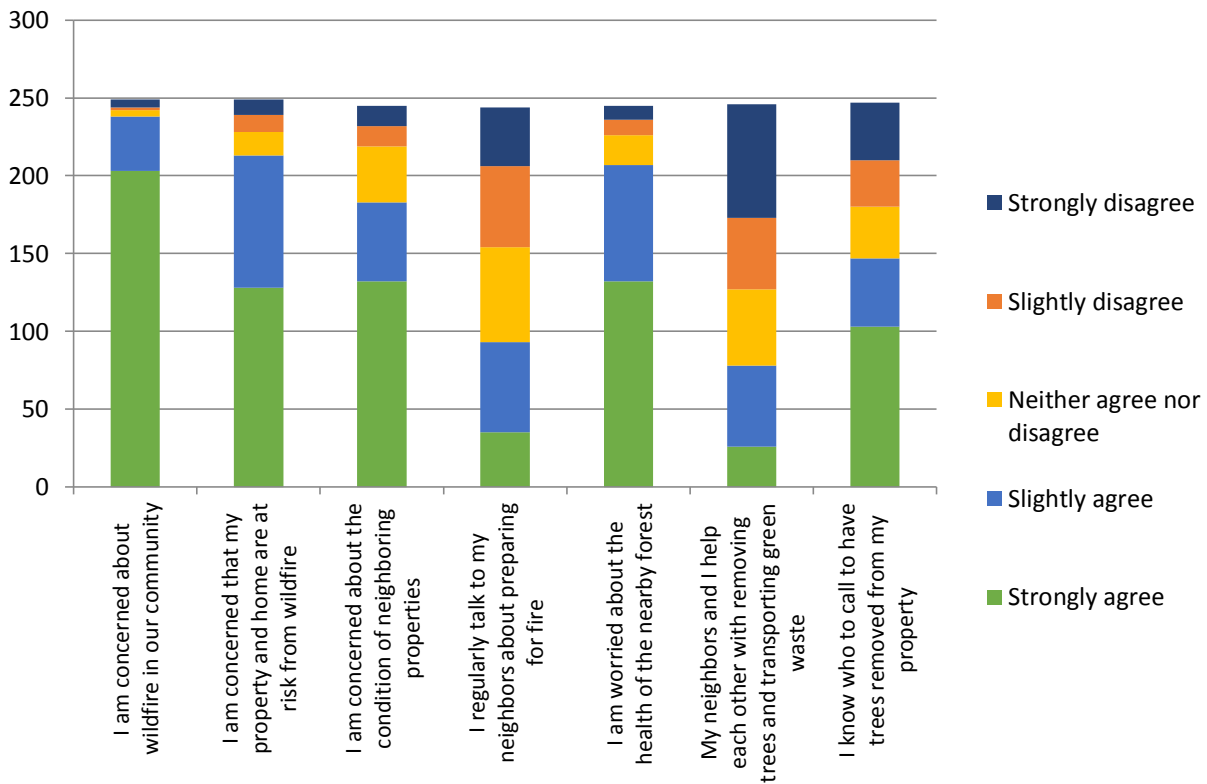
**8. How many cords of wood does your household use per year?**



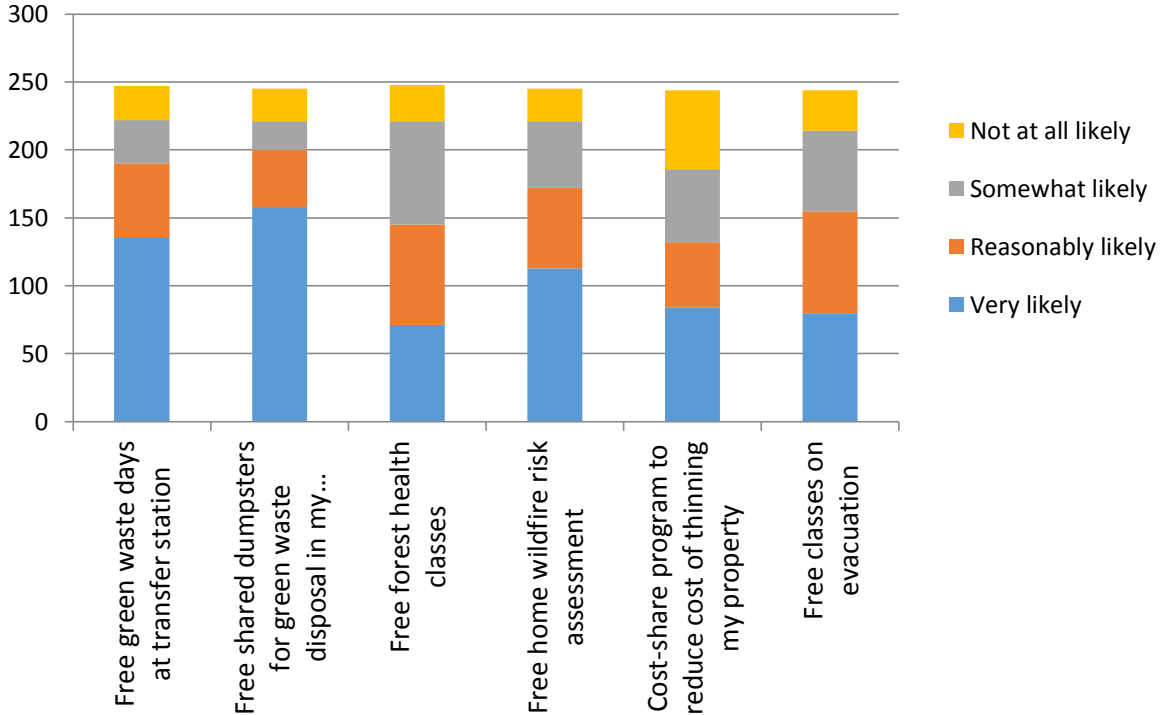
**9. Is the amount of firewood available to harvest locally:**



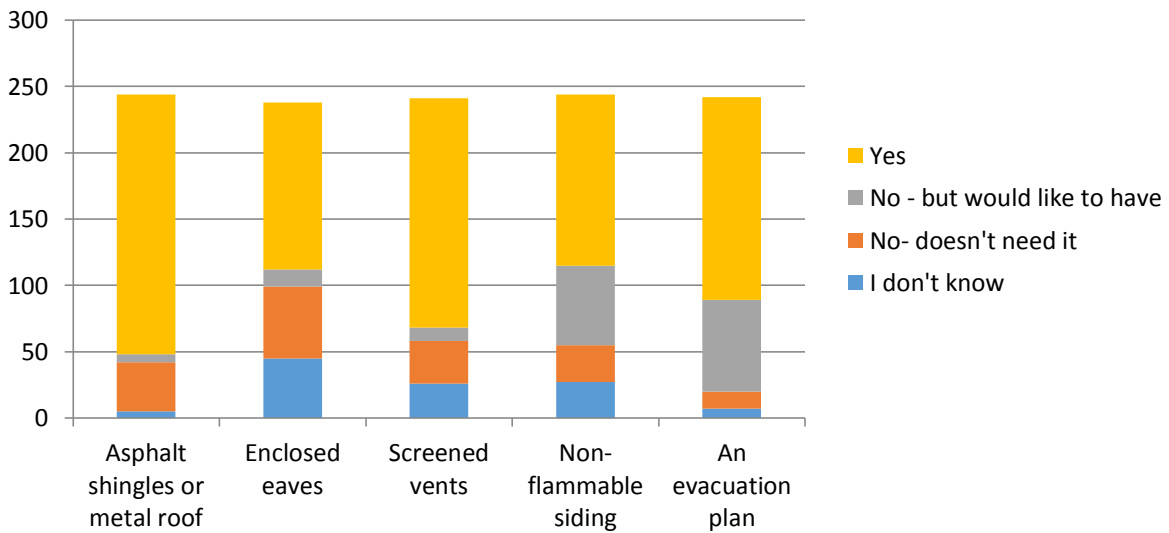
**10. How much do the following statements apply to you?**



