



## Village of Cloudcroft

### Hazard Mitigation Plan- 2017

Written by Susan Dreikosen

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## **Plan Participants and Contributors**

### **Team Members**

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**David Venable- Cloudcroft Mayor**

**Jini Turri- Village Administrator**

**Erich Wuerschling- Fire Chief**

**Charliss Randall- EMS Director**

**Jubal Hall- Village Public Works**

**Cindy Voight-Village Planning & Zoning**

**Lynn Lovelace- NM State Forestry**

**Kevin Summers-Cloudcroft Police**

### **Stakeholders**

**Otero County Electric Coop**

**Tularosa Basin Telecommunications**

**USFS Law Enforcement**

**HAFB 49th Wing Public Affairs**

**Cloudcroft Chamber of Commerce**

**Cloudcroft Senior Center**

**Cloudcroft Animal Hospital**

**Cloudcroft Municipal School District**

**United Methodist Church**

**The Lodge Resort & Golf Course**

**USFS Sacramento Ranger District**

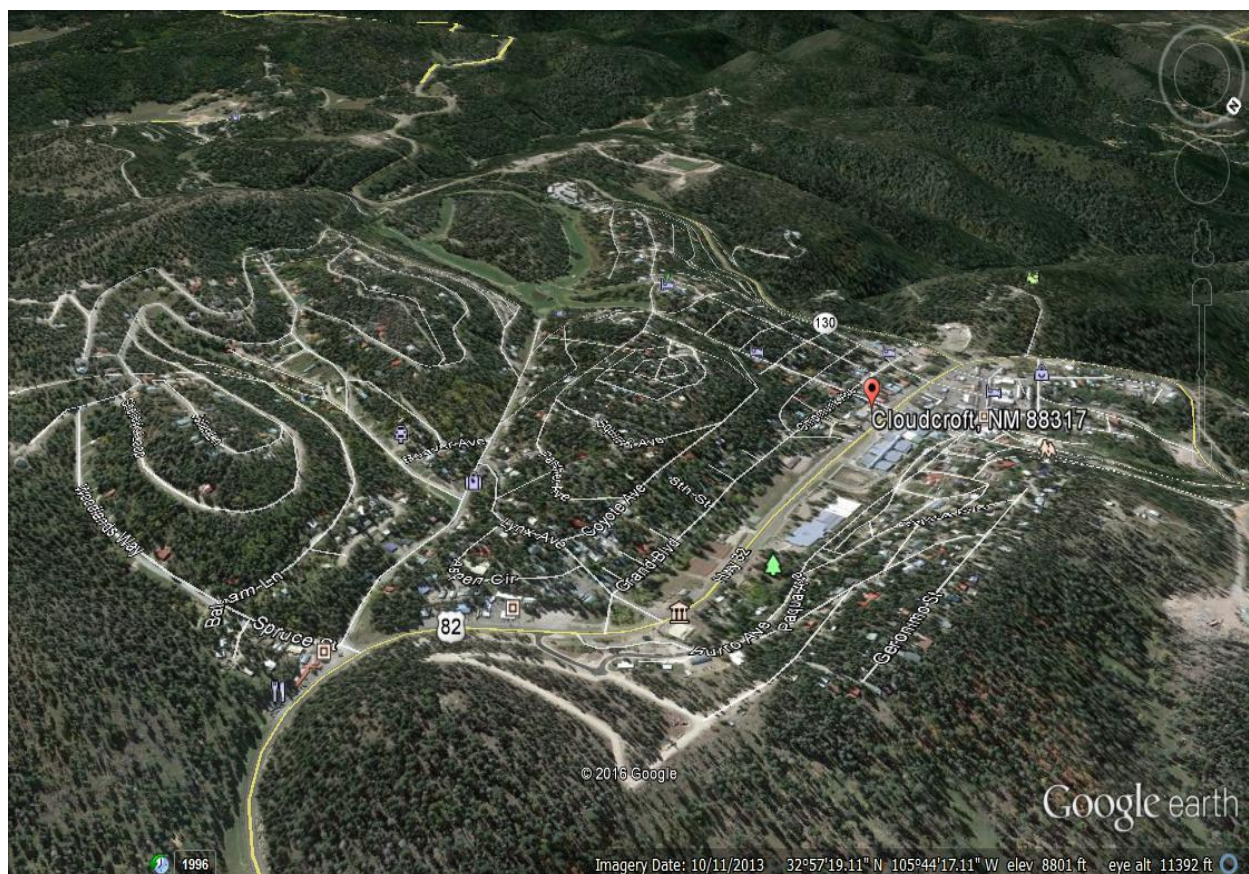
**Cloudcroft Historical Directory**

**Mountain Monthly**



## Mission Statement

*This is an aerial view of Cloudcroft. It is hard for some to understand the impact on a community of this size, without seeing the actual environment. Cloudcroft is centered on top of a mountain range at 8600ft., surrounded by National Forest land. The Governing Body of the Village of Cloudcroft consists of the Mayor and four Trustees which serve voluntarily. Along with our Volunteer Fire Department and EMS Services, we truly serve the public for the full benefit of our community. We are dependent on our Tourist economy and the character of our people. Any hazard identified in this plan can impact the entire community in various ways, 100% directly, or can be a result of the hazard by default of the domino effect. We are a very small community and realize that this Mitigation Plan is necessary to make it more resilient to disasters and speed recovery. Our mission is to protect our Natural Resources and the Citizens of our Community, it cannot be achieved without financial assistance to mitigate the identified hazards in this plan. The Cloudcroft Hazard Mitigation Planning Team will meet at least once a month to discuss progress reports and will be open to the public.*





## Introduction

Cloudcroft is a small village situated in the Northern part of Otero County, in the Southeast portion of the state, within the Sacramento Mountains. Surrounded by the Lincoln National Forest, Cloudcroft sits at 8900 feet elevation. While located far from major cities and interstate highways, Cloudcroft has its share of potential risks due to its forested remote mountain location. Proximity to US Highway 82, Cloudcroft is coupled with the threat of wildfires and where long-term drought has recently plagued the area. This plan is a broad look at hazard mitigation for Cloudcroft. It identifies the major issues that the village has experienced and may face in the future. The purpose of the plan is to mitigate and minimize natural and man-made hazards within the village limits in order to restore and recover from any identified disaster in the least amount of time. Hazard Mitigation is defined as “any action taken to reduce or eliminate the long-term risk to human life and property from natural and man-made hazards”.<sup>1</sup>



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<sup>1</sup> Jerolleman, Alessandra and Kiefer, John J. (2013), *Natural Hazard Mitigation*, CRC Press; Pgs., 1-39

Examples of hazards commonly mentioned in New Mexico's community mitigation plans are wildfires, water shortages, damage to critical infrastructure from acts of terrorism and/or from long-term power failures caused by severe weather events. Since some hazards are ongoing, hazard mitigation often focuses on reducing repetitive loss. The emphasis on long-term risk is different from actions geared towards emergency preparedness and short-term recovery strategies after a disaster particularly in some instances, the personnel involved overlaps. Hazard mitigation also ties into drought and wildfire protection plans already in place and overlaps with emergency management planning. The major risks are identified in this plan and some objectives to resolve these concerns are discussed. Determination of the identified hazards came from public surveys (*Supporting document 8.1, page 54*) conducted during public meetings, fire prevention events and data collected by local government agencies, community stakeholders and emergency personnel.<sup>2</sup>

### **1.0 Village of Cloudcroft Demographics:**

The Village of Cloudcroft jurisdiction is located within the boundaries of Otero County and operates as a separate Municipal Government and ordinances. Otero County jurisdictions that surround the village are controlled by county officials and were part of the outdated county plan of 1996. At the present time, Cloudcroft was unknowingly not included in the county plan, due to Municipal statutes and its unique situations governed by the immediate response needed locally. Geographically, the county is separated by its terrain. Cloudcroft is mountainous, rural, within a heavily wooded mixed-conifer forest in the northern portion of the county in which

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<sup>2</sup> Cloudcroft Clean & Safe Project, Village of Cloudcroft Planning & Zoning Commission Special Project 2013-2014, C.Voight, President.



elevation ranges from 8000 to 11,000 feet. Response from county resources located in the County Seat of Alamogordo (southern end of the county), would take from 35 to 45 minutes. The southern portion of the county is more populated and urban, with very different hazards and the elevation ranges from 4000 to 5000 feet, in a desert basin. The village straddles the upper watershed of the Rio Penasco River and flows eastward. The village is also surrounded by the Lincoln National Forest and the Mescalero Apache Indian Reservation to the north. Automatic Aid and Mutual Aid agreements are in place with County resources located in the northern portion of the county. Upper Otero County Fire Officials and Emergency personnel and private-party resources participate in training, prevention and education events on a continual basis. Voluntary cooperation from surrounding communities in the mountains\* provided a list of Contacts, subdivision maps, evacuation plans and types of resources available. The majority of these participants work in Cloudcroft, but reside outside of the village limits. As employees of businesses within the village, their input is personally voluntary. In addition, they have a vested interest in the development and economic stability of this community (§201.6(b)(2)). These records are kept in the Village EOP and are updated annually by the EOC Core Team (Mayor, Emergency Manager, Fire Chief, EMS Director, and Public Works Director) (§201.6(b)(2)). Cloudcroft has a population of 746 according to the 2010 US Census, but is host to over Twelve hundred more part-time citizens and visitors. Important to National Security, are the National Solar Observatory and Apache Point Observatory which are also located nearby; there are seven smaller communities in the immediate area of Cloudcroft, but they were not officially included as part of the village plan and are governed by Otero County government perimeters. Outlying communities surrounding Cloudcroft are only bound by signed Emergency Services mutual aid agreements and are restricted in participating in other government plans by County Emergency

officials. The majority of these communities have children attending Cloudcroft Municipal Schools, in which the School Administration also participated in the development of this plan, in addition to Cloudcroft's Emergency Operations Plan.

Cloudcroft provides two Medical Clinics, an Elementary, Middle and High School, an ISO 4 Rated Fire department and a BLS Medical Transport service. There is no public transportation system and relies heavily on the one major highway US 82. This is a two lane winding highway which runs east and west through the center of town, continuing through miles of scenic mountainous terrain.

The average age of the citizens is 60 to 64 years. 24% is over 65 and 32% is 34 or under. The school district consists of 2300 residents, which 77% live outside the village limits. There are 313 full-time and 730 part-time registered tax-paying residents in the Village of Cloudcroft.

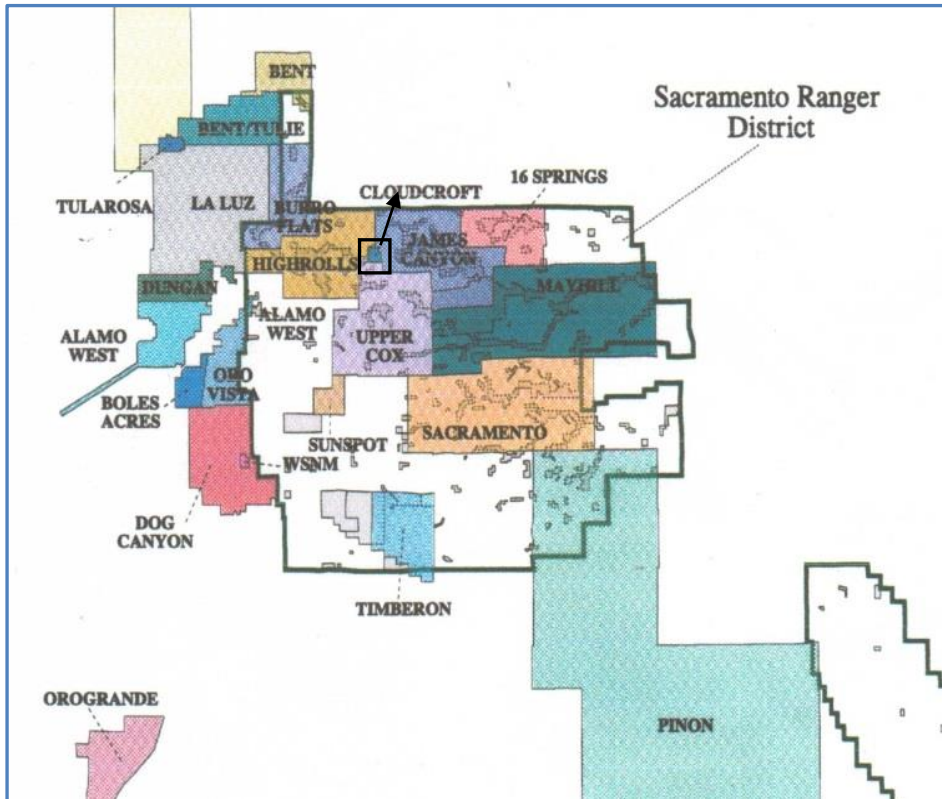
There are two State Roads off of Highway 82, 130 and 244. Highway 130 takes you to the south, towards Sunspot, and Timberon. Highway 244 will take you to the north, through the Mescalero Reservation and connect to US Highway 70 which brings you into the slightly larger neighbor called the Village of Ruidoso. State map can be found on page 79.

Although we were not able to formally include actions or projects for surrounding communities in this plan, we did consider their input as a beneficiary of our efforts. Cloudcroft is the center hub of this mountain area, offering education, economy, recreation, income opportunities and a safe relaxing livelihood to everybody who lives and/or visits our community. Our neighbors depend on us to assist them when necessary and we open our doors without question.



## VILLAGE OF CLOUDCROFT HAZARD MITIGATION PLAN

The following graphic shows the outlying County Jurisdictions (with population) that attend Cloudcroft Schools and are considered the Upper Otero County area:



This graphic outlines the various fire districts within the immediate area of Cloudcroft. (Graphic provided by Otero County Assessor's Office). Populations for jurisdictions as follows: Mayhill- 75, Pinon- 25, Sacramento/Weed- 121, James Canyon- 1230, Timberon- 361, Upper Cox Canyon- 301, Mescalero- 1,233, Sunspot- 37, High Rolls- 832 (2010 US Census)

### 1.1 Our Municipal Government

The Mayor and four Trustees serve our community voluntarily. Planning and Regulatory capabilities that currently exist is a Comprehensive Plan, Capital Improvements Plan (ICIP in attachments), The Emergency Manager is an appointed position and is also volunteer. The EM is responsible for the EOC and Shelter. The EM also develops and maintains the Emergency Operations Plan and any other related exercises or plans such as the Mitigation Plan. An Economic Development Plan is currently being created with the help of Otero County Economic

Development Council. The Continuity of Operations Plan is currently managed by the New Mexico Municipal League, but will be the next plan developed after the Mitigation Plan implementation. The 2004 Community Wildfire Protection Plan was developed by New Mexico State Forestry, with our area being part of the County CWPP. There are no local Transportation or Storm Water Management plans in place, because they are not applicable. Any current regulations are managed by State and County officials. Building Codes and Inspections are overseen by the State and are regulated by State Codes. The only ordinances regulated by the local jurisdiction are setbacks and appearance of commercial buildings, which is enforced by the Planning and Zoning Commission. P&Z Commissioners are all volunteers and have various skills and education levels. Their research into difficult decisions is limited to Village Ordinances and Legal advice from the Village Attorney. Many buildings and homes were established in the late 1890's to the early 1900's, many are grandfathered, some are on the Historical Register, and those are overseen by the Cloudcroft Historical Directory. There are two sub-divisions that were developed in 2000 and 2015 that fall under the newer development codes which address spacing, road widths and fire safety. The local volunteer fire department is regulated by the State Fire Marshal and is independently funded solely by its ISO rating, Cloudcroft is rated at an ISO-4. We have several warning systems in place. The County manages the Reverse 911 service. The Municipal School District has a similar system for warning students and parents of closures delays and emergency situations. Cloudcroft is also a registered user of FEMA's Integrated Public Alert and Warning System (IPAWS), which the EM manages this program. This type of system works very well with our transient population. There are 4 outdoor warning sirens in place throughout the community. Monthly Testing and educating the Public on its sirens is the responsibility of Public Works and the Fire Department. (§201.6(b)(2))



## **1.2 Critical Infrastructure**

- Administration Building- Mayor's Office, Water Dept., Judicial Office, MVD, Police
- Chamber of Commerce, Library and Historical Museum
- 3 Fire Departments- 82 Station, Glorietta Station, Training Facility and Station
- Water Facilities- Water Storage and Treatment, Wastewater Plant
- Cloudcroft Communications Repeater Tower
- Community Center and Senior Center
- Public Works Department and Maintenance Facility
- USFS Sacramento District Office, Trestle Depot and various Public Campgrounds
- Ski Resort, Skate Rink, CLOC Theater Pavilion
- K thru 12 Municipal School District with offsite Athletic Field

### **Emergency Response Services:**

- |                                   |                                    |
|-----------------------------------|------------------------------------|
| • Cloudcroft Fire Department      | • Holloman AFB Hazmat Team         |
| • Volunteer County Fire Dept. (6) | • 2 Minor Medical Clinics          |
| • EMS BLS/ALS- Levels (2)         | • Veterinarian                     |
| • Forest Service Fire Crews       | • Gerald Champion Regional Medical |
| • State Search & Rescue           | Center (in Alamogordo)             |
| • Cloudcroft Police               | • Medical Flight Helicopter        |

## **2.0 Planning Process**

The purpose is to work with Village departments, other agencies and programs on projects to reduce risks that could potentially affect the village. With the lack of an approved All-Hazards Mitigation plan, funding is limited and local officials have not been proactive in meeting NIMS compliance requirements, this is necessary training in order to apply for Mitigation Grants and Federal funds. This would be a highly sought objective for the Village of Cloudcroft once this plan is approved, Core capabilities would be increased and achieved.

Currently there is no updated County Mitigation Plan or Emergency Operations Plan that addresses the unique hazards of our community. The village has had an Emergency Operations Plan since 2002. The Village of Cloudcroft has exercised the plan several times in the past.