**11. How likely would you be to participate in the following activities if they were available?**



**12. Does your house currently have:**



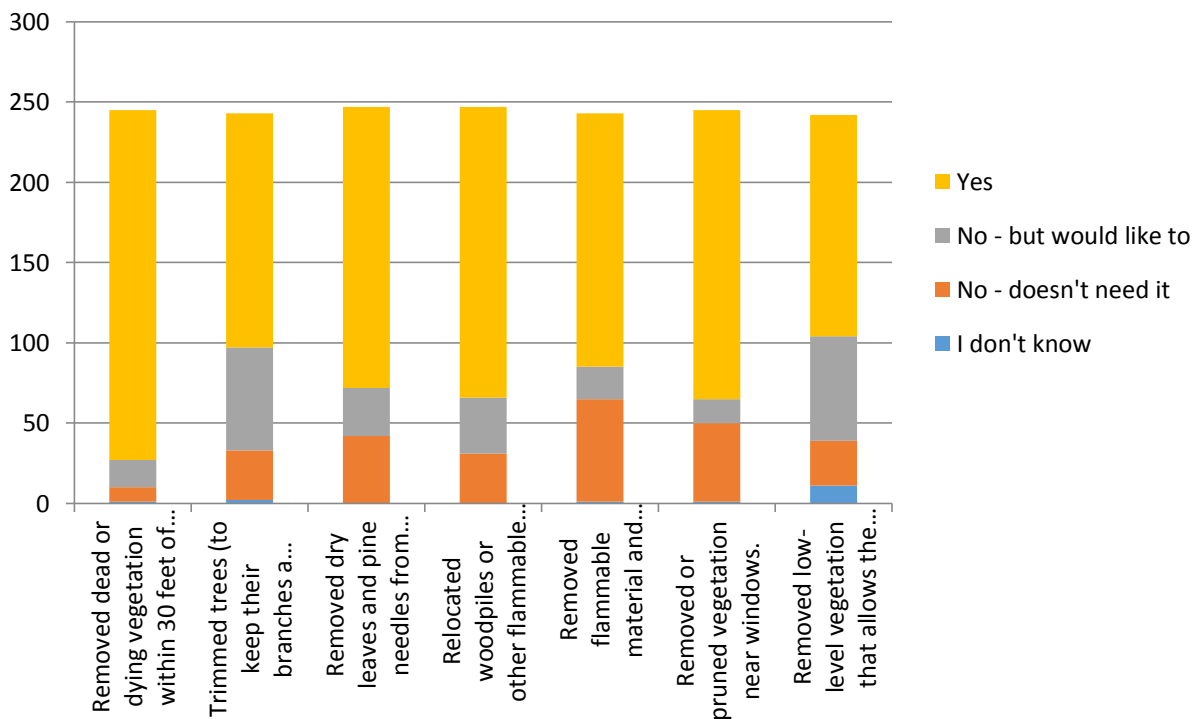
**13. If you selected “ No – but would like to have” for any of the above items, for each item, please briefly describe the main challenge to making each change:**

4 old dogs, 10 year old grandson, work school in Abq. Not sure where to start. What if we aren't home? How do I fit dogs, kid & supplies in car?
A better understanding of the proper scope and specifics of such a plan. Do have copy of County/State guidelines from the internet.
An evaluation and or a class would be great.
Are eaves gutters? If so, we have them. 1
As a renter, we do not have authority to do these things. 1
Can you fire proof cedar siding?
Cannot afford cost of siding. Only one designated road near my home to use to reach main street which concerns me.
can't afford non-flammable siding
Cost
Cost
Cost
Cost - our home is currently sided with wood. 1
Cost 1
Cost and labor
Cost and style of building have discouraged switching to non-flammable siding.
Cost and time 1
Cost of covering up wood siding. Need to tighten up our evacuation~plan
Cost to replace redwood siding would be prohibitive.
Couldn't do metal roof as one side has slight pitch but goes to flat
Did not take the time to research and document.
difficult - 2 stories, would interfere with vents
Direction and how to do it... 1
Don't like the looks of vinyl or aluminum siding 1
Evacuation~plan - inertia. I really would like to get one done. 1
Evacuation~plan: lack of knowledge, little time to research - class or website would be good. I think our shingles are fiberglass but don't know. It's a very new roof, would like to get metal when it's time for replacement but that's years away.
Exit routes are well known
expense
Expense of new siding 1
finances
Financial obstacles for eaves. Haven't really considered evacuation~plan until now.
Financial obstacles for eaves. Haven't really considered evacuation~plan until now.
finding the time
Fixed income, cannot afford these changes 1
Funding
Getting off my dead ass and making one.
Haven't thought about it yet. 1
I am in the process of remodeling and I have some and plan on continuing to use Hardi P Lank concrete siding on the house. I have an evacuation~plan but I know there are some alternative escape routes but I am not 100% sure of where they are.
I do not live in the house and have no knowledge of what tenants would want. 1
I have a plan to escape the house, but once outside there is only a single road for a lot of people and I do not know how to handle this potential backup.
I have a wood siding home, it would be very expensive to replace with like stucco.

I have stucco
I just haven't taken the time to do it. I need to!
I need money to stucco the house
I need to schedule a contractor to do it. 1
I'm not sure what enclosed eaves means.
It would be nice to have non-flammable siding, but I think it would be rather expensive. 1
Just doing it.
Just need to do it! Thanks for the reminder.
Just sitting down and doing it. 1
knowledge
lack of time, learn about meetings too late or the day before 1
Laziness
Live on a cul-de-sac, not sure how to plan evacuation
money
Money
money 1
Money and time. 1
money money money money
Money.....I would like better siding on the East & West of my home
Motivation to take the time
my home is cedar sided I will be going to stucco either next or the following year - already have priced it out
Need to go up on pitched roof and custom fit screens to vents.
New in town and haven't gotten around to it yet.
New siding is expensive. I do not know how to make an evacuation~plan. 1
no dwelling on vacant lot 1
Nonflammable siding too expensive. Not sure what all an evacuation~plan entails. 1
Not sure how to go about it. Have livestock.
Our home is large and cedar plank wood sided. We simply do not have the funding to change it.
Physical disability. 1
Renter, not homeowner
Screened vents - Getting up on a tall enough ladder. Would like to have fiber cement siding but can't afford it. Currently have old cedar siding.
Siding - money money money Plan - ??? 1
Stress of just making to day to day with job requirements and struggling finances.
taking the time to create the plan and materials prep
The challenge for both of the "No - but would like to have" items is financial. 1
The cost of non-flammable siding is prohibitive. We never thought about screening vents before.
The cost of replacing the roofing 1
The survey should have "No" answers without the qualification of "but would like to have." We have a tile roof and stucco exterior.
The way the house was built and laziness
Time and knowledge
Time and money
Time to install them. 1
Too costly to replace existing siting 1
Very expensive to purchase and have installed
We are brand new to this area, but would like to create an evacuation~plan. I would also like to see a phone tree created so everyone can be notified immediately of a nearby wildfire. I would be willing to participate.