An officially recognized Evacuation Drill was practiced, and recorded with FEMA's America's PrepareAthon Community Preparedness Campaign in March 2015.<sup>3</sup> The next community event is scheduled for late September 2015, where *Preparedness* will be the focus. Surveys and community input will also be conducted at that time, to continue gathering data, needed improvements and public education.

*Photos from recent Evacuation Drill held in Cloudcroft March 2015*

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<sup>3</sup> America's PrepareAthon Campaign, Individual and Community Preparedness E-Brief 3/13/15 Newsletter, [www.ready.gov/prepare](http://www.ready.gov/prepare)



The Mitigation Plan was developed concurrently with the 2014 Comprehensive Plan. The Village Comprehensive Plan contains a mitigation element so combining the planning process for both plans was deemed appropriate to integrate goals, objectives and actions into both plans while capitalizing on limited resources.

The planning process utilized Town Hall meetings and monthly Workshops held after the Planning & Zoning Committee meetings. P&Z Workshops are locally known to the community as "Public Input" towards community events, development and planning documents, such as the Hazard Mitigation Plan. The First Town Hall meeting "Sign-in" list of participants on page 60. Samples of the P&Z Workshop announcements are on page 71. At each monthly workshop it was announced that ongoing discussions towards a Hazard Mitigation Plan was the focus of the meetings. Input towards its development included community stakeholders, critical infrastructure representatives, local government officials, nongovernmental agencies, local businesses and private citizens. Meeting notices are posted at the Village Office, Post Office, Bank Lobby, Library, School and Electric Company. Official meeting notices, minutes, and data gathered from these meetings are held at the Village Administrative Office.

There is no "formal" inclusion of surrounding jurisdictions due to the County restrictions; the Municipal Government of Cloudcroft does not have any legal jurisdiction over those areas. Hazard Mitigation activities focused solely within the Village limits and critical infrastructure.

## VILLAGE OF CLOUDCROFT HAZARD MITIGATION PLAN

Although legal addresses of “Cloudcroft” extend several miles to the east and south, only those individuals and businesses residing within the 2 square miles of the Village Limits are considered part of this official plan. Our local newspaper, Mountain Monthly, is distributed throughout the mountain area, which includes all outlying County communities. All those interested were invited to attend the Planning sessions for the Cloudcroft Mitigation Plan and all input was recorded. (*Req. 201.6(b)(2)*).

### **Contributors to this plan**

<u>Stakeholder</u>	<u>Participation/Contribution</u>
Village Administration	Oversees Regulations, and identified needed Finances to complete actions
Chamber of Commerce	Public Assistance, promoted events and distributed Public Information
Cloudcroft Municipal School Board	Conducted Parent Surveys, assisted in Evacuation Procedures and Shelters, provided student demographics
Village Planning & Zoning Commission	Identified needed code changes, participated in information events and Firewise Program initiatives
Village Fire/EMS Departments	Public Education, Identified hazards, Response capabilities and EOC procedures
Cloudcroft Historical Directory	Provided Historical Regulations and assisted with Public Surveys
New Mexico State Forestry	Provided Wildfire Historic Data and needed Resources for Firewise
US Forest Service	Response capabilities, historic data, Fuel Management guidelines and Grants available
Waste-Water Directors and Village Maintenance	Critical Infrastructure inventory, Water emergency records and Recovery data, identified needed infrastructure improvements
Otero County Electric	Assisted with hazard identification and Cost estimates of action projects Provided historical data
Tularosa Basin Telecommunications	Assisted with Warning systems and EOC upgrades and maintenance needs
Senior Center	Assisted with Public Surveys, input for Vulnerable Populations and Food Services
The Lodge	Provided information on Tourist Economy and conducted Public Surveys
Cloudcroft Animal Hospital	Conducted Public Surveys, provided input on Public hazards and Animal Welfare
Law Enforcement Agencies	Provided information on Access, Security, and Control on public properties
Methodist Church	Participated in Evacuations, provided Social Support and input on Public needs
HAFB Public Affairs	Assisted in Hazardous identification, Response and delivered Public Information



*\* Mountain communities who provided this information are the Fire Chiefs of Mayhill, James Canyon, Upper Cox Canyon, High Rolls, Weed, Mescalero, Sunspot and Timberon. They are considered voluntary contributors to the plan and have assisted in many ways to maintain open communication between the Municipality of Cloudcroft and County fire departments through Mutual Aid or Automatic Aid Agreements.*

*\*\*School Administration Board Members: Bill Denney-President, Gerold Green-Vice President, Lance Wright-Secretary, Arlen Ponder-Member, Ace Wimsatt-Member and Travis Dempsey-Superintendent. The School District is not only a major Stakeholder, but also collaborates with the Village by written agreement to provide a Community Shelter.*

## **2.1 Hazard Identification**

Since 2001, the Village has had an Emergency Operations Plan (EOP) in place for responding to major hazards. This plan is updated annually, the Village developed a full second edition in 2012 and the New Mexico State Emergency Operations Center approved it. To assist with making the community safer for its citizens, the EOP provides guidance for managing a number of critical hazards. Other local concerns and issues were discussed during the initial planning and identification phases.<sup>4</sup>

The concerns Cloudcroft Residents identified during the initial Public Planning meeting, are prioritized below:

1. Wildfires in the Urban Interface (34)
2. Water Shortages/Drought (24)
3. Commercial Propane Storage Facility (10)
4. Snow Storms (8)
5. Road Hazards/Closures (7)
6. Health Epidemics (3)
7. Hazardous Materials Spill (2)
8. School Violence (1)

*(The geographic areas affected by these concerns/hazards are shown by each type of hazard on page 18 and charted by Numbers in parenthesis, were the top ranking hazards*

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<sup>4</sup> Dreikosen, Susan (2012) *Village of Cloudcroft Emergency Operations Plan 2<sup>nd</sup> Edition*, annex E, ESF 5.

*out of 189 surveys that were returned; These surveys were distributed during special events such as Fire Prevention, Arts & Craft Fairs, Community Awareness Day, and our annual Wildland Academy, held between 2012-2014 within the community. Sample of survey pg.54)*

From the community concerns, the top three Identifiable Hazards are:

1. Wildfires
2. Drought
3. Severe Winter Storm

The hazards/concerns were tabulated from Town Hall meetings held in 2013 and early 2014.

Town Hall Meeting notices were published in the local newspaper, Mountain Monthly (*page 55*).

Participants at the initial meeting were formed into groups of 5. Groups were then asked, "*What were their major concerns for the town?*" Each group prioritized their comments. The numbers

from each group were then combined, totals calculated, and priorities listed. At continuing meetings, frequency, magnitude, severity and impact considerations were then calculated by the

Planning Team, resulting in a clearer picture of community hazards, using the Calculated Priority Risk Index (CPRI) charted below.

## 2.2 Calculated Priority Risk Index for Cloudcroft:

Hazard	Probability				Magnitude/Severity				Warning Time				Duration				CPRI Score
	Unlikely	Possibly	Likely	Highly Likely	Negligible	Limited	Critical	Catastrophic	< 6 hours	6 - 12 hours	12 - 24 hours	> 24 hours	< 6 hours	< 24 hours	< 1 week	> 1 week	
NATURAL																	
Drought				x			x					x				x	3.25
Dust/Sand Storms	x				x												0.75
Extreme Cold/Heat				x			x				x					x	3.4
Flooding/Flash Flood	x				x				x								1.35
Infestations		x				x						x					1.95
Landslides/Mudslides	x				x				x								1.35
Monsoon		x				x				x				x			2.15
Thunderstorm/High Winds			x				x				x				x		2.85
Wildfires				x				x	x							x	4
Winter Storms				x			x			x						x	3.55
HUMAN CAUSED																	
Arson		x				x			x					x			2.3
Dam/Levee Failure	x				x												0.75
Explosion/Fire			x				x		x					x			3.05
Fuel/Resource Shortage				x			x		x					x			3.5
Hazardous Materials Incidents		x													x		2.7
Power/Utility Failure				x			x		x						x		3.6
Sabotage		x				x											1.5
Special Event			x			x						x		x			2.3
Strike	x				x												0.75
Transportation Accident		x				x			x				x				2.2
Terrorism		x				x			x								2.1

The CPRI scores support the hazard identification priorities,

- Wildfires ranking the highest at 4,
- Winter Storms ranking at 3.55,
- Drought ranking at 3.25

Other high hazards and events contribute to those prioritized hazards above,

- Explosion/Fire at 3.05
- Thunderstorms/High Winds at 2.85

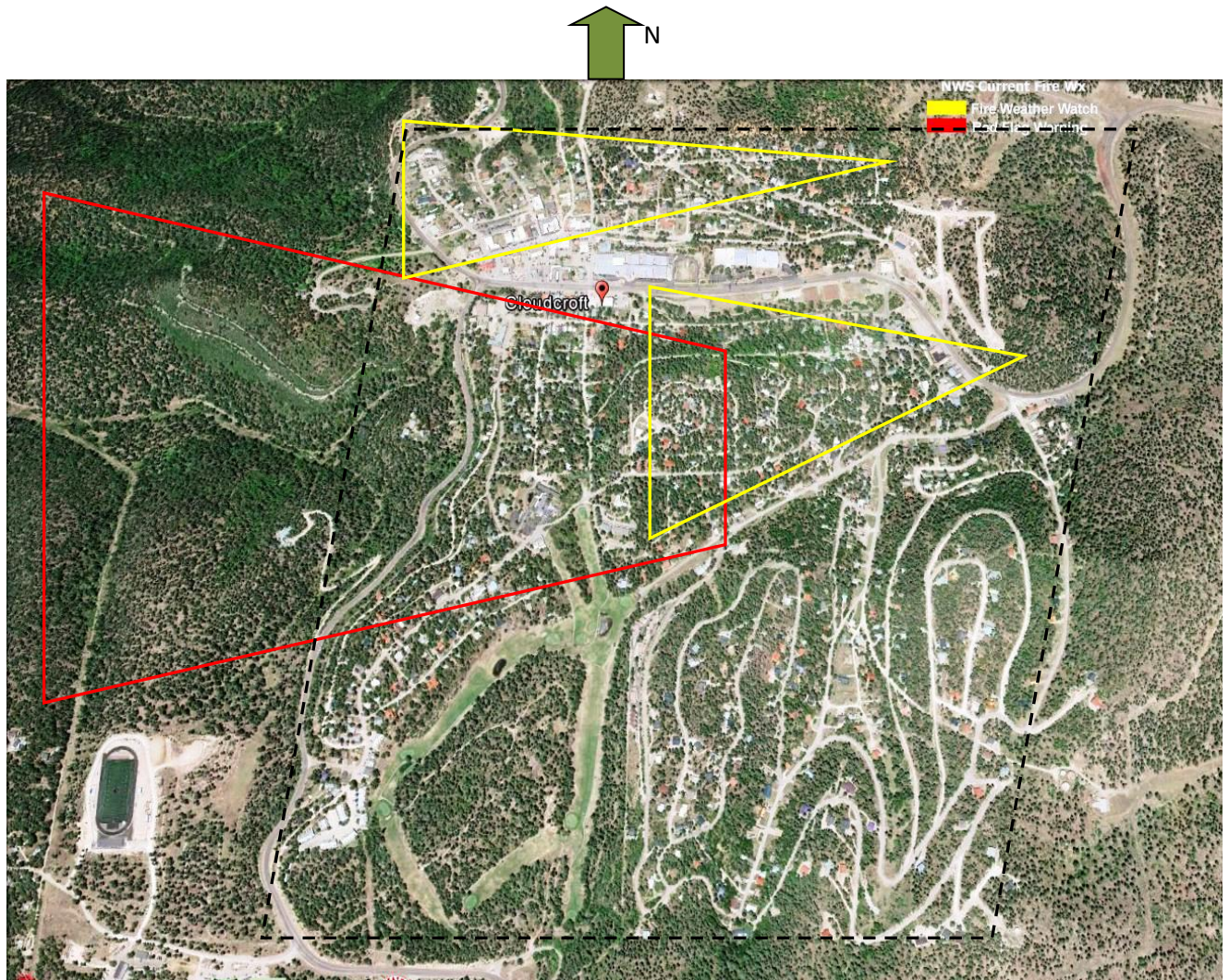
The CPRI value is obtained by assigning varying degrees of risk to four (4) categories for each hazard, and then calculating an index value based on a weighting scheme. Due to the small size of our community, complete shutdown of critical facilities and businesses for a week or more would impact the entire community economically. Our tourist based economy would be a substantial loss to everyone involved.




High winds during the summer are common in this area and New Mexico in general, which is a critical factor which increases the probability of extreme fire conditions. At times, those winds also happen in winter which add to the "domino effect" when heavy snows occur and bring down trees and power lines.

*(Severity and Impact refer to the geographic area of the community which would be impacted by the hazard. The entire planning area is equally affected by drought and winter storms. Due to the small geographical size and location, the entire planning area is equally affected by any potential wildfires. Many of the identified hazards could create a domino effect not only for the livelihood of the community, but also to the residents. **Probability** is based on the possibility of future events, if mitigation actions are not taken).*



**Hazards and potential threaten areas analysis for Wildfires and Winter Storms**



KEY:	Highest Threat of Wildfire	
	Secondary Wildfire Threat	
	Winter Storms	

*The highest concern from a wildfire comes from the west from March through September. The compact nature of the residential areas is a big concern when living in a Wildland Urban Interface. Wildfire Evacuation route is limited to one direction to the east. The southeast corner of town is the only developed residential area which meets WUI road widths and spacing between residences, so there is less concern of fire spreading and more controlled. Drought and extended water-use can initiate Water Conservation measures. The entire area is also subject to Winter Storms which causes power outages, road closures and limited access to normal amenities and everyday activities. Mitigation action of burying power lines can reduce the likelihood of common power outages during severe winter storms and/or heavy snow storms and are protected from wildfires.*

### 2.2.1 Wildfire Risk

Throughout New Mexico, the severity of wildfires has increased. New Mexico's State Forestry statistical fire records from 2003 through 2012 reported that 10,454 acres and 602 fires burned at the beginning of the time period. These numbers rose to 663,525 acres and 1126 total fire in 2012 alone. The last recorded large fire in Cloudcroft was 1911, which increases the risk of a devastating fire in and around the Village. This statistic opens the chances of any fire in the area to threaten the Village directly and overburden our emergency resources.<sup>5</sup> Wildfires have the potential to threaten the entire Cloudcroft planning area. While the WUI is at greatest risk for the village, the small geographical area and location of the village makes the entire planning area equally susceptible to wildfires.

According to the *2012 New Mexico Communities at Risk Assessment Plan*, there are 13 communities considered in the plan, out of 15 in the county. As a whole, Otero County is rated "Moderate Risk", the Village of Cloudcroft is rated "High Risk". The different ratings are due to the drastic change of vegetation, altitude, and terrain in the northern part of the county. Otero County has a *Community Wildfire Protection Plan* (CWPP), adopted in December 2004. Nine of the communities in the county are identified as high risk areas for wildfires. The CWPP is in cooperation with NM State Forestry, US Forest Service, Mescalero Indian Reservation, Bureau of Land Management and several local landowners. The Otero County Forest Working Group, a branch of local agencies and homeowners who specifically address forest issues, meets monthly to discuss various management objectives within the different landowning agencies and entities, in accordance with the changing seasons.<sup>6</sup> The Village began the process of becoming a Firewise

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<sup>5</sup> New Mexico State Forestry Fire Management (2004) *Community Wildfire Protection Plan*  
<http://emnrd.state.nm.us/SFD/FireMgt/documents/RMP2015revision.pdf>

<sup>6</sup> Southwest Coordination Center, SWCC Historical Fire Data; <http://www.gacc.nifc.gov/intelligence/historical-fire-data>

Community in 2013. Recently, the Village received a Grant through New Mexico State Forestry for tree thinning on Public property and Right-of-Ways within the Village limits.<sup>7</sup>



*Mayhill Fire 2011*

Due to the age of the community, the threat of wildfires and the prevention practices were not considered early on. Defensible space has been proven to help deter fires and save homes in the Urban Interface. There is very little defensible space surrounding the homes within the Village, not to mention the forest health is poor and dense.

In 2000, the Village adopted an ordinance (*Ord. 298, 10-10-2000*) which required the following for all structures:<sup>8</sup>

1. Non-combustible roofs
2. All eaves to be enclosed,
3. Non-accumulation of vegetation upon a roof
4. All chimneys must have spark arrestors installed
5. Chimneys to be free of overhanging trees and/or branches

*(Article published in local newspaper, reflecting this ordinance, attachment 8.1)*

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<sup>7</sup> Architectural Research Consultants Inc. (2014) Chapter VIII-Hazard Mitigation; *Village of Cloudcroft Comprehensive Plan*, Larkin Group NM, Inc.

<sup>8</sup> Sterling Codifiers online codes; Village of Cloudcroft Ordinances, Public Safety and Protection, [www.sterlingcodifiers.com/codebook](http://www.sterlingcodifiers.com/codebook)



A 2004 Community Wildfire Protection Plan (CWPP) identified the wildfire risk for Otero County. The chart below shows that all of the small communities surrounding Cloudcroft have a high hazard rating. The village has the highest score of all the communities.<sup>9</sup> The ratings were determined with a format developed by NM State Forestry (*Sample form- page 57*).

**WUI Fire Hazard Score and Rating Assessment:**

<u>Community/Area</u>	<u>Score</u>	<u>Hazard Rating</u>
Village of Cloudcroft	89.5	High
High Rolls	88.5	High
Sunspot	86.5	High
Cox Canyon	87.5	High
James Canyon	75.5	High
Mayhill	76.5	High
Weed	85.5	High
Sacramento	85.5	High
Mescalero Reservation	83.5	High
Sixteen Springs	86.5	High

*Source: Community Wildfire Protection Plan, adopted in December 2004*

Data collected to determine local wildfire risk and drought conditions are gathered every year during the Fire Season from March thru September, not only for the development of this Hazard Plan, but also for Firefighter Readiness. Additional information and data gathered to help determine the probability and prepare for wildfires and our other hazards are taken from the drought monitors, snowpack, winds, Haynes Index and fire danger models detailed in Sections 7.3, 7.6, 7.7 and 7.8. The Firewise Program and Community Fire Safety & Prevention event is our main focus to help our community gain resiliency.

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<sup>9</sup> New Mexico State Forestry Fire Management (2004) *Community Wildfire Protection Plan*  
<http://emnrd.state.nm.us/SFD/FireMgt/documents/RMP2015revision.pdf>



As for identifying the extent of Wildfires in our community, the entire planning area is equally at risk for this type of hazard due to its geographical size and Wildfires are inherent to the forested area in which Cloudcroft is located, as shown in the above referenced charts. This village is a prime example of the Wildland Urban Interface and is constantly at risk for Wildfires. Page 27 shows the history of Wildfires in our area.

#### Commercial Propane Storage Facility:

A commercial propane storage facility is located at 97 Glorietta Avenue, just north of the downtown district. Because Cloudcroft lacks natural gas service, propane services is essential to the community.

The Fire department has identified this as a hazard due to the location of this facility, which is in a residential neighborhood and a dead end street. There are two 8000 gallon storage tanks, one 30,000 gallon tank and one 3000 gallon storage tank on the premises. Emergency shutoffs are located in three areas of the compound, along with emergency alarms which are linked with the main office and fire department. There are regular inspections conducted by the State and Fire Department to ensure the safety of the plant and equipment. In addition, the Fire Department has Pre-plans in place to respond to any Hazardous Material leak emergency at the facility.<sup>10</sup>

The graph below shows the location and its relationship to the critical areas that could be affected.

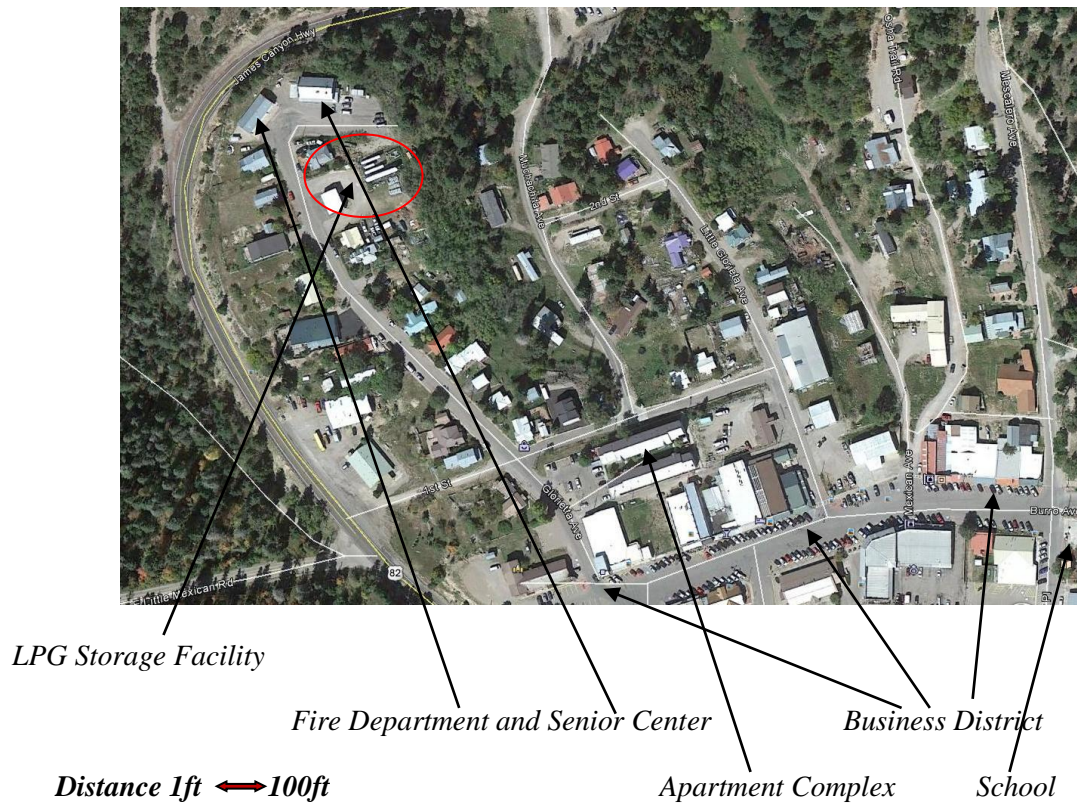
The Propane Storage facility has been at this location for over 75 years, initially it was on the outskirts of the village. Through the years, the community expanded, zoning and building codes did not exist until the early 70's. Community-wide concern has increased, due to its residential location. The Village would have to acquire land outside the village limits in order to mitigate

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<sup>10</sup> Dreikosen, Susan (2012) *Village of Cloudcroft Emergency Operations Plan* 2<sup>nd</sup> Edition

## VILLAGE OF CLOUDCROFT HAZARD MITIGATION PLAN

this potential fire and hazardous materials situation. This action becomes difficult, due to Private Party ownership and lack of available commercial property.



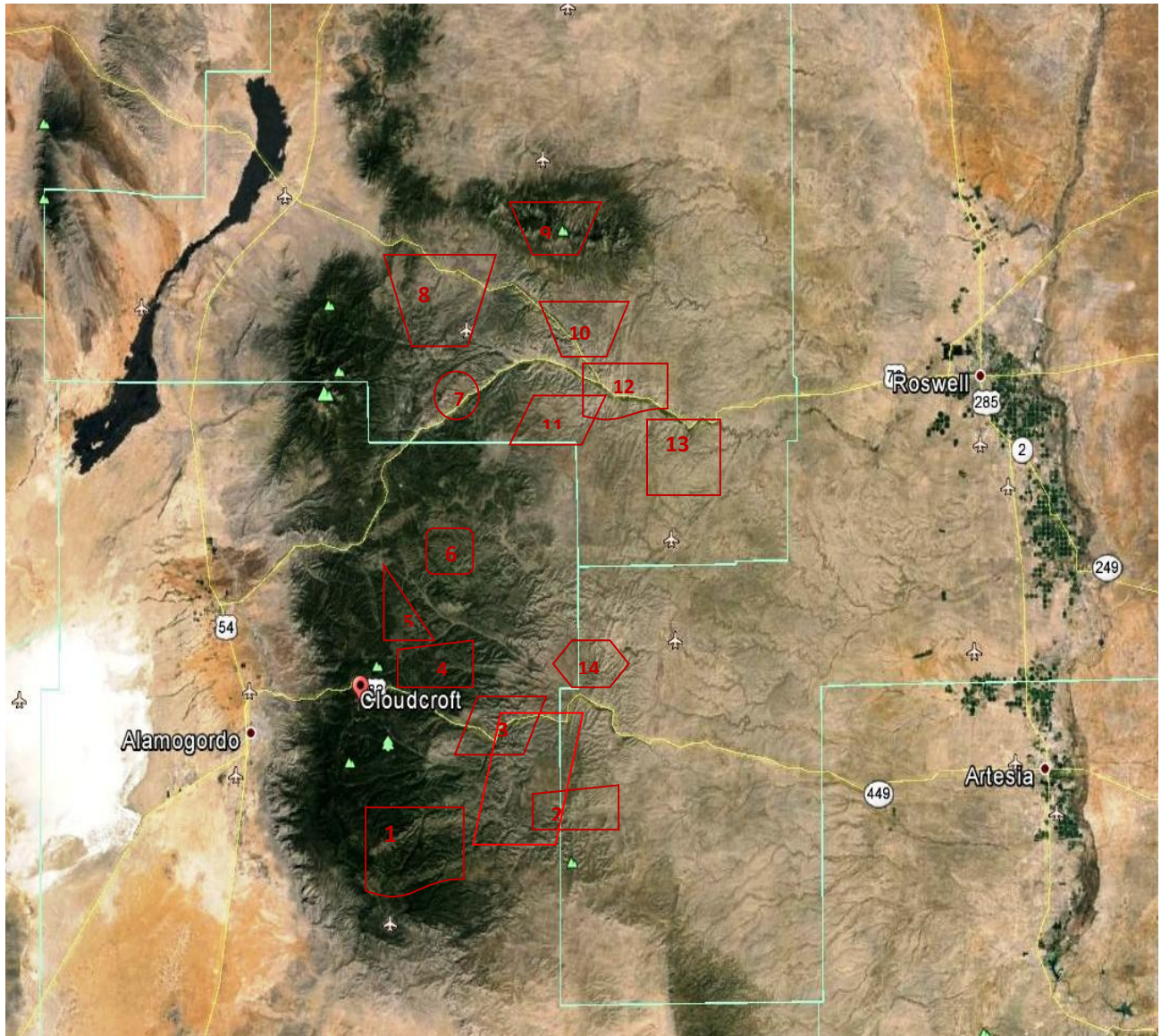
The *extent* of damage caused by a wildfire in the Village of Cloudcroft would be catastrophic. To begin with, the community is very compact, 90% of the population and commercial district is located within a one square mile area. The reasoning is the economic stability would decrease tremendously, our economy is Tourist based. Many of our mercantile businesses are small “Mom and Pop” businesses, the personal loss of not only the businesses, but the loss of individual homes, would double the overall loss.

The *probability* of a wildfire occurring increases every year we experience drought and high fire danger conditions exist. The village has not experienced a major wildfire since 1919, the odds are not on our side. Wildfires have occurred all around us, it’s only *when* it will happen, not *if* it happens. Data gathered during 2012 and 2014, show these conditions continue to plague our community (*Supporting documents, 7.3, 7.6, and 7.7*)

The *extent* and *probability* of drought also increases every year. We don’t know if this is a condition of “Global Warming” or product of “Mother Natures” normal cycle. We only know water production and storage of water, when water tables are high, needs to be increased to provide the community a common staple, when drought conditions exist. (*Data gathered on 7.3, pages 56-57*).



**Historic Large Wildfire locations in and around Cloudcroft:**



1. Scott Able Fire- May 2000
2. Little Lewis Fire- June 2011
3. Mayhill Fire- May 2011
4. Walker Fire-May 2003
5. Horse Canyon Fire- June 2012
6. Five-2 Fire- March 2002
7. Trap Skeet Fire- June 2001
8. Little Bear Fire- June 2012
9. Peppin Fire- May 2004
10. Kokopelli Fire- March 2002
11. Swallow Fire- June 2011

12. White Fire- April 2011
13. Donaldson Fire- July 2011
14. Crooked Creek Complex- May 2011
15. Penasco Fire- May 2002

*(There are many other smaller fires that have occurred which require response from Cloudcroft resources and threaten outlying communities, causing activation of the Cloudcroft EOC & Shelter)*



### **2.2.2 Drought**

With only one source of water and one Water Treatment Plant which serves the entire community, drought conditions contributes to the wildfire hazard, which can also affect 100% of the community. Water shortages in any community affect the entire community by loss of economics and tourism. Our Water Emergency events correlate with Fire Seasons, coupled by Drought problems and Water Shortages. There has been one event of a 14 day Water Emergency Declaration in 2013, which was caused by an undetectable water main break. The majority of the water lines in the community were installed 40 to 50 years ago and mapping records are not accurate. Without accurate maps and meters to detect breaks and water loss, it becomes a bigger task to discover and repair such problems. This issue also becomes an “undetectable problem” when individual water meters freeze, the bottom breaks out and causes a tremendous loss of water. At this time, we have no device that can pinpoint the location of the broken meter or water line, so digging out and around every meter, becomes another large scale task.

Although the full extent of all these hazards are not exactly known, a mitigation action plan to assist the Village in identifying and mapping alternate water locations by using GIS capabilities and more modern technologies to detect problems can be obtained in the future. In addition to winterizing our maintenance facilities and safeguarding equipment.

Cloudcroft has experienced water shortages due to drought and lack of storage, for over a decade. In the last decade, they have taken dramatic measures to ensure a reliable water supply by increasing storage capabilities, which may help during drought conditions.

The Village has in place an ordinance addressing Water Conservation (*VOC 7-1A-9B*). The Mayor or authorized representative is authorized to control, limit or cut off constant flow of

water supply, to an area within the Village as warranted, to maintain adequate water pressure, to fight, control or prevent the spread of fire or control any emergency critical to the public welfare, health and safety. In addition, four Declaration Levels for Water Emergencies, this includes Enforcement procedures, and Violation fees, defined in this ordinance.<sup>11</sup>

In the past, the Village has experienced extended water shortages due to old water lines, corrosion and broken meters caused by extended periods of heavy frost. In the early development years, required frost line depths did not exist. The constant freezing and thawing weakens old water lines. Lack of modern monitoring devices and ongoing drought conditions have also added to these shortages. Water Conservation Ordinances were enacted to assure the citizens of Cloudcroft they would not be without water at any time. There have also been times that an outside service be contracted, to haul potable water to the Water Storage Facility to maintain water levels and usage. This emergency operation was funded by our Water and Waste Water Emergency Fund. Continued replacement and maintenance of the existing old water pipes throughout the village has been the major project for the local Public Works department for the last three years, and will need to be continued until all lines are upgraded, but locating decaying lines and funding has been a barrier.

Extra storage tanks have been installed and upgraded pumping capabilities are currently being researched for the future. In addition, the PRe Water Project for our Water and Waste Water facility is still in the works (*Project description can be found on page 70*). This project involves a commercial size, solar powered reverse osmosis system for the entire water treatment plant. This project will increase our storage capability to 3,500,000 gallons.

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<sup>11</sup> Sterling Codifiers online codes Village of Cloudcroft Ordinances, Public Safety and Protection,;  
[www.sterlingcodifiers.com/codebook](http://www.sterlingcodifiers.com/codebook)



*Village Water Plant powered by Solar Energy*

The village water and waste water facilities serve only those residences within the village limits.

No outlying communities are supplied by this system. The majority of the residents outside the

Village limits maintain private water associations, wells or septic systems.

#### **HISTORIC DROUGHT/WATER EMERGENCIES:**

Water Shortage- April 2000

Severe Drought- May 2000

Water Emergency- May 2002

Severe Drought/Water Shortage- June 2004

500 Year Flood- August-September 2006

Water Emergency- April 2011

Flooding #4047- November 2011

Pump House Diversion Disaster #1659- April 2012

Drought Water Emergency- June 2013

#### **Past Flooding Mitigation efforts:**

The geographic areas within the Village which had experienced flooding issues are marked on the graphic, page 31. Since then, the Waste Water Treatment Plant has installed concrete barriers around the structures and realigned drainages to flow away from and around the Water plant. At the Sacramento Apartments, a 3 foot tall concrete block fence was built along the side of the building which diverts excess water flow into an underground 4 foot diameter drainage. The Golf Course has always had a natural low lying area, which has been improved into a lake,

aesthetically, now looks like a natural feature of the course. The below-ground pump station on the corner of Highway 82 and Woodlands Way has been relocated to the corner of Woodlands Way and Chautauqua Canyon in an above-ground structure. Much larger diameter drainage culverts were also installed at the original site of the flooding.



*The Village of Cloudcroft does not participate NFIP because there are no mapped SFHA's and has no known localized flood hazard areas. Past flooding declarations are stated on page 26 and*

*mitigation efforts have been quite successful. The Village has no repetitive or severe repetitive loss properties since these actions were completed. The Village of Cloudcroft is currently zoned as X. (§201.6(c)(2)(ii)).*

### **2.2.3 Winter Storms**

Although weather is unpredictable, we know for a fact that Cloudcroft experiences two extreme weather events, combined these two events have been proven to be a major emergency for our most vulnerable citizens. Cloudcroft sits at almost 9000 feet, the chance for heavy snow accumulations are high. Power outages are common, due to our forested ecosystem. All our major communications and administrative operations have been outfitted with automatic propane generator backups, with the exception of the Maintenance shop, in addition, is not insulated against the freezing temperatures, freezing the equipment fuel-lines, making maintenance and emergency operations slow to respond. Manual operating fuel tanks are stored at the Village Maintenance shop, 250 gallons of diesel and 500 gallons of unleaded fuel are available along with several portable LPG tanks on site. During power outages, services to homebound citizens are prioritized and handled by Fire and/or EMS personnel in accordance with the Village Emergency Operations Plan. An agreement is in place between the Village of Cloudcroft and Cloudcroft Municipal Schools for Mass sheltering in the High School Gymnasium, which also includes the use of the Cafeteria. The school maintains a three-day supply of non-perishable food and drinking water in storage for emergency situations.





*Winter Storm Damage 2009*

The Village has an Emergency Operations Plan in place for all the Major Risks identified earlier, since 2001. Updates on the plan are conducted annually. A Second Edition of the EOP was written in 2012 and is approved by the New Mexico State Emergency Operations Center. The Village of Cloudcroft continues to work on making the community safer for its citizens. This mitigation plan begins the quest towards a more prepared and educated administration and hopefully towards a more resilient community for its residents.