We are constantly working on health of our property it would be nice to have a community owned large chipper to use. Previous owners chopped a lot of wood and left slot of slash also to thin it would be great to be able to chip instead of taking to the transfer station. Even having forest service come in to thin still leaves existing slash for home owner to deal with.
We have a flat roof. Membrane. Fire resistant with class A fire rating. 1
We have a full house exterior sprinkler system, 8 heads, 1600 gallon tank, electric start 6hp pump, underground lines with headers to the rooftop sprinklers.
We have adobe and I'm pretty sure that is flammable. We have talked about our plan, but it could be more detailed.
We have the screen and intend to install it on windows and under house vents. We need a neighborhood evacuation~plan but communication with neighbors is intermittent and interest limited. Worst property is absentee landowner.
We have to get really serious about an evacuation~plan.
We plan on replacing siding in the near future. Need to find a reliable contractor. Info on designing an effective evacuation~plan would be helpful.
Went to a helpful EMIFPA meeting and have basic evacuation~plan, but need to take time to make it more detailed and get supplies together.
Would like to have the ability to receive more wood permits to harvest our own wood locally. There is a ton of wood in David Canyon, it would be nice to be able to harvest some of that wood. We see trucks leaving with wood and was told that they have permits. They are commercial wood sellers. We would like to harvest wood for ourselves instead of buying it from someone.

## 14. On your property, have you:





**15. If you selected “ No – but would like to have” for any of the above items, for each item, please briefly describe the main challenge to making each change:**

I am from a grassland area and I know nothing about trimming trees or removing bushes.
no dwelling on vacant lot
Direction and how to do it...
Still working on trimming snake weed, the predominant low growing plant
Busy lives- haven't gotten to trimming the low-level yet.
For each/all: time and energy.
Disabled individual so need help.
Do not know what tenants will be doing on these projects.
Removing this stuff is an undaunting task for us We are older and don't have the physical strength and stamina to manage this well.
Most of these are 'more or less' -- not "yes or no"-- items
Making the time to do it.
Have done some but still have more low vegetation.
I need help with these items and am low income.
\$\$\$ Time Knowledge
Time and energy
My husband is paraplegic and removing pine needles from rain gutters is difficult for me. Relocating our woodpile would involve the expense of building a cover for the wood. Due to extensive medical expenses, it isn't a priority right now.
Have not found the time.
I plan to have my property thinned and made more fire ready, but since it will be pricey, I haven't selected a contractor yet.
money
I have 2 really large ponderosa trees that my deck is built around. Hate to remove them and know that we do not have the expertise to remove them, or the funds.
The trees outside our window give us privacy and are a feeding station for birds. We do not want to cut them down or back. We also prefer the natural look of the forest and the seeds give food to birds and critters. We don't want a moonscape devoid of wildlife.
Need to find the time to do this or hire someone.
Alot of land
Time and money.
Difficult to reach the gutters
physical abilities and cost
Low-level vegetation near house has been removed but not whole property. Some trees kept between house and garage for scenic value.
Motivation to take the time
I need friends & people to help in this process. I am surrounded by acres & acres of property & NO ONE cuts down trees AT ALL. They are all out of state. I am angry. I am scared. I take care of my land & do this to protect myself, family & neighbors but no one does anything to help me by them coming to thin out their properties.
I have removed low level vegetation near the house, but have not the skills to do so for the forest that surrounds my house, nor the 100s do acres of open space that surround my property.
Money and time
time and ability
Steep slopes to work on.
Steep slopes to work on.
Again, we moved here less than a month ago and I haven't gotten to these things yet.
Work in progress. We try to trim some each year
physical labor to wrestle the plants to get them trimmed.

Am working on these! Moved into this house little over 1/2 yr ago & have already removed an *enormous!* amount of dead wood, fallen pine needles, & weeds, but still working on it too - more weeds, trimming near house, etc. still to do. So it's just a matter of time rather than anything.
Finding time
Work in progress, I thin when I can.
Our property has combination grass/weeds and trees. During years with sufficient rainfall we mow our acreage but not to the dirt and we can't get everything.
Concerned trimming will harm older tree in question. Wood pile access for stove conflicts with relocating.
Concerned trimming will harm older tree in question. Wood pile access for stove conflicts with relocating.
Wife refuses to allow removal of trees close to house.
Shade trees vs. fire safety
having a dry covered place to put the materials
expense ~ my son has been working on this when he can...
Keep a small woodpile on the front porch. Convenience for the worst weather days
My needs are minimal, but I am also not able to do a lot myself since I don't have much in the way of proper equipment and have difficulty doing things physically.
My neighbor has a long line of brush serving as a fence between our lots extending into piñon trees on each side. It was placed there by the previous owner of her house.
Family member refuses to allow me to remove a couple very nice trees near the hous; however, I have established a fire break further out.e
Removing slash is difficult/expensive because we do not have a pickup truck to take it to the dump. Moving the wood pile would cost some money to prepare a new site for wood storage since our property is on a slope.
Would like to do a better job since the property is so dense with trees and vegetation and it is hard to handle alone.
Money
Cost if paying someone, time if I do it myself
Removing low-level vegetation on 11 acres is challenging to keep up with.
Don't have equipment and costly to have someone else do it. We are doing little bits at a time.
Working on it need larger trailer to haul waste to transfer station
We are elderly and haven;t the physical capacity to do do much work ourselves. And can't afford a lot of expense for removal and trimming.
again, time...
I only have trees near the house on one side...to clear them would remove nearly all my trees and shade
Wood pile 20 feet from house/farther Would be difficult with snow
physical disability
Had a hip replacement this year, so removing all of the weeds brought by this summer's monsoon has been more difficult.
removing material from guters is dangerous (high). I do not have excess money to routinely pay for this service.
relocate wood only during "fire season"
I'm lazy.
I have a few more branches to trim to and I have a few tress that I won't remove that are close to the house/deck.
Need a yes but could do more category
Around and under deck - time and energy. Low level vegetation - have removed a lot but need help prioritizing the rest. Hard to get rid of scrub oak.
We were waiting for the trees to be in the dormant state before trimming off the low level branches. We plan to do this trimming in January and February.
most of the firewood is away, I have a small amount near the house for active use. Not sure about how much to trim trees and weather to skirt them or not to hep prevent ground to tree spreading.
Dead or dying vegetation - hard to access Trim tree branches near house - 1 old tree; hate to lose it. Cost.
Small property size makes relocating the woodpile difficult.
Cost of deck replacement
Just doing it.
Some had been done but more is needed.
keeping soil intact

time and physical constraints
Cost/time
Too much physical work and then cost too much to dispose of tree branches at transfer station
just need to do it - just purchased a reticulating saw for this purpose
Time
Age and physical condition
We are working on it. Drove yard waste 3X to the transfer station this week
Too busy with other things.
On list of things to do in all 3 cases.