*Village Office*



*Post Office*

### **HISTORIC WINTER STORMS:**

Power Storm- February 2001

Winter Storm- December 2006

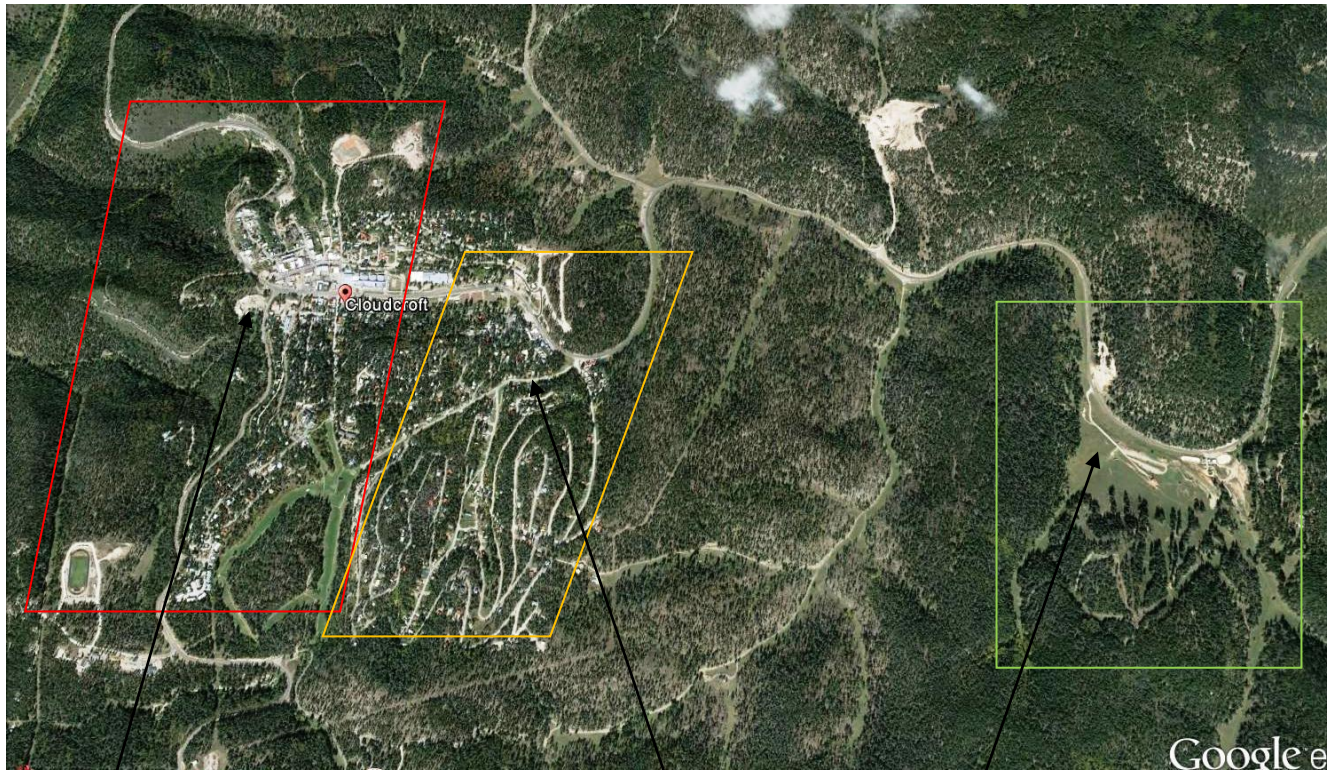
Winter Storm- December 8, 2009

Deep Freeze #DR1962- February 2011

When we look at Winter Storms in New Mexico in general, are rare, but at our elevation of 9000 feet, it is *highly probable*, when temperatures dip below freezing, we experience snow, lots of snow at times. Snow always brings tourists to our area. Winter sports such as skiing, ice skating and tubing are enjoyed for several months, which also increases our economy in many ways. In addition, large amounts of snow can slow emergency responses, and adds weight onto our old forested trees, which in turn break. Power outages are common, due to a downed tree. The *extent* of a winter storm causing some kind of damage or inconvenience to residents and visitors are wide-spread. We are remote, with one highway in and out of the mountain area, replacement and repairs take time, depending on the amount of snow accumulation which may be from several inches to several feet. Snow pack data gathered supports this claim for our area. (*Section 7.8, page 66*).



**Winter Storms Hazard areas:**



This **area** takes the brunt of most winter storms. Our worst storms come from the west and gain strength as they flow up the mountain. This side of town is also the oldest part of town. Trees have fallen on houses, power lines and blocked roadways causing major damage in previous events. Residential and 100% of our commercial area is affected. Included in this area is our Village Maintenance, Administrative Office, and Historic Lodge and Golf Course, the Radio Towers, the Waste-water Treatment Plant, 2 fire stations, Senior Center, and the school.

This **area** can also be affected by the storms because it is a peak and the valley between the main part of town and the far- east side of town, can isolate and delay emergency access. The Fire Training Grounds, Water Treatment Plant, and Ski Resort is located in this area.

Winter storms also affect this **area**, but not as extreme as the area outlined in red. This area consists of mostly modern, to-code residences and are much more prepared for heavy snow loads and is also less populated. One Fire Station and the Museum and is located in this area.

### **3.0 Local Government, State, Regional and Federal Capabilities**

Our financial resources have been focused mainly on water improvements. Our main goal is on the "PUReWater Project", a description of the project is found on page 70, under attachments.

Other funding resources have been sought from the Otero County Economic Development Council, South Central Mountain RC&D Council, New Mexico State Forestry, New Mexico Forest and Watershed Restoration Institute, Environmental Protection Agency and New Mexico State Department of Finance and Administration. Presently we have no plans to develop anything new, only improve what we currently have in order to meet certain requirements needed for State and Federal Grants. With the addition of this plan we would be eligible for more substantial grants and Federal funding opportunities.

As mentioned earlier, educating the Public in emergency preparedness and fire safety has been a long running goal for our community. We have a solid Fire Prevention program with the community and school. The Fire department, Sparkies (an auxiliary fund raising, non-profit group of the fire department) and Emergency Manager plan many activities and take advantage of every opportunity to address the safety issues throughout the community. The Clean & Safe Project was implemented initially by the P&Z Commission, a similar program as the nationally known "Firewise Program". We have conducted a community-wide evacuation exercise long before hearing of Ready.gov campaigns. Our Annual Fire Prevention & Safety Awareness event has been held for the past 10 years now. We officially participated in the 2015 America's *PrepareAthon* Campaign and featured on the Ready.gov Community Preparedness website. We intend to carry on that concept for many years to come.

Currently the New Mexico Municipal League is responsible for Continuity of Operations of our government, if that event was to happen. A Continuity of Government Plan is currently in the works. A State approved EOC is maintained at the 82 Fire Station and can be fully functional in less than 10 minutes of a request for activation. The County also has an EOC located in Alamogordo, 40 minutes west of Cloudcroft. New Mexico Department of Homeland Security and Emergency Management (NMDHSEM) website has the New Mexico Multi-Hazard Mitigation Plan along with other resources listed needed, if local resources were overwhelmed, in such a case; the process is outlined in the State Plan. A complete listing of local emergency resources, along with signed Mutual Aid Agreements for Upper Otero is kept in the Village EOP and is updated annually by the Village Emergency Manager. Resources available from the lower portion of Otero County are dependent on County Officials. Currently there are no written agreements with County Assets, they must be formally requested. The City of Alamogordo has been more cooperative in assisting and collaborating with our community efforts than the county. Many ordinances need to be updated to help in this venture. There are few Building Codes and no local Code Enforcement Official, the local Police enforces Public Safety issues along with the Fire Department. There's no possibility for expansion, we are land-locked by US Forest property. Flood Management is minimal and is usually managed by the Public Works department. Our local Volunteer Fire Department holds a 4 ISO Rating, is very active in the community and has an established a proactive prevention and safety rapport with the entire community, along with the collaboration of US Forest Service and US Fish and Game departments. Improvements in our capabilities are dependent on Tourists, available funding and are weather dependent.

## VILLAGE OF CLOUDCROFT HAZARD MITIGATION PLAN

The following worksheet was used to determine the core capabilities and the desired outcomes according to the five missions as outlined in Emergency Management.

	CORE CAPABILITY	DESIRED OUTCOME
COMMON	Planning	All Hazard Mitigation Plan addresses all relevant threats
	Public Warning	IPAWS and Sirens in working order and tested quarterly
	Operational Coordination	ICS education for all stakeholders. Drills exercised annually
PREVENTION	Intelligence and Information	Stakeholders and EM Team share information, update when necessary
	Screening and Detection	Village ordinances and current standards use for mitigation
PROTECTION	Access Control	EM Team will have ID Cards and individual passcodes
	Cybersecurity	Firewalls and Internet Security system up to date; Backup government files
	Physical Protective Measures	Cache of sandbags, thinning projects, extra fuel on-hand, generators
	Risk Management Programs	Bury electrical lines; Firewise Initiative; Community Clean & Safe Project
	Supply Integrity	State and County DOT road maintenance measures
MITIGATION	Community Resilience	Continue Public Prevention Education on monthly basis
	Vulnerability Reduction	Cache of sandbags, thinning projects, extra fuel on-hand, generators
	Risk and Disaster Assessment	Review Mitigation and Comprehensive plans every 5 years
	Threats and Hazards ID	Move Propane Storage Facility out of town
RESPONSE	Transportation	Maintain roads and assure evacuation routes are marked and clear
	Health Safety	Establish boundaries and protect entry into affected areas
	Environmental	Can be established and assessed after EPA, USDA and FEMA arrival
	Fatality Management	County OMI Services after initial damage assessment is completed
	Mass Care	Shelter and EOC in operation within 10 minutes
	Search and Rescue	Organize Fire and Police for accountability within first 24 hours
	Communications	Pre-designated emergency frequencies activated in first 10 minutes
	Public and Private Services	Restore utilities to residents/businesses within 48 hours
	Public Medical Services	Triage and Transport critical, establish first aid station within 24 hours
	Situational Assessment	Monitor all resources response, keep daily records of resources and accountability of personnel
	Security	Block access to damaged areas, Command Post and EOC operations
RECOVERY	Economic	Establish State and Federal assistance funding
	Health and Social Services	Offer Counseling. Establish activities for children so Parents can return to work as soon as possible
	Housing	HUD and FEMA assistance
	Natural Resources	USDA would be responsible for surrounding areas; Village Maintenance within village limits

## Resources:

The local response community, resource groups, critical infrastructure and key resources of the Village of Cloudcroft jurisdiction are composed of:

### Law Enforcement:

- Village Police
- Otero County Sheriff\*
- NM State Police\*
- US Forest Service Law Officers#
- NM Fish & Game Officials#
- BIA Law Enforcement #

### Utilities:

- Otero County Electric
- Tularosa Basin Telecommunications
- Penasco Valley Telephone #
- Village Public Works
- State and County Road Departments\*
- LPG Companies (3)
- Gas Station

### NGO Groups:

- Churches (5)
- HAM Radio Operators Club#
- Kiwanis
- Boy Scouts and Camps (2)
- VFW
- Church and Private Camps (6)#

**Key Resource Groups**

*# are under a Mutual-aid agreement*

*\*have some legal authority, but are not physically located within the Village*

## Firewise Community Program

The Firewise Community Program offers both workshops and training, and web-based, interactive training geared toward homeowners, forestry professionals, firefighters and others on a variety of wildfire safety topics. Wildland fires can occur in residential areas without disastrous loss of life, property and resources, but recognizing the problems and knowing how to protect the community before a fire happens are the first steps to successfully becoming truly “Firewise”.



*(Homeowners Tip's flyer, page 68)* The Village began the process of becoming a Firewise Community in 2013. Public announcements on the Firewise program initiation were organized and conducted primarily by the Village Planning and Zoning Commission under the name "Cloudcroft Clean & Safe Project" *(Sample meeting notices on page 71)*. Educating the Public was the first step in understanding our goals. In early 2014, an evaluation of dead and dangerous trees in and around the village was determined by village maintenance employees and emergency personnel. This was the premise of becoming a "Firewise Community" *(www.Firewise.org)*. The initial funding to begin thinning trees could only be designated for Public Land, which was provided by New Mexico State Forestry grant.<sup>12</sup>



40 acres of Public village properties was completed, with the exception of village roads and right-of-ways within the village limits. Funding the remainder of the project is the next goal, along with the surrounding forest lands. Possible grants from USFS can help initiate a fuels management program called the Collaborative Forest Restoration Program (CFRP). In addition, adopting new WUI Regulations and a continuing Fuels Management Plan would ensure the goal of becoming a Recognized Firewise Community in the near future.

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## VILLAGE OF CLOUDCROFT HAZARD MITIGATION PLAN

Common WUI-Related Provisions in Local Codes	
BUILDING CODE	LAND USE CODE
Roof must be Class A, B, or C fire-resistant	Overlay map of high fire-hazard areas
Windows must be double-paned	Clearance of flammable vegetation (defensible space) required around structures
Chimneys must have spark-arresters	Site plans must use natural features (lakes) or artificial features (golf courses) as fire breaks
Soffits and decks must be enclosed	Wildfire breaks around perimeter of development must be provided for larger and more complex projects
Sprinklers are required in larger structures	Maximum development density reduced in high-hazard areas
	Clustering of new development away from high wildfire risk areas required or encouraged
	Maintenance requirements for defensible space
FIRE CODE	SUBDIVISION CODE
Multiple accesses required for subdivisions or projects of certain size	Clustering of new development away from high wildfire risk areas required or encouraged
Access roads must be of certain width and gradient	Multiple accesses required for subdivisions or projects of certain size
Emergency firefighting water supply required	Requirement that homeowners' association be responsible to fund and maintain defensible space
Flammable materials (wood piles) must be located 30 feet or more from the principal structure	
Proper addressing and signage required to guide wildfire and emergency service providers	
Clearance of flammable vegetation (defensible space) required around structures	

NFPA best practices for Wildfire Safety guidelines, taken from *"Community Wildfire Safety Through Regulation"* guidebook for Planners and Regulators. *Sample Building codes, Land Use Fire codes and Subdivision Codes, along with Zoning Regulations, taken from the "Firewise" program guide. Adoption of similar codes and regulations can support our mitigation goals.*

Zone 1
Generally extends 15 or 30 feet from the primary structure, but that distance can be extended if the hazard level is particularly high and/or on the downward side of steep slopes. Common requirements include:
Establishment of a fuel-free zone within 3 – 5 feet of all structures;
Removal of all dead materials and dry grasses;
Thinning of trees (crown separation of at least 10–18 feet);
Prune lower tree branches to a height of 6 to 15, depending on tree's height and crown size;
Removal of most shrubs, with clumps allowed if separated by at least twice the shrub height;
Cutting grasses to 3 or 4 inches maximum height, but sometimes allowing taller vegetation on steeper slopes to retain soil;
Keeping trees 10 to 15 feet from the roof or chimney; and
Maintaining vegetation further than 10 feet from combustible fences and from utility lines (with distance depending on voltage).
Zone 2
Generally extends 30 to 100 feet from the primary structure (or from the outer edge of Zone 1). Typical requirements include removal of most dead material, tree crown separation of 5-10 feet, limited grass heights, pruning of shrubs, and removing tree limbs. Many of the standards parallel those for Zone 1, but with more lenient requirements.
Zone 3
Extends from the end of Zone 2 to property line and generally only requires minimal vegetation management.
Slope
Slope is a critical element in assessing wildfire risk. The greater the slope the greater the fire risk in most cases. Thus, some communities increase the size of the above defensible space zones when steep slopes (greater than 20% to 30%) are present.



### **3.1 Vulnerabilities:**

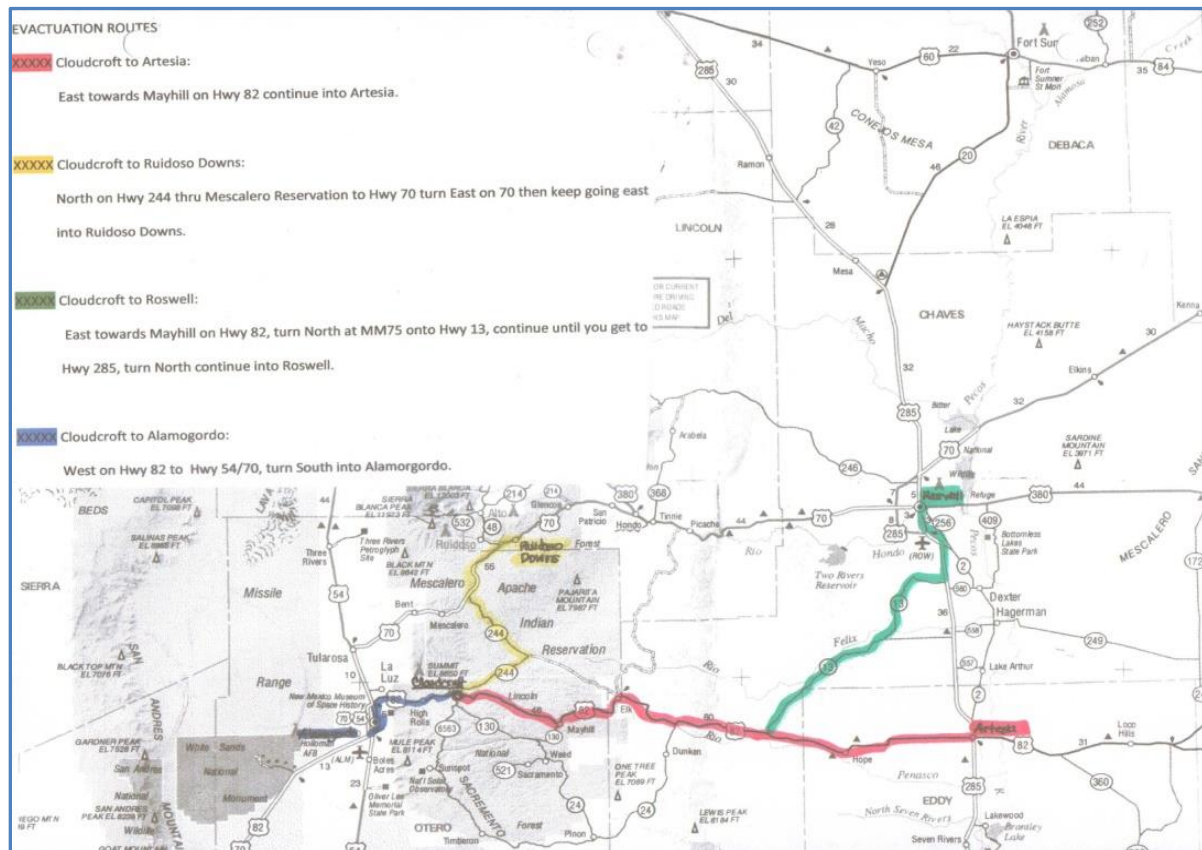
The first and foremost vulnerability is our tourist population. This category has the largest population, next to the actual village residents. "Tourists" are unaware of the potential threats in the area and have not been educated on evacuation procedures due to their transient nature. Preventing panic and moving these types of people in an orderly manner would be a challenge, since there is only one main highway, in and out of the area. That is why Public Education is necessarily constant.

The school system would be the next priority, with 253 students ranging from Pre-K to High School. They do conduct regular drills at all the school levels, from sheltering in-place, to full Bus evacuations quarterly. The Methodist Church has a Pre-school and is included in these drills and has a mutual aid agreement with the Municipal School District for transportation. All schools remain very active in the prevention and preparedness actions of the community. School SOP's and evacuation procedures are filed in the Village EOP. Our Senior Center also participates and volunteers in the local preparedness activities and events. The seniors who participate in activities at the center come from all neighboring mountain communities. They have identified and maintain a list of those citizens who are in need of transportation, medical assistance or other handicaps which would need to be addressed during an evacuation or disaster.<sup>13</sup> These three groups would be heavily affected and make up the majority of our vulnerable populations. Emergency Procedure brochures, with contact information and evacuation maps are spread throughout the town to help keep short-term visitors informed.

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<sup>13</sup> Dreikosen, Susan (2012) *Village of Cloudcroft Emergency Operations Plan* 2<sup>nd</sup> Edition.

## VILLAGE OF CLOUDCROFT HAZARD MITIGATION PLAN



*Evacuation Route Map*

### 3.2 Natural vs Man-made Hazard Vulnerability and how it impacts the community:

Cloudcroft is subject to more Natural Hazards than Man-made, due to its compact geographic location. Mother Nature does not discriminate with her wrath upon certain populations or zones in the case of our community. Wildfires, Drought, and Winter Storms seem to impact the entire village equally, causing the entire planning area to be vulnerable to all these hazards. For example, power and water outages caused by a natural hazard, such as drought and winter storms, compound the situation and will extend to all residences and businesses in the same way because they are all connected to one source. Example: the majority of the businesses do not have backup generators to continue normal business, thus economic losses are a given. Drought in turn, will prevent and/or limit the influx of tourists and part-time residents. The threat of High

Fire Danger closes Forest Trails and Campgrounds and prevents the influx of tourism to our area. Man-made hazards such as cyber-terrorism or hazardous spills may be more likely to affect certain businesses, individuals or a small section of town. There is no record of any Man-made hazard occurrence, with the exception of one fuel spill at the local gas station, which only limited access to one block, for 24 hours. As for the Propane Storage facility, the hazard was identified by the Public as a concern during the planning process and a comfortable solution was proposed to eliminate the hazard by relocation. There is no record of any hazardous event with the facility in the past; it is only an identified concern in which the community would like to have solved in the near future. The only caveat to that, is that it is privately owned.

**The recovery Cost versus Mitigation:**

<u>RECOVERY COSTS (without mitigation)</u>	<u>MITIGATION ACTION Cost</u>
Wildfires \$350 million***	Tree Thinning Project \$155K
Drought \$1.5 million*	Water Storage & Lines Improvements \$805K*
Winter Storms \$2.3 million*#	Generators & Insulation \$400K*
Power Failures \$1.1 million#	Buried Lines \$600K#

\*\*\*Estimated by current property values provided by local Realtors

\*Cost estimates acquired from previous events, NIFC and Village ICIP

#Otero County Electric Coop

Although it is costly, no matter how you look at it, mitigation is a sound choice to minimize the economic and physical impacts to our community.

#### **4.0 Mitigation Goals and Objectives**

Village Administrators, Emergency Responders, and those individuals assigned to the EOC Team, will monitor and update this plan at least on an annual basis, but could recommend changes after certain events (*Req. 201.6(b(1))*).

##### **Goals**

1. Develop and improve critical infrastructure and operational projects to reduce hazard potential and provide an overall safer environment for its residents
2. Reduce or eliminate the threat to life and safety of residents during and immediately following natural disasters.
3. Reduce or eliminate potential damages to community infrastructure and structures as a result of natural hazards.

##### **Objectives**

1. Public Education of the Firewise Clean & Safe Community project to be fully implemented by the Fall of 2015. Once the community completes fuels management, it can be certified, as a "*Firewise Community*" it will maintain this status with continued monitoring by the NM State Forestry representative.
2. PRe Water/Waste Water project on-line in July 2016. Monitoring will be maintained by the Village waste-water and maintenance personnel and the company provider.
3. Update the Village water conservation plans to prevent drought and shortages as needed and replace old and corroded waterlines to prevent breakages and water loss overall.
4. Relocate the propane storage facility outside of the village.
5. Maintain open communications with NMDOT for any road hazards and conditions.  
Regular maintenance of the road, culverts, drainage systems and guard rails.

#### 4.1 Mitigation Action Plan

The highest priority identified by the Public was “Wildfires”, the proposed action to mitigate that hazard is to become a recognized “Firewise Community”. Although this goal has been initiated, it is far from completion and will require many more projects in order to meet regulation guidelines, mainly a fuels management program. With the assistance of USFS and the Collaborative Forest Restoration Grants they offer, our priority projects can be initiated and completed as needed (*Firewise Guidelines outlined on page 66*)

The projects and actions are proposed to mitigate the threat from Wildfires, Drought, and extreme Winter Storms. These hazards were identified by the community as their priority concerns. Although there are other hazards mentioned, our Actions focus is on those hazards first. The agency responsible for implementation and monitoring each action is also noted. Each project is dependent upon funding availability in order to complete. It is also a progressive plan, meaning, once one project has been achieved, it is possible that it will aid in getting the next action completed. It is our goal to establish some kind of local reserve fund for public mitigation measures and projects. Some local businesses and Non-profit organizations have already mentioned an "incentive program" to help with this goal. Actions were based on using the

STAPLEE scale and evaluation criteria:

**STAPLE+E** evaluates the feasibility of the proposed action against the evaluation criteria on a scale of 1-5, 1=lowest and 5=highest, scoring the action:

**S**ocial, considers community acceptance and effect on population. **T**echnical, considers technical feasibility, long-term solution and secondary impacts. **A**ministrative, considers staffing, allocated funding, maintenance and operations. **P**olitical, considers Political support, local champion, and public support. **L**egal, considers State authority, existing local authority and potential legal challenge. **E**conomic, considers benefit of action, economic goals, and cost of action **E**nvironmental, considers effect on land, endangered species, hazmat/waste, and community goals.

**4.1.1 Action Projects:****1 Wildfire-----**

*(A destructive fire; A composition of flammable materials, or the flame produced by it, very hard to put out within an Urban Interface area. Extensive damages to Public or Private Dwellings and loss of economy).*

(WF1)Thin dead trees and dense areas within village limits. Estimated cost \$150,000. Begin immediately and within 1 year from plan adoption; to be completed within 18 months of project implementation.

(WF2)Create defensible space around structures and infrastructures through the removal or reduction of flammable vegetation including vertical clearance of tree branches. Estimated cost \$75,000.

(WF3)Implement a fuels management program to reduce hazardous vegetative fuels on public lands, near essential infrastructure, and on private lands. Including clearing fuel loads, downed trees, cutting fire breaks into public wooded areas in the wildland urban-interface, estimated cost \$10,000 per year

(WF4)Adopt and Enforce WUI Codes. Adoption of NFPA or ICC Wildland Codes will help enforce and support WUI standards. Estimated cost is \$5,000.

Possible funding: HMPG, USFS Forest Restoration, CFRP, RC&D and Village In-Kind funding. Cost without mitigation= \$350 million; with mitigation cost=\$155 thousand.

Monitoring will be conducted by Fire Department

WILDFIRES	S		T			A			P			L			E			E			
Thin dead and dense areas on village right of ways	4	4	3	5	4	3	2	4	4	4	4	1	5	2	5	5	3	3	4	2	4
Creat Defensible Space around neighborhoods	5	3	5	5	4	3	2	2	4	4	4	2	5	2	5	5	3	3	3	1	5
Implement Fuels Management Program	4	5	4	4	4	3	1	3	4	4	4	2	4	3	5	5	4	3	2	2	4
Adopt and Enforce WUI Codes	2	3	3	4	3	2	3	3	3	3	4	2	4	3	3	2	4	4	1	1	5



**2 Drought-----**

*(Long continued dry weather; lack of rain which reduces water levels in natural wells which supply the town).*

Begin 2 years from plan adoption, completion of all three projects within 5 years of plan adoption

D1) Develop new and improved water supply lines to existing delivery systems to eliminate breaks and leaks. Estimated cost \$800,000.

(D2 & D3) After land acquisition by the village, new Water Wells will be drilled and new water lines ran to storage tanks. Estimated cost to be determined

Possible funding: HMPG, EPA, NMDFA, and RC&D. Cost without mitigation= \$1.5 million; with mitigation cost \$805 thousand.

Monitoring will be conducted by Village Public Works Director

DROUGHT	S		T			A			P			L			E			E			
Improve Water Supply	5	5	3	4	4	3	2	4	4	5	5	2	5	2	5	5	5	3	2	1	4
Increase Storage/Reuse Capabilities	5	5	2	4	4	3	2	4	4	5	5	2	5	2	5	5	5	3	1	1	4
Land Acquisition for drilling new Wells	4	4	2	3	3	3	1	2	3	4	4	3	4	2	4	4	4	4	2	2	4

**3 Winter Storms-----**

*(Snow or Ice storms which leads to large amounts of accumulation which isolates the Public from normal activities).*

Begin 3 years from plan adoption, completion of all four projects within 5 years of plan adoption

(ET1)Protect the Maintenance Building by adding building insulation to walls and to keep critical machinery and fuel lines from freezing. Estimated cost \$300,000.

(ET2)Installing a generator backup system with permanent hook-ups at critical facilities to ensure continuity of services. Estimated cost \$100,000 per site.

ET3) Install water monitoring equipment at critical facility sites to prevent waterlines from freezing. Estimated cost \$5,000.

Possible funding: FEMA HMA, HUD, NMDOT, and NM State. Cost without mitigation= \$3.4 million; with mitigation cost \$1 million.

Monitoring will be conducted by Public Works Dept.

<b>WINTER STORM</b>	<b>S</b>		<b>T</b>			<b>A</b>			<b>P</b>			<b>L</b>			<b>E</b>			<b>E</b>			
Retrofitting Infrastructure	4	4	5	5	4	4	2	4	4	4	4	1	5	1	5	5	3	1	1	2	4
Generators for Critical Infrastructure	5	5	5	5	4	3	2	2	4	5	5	2	5	1	5	5	3	2	1	1	5
Water Monitoring Equipment	4	5	4	4	4	4	1	3	4	4	4	3	4	3	5	5	4	3	2	2	4

**As funding becomes available, other Projects we would like to consider, which will also help and enforce the priority projects:**

- ❖ Determine neighborhood Structures-Land acquisition for relocation  
Relocate hazard of a propane storage facility outside of the community.
- ❖ Strengthen Land Use Regulations Adopting environmental review standards and maintenance practices into landscape ordinances.
- ❖ Adopt and enforce Building Codes and (WUI) Wildland Urban Interface Codes  
By establishing “value-added” incentives for hazard-resistant construction practices beyond code requirements.

## 5.0 Continued Public Involvement

The citizens of Cloudcroft have always been involved in many Community-wide Public Education and Prevention events held on a bi- annual basis in April and September. In April, Cloudcroft Fire Department hosts the Sacramento Mountains Wildfire Academy for a ten day period. Before and during the academy local businesses and stakeholders are educated about the purpose of the academy and in turn support the event by promoting, donating and directly participating in the event with demonstrations and equipment displays during the academy. The public is invited to participate in some of the wildfire courses such as, Citizen Chainsaw

Awareness, Protecting Your Home from Wildfire and CPR/AED courses. In September, the Annual Community Awareness and Fire Prevention event is held in the main park, Zenith Park. This is a full day of activities to educate, promote and gather public input on community issues and concerns. This allows the community, visitors and neighboring communities to learn about local emergency services, management and how we address their concerns. A booth is set up during these events to hand out literature and answer a “Citizen Survey” on general Emergency Evacuation Preparedness and Procedures. In addition, visitors receive information on the “Clean & Safe Project” and the “Firewise” initiative. When school is in session, participation from Parents of the children attending Cloudcroft Schools have the opportunity to give input on a continual basis, this is due to the high percentage of children attending the Cloudcroft Municipal School District, who do not live within the village limits. Those outlying communities which attend CMS, are mapped in the graphic on page 9. Participants in the public planning stages gave comments and prioritized their concerns during the Town Hall meetings, which are organized and conducted every 5 years, along with the Village Comprehensive Planning meetings. In the future, regularly scheduled town hall meetings along with the Village Comprehensive planning meetings will include opportunities for the community and stakeholders to provide insight, project progress and input into the hazard mitigation planning process on an annual basis, just as they did in the initial planning stages (201.6(c)(4)(iii)). (*Initial meeting sign-in sheets, Page 60*).

Public meeting notices are posted outside the Village Office on the Community Events Board, the Bank lobby, Otero County Electric lobby, the Post Office, the School Administration Office and the Public Library. The same locations are used for any other community events and notices. To encourage the public to participate and to give input towards this plan, Public notices and

articles will be published monthly for one year, to continue educating the community about our intentions of implementing the "Cloudcroft Hazard Mitigation Plan." Our main priority before, was to address the wildfire hazard with the Planning and Zoning Commissioners coming up with a "catchy title" for the articles, to draw attention to the program. The following is only one such article published in July 2014, in the local newspaper, called the "Mountain Monthly". This process proved to be successful and will be continued in the next updating cycle.

---

### ***Don't Make an Ash of Yourself***

*By Sue Dreikosen*

*Over the past few months we have been giving everyone suggestions on how to help get your property prepared for fire season. We hope you have been using the "monthly tips" to get prepared. There has been some favorable progress within the Village. Plans to increase fire awareness throughout the Sacramento Mountains by encouraging everyone in the surrounding communities to become involved in our Firewise program have been highly accepted. Suggestions include, trimming back branches that overhang your home, remove dead leaves and needles from around decks, sheds, roofs, fences, and home. Being "fire wise" includes being wise about wood storage, cleaning out fireplaces, chimneys or grills and disposing of ashes safely. You can find out more information on this program by going to [www.firewise.org](http://www.firewise.org) and check out the "homeowners" section. Taking these little steps to clear our own properties and make the mountains safer for everyone to enjoy will pay off in the future. In addition, we recently attended a new Fire Prevention Campaign introduced by the Southwest Wildfire Coordinating Group, called "One Less Spark, One Less Wildfire". This program focuses on every day fire causes, such as, safe towing practices, vehicle tire and brake safety, parking or stopping in tall grass, and what to report if you see a fire. Both programs will help us increase Public Education in Wildfire prevention practices. We continue to dedicate ourselves to the safety of our citizens and communities, Brochures are available at the Village office.*

*Sue Dreikosen  
Cloudcroft Emergency Manager  
575-682-6958*

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(Additional newspaper articles are shown under the 8.0 attachments, pages 53 and 69)

Continual communication with community members and stakeholders regarding risks and emergencies through newspaper articles, radio announcements, and the Internet, as well as Town Hall presentations, P&Z Workshops and discussions at public meetings, until all projects are completed.

*(A complete listing of individual names, titles, and agencies involved in the planning process are noted in the attachments and supporting documents on page 74).*

## **6.0 Plan Maintenance**

The maintenance of the plan will coincide with the Five Year Village Comprehensive Plan updates, in which the Team Members, Stakeholders and Public will be invited to participate in the same respect as it was initially done. Mitigation goals and objectives described in this plan will be addressed and included in all upcoming ICIP requests and planning processes for future financial considerations. The Mitigation plan will also be monitored by the EOC Team Members and Stakeholders on a monthly basis, they will be responsible for integrating data, updates and progress of projects into other community plans during scheduled town hall meetings and comprehensive planning meetings, the plan may also be reviewed after any major incidents. As with all monthly meetings, the Public will be encouraged to participate by providing input towards its progress and goals. The Emergency Manager will be responsible for Annual Reports regarding goals, objectives and actions of the Mitigation Plan. One year prior to the plan expiring, the EM will notify the Planning Team of maintenance and update requirements, in order to correspond with the Village Comprehensive Plan, which is done every 5 years. Maintenance and Progress Reports on Mitigation Action projects will be conducted at the monthly Village Council meetings by the Emergency Manager (201.6(c)(4)(iii)).

Continued monitoring of the projects by the assigned representatives and will be reported on the progress during monthly Planning & Zoning meetings, where the Public can ask questions on the progress and give input during the projects. This is the normal platform that is taken for such information and will be posted on all regular meeting notices, as required by the NM State Open Meetings Act. Additional input from the community businesses and stakeholders can be



collected at any time, by contacting the Emergency Manager through email, phone or walk-in at the EM Office location. Annual monitoring, evaluations and maintenance will be done by the Planning Team along with the Emergency Operations Plan review. The plan will be revised and rewritten every 5 years, which is at the same time the Village Comprehensive Plan is revised. Overall, the entire planning area will benefit from the mitigation actions. Directly and indirectly, the actions will be beneficial to all who interact with this community, a true “Whole Community” concept comes from FEMA, as described below.

The “Whole Community Concept”, benefits:

- Shared understanding of community needs and capabilities
- Greater empowerment and integration of resources from across the community
- Stronger social infrastructure
- Establishment of relationships that facilitate more effective prevention, protection, mitigation, response and recovery activities
- Increased individual and collective preparedness
- Greater resiliency at both the community and national levels

*(FEMA- Whole Community Approach to Emergency Management: Principles, Themes, and Pathways for Action. FDOC104-008-1/Dec. 2011)*

**Cloudcroft Planning Team** will meet monthly and consist of at least one representative listed,

Emergency Manager

Village Planning & Zoning Commissioner

Village Administrator

Cloudcroft Police Officer

Fire Chief

Two Citizens of the Community

Village Public Works Director

Any Stakeholder

**7.0**

**ATTACHMENTS**

**And**

**SUPPORTING DOCUMENTS**

# Don't Make an Ash of Yourself: Chimney Fires

By Steve Henry

Many of us mountain residents use wood to fully or partially heat our homes. Others just like to see the beautiful glow of a fire in the fireplace on those snowy cold nights. Wood has been a source of heat since prehistoric humans first tamed fire, and as our technology progressed we have brought fire into our home with fireplaces and wood burning stoves. To avoid the combustion products (smoke, unburned wood particles, and gases), chimneys and stove pipes vent these byproducts out of our homes. Unfortunately as these products leave the fire they cool and can condense resulting in the buildup of creosote.