## 16. Do you have other thoughts or concerns you would like to share?

no dwelling on vacant lot
Many people, even some who have lived in the East Mountains for many years, seem to have no concept of proper practices to minimize fire risk. I assume the reason is many folks on our one acre lots feel they will lose their privacy if they thin to the recommended standard.
Though our neighborhood has a calling tree for emergencies such as fire, some people are not comfortable sharing contact information. One person in the neighborhood creates a hostile environment which deters information sharing.
Making homes fire-safe should not be a profit-making industry. I can't pay low-skilled workers more than I earn to do perform these tasks.
We live on 30 acres mid slope. Behind us National Forest with a fire break not too far away. But across the canyon to the east are 2 subdivisions. If fire came from the east on a windy day, we're bound to get sparks.
Major concern is smokers throwing cigarette butts from cars. would be willing to help property owners for the wood.
Removable of trees killed by bark beetles can get expensive. I would like to see a program to help with that. I am concerned about a neighbor's property -- many inoperable vehicles on property. Concerned that a fire in our neighborhood would be exacerbated by this situation. Neighbor is a good friend. Don't want to cause an unfavorable situation. We look out for each other in our neighborhood.
One of the best ways to prevent a fire is keeping people out of the forest. And yet the county has given a green light for the Boy Scouts to run a camp in high risk area. Does not make any sense.
There is a lot of dead~trees along south 14, are you going to let people cut these dead~trees?
Other concern of neighborhood is well strength. I think a focus on thinning and it's possible effect on water tables, with research, if available, would be helpful. on highway 536, doesn't the highway dept. have responsibility to take out elms and other trees, as well as mow along the road?
We're very concerned about insurance company forcing us to cut down our trees that provide much-needed privacy from the nearby road, as well as much enjoyment from watching the birds right outside our window all day. Firefighting is important, but our birds and our privacy are more important to us. (Note: we don't use wood, so 0 cords should be an option in survey).
I think that neighborhoods like Sierra Vista Estates which only have one way in/out should be required and get grant money to thin their property. We have thinned ours but no one else has so what's the point.
It would be beneficial to make maps for the community that shows evacuation routes and shows fire fuel for each property. I make maps and do this for a living. Call me at 5054407273 for GIS services.
(1) Publicity about forest fire prevention in the EM is too frequent and unnecessarily alarming (much like the endless publicity about terrorists -- and equally harmful). It should be seriously reduced and toned down because we've already heard the message a million times, and it is causing some people to over-react. For example, I know that some are secretly cutting/thinning others' properties without permission, repeatedly pestering neighbors and whole neighborhoods about prevention, and so on. (2) Most EM people are very private and independent. If someone else wants to perform fuels reduction on their property, that's fine with us. But we don't want to be forced by law or coerced by insurance companies to do the same. We live here for the natural beauty, serenity and privacy our trees provide. And some of us -- like me -- have

disabilities that would make us do literally anything to avoid seeing our property forcibly butchered. Thanks for listening (if anyone did).
Keep working on the David~Canyon thinning/prescribed burn! Allow us to take the wood from there rather than giving it all to commercial operations.
Really need every one to thin their trees and remove dead~trees through Claunch-Pinto Conservation District's program. Need governmental entities to work with Deer Canyon Preserve to create a secondary fire exit. If we have a wild fire it will be a death trap.
I spend the money to keep my trees watered and I have a firebreak in my yard to isolate it from the hillside below me
Would like to see better access into the Sandia Mountains for removing fuel wood.
Yes but it would take too long to write. Need face to face to discuss. Thanks.
The classes offered by Sandia Ranger office has been very valuable. Now, if I can only get my immediate neighbor to work on their property, life would be golden!
National forest dead and down needs to be allowed to be removed, particularly near 10K trail.
We need a way to inform people about wildfire risk BEFORE they buy a property, so fire preparedness starts to impact property values and lend intrinsic economic value to preparing. In my case, I learned about these things but after I bought, and would have likely chosen a different property had I know what to look for. Fire Adaptation isn't included in any type of inspection, and so on. in the East Mountain home buying process. Once you've purchased, it is too late, especially for things like lots too small to thin, siding replacement, neighboring property owners, and so on.
How can we get owners of neighboring property to remove dead vegetation? Our property is next to property with lots of dead (beetle kill) pinions.
My place in Carnuel has a dry creek bed that used to run. I am concerned that the area has dried out to the extent that it no longer does, even after heavy rains. I don't need to worry about wildfire too much because nothing is grows here. I would not participate in the green~waste days because I try to keep those materials on site to increase water absorption
I appreciate that the county is trying to prevent forest fires from starting, but I am not sure that I think that it's right to apply the same fire restrictions that are put on public lands to landowners on their own private land. Every year there are sweeping open burn restrictions placed county-wide in order to cut down the fire risk, but I think it's neither necessary nor constitutional to tell landowners what they can and cannot do on their own property. As a landowner, I of course have a vested interest in being highly safe with fire, because my own land is at risk. But should I deem it necessary to burn small slash piles (with the direct reason of wanting to reduce fire danger), or even just have a nice little campfire on a summer evening, why does the county have the authority, or deem it necessary, to legally ban me from burning at all on my own land? I think that the community needs to respect the rights of landowners to use their own property as they see fit.
I hardly have any trees. I do have nasty tall weeds I can't get rid of that I would like more information about.
Thinning the forest and building roads is the best way to prevent the spread of a forest fire. Dense trees and grasses provide fuel for a fire that can quickly get out of hand. This danger is increased in mountainous areas where the flames can travel quickly up the side of the hills. Efforts should be in place for the removal of trees in the Sandia Mountains both by the City and by permitting locals to chop and gather wood in attempt to thin the trees to prevent the Sandia Mountains from becoming the next Los Alamos (as in the 2011 Las Conchas Fire, 2000 Cerro Grande Fire and many before that).
I have been thinning my forest, removing all dead, down, and horizontal trees, as well as the thick dead chamisa. Without the free weekends I would not have been able to do this. I am 71 years old and on fixed income, doing the work myself. I have carried approximately 350 cubic feet of compacted brush in the last 3 years and sell the firewood for extra income because I have asthma and can't burn it.
How about Forest Service drops unhealthy & dead~trees in designated areas and allows residents to limb, block & remove their own firewood with a permit. Dropping the trees is the most difficult/dangerous for average homeowners so this makes for a team effort to thin & make forest healthier. Program is HUGELY successful in Colorado.
I would like to have a system where East Mountain residents could cut dead~trees from willing neighbors' yards to help them get firewood and neighbors get rid of dead~trees.
1. In my opinion, ALL green~waste disposal at the Transfer Station should be FREE and AVAILABLE all the time. For me, specific dates always seem to coincide with a time that I'm not available for any clearing or disposal or can't get access to a truck or trailer for delivery (borrowed from neighbors). Since recycling is free all the time, I think green~waste disposal should