Just this past December, here in Cloudcroft, there were five residential fires all classified as chimney fires. Read on to avoid making an ash of yourself!

Creosote is a general term for the condensation products formed by incomplete combustion of wood. It is typically brown or black, crusty or flaky, even tar like or shiny and hardened. This stored form of energy, when ignited, can burn at temperatures of 2000 degrees F. the same temperature used in kilns to fire earthenware.

If there is a significant build up in your chimney, and it will eventually ignite, it can do severe damage to your home.

Typical locations for creosote buildup are where smoke cools, on the cold rock or tile linings of your chimney and where stove pipes bend to exit your home. Keeping your fire hot helps reduce condensation, and closing dampers to limit rates of combustion lowers temperatures and increases the generation of creosote. Burning wood that is not fully cured will burn at lower temperatures and also increase the products that condense to make creosote.

There are simple precautions you can do to avoid chimney fires. First is to inspect how the smoke from your fire leaves your home. Take a flashlight and look up your chimney, or if you can do it safely look down from the top. Stovepipes from wood burners are more difficult to inspect and typically

require removing the vent cover from the exit point on the roof. The easiest solution is to have one of the local chimney sweep service companies come to your home for an inspection and cleaning if necessary. All chimneys and stovepipes eventually need cleaning and this is a good time to make sure you are up to code (1/4" screen) on preventing fire embers from leaving your home and starting a fire in our community.

Remember the five fires in just the past December mentioned above? One was from improper installation (must be triple wall through the roof); one from the heavy snow that bent over the stovepipe (have you looked at your roof lately); and three were from creosote buildup. Hopefully this reminder will get you to check how smoke is leaving your home and to help to make sure you don't make an ash of yourself.

THE  
TUNNEL STOP

9:00 AM TO 6:00 PM

OPEN 7 DAYS  
A WEEK  
YEAR ROUND

GALLERY

LOCAL Artists, Authors, Cider, Pottery, Jewelry, Pottery, Wind-Chimes, Clothing and more...

NATIVE American Flutes & Music, Silver & Turquoise, Kachinas, Sand-Paintings, Bead Work and more...

New Classes Starting in 2014!

Creating with Silver Clay  
Stained Glass \* Pottery  
Spinning Fibers  
Spiritual Healing Energy

880 Hwy 82, High Rolls, NM  
(575) 682-5676 tunnelstop@yahoo.com

Otero County  
Electric Co-op

After Hours Outage Assistance

1-800-548-4660

www.ocec-inc.com

PO Box 227  
Cloudcroft, NM 88317  
Office (575) 682-2521

Keep up with what's happening in the mountains, subscribe to the Mountain Monthly

### 7.1 Citizen Survey

1. What *risks/hazards* cause you the most concern? (list by priority, from risks listed below)

or specify\_\_\_\_\_

2. Do you know what to do if a fire was threatening the community? Y / N

3. Do you have a Family Emergency Plan? Y/ N

4. Have you participated in any past emergency exercises? Y/N

5. Did you know that the Village of Cloudcroft has an Emergency Operations Plan? Y / N

6. If you answered *yes* to #5, do you know where to find the information? Y / N

7. What would be your preferred method to receive *hazards/safety/emergency* education information?

Demonstration\_\_\_\_ Lecture\_\_\_\_ Home Visit\_\_\_\_ Video\_\_\_\_ Pamphlets\_\_\_\_

8. What safety/emergency subjects would you like our community to offer or improve on?

\_\_\_\_\_

Additional Comments\_\_\_\_\_

\_\_\_\_\_

### ***Thank You!***

**1-Wildfire 2-Flooding 3-Winter Weather Storms 4-Epidemics 5-Terrorism 6-Home Safety**

**7-Violence/Crime 8-Water Issues 9-Vehicle Accidents 10-Hazardous Materials**

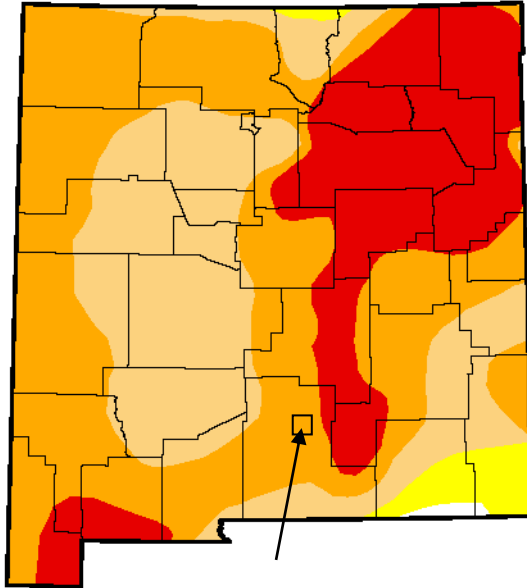


## 7.2 Town Hall Meeting announcements in local Newspaper



### 7.3- New Mexico Drought Monitor data in 2014

#### U.S. Drought Monitor New Mexico



**March 4, 2014**

(Released Thursday, Mar. 6, 2014)

Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.41	99.59	96.50	66.65	23.27	0.00
Last Week 2/26/2014	0.41	99.59	96.25	64.06	14.83	0.00
3 Months Ago 12/3/2013	0.08	99.92	76.91	36.30	3.96	0.00
Start of Calendar Year 1/1/2014	0.39	99.61	75.21	32.68	3.96	0.00
Start of Water Year 10/1/2013	1.66	98.34	74.92	37.81	3.39	0.00
One Year Ago 3/6/2013	0.21	99.79	98.50	89.85	49.88	4.25

**Intensity:**



The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

**Author:**

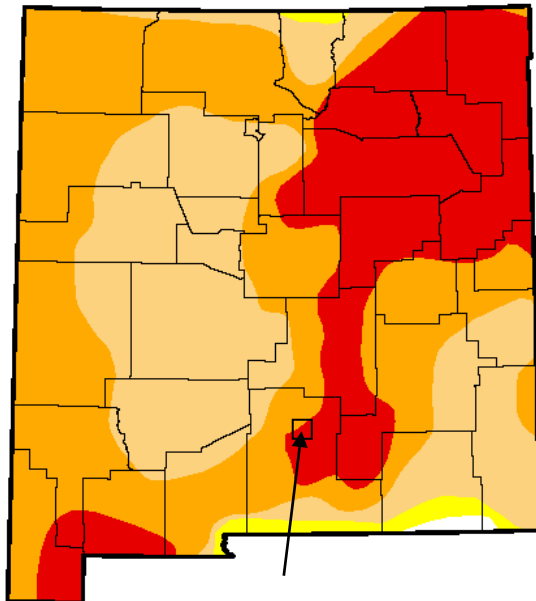
Brad Rippey

U.S. Department of Agriculture



<http://droughtmonitor.unl.edu/>

#### U.S. Drought Monitor New Mexico



**April 1, 2014**

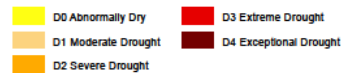
(Released Thursday, Apr. 3, 2014)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.49	99.51	97.49	65.12	24.62	0.00
Last Week 3/26/2014	0.49	99.51	97.49	65.09	24.56	0.00
3 Months Ago 12/3/2013	0.39	99.61	75.21	32.68	3.96	0.00
Start of Calendar Year 1/1/2014	0.39	99.61	75.21	32.68	3.96	0.00
Start of Water Year 10/1/2013	1.66	98.34	74.92	37.81	3.39	0.00
One Year Ago 4/2/2013	0.23	99.77	98.49	89.85	49.97	4.36

**Intensity:**



The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

**Author:**

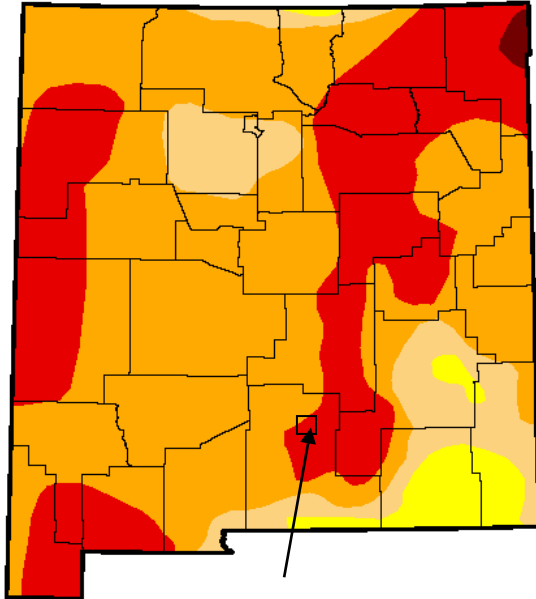
David Simeral

Western Regional Climate Center



<http://droughtmonitor.unl.edu/>

## U.S. Drought Monitor New Mexico



**June 10, 2014**

(Released Thursday, Jun. 12, 2014)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	95.57	84.54	29.24	0.42
Last Week 6/3/2014	0.00	100.00	95.58	84.65	35.57	0.69
3 Months Ago 3/11/2014	0.49	99.51	95.60	64.66	23.27	0.00
Start of Calendar Year 12/31/2013	0.39	99.61	75.21	32.68	3.96	0.00
Start of Water Year 10/1/2013	1.66	98.34	74.92	37.81	3.39	0.00
One Year Ago 6/11/2013	0.00	100.00	100.00	98.72	82.10	44.70

### Intensity:



The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

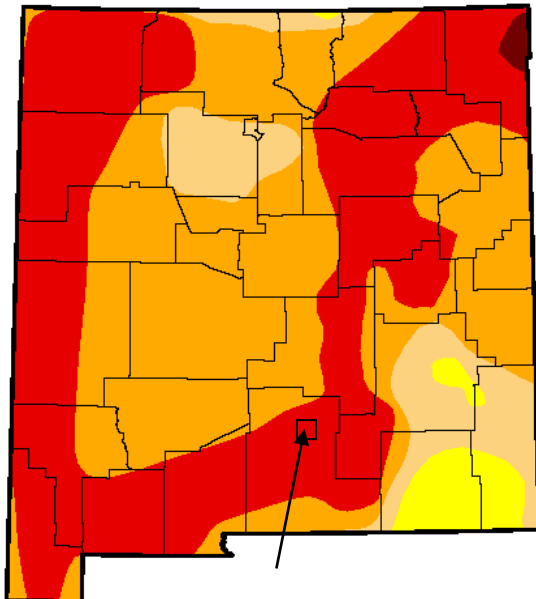
Author:

Matthew Rosencrans  
CPC/NCEP/NWS/NOAA



<http://droughtmonitor.unl.edu/>

## U.S. Drought Monitor New Mexico



**July 8, 2014**

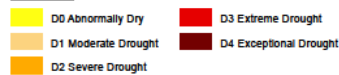
(Released Thursday, Jul. 10, 2014)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	96.16	86.01	42.29	0.42
Last Week 7/1/2014	0.00	100.00	96.07	86.28	39.77	0.42
3 Months Ago 4/8/2014	0.49	99.51	97.49	68.38	24.62	0.00
Start of Calendar Year 12/31/2013	0.39	99.61	75.21	32.68	3.96	0.00
Start of Water Year 10/1/2013	1.66	98.34	74.92	37.81	3.39	0.00
One Year Ago 7/8/2013	0.00	100.00	100.00	98.92	90.91	42.43

### Intensity:



The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:

Anthony Artusa  
NOAA/NWS/NCEP/CPC



<http://droughtmonitor.unl.edu/>

Mountain Monthly, 310th Edition, December 2013

NEWS — Page 5

## Cloudcroft P&Z implements 'Firewise' program

By Marianne White  
Cloudcroft P&Z

Many people in our Sacramento Mountains worry about fire, me included. It is our most looming and widespread danger. But how much do we really know about preventing fires for ourselves and our neighbors and what can we do about shrinking this threat down to a manageable size?

To this end the Planning and Zoning Commission has been working on the implementation of a program called "Firewise". Each month the Mountain Monthly will run a small article telling all of us mountain dwellers how to easily and quickly reduce our own fire risk, one small step at a time. Every time we reduce our own risk, we reduce everyone's risk. It's a win/win situation – and how often do you come across one of those?

So for December, we are including the letter that everyone will soon receive in their mailbox and the calendar for next year of the handy little Firewise tips that will make us all much safer. So let's be brilliant and improve the future of everyone in our communities!

### Don't make an ash of yourself!

Dear Cloudcroft and Surrounding Mountain Communities,

Over the last few years, we have watched in fear as we, as well as our friends and neighbors, lost property and countless acres of beauty to fire. Ruidoso, Mayhill, and various spots across our Sacramento Mountains have been victimized by fire many times.

As a community we can help protect ourselves, our neighbors,

our countryside, and our wildlife simply by exercising a little bit of caution and by using wisdom on our own properties.

A little prevention can save so much pain and difficulty for us and everyone in our communities as well.

Enclosed is a monthly calendar that will help everyone living in our lovely mountains to minimize their personal fire danger, which reduces the fire danger for everyone. If each homeowner will commit to completing one task per month that will reduce their property's fire danger – we will have a safer community for everyone.

As a show of solidarity for the fire dangers we all face, the village will soon begin removing dead trees from the public land within the village limits.

We are also working on a time

period in the spring where we will try to help those who wish to remove their dead and close-growing trees by bringing in groups who will help cut and remove them, having the slash pits open for an extended time, and perhaps having local pickup for those who have no way to remove their own slash.

We are trying to do this in a way that will be financially reachable for everyone.

The only people who will care about our community, live in our community.

So let's take charge of saving ourselves from the ravages of wildfire by taking these easy little steps to clear our own properties and make the mountains safer for everyone to enjoy!

Your friends and neighbors,

The Village of Cloudcroft Planning & Zoning Commission

FIREWISE The Easy Way				
Monthly Calendar for Fireproofing				
JANUARY	FEBRUARY	MARCH	APRIL	MAY
BE CAREFUL ABOUT FIRE ASHES! NEVER PUT ASHES LESS THAN A WEEK OLD IN ANY CONTAINER THAT IS NOT METAL. NEVER PUT ASHES LESS THAN A WEEK OLD IN THE DUMPSTER!	THIS IS THE TIME TO LOCATE AND MAKE AN APPOINTMENT WITH A CHIMNEY SWEEP!	ENCLOSE UNDER EAVE AND SOFFIT VENTS OR SCREEN WITH METAL MESH TO PREVENT EMBER ENTRY!	CLEAR LEAVES AND OTHER DEBRIS FROM GUTTERS, EAVES, PORCHES AND DECKS. THIS PREVENTS EMBERS FROM IGNITING YOUR HOME.	REMOVE DEAD VEGETATION FROM UNDER YOUR DECK AND WITHIN 10 FEET OF THE HOUSE.
JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER
REMOVE ANYTHING STORED UNDERNEATH DECKS OR PORCHES.	SCREEN OR BOX-IN AREAS BELOW PATIOS AND DECKS WITH WIRE MESH TO PREVENT DEBRIS AND COMBUSTIBLE MATERIALS FROM ACCUMULATING.	REMOVE FLAMMABLE MATERIALS WITHIN 30 FEET OF YOUR HOME'S FOUNDATION AND OUTBUILDINGS, INCLUDING GARAGES AND SHEDS. IF IT CAN CATCH FIRE, DON'T LET IT TOUCH YOUR HOUSE, DECK, OR PORCH.	WILDFIRE CAN SPREAD TO TREE TOPS. IF YOU HAVE TREES ON YOUR PROPERTY, PRUNE SO THE LOWEST BRANCHES ARE 6 TO 10 FEET FROM THE GROUND.	INSPECT SHINGLES & ROOF TILES. REPLACE OR REPAIR THOSE THAT ARE LOOSE OR MISSING TO PREVENT EMBER PENETRATION.
NOVEMBER	DECEMBER	NOTES		
COVER EXTERIOR ATTIC VENTS WITH METAL WIRE MESH NO LARGER THAN 1/8 INCH TO PREVENT SPARKS FROM ENTERING THE HOME.	ENJOY YOUR SAFE AND HAPPY HOME FOR THE HOLIDAYS!	LEARN MORE ABOUT HOW TO KEEP YOUR FAMILY SAFE AND REDUCE YOUR HOME'S RISK FOR WILDFIRE DAMAGE AT <a href="http://www.firewise.org">www.firewise.org</a>		

Introduction of the "Firewise" program by P&Z, published in the Local Newspaper.

**7.4 The Village Planning and Zoning Commission initially mailed residents a letter to introduce the collaborative project called "Cloudcroft Clean and Safe Project".**

Dear Cloudcroft and Surrounding Mountain Communities,

Over the last few years, we have watched in fear as we, as well as our friends and neighbors, lost property and countless acres of beauty to fire. Ruidoso, Mayhill, and various spots across our Sacramento Mountains have been victimized by fire many times.

As a community we can help protect ourselves, our neighbors, our countryside, and our wildlife simply by exercising a little bit of caution and by using wisdom on our own properties. A little prevention can save so much pain and difficulty for us and everyone in our communities as well.

Enclosed is a monthly calendar which will help everyone living in our lovely mountains to minimize their personal fire danger, which reduces the fire danger for everyone. If each homeowner will commit to completing one task per month that will reduce their property's fire danger- we will have a safer community for everyone.

As a show of solidarity for the fire dangers we all face, the village will soon begin removing dead trees from the public land within the village limits. We are also working on a time period in the spring where we will try to help those who wish to remove their dead and close-growing trees by bringing in groups who will help cut and remove them, having the slash pits open for an extended time, and perhaps having local pickup for those who have no way to remove their own slash. We are trying to do this in a way that will be financially reachable for everyone.

The only people who will care about our community, live in our community. So let's take charge of saving ourselves from the ravages of wildfire by taking these easy little steps to clear our own properties and make the mountains safer for everyone to enjoy!

Your friends and neighbors,



The Village of Cloudcroft

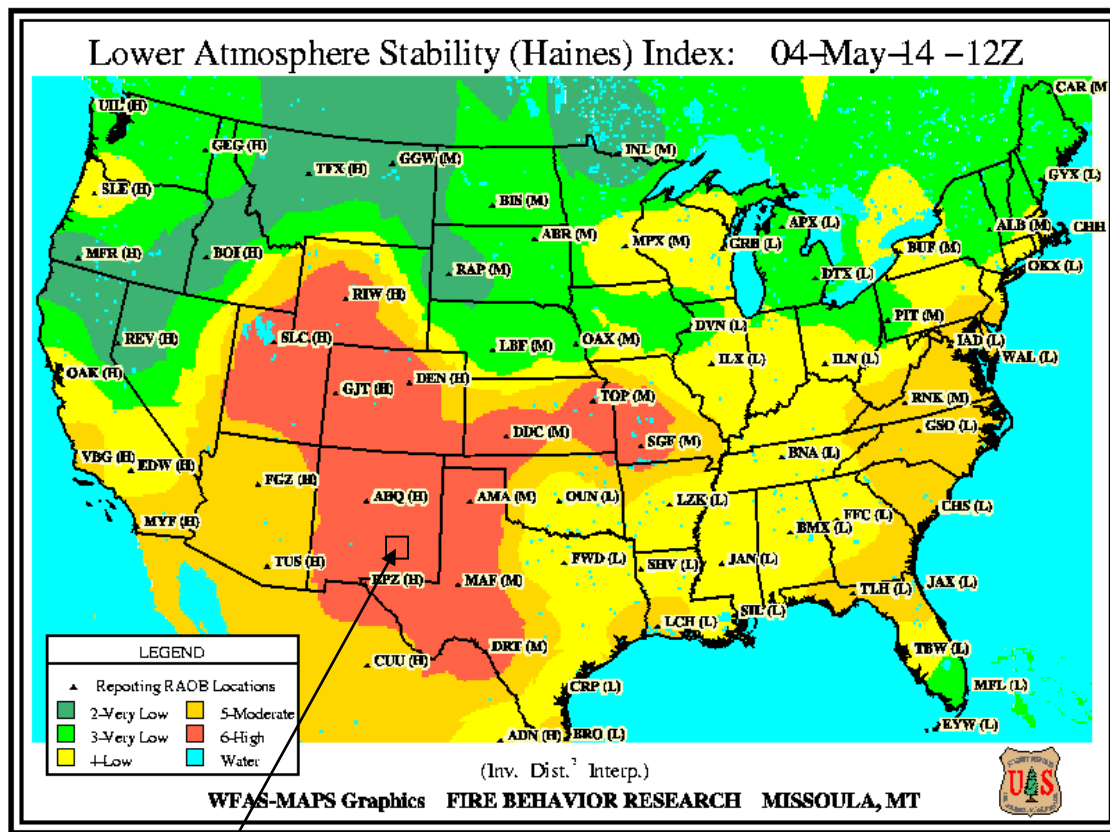
## 7.5- 1st Planning Meeting-Participants Sign in sheets (Attachment D)

Village of Cloudcroft Sign-In Sheet				ATTACHMENT-D
				August 21, 2013
NAME	ADDRESS	E-MAIL	PHONE	
DAN VENABLE	PO Box 554 Cloudcroft, NM 88717	dv@juno.com	575-682-7217	
Jue Dreikosen	3745 Hwy 82 Haystack 88539	je@tularosa.net	575-682-2411	
Jini Turri	83 Wilks Cyn Rd Cloudcroft	genejini@msn.com	575-682-2411	
Lisa Thomassie	PO Box 497	6m@the-ridge-resort.com	602-256	
J.L. BLAKEMORE	104 SQUIRREL AVE #D		575-439-7613	
JOHN TIEMAN	751 LITTLE BEAR	JHTIEMAN@GMAIL.COM	(602) 210-268-7050	
Jerry Russ	1405 James Canyon Hwy		575-682-2221	
Yvonne Blal	P.O. Box 276 Cloudcroft		575-491-4514	
Ed Woten	15 Little John Ln. Cloudcroft		601-2012	
Marissa Crane	11 Corral Ct. --	mardav13@midway.com	617-2362	
Michael Adams	501 CLOUDCROFT	michaeladams@yahoo.com	482-2333	
Travis Sengman	742460 Bear	Sengmantravis@yahoo.com	926-6523	
Patty Dunn	200 CURET FL	mazyma1@yahoo.com	325-665-4058	
Tim Kuse	408 Shallow	tkuse56@yahoo.com	512-335-8472	
Ella Olsen	115 Little Glorietta		575-682-3276	
Andy Olsen	115 " "	aeolsen@tularosa.net	575-430-0256	
JAMES Duran	US Forest Service 4 Lost Lodge Rd	Jdduran@fs.fed.us	575-682-2555	
HANS STEINHOFF	143 SUNSPOT HWY	HSTEINHOFF@TULAROSA.NET	682-4466	
DRUCE SMAGA	808 CHAUTAUQUE CYN BLVD		575-480-2644	
Steve Henry	716 Curlew	geolcarry@aol.com	682 2833	
Robert Haecker	PO Box 91 Cloudcroft	roberta.sunrise@hotmail.com	575-691-2030	
Erin Werschling	Box 927 Cloudcroft	Erin@SugarPinesrvpark.com	817 832	
ALEX CARILLI-OWENS	POB 1100 Cloudcroft	alex.pgetinstan@karma.com	575-682-2691	
Shelley Hughes	PO Box 43, CC	Shelley@greenmt.com	575-551-1080	
Laura Anderson	1301 N. White Sands Blvd	ocede@alamogordo.com	424-5882	
Shirley Black	P.O. Box 1221 Cloudcroft, NM	shirleyblack@juno.com	575-921-2718	
Marian Slane	POB 321 Cloudcroft	swsunshine@pvt.net	575-430-1952	
Dave Cowsley	Larkia Group	dcowsley@larklinn.com		
Vicki Hulbert	505 4th St	vhulbert@gmail.com	682-2560	
David Brown	11 Corral Ct		687-2362	
FRANK WASK	405 4th St.	frwask@dslexreme.com	714-747-9287	
Jim Maynard	PO Box 104	JMAYNARD@greenmt.com	575-430-1661	
Lisa King	PO Box 1290	lisa@cloudcroft.net	575-682-273	
Mark Carter	1211 Genovino P.O. Box 151	cardemarker@net.net		
Karen Tomlinson	1211 Genovino P.O. Box 151	ktomlinson@gmail.com	575-441-1937	



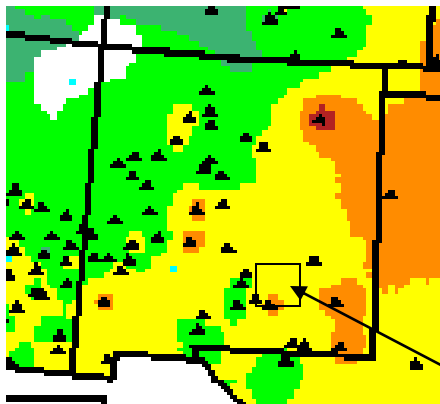
## 7.6 The Haynes Index in 2014 remains at a 6, showing a high risk of wildfires for the entire state of New Mexico.

**Haines Index (HI)** Is a numerical value that indicates the potential for large wildfires to experience extreme fire behavior. The HI combines both the instability and dryness of the air by examining the lapse rate between two pressure levels in the atmosphere and the dryness of one of the pressure levels.

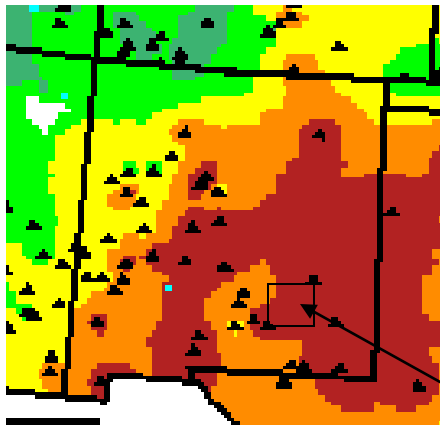
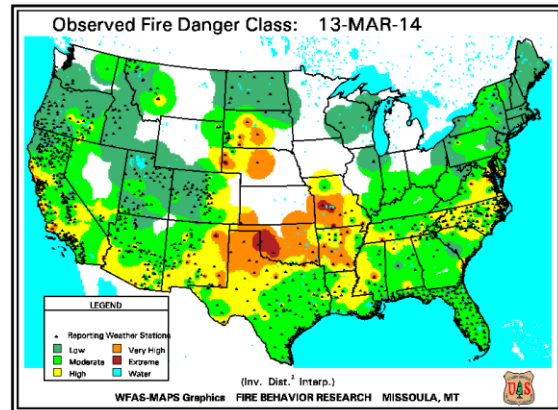


Cloudcroft

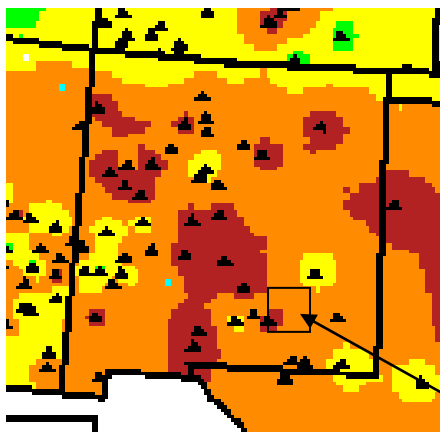
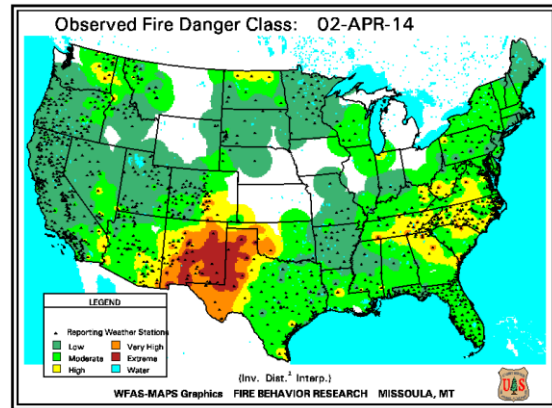
## 7.7 Fire Danger- March thru June 2014



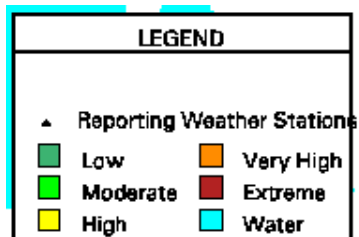
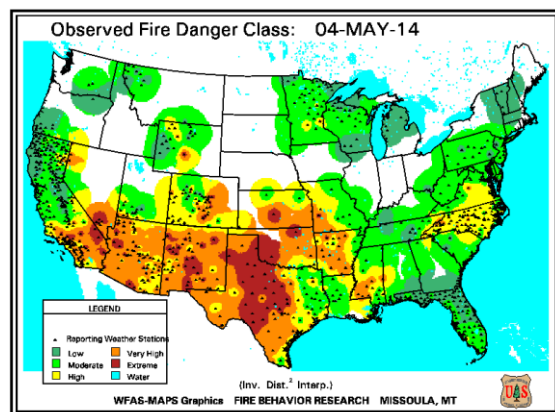
Cloudcroft



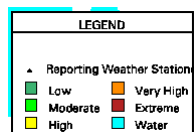
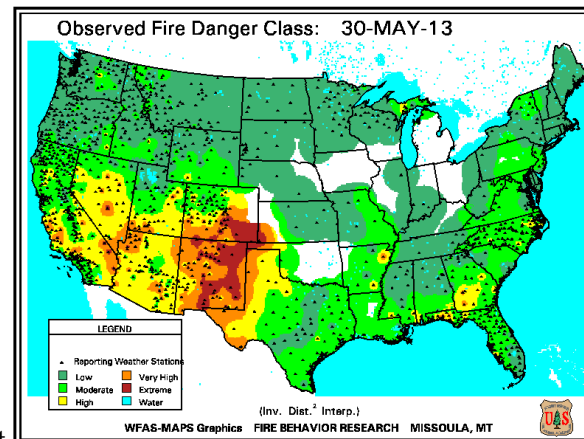
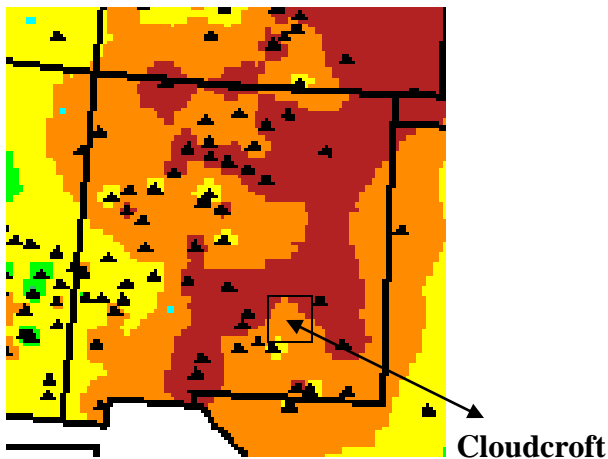
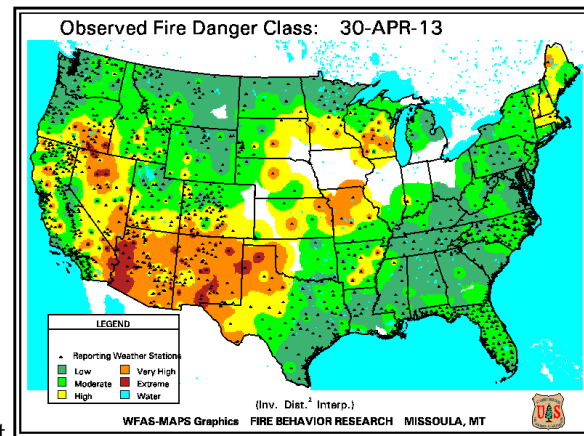
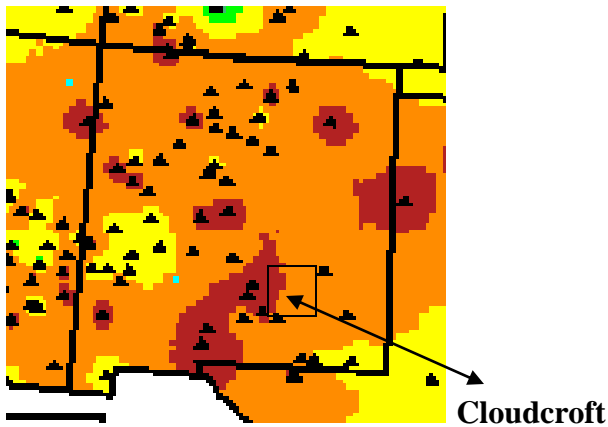
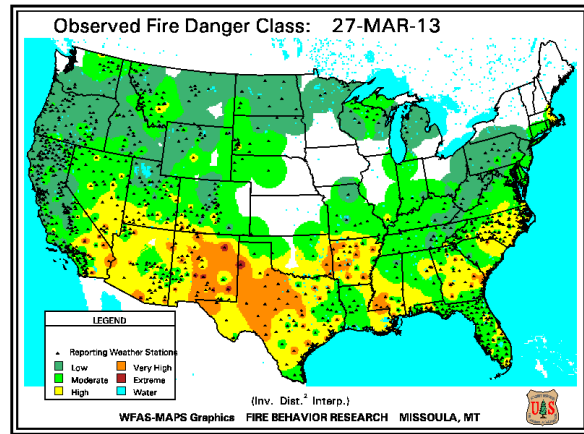
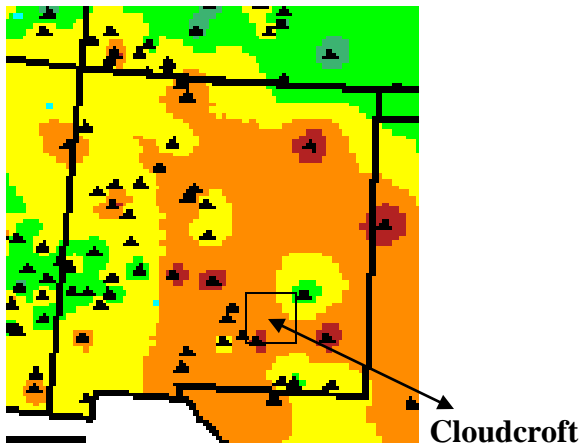
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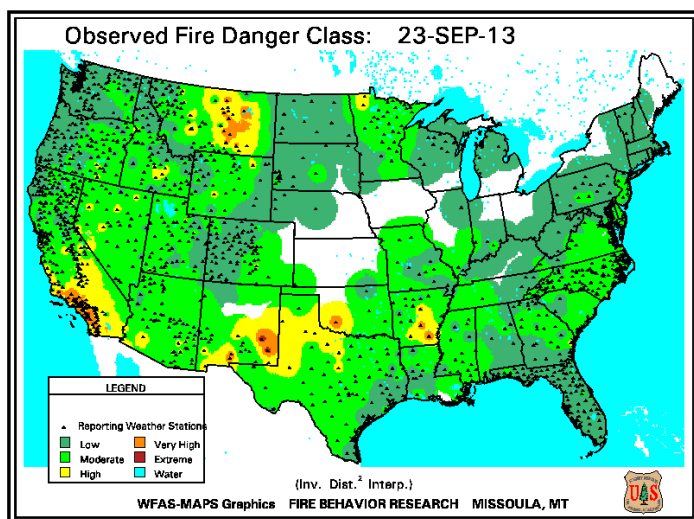
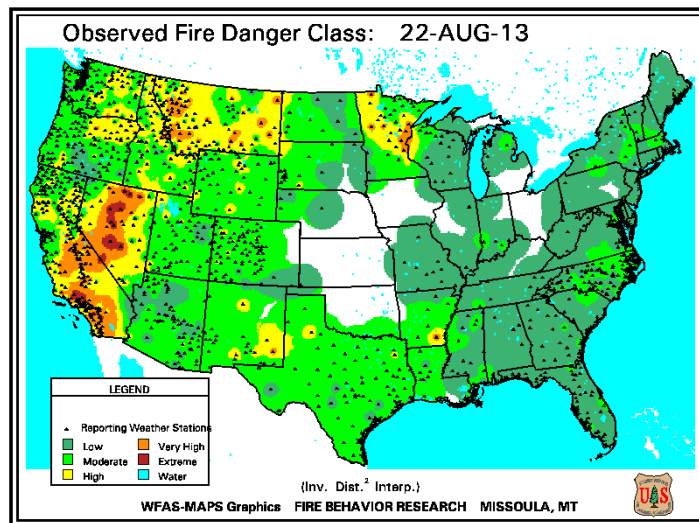
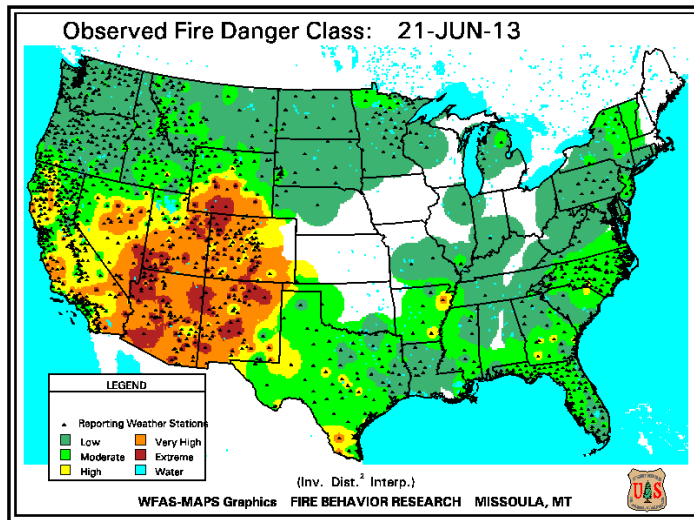
Cloudcroft