<p>be the same. I like the idea of green~waste dumpsters available though, unfortunately, I think people would misuse them and think they are an excuse to not drive their household trash and junk to the Transfer Station. I've seen this happen before... 2. I live in the Magic Valley development just east of Sandia Knolls (not sure if it's in area 2 or 4...it's right on the edge). I know of at least FIVE vacant lots in Magic Valley with absentee land owners that are in terrible condition (the land, not the owner) with downed trees - zillions of them - from the last ten years of beetle kills. A system needs to be established that clears this dead/down wood, either funded by the county or, preferably by the owner of the vacant land. They own the land and it is their responsibility to keep it safe for their neighbors, even if they don't live there. Thank you!</p>
<p>The problem with the green~waste days at the transfer station is that they seem to be always be held on days that we can't use them. When we do have a weekend to do thinning and clean up, it is always on days outside those green~waste days. Keeping the piles of brush until the green~waste day is contrary to the purpose So I would rather see green~waste days more often or all the time, with a different fee structure or something. That idea of having dumpsters or an alternative temporary dumping location for green~waste is a fantastic idea.</p>
<p>I wish I could convince more neighbors to attend EMIFPA programs, they are the best source of information.</p>
<p>We have several unbuilt lots in our neighborhood with absent owners. Many have serious amounts of downed and dead~trees, and are a serious fire danger. There is one small canyon that has so many dead~trees in it that it would take probably 8 guys several days to clear it. No matter how much we thin and prepare, those neighboring lots will create a firestorm. How can we legally get them cleared and thinned? We are in our sixties, and can't do it, even if the owner (unknown) would allow us to. There needs to be some way to get absent landowners to clean up the danger.</p>
<p>It may be hard to attend classes work-schedule wise, but I would like to if possible! If there was a website with info, that would be fantastic for anyone who can't make a class. Perhaps even video the classes to post on the website as well as provide brochures on general information of how to protect the property, what should be considered in an evacuation plan, who to contact for various things, and so on. I would jump all over a free home wildfire risk assessment if I knew where to get one, &amp; I would still sign up for one even if there was a reasonable fee. Thanks!</p>
<p>I don't think we are very well organized as a community. We live in a small subdivision (24 homes) and I just think we could be a bit more organized in our subdivision, rather than at the community level.</p>
<p>I would like to see a long term realistic look at thinning on the eco-system. I have noticed that cutting down the lower branches on many trees is actually killing them as they are not strong enough to accept the top heaviness this creates.</p>
<p>I know that the forest service is working hard to ready our surrounding forests, I wish that the price of thinning was cheaper I would have someone out and do the thinning for me, as I find it hard to take the time to do it myself.</p>
<p>There are many properties that need serious thinning of trees to reduce fire danger. Couldn't home insurance companies be required to make tree thinning a requirement for obtaining home insurance?</p>
<p>My mother's house was one of the first to burn in the 1989 Oakland fire. One of the major reasons for people dying was the small winding roads with overgrown vegetation next to the roads burning and trapping people. I think there should be a community gathering to clear the vegetation back from the roads to prevent this disaster in an evacuation. Especially where there is limited egress from neighborhoods. I'm in the Knolls and Oak and Sharp need the trees back from the road in a visibility and fire hazard bad way.</p>
<p>How can I force my neighbor to clean up her yard?</p>
<p>Harvest the rainwater on-site: multiple benefits!</p>
<p>Twice we have done serious thinning to the trees on our property, but many neighborhood lots are thick with sick and dead~trees. They worry me. the "Hondo" area thinned is full of dead~trees created by the prescribed burn. They are ugly and a hazard.</p>
<p>A program where tree thinning and/or dead~tree cutting consisting of both (i) trunks cut to firewood lengths and left for homeowner splitting/stacking/use and (ii) all associated branches shredded and removed would (a) complement overall community fire safety objectives, (b) potentially increase property owner's active/financial participation in this critical need, and (c) concurrently offset at least a portion of the offsite firewood currently purchased elsewhere.</p>
<p>Why not open David~Canyon, along the Crest Road, and so on. up for everyone to get wood every third Saturday of the Summer and Fall Season. Not just to resellers who stand in line for permits because they don't have anything else to do. It is supposed to be everyone's forest... Let everyone who wants to clear out dead or cut wood take it out of our Forest system.</p>
<p>City property butting against Sedillo Ridge Open space needs to be mitigated to address wildfire.</p>

We love the free green~waste days, however, they are not always timed correctly for us. We would suggest vouchers so they can be used when we are ready.
My 20 acres is a certified tree farm aka family forest. I have spent the past 30 plus years thinning and trimming and will continue to do so.
You did not have the option of burning NO WOOD. I do not burn wood for heat.
We participated in the County/Ciudad thinning program a few years ago and really appreciated that opportunity. Keep it up!
We don't have enough time to reduce the fire threat to where we would like it to be. And, with the dwindling water resources (little of no snow for the last few years), the trees are shedding more and more each year to manage.
71 years old, 11 acres, limited funds, limited abilities. To take advantage of green~waste days I had to pay someone to take it. I trimmed what I could but getting rid of it is a big problem. To have any of these other thing done is expensive. Once had cost sharing trimming evaluated and my share I believe was \$5000. For only part of the property and they wanted to take all the trees out from around my house and that provides my cooling in the summer.
Undeveloped lots owned by absentee owners or developer are not kept clear and maintained. Brush and dead~trees are allowed to accumulate.
Would like more information on tree and underbrush thinning programs.
I would like the county to make people responsible for their properties by issuing warnings or fines. My neighbors put me in danger due to their lack of concern. Tremendous amount of dead~trees and dense forest.
Need to get together with neighbors for evacuation plan. Live on dead end and we all need to take responsibility for maintaining our properties so all could evacuation in a fire
We don't burn wood, only pellets.
Mandated thinning of owner property to some degree.
There is no good reason to do controlled burns. Use your people and resources to oversee local folks hauling the wood out of the areas that need deforested for fire safety. You could charge twenty dollars a truck, set a limit on how much wood they can haul out. The National Forests would make money and it would help out the local economy but making wood available and making the woods a safer place to live.
Need information on frequency for cleaning chimney, checking spark arrestor, and so on.
I wished people in Forest Park would remove the trees that have died from the Bark Beetle on their property. A lot of people just leave them standing and I think it just spreads the Bark Beetle.
Mostly that fact that many neighbors do nothing to even remotely reduce the risk on their properties as well as owners that do not live on the property doing nothing. Some point you work on your own and look next door, see nothing being done and ask the question, Why Bother? If we all don't do it then it doesn't really help. I would like to see a bit more pressure applied by the county to thin. I always hear the county can't legislate owners to thin which I do understand as many of us live out here to avoid the big brother effect but on the flip side the county has other regulations it enforces to help and protect the community as a whole. I wonder if a tax based incentive might not be the way to go. If you do not thin then you incur a higher tax based on providing a higher possibility of requiring fire support and more costly firefighting. Those of us that thin do not pay the additional fire support tax. At least the removal of some trees and the ladder fuels would be a huge a help.
We have chosen to thin our entire 10 acres, rather than intensively focus on trees, and so on. near the house. We are now at the point where we need to remove smaller trees that come back in after thinning. Our property has now been designated a "Certified Tree Farm" by State forestry because of the level of forest management we do and what we have accomplished already.
Empty lots owned by out of state owners - no one takes care of thinning, chipping, waste removal.
EMIPFA does a bang-up job! Thank you all for your hard work and concern!
People with disabilities would probably need help in making their property safer.
Faulty trail heading toward la Cienega - really bad bark beetle damage - worse I have seen in 30 years. Would be an area to think about working on please.
Wildfire is real - we lost our home in Los Alamos in 2000. But we don't feel that others believe it is real. Our area is in significant danger, needs meaningful attention. In particular, what can we do about the adjacent properties that are not inhabited and their owners live elsewhere?

I'd like to be more involved with EMIFPA. Maybe volunteer for volunteer "SWAT Team" cleanup of fire hazards for older or ill neighbors.
We strongly support EMIFPA and the NM Forest Service Programs. They are outstanding!!!!
Neighbor's property (no structure) contains many dead~trees. I have been cutting the tall grass to ground level.
big difference between metal roofs and shingles-should not be classed together
Green~waste should not be charged at any time at transfer station
More more more you can never have enough education, stimulus to do something (neighbors on either side have done absolutely NOTHING you'll have to give them a reason to do so)
Programs this year have been helpful and very informative. Thanks to all who set these up!!!
We need more prescribed fire to reduce risk of high severity fire.
live in San Pedro Creek...fear a fire in Sandia Mountains would easily spread into this community
We are considering the branches removal help
Was this week's David~Canyon 210 acre prescribed burn area made available to the public for fuel removal prior to implementation? Is the future 500 acre prescribed burn area being made available to the public for fuel removal before burning? How many wood cutting permits were issued by the Forest service in David~Canyon in 2014 prior to the controlled burn? Will additional wood cutting permits be issued to the public prior to the future 500 acre prescribed burn being implemented?
Yes, please see note in box # 13 about wood harvesting. there are lots of properties in our neighborhood with vacant owners. These lots never get managed.

## Appendix C. Forest Insect and Disease Details

(Source: 2006 EMCWPP, updated by USDA Forest Service Forest Health Protection)

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**Bark Beetles** (*Ips* spp., *Scolytus* spp., and *Dendroctonus* spp.). *Ips* beetles, also called engraver beetles, attack ponderosa and piñon pines as well as other conifers. They are responsible for the huge piñon die-off within the range of the East Mountain Area CWPP over the last two years. *Dendroctonus* beetles attack medium to large ponderosa pines, blue spruce, Engelmann spruce, and Douglas firs. In this area, *Scolytus*, or fir engraver beetles, attack white fir. Each of these species creates egg galleries within the cambium layer of the tree, distinct to that species, which eventually girdle the infected tree. The tree's natural defense is to "pitch out," or excrete sap into the entrance holes, covering the beetle with sap and killing the invader. Trees are most likely to be successful at this strategy when they are not stressed by high tree density or drought. Once a tree has been colonized, it cannot be saved. In addition, beetles create opportunities for blue stain fungus to infect trees. This fungus blocks sap flow and eventually kills the tree. Since 2012, there has been a big increase in tree mortality in the Douglas-fir, white fir and piñon due to bark beetles.

**Twig Beetle** (*Pityophthorus* spp.). The twig beetle is currently the second most damaging insect in the CWPP project area. Twig beetles frequently attack piñon pines as well as other conifers. High beetle populations develop in drought-stressed and otherwise injured trees. Breeding is restricted to twigs and small branches. Fading branches throughout the crown and tan sawdust around the attack site can identify trees attacked by the twig beetle. Hand pruning and vigorous watering can sometimes control attacks.

**Piñon Needle Scale (Scale)** (*Matsucoccus acalyptus*). Scale is a native sap-sucking insect found in the Southwest. Feeding by scales weakens trees by killing needles over one year old. Sometimes small trees are killed by repeated attacks, and larger trees are weakened to such an extent that they fall victim to attack by bark beetles. Repeated, heavy-scale infestations leave trees with only a few needles alive at the tips of the branches. Scales appear as small, black, bean-shaped objects on the needles of the trees. Destroying the eggs before they hatch can greatly reduce potential damage.

**Piñon Spindle Gall Midge** (*Pinyonia edulicola*). Midges produce a spindle-shaped swelling from the needle base that is about one-half inch long. This insect is a common forest pest that rarely causes serious damage. Control is usually not necessary.

**Piñon Needleminers** (*Coleotechnites edulicola*, *C. ponderosae*). Needleminers are locally common on piñon and ponderosa pines. Species resemble one another in appearance and damage but have different life cycles. Damage first becomes evident as foliage browns. Closer examination reveals hollowed-out needles. Early needle drop, reduced growth, and tree mortality can result from needleminer infestation. Trees normally recover from needleminer damage without suffering serious injury, but the current drought can change this.



**Roundheaded and Flatheaded Wood Borers** (Family *Cerambycidae* and *Buprestidae*). Roundheaded and flatheaded wood borers attack recently cut or dead and dying trees, often riddling them with tunnels. Roundheaded borers are the most destructive, tunneling deep into the wood. Fresh-cut logs in the woods or firewood stored at a home are common infestation sources. These borers are most prominent after a wildfire. They may also spread into vigas in homes.

**Juniper Borers** (*Callidium* spp.). Several wood borers are aggressive pests in drought-stressed junipers in the CWPP project area. Damage can be extensive before symptoms are apparent. Usually a large portion of the tree or the entire tree dies before the insects' exit holes are noticed. Larvae bore beneath the bark, making galleries and tunneling deep into the wood to spend the winter. Borer damage has been frequently noticed in some of the larger junipers around homes.


**Mistletoe** (*Arceuthobium* spp., *Phoradendron* spp.). Mistletoe is common in the plan area. Mistletoes are parasitic plants that gradually degrade tree vigor and may eventually kill their hosts over a long period. Essential water and nutrients are diverted from the host plant to the mistletoe, thus depriving the host of needed food. Dwarf mistletoe is found on piñon pines, ponderosa pines, and firs. It is host-specific, that is, the species that infects piñon does not infect other tree species and so on. True mistletoe is common on junipers in the Southwest. Both types of mistletoe spread from tree to tree and are difficult to control. Dwarf mistletoes spread by shooting wind-borne spores, and birds spread seeds of true mistletoes. In residential areas pruning can sometimes be effective on smaller trees. Heavy infestations in large trees can be controlled only by cutting down the trees and removing them to stop the spread of the mistletoe to other trees nearby.

**Fir Broom Rusts** (*Melampsorella caryophyllacearum*). Broom rusts are primarily a forest problem on white firs at higher elevations in the Sandias. There is also a species that is found on Engelmann spruce, but it is less common. These infections cause growth loss, top kill, and eventually tree mortality. Both species require alternate hosts to complete their life cycle. There is no chemical or biological control for the broom rusts.

**Needle Cast** (*Elytroderma deformans*). Needle cast affects piñon and ponderosa pines in the plan area. It can be damaging because it invades twigs and needles and persists for several years. Symptoms occur in the spring when all the year-old needles turn brown 6–12 mm from the needle base. Incidence of this disease is low.

**Douglas-fir Tussock Moth** (*Orgyia pseudotsugata*). The Douglas fir tussock moth is an important defoliator of Douglas-firs and true firs in New Mexico. Moth eggs overwinter on fir needles. Larvae emerge and begin feeding on foliage in the spring causing it to shrivel and die. The flammable red needles that remain on the tree for a period of weeks may alter fire behavior within heavily infested stands. There was an outbreak of tussock moth in 2006-2007, that defoliated a large area of the Sandias. Populations have subsided in recent years, but trapping results by the USDA Forest Service indicate the likelihood of a smaller outbreak in the next few years.

## Appendix D. Community Assessment

<b>Community Zone 1</b>	
<p><b>Geographic Area:</b> East and west of Highway 14 North, from the junction of North 14 and La Madera north to the planning area boundary</p>	
<p><b>Includes:</b> La Madera, Paako, San Pedro Creek Estates, and San Pedro Overlook</p>	
<p><b>Vegetation:</b> Piñon-juniper woodland and juniper savanna</p>	
<p><b>Vegetation Condition:</b> High piñon mortality, some areas with closed canopy and dense fuels. Several homes across the area have completed thinning projects. In addition, there is a cluster of thinned properties located within the densely vegetated Cañon Madera neighborhood.</p>	
<p><i>Community of La Madera</i></p>	
<p><b>Typical Construction:</b> Paako and San Pedro community homes are adobe or stucco. Homes in La Madera are manufactured homes or finished with adobe, stucco, wood siding, or brick. Roofs across area are constructed with metal, asphalt shingles, tile, or are flat with asphalt and gravel.</p>	
<p><b>Access and Egress:</b> Locked and automatic gates without emergency access provisions are a problem throughout the area. La Madera has one way in and out with narrow, steep roads and unmarked dead ends. However, many dead-end roads in the area have turnarounds.</p>	
<p><b>Community Values:</b> Safety of inhabitants; school and community center; La Madera fire department; electrical and phone grid; housing; amenities, aesthetics, quality of life, views, etc.; livestock; archaeological and cultural sites; ski area, picnic area, campgrounds, Paako golf course and club house.</p>	
<p><b>Community Suggestions for Risk Reduction and Mitigation:</b> Thinning; prescribed burns; turn Sulphur WUI Project from planned to done; thinning, prescribed burn, National Forest East 165 and road to crest (e.g., Palomas Peak, Tecolote Peak); develop evacuation plan for area (especially La Madera); inventory available water supplies, add new water supplies where inadequate for fish and wildland fires; establish green waste center; fix green waste problem at transfer center; buy more chippers (commercial chipper can be had for ~ \$10,000); more information and education efforts for local residents; encourage all homeowners to thin their own lots; provide assistance to ground (e.g., lend chippers); encourage all homeowners to do risk assessments around the home; encourage residents to number their houses in large, visible numbers (address in evacuation plan).</p>	
<p><b>Additional Comments:</b> Defensible space should continue to be improved across this zone. The ratings for this community zone were moderate to extreme.</p>	

## Community Zone 2

**Geographic Area:** East and west of Highway 14 north, from Interstate 40 north to La Madera Road

**Includes:** Sandia Park, Sandia Knolls, Piñon Ridge, Canoncito, Forest Park, Hobbies, Mountain Homes Estates, Cañon Estates, Sierra Vista and Fox Hills

**Vegetation:** Mostly piñon-juniper, some ponderosa pine forest, particularly around Sandia Park. Some grassland and juniper savanna also scattered throughout zone.

**Vegetation Condition:** Piñon mortality evident in most areas to varying degrees. Some areas have closed-canopy woodlands with dense ladder fuels. In most communities, some homes have completed thinning projects.



*Homes in the Sandia Park Community*

**Typical Construction:** The majority of homes in the area have wood siding. There are also adobe, stucco, brick, and manufactured homes across the area.

**Access and Egress:** Most residential developments in this area have only one-way in and out. Roads can be steep and narrow, but most dead ends are marked. Automatic gates without emergency access provisions are a problem throughout the area.

**Community Values:** One road in and out of neighborhoods; wildfire; general landscape; homes; watershed; views, scenery; healthy forest in wilderness; thin wilderness areas; congressional action; safety of kids, pets, livestock; education for all on forest health protection; more communication in neighborhoods, East Mountain area; schools, daycare, businesses, and our community; establish tentative evacuation centers for domestic animals; wildlife safety and enjoyment; having dependable neighbors, neighborhoods; hydrants; notification, good communication; rural culture; more community fire protection; trucks, tanks, hydrants – visible.

**Community Suggestions for Risk Reduction and Mitigation:** Create/assure emergency egress from every neighborhood; wildlife corridors; defensible spaces all around, including non-resident owners; chipping, thinning, slash disposal, neighborhood based, accessible for neighborhoods; high school/community “volunteers,” work parties, etc.; know how to contact neighbors/increased communications, neighborhood organizations; tentative (or sample) evacuation plans; education for forest safety, health, evacuation, community organization.

**Additional Comments:** Homes with trees and shrubs growing up against the wood siding and up under the deck are common. Improved defensible space would reduce home vulnerability across the zone. Refer to the “Sierra Land Grant Community Coalition Fire Plan” for specific fire prescriptions. Community ratings in this zone are moderate to high.

### Community Zone 3

**Geographic Area:** North and south of Interstate 40, east of Tijeras, west of Mountain Valley Road and Highway 217

**Includes:** Sedillo, Juan Thomas, El Tablazon, Rincón Loop, Gutierrez Canyon, El Refugio, Woodland Hills Estates, Five Hills and Nature Pointe

**Vegetation:** Mostly piñon-juniper woodland and juniper savanna with some pockets of ponderosa forest and grassland

**Vegetation Condition:** Some areas with dense, closed-canopy woodland. Dog hair thickets with dense trees of the same age are also common.



*Community of Rincon Loop*

**Typical Construction:** There are adobe, stucco, brick, wood, and manufactured homes across the area. Metal or asphalt shingle roofs are most common, but there are also homes with tile or flat roofs.

**Access and Egress:** Steep, narrow gravel roads with unmarked dead ends are common throughout area. Some communities have multiple access routes, but others have only one way in and out.

**Community Values:** Safety and welfare of residents, because of single entrance, dense forest around perimeter, and amount of fine fuels; the forest and surrounding areas are the attraction and value of the area; old historic and prehistoric settlements; solitude.

**Community Suggestions for Risk Reduction and Mitigation:** Public lands need fuel reduction and altering fuel ladder structure; open lands for wood cutting, carefully; private landowners mow fine fuels; better control of fine fuels along all roads.

**Additional Comments:** No other issues. Communities in this zone on average rated as moderate.

## Community Zone 4

**Geographic Area:** East and west of Mountain Valley Road and Highway 217

**Includes:** Barton, Sandia Mountain Ranch, Frost Road, Mountain Valley Road

**Vegetation:** Piñon-juniper woodland, juniper savanna, and grassland

**Vegetation Condition:** Vegetation varies across area from open grassland to dense, closed canopy piñon-juniper woodland.



*East Frost Road Community showing variable vegetation*

**Typical Construction:** Homes in the area are finished with wood, adobe, stucco, brick, and metal siding. Metal and asphalt shingle roofs are most common, but there are also homes with tile or flat roofs.

**Access and Egress:** Locked and automatic gates without emergency access provisions are a problem throughout the area. Unmarked dead ends occur across area.

**Community Values:** Homes and further development; commercial development – Old Route 66; propane retail outlet; Route 66 Elementary; loss of life – secondary to communication and homebound residents; pets and livestock; loss of access – Frost Road, 217/Man Valley, I-40; loss of aesthetic value; gas pipeline; continued utility services – electrical, water, communication; Entramosa headquarters; two fire substations with apparatus; more rolling rather than steep slopes; piñon-juniper and grassland; better access with larger tributaries; Entramosa on generator power; water issues without power; general apathy of the public and residents.

**Community Suggestions for Risk Reduction and Mitigation:** Reduce human error and possible cause of wildfire through regulations, restrictions, education; highlight major event with media and how the plan would work; covenants and rules should encourage defensible space.

**Additional Comments:** Vulnerability of individual homes in this zone varies from low to high, depending mostly on defensible space and the type of vegetation close to the house. Communities in this zone are rated from moderate to high.

## Community Zone 5

**Geographic Area:** North and south of Interstate 40 from east edge of Albuquerque west past Tijeras

**Includes:** Carnuel, Tijeras, and Primera Agua

**Vegetation:** Mostly piñon-juniper woodland and juniper savanna with patches of sage scrubland and riparian corridors

**Vegetation Condition:** Some piñon mortality across zone. Riparian areas include dead and down fuels.



*Community of Primera Agua*

**Typical Construction:** There are adobe, stucco, brick, wood, log, and manufactured homes across the area. Common roof types include flat, metal, and asphalt shingles.

**Access and Egress:** Dead-end roads are common; some have turnarounds, some do not. Many areas have one way in and out.

**Community Values:** East Mountain Public Library, A. Montoya Elementary School, Roosevelt Middle School, Tijeras Municipal Building, Santo Niño historic church, GCC Cement Plant

**Community Suggestions for Risk Reduction and Mitigation:** Continue free trash and green waste disposal on “Clean Up Saturdays”

**Additional Comments:** Density of homes is more of an issue in this zone than in others. Although many neighborhoods are not within dense vegetation, defensible space is still an issue because fire could potentially move from house to house. This issue results in the rates of all communities in this zone as high to extreme.

## Community Zone 6

**Geographic Area:** Both sides of Highway 337 south to planning area boundary

**Includes:** Cedro, Alley Place, Yrisarri, Ponderosa Pines, Escabosa, Buckboard, Anaya and Juan Tomas

**Vegetation:** Much of the area is piñon-juniper woodland or ponderosa forest. Juniper savanna and grassland vegetation is scattered throughout the area

**Vegetation Condition:** Contiguous vegetation, with a closed canopy and ladder fuels, is common. All communities contain homes that have completed thinning projects.



*Juan Tomas Community*

**Typical Construction:** There are adobe, stucco, brick, wood, and manufactured homes across the area. Metal or asphalt shingle roofs are most common, but there are also homes with wood shingle roofs. This is the zone where wood shingles were more often observed.

**Access and Egress:** Many communities have more than one way in and out. Many narrow, steep roads and unmarked dead ends exist. Turnarounds are inadequate or nonexistent in many cases.

**Community Values:** Narrow roads, rural character; ecological continuity; private initiative; individual responsibilities; forest, watershed; develop business providing fire-resistant building materials and appliances such as individual roof sprinklers; better understanding of ecological dynamics, e.g., do junipers crowd out other species; people (and their animals as much as possible); homes/structures—include stores, fire stations; roads; ideally protect the forest as much as possible; natural water sources—streams, creeks, and springs; people—including those needing assistance; animals, pets, wild animals; the forest; conservation of “stream” in David Canyon; watershed serving community—Tranquillo Pines water supply; awareness of what individuals can do; rural character preserved; more signage; Fire Station 11; forest; one way in—one way out; real estate value; wildlife; the biggest threat of wildfire to community values is encouraging urbanization by creating demand for broad roads, turn-around, hydrants on water systems, and government responsibility for putting out fires instead of individual responsibility.

**Community Suggestions for Risk Reduction and Mitigation:** Education and training including on-site demonstration projects and organized community thinning and slash removal days; fuel reduction; signage—no smoking, don’t throw butts; financial assistance for thinning and slash removal; more signage around Exit 175—north and south; education; encourage thinning/defensible space by individual owners; publicize availability of government funds for thinning; financial assistance; neighborhood groups work together; individual responsibility—stored water and roof sprinklers; require real estate brokers to disseminate information as to personal responsibility (roof sprinklers, etc.); define “forest health” as a means of determining which type of thinning is appropriate where; building codes that provide for fire-resistant materials and individual fire prevention.

**Additional Comments:** Very rural communities, isolated, larger lots and older homes result in the rates for communities in this zone to range from high to extreme.

# Appendix E. Post-Fire Resources for Individuals, Families and Businesses

(Adapted from [www.afterwildfirenm.org](http://www.afterwildfirenm.org))

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New Mexico State Forestry suggests addressing a few key questions prior to a fire to speed post-fire recovery:

1. If you had a wildfire, who would you need at the table to help with recovery? See this page for ideas of skills needed: <http://afterwildfirenm.org/mobilize-your-community/assess-your-needs>
2. Financial tips: Take photos of your community and home, just in case. Save important documents and photos in a safe place off site (people have reported their "fire safe" safes melting in wildfires). Many funding sources require non-cash contributions or "match" in the form of donations of time or other resources. Think about where match funding would come from within your community; start building a match fund if one is not in place.
3. Post fire flooding: in case of a wildfire, what resources/special places are important to try to protect from post fire flooding? (Water supplies, special cultural places - whatever is important to that community). What are some ways to provide that protection/which agencies might help? Starting to think ahead about what the response will be can help if a wildfire occurs.

The **American Red Cross** can assist individuals and families with immediate emergency needs. Call 1-800-RED CROSS (1-800-733-2767) and ask for your local chapter, or visit [www.redcross.org/newmexico](http://www.redcross.org/newmexico).

The **Farm Service Agency (FSA)** offers emergency financial and technical assistance to agricultural producers or forestland owners to help them recover from the effects of natural disasters, including wildfires. Call 505-761-4900, visit your local FSA office, or go to [www.fsa.usda.gov](http://www.fsa.usda.gov).

**The New Mexico Environment Department** can assist people in making sure their water supply is safe after a wildfire. Call 505-827-2855, or 877-654-8720 Monday – Friday, 8-5 or visit [www.nmenv.state.nm.us](http://www.nmenv.state.nm.us).

**New Mexico Human Services Department** assists with applications for SNAP (the Supplemental Nutrition Assistance Program). An expedited SNAP program exists to provide benefits within 7 days. Additionally, food lost in a disaster may be replaced if you are part of SNAP. Call 1-800-283-4465 or visit [www.hsd.state.nm.us](http://www.hsd.state.nm.us) for more information.

**New Mexico State Forestry (Energy, Minerals and Natural Resources Department)** can conduct post-fire assessments and provide technical assistance to private landowners. For more information, call the main office at 505-476-3325, contact your local office, or visit [www.emnrd.state.nm.us/SFD](http://www.emnrd.state.nm.us/SFD).

**The Small Business Administration (SBA)** provides low-interest disaster loans with long-term repayment plans to qualifying individuals and businesses in a declared disaster area (either SBA administrative declaration or Presidential). Businesses and non-profits may qualify even if their property was not damaged (for example, if the fire affected profits due to decreased visitation). For more information, call 1-800-659-2955, visit [www.sba.gov/disaster](http://www.sba.gov/disaster), or email [disastercustomerservice@sba.gov](mailto:disastercustomerservice@sba.gov).

**Soil and Water Conservation Districts** may provide help after a wildfire or natural disaster. Contact the New Mexico Association of Conservation Districts (**NMACD**) at 575-981-2400 or visit [www.nmacd.org](http://www.nmacd.org), or call the New Mexico Coalition of Conservation Districts at 505-832-1111 or visit [www.nmccd.org](http://www.nmccd.org).



## Help for Communities

The **Natural Resources Conservation Service's** Emergency Watershed Protection (EWP) program provides technical and financial assistance following natural disasters in order to prevent further damage from flooding, runoff and erosion. Applications must be sponsored by a public entity, such as a qualified tribal organization, a division of state government, a city, county or special district (irrigation, conservation, etc.) and be made within 60 days of the start of the event which caused the impairment. Matching funds are required, and timing of funding depends on availability at the national level. For more information, contact your local NRCS office or the main office at 505-761-4400, or visit [www.nrcs.usda.gov](http://www.nrcs.usda.gov).

**The New Mexico Department of Homeland Security and Emergency Management (NMDHSEM)** may provide grants to local governments, tribal entities and state agencies in Presidentially declared disaster areas to put in place measures that reduce the overall hazard to communities. For more information, visit [www.nmdhsem.org](http://www.nmdhsem.org) or call 505-476-9600.

**US Army Corps of Engineers (USACE):** The USACE Albuquerque District has a suite of programs to assist communities and other governmental organizations to reduce flood risk after a wildfire, restore riparian ecosystems, and provide technical analyses related to water issues. The USACE also provides assistance in permitting of work in waterways after a wildfire has occurred. Visit [www.spa.usace.army.mil](http://www.spa.usace.army.mil) to find more information.

## Local Community Organizations

Some local volunteer groups and non-profits also offer relief services for communities in disaster situations:

The **Salvation Army** provides temporary assistance for qualifying individuals and families in need, including vouchers for rent and emergency and legal aid. Call 505-247-2462 for the number of your local chapter.

The **New Mexico Community Foundation** may provide funding to communities impacted by wildfire. For more information, call 505-820-6860 or visit [www.nmcf.org](http://www.nmcf.org).

The **2-1-1 Free Information and Referral Center** is available in some New Mexico communities and may offer information after a wildfire by dialing 2-1-1 on the telephone.

**Self Help** may provide assistance to residents of Los Alamos, northern Santa Fe, Rio Arriba and Taos counties. Call 505-662-4666 for more information.