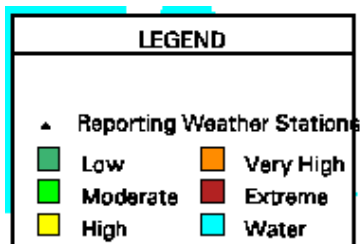
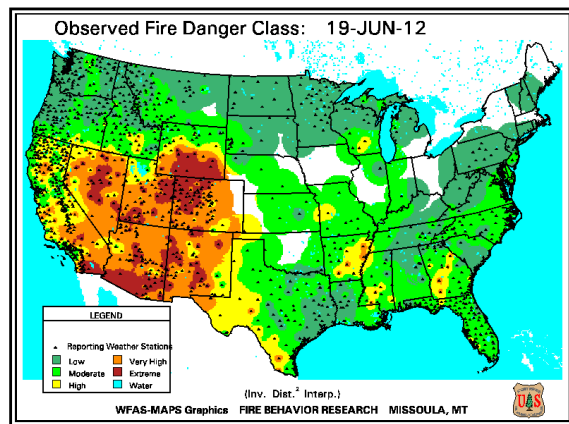
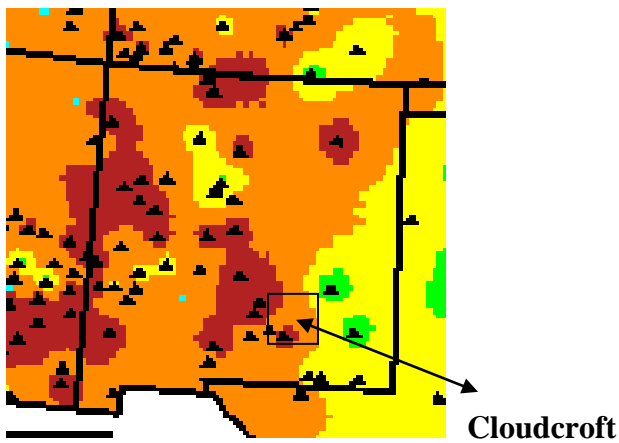
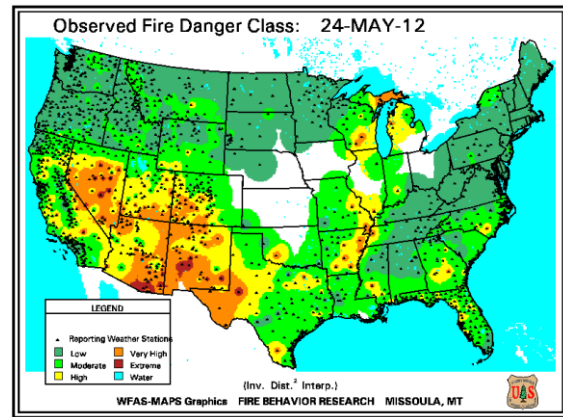
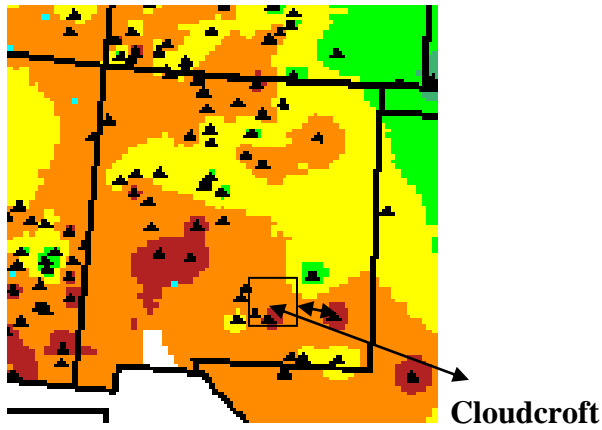
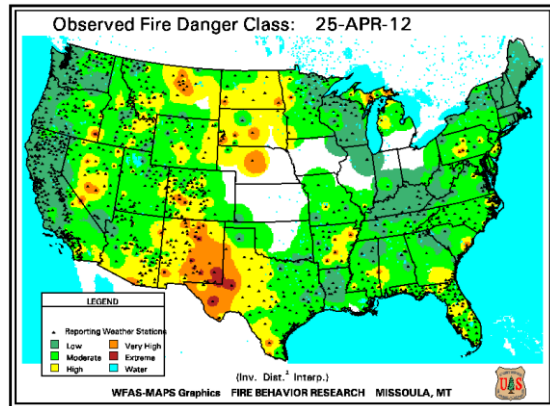
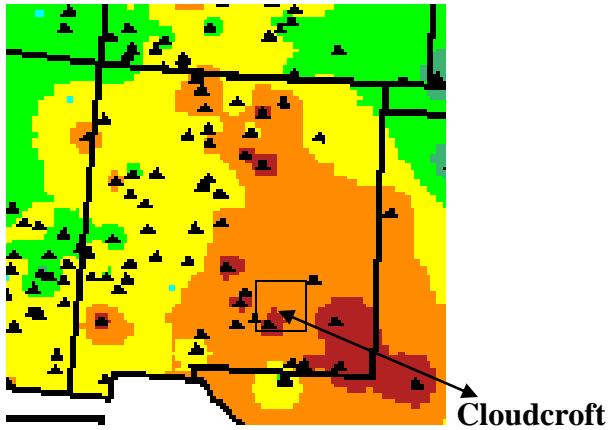
## Fire Danger- March thru June 2013



## In 2013, High Fire Danger continued June thru September

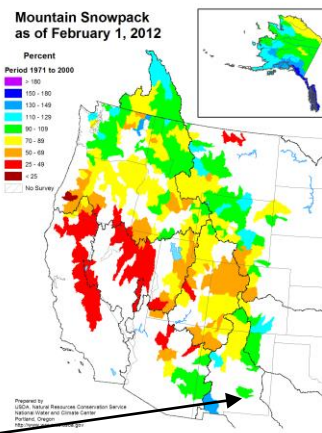
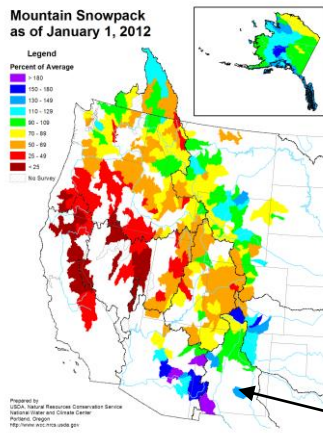


## Fire Danger 2012



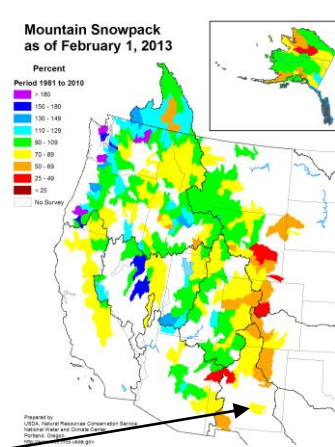
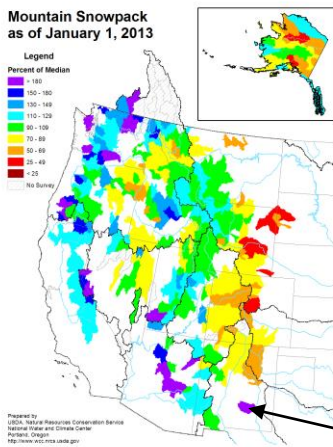


## 7.8- Snowpack for January and February 2012 thru 2014



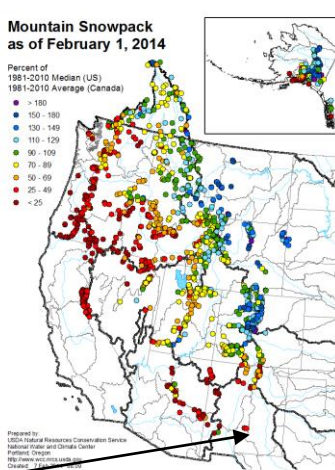
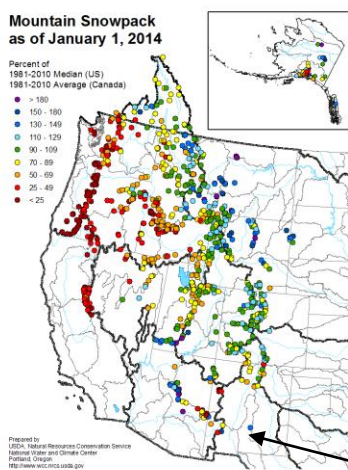
Cloudcroft

2012



Cloudcroft

2013



Cloudcroft

2014



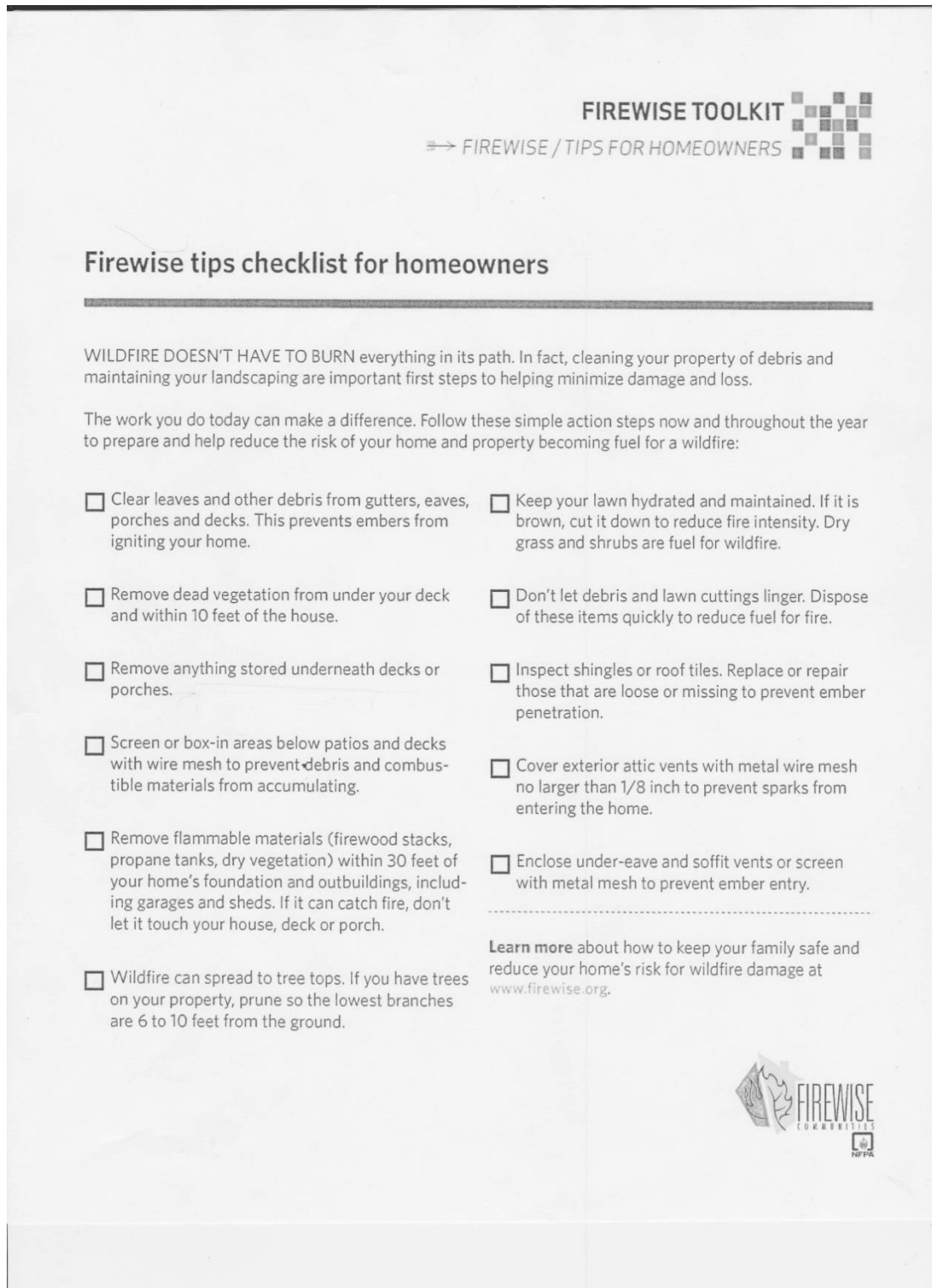
**ATTACHMENT-F**

**Sec. 42-81 Fire Hazard Ratings Form** (revised 05-01-03)  
Place an "X" next to most appropriate answer (see reverse) in each category, then total the numbers at bottom

<b>Subdivision Design</b>	POINTS	<b>Fire Protection</b>	POINTS	<b>Name:</b>
<b>Ingress/Egress</b>		<b>Fire Response</b>		
Two ways to evacuate neighborhood within 1000'	1	Property located in Village of Rudese	1	<b>Address:</b>
One way to evacuate neighborhood within 1000'	3	Property located in County	5	
One way to evacuate neighborhood > 1000' away	5	<b>Water Supply</b>		
<b>Width of Primary Road @ driveway</b>		Hydrant within 1,000 feet of structure	1	
20 feet or more	1	Hydrant farther than 1,000 feet or draft site	3	
Less than 20 feet	3	Water source 20 min or less, round trip	5	
<b>Accessibility</b>		Water source farther than 20 min, round trip	10	
Road grade 5% or less (avg. within 1000')	1	<b>Utilities (electric service)</b>		
Road grade more than 5% (avg. within 1000')	3	Underground mains and service lines	1	
<b>Secondary Road Terminus</b>		Underground service lines only	3	
Not a dead-end	0	Aboveground service lines	5	<b>Permit No:</b>
Loop roads, cut-de-sacs with an outside radius of 45 feet or greater	1	<b>Construction Materials</b>		
Cut-de-sac turnaround	3	<b>Siding</b>		
Dead-end roads 200 feet or less in length	3	Noncombustible	1	
Dead-end roads greater than 200 feet in length	5	Combustible	5	
<b>Average Lot Size</b>		<b>Deck</b>		
10 acres or larger	1	Noncombustible	1	
Larger than 2.5 acres, but less than 10 acres	3	Decks over 6" w/noncombustible uprights	1	
2.5 acres or less	5	Combustible w/fire-safe crawlspace	3	
<b>Street Signs</b>		Combustible	5	
Present	1	<b>Solids</b>		
Not present	5	Parapet / Santa Fe style / 1hr. rated enclosed	0	
<b>Fuels Management</b>		Enclosed	1	
<b>Fuel Types</b>		Open	5	
Light (grass, forbs, bare ground, etc.)	1	<b>Windows</b>		
Medium (scrub oak, shrubs, etc.)	5	Low E	1	
Heavy (pine, fir, juniper)	10	Double Pane	3	
<b>Defensible Space (what is possible?)</b>		Single Pane	5	
More than 100 feet of treatment from buildings	1	<b>Roof</b>		
Less than 100 feet of treatment from buildings	5	Class A Fire Rated	1	
<b>Installed Landscape (within 10 feet)</b>		Class B Fire Rated	3	
Xeriscape or dirt	0	Class C Fire Rated	5	
Flame Resistant Plants	1	Non-Rated	10	
Flammable Plants	3	<b>Stem Walls/Structural Support</b>		
Flammable Trees and Timbers	5	Non Combustible Enclosed	1	
<b>Topography</b>		Combustible Enclosed	3	
Slope 10% or less	1	Non Combustible Post & Beam	5	
Slope more than 10%, but less than 20%	4	Combustible Post & Beam	10	
Slope more than 20%, but less than 30%	7	<b>Total the points here</b>		
Slope 30% or more	10			

**YOUR RATING: Med= ≤59; High= 60-74; Extreme= ≥75**

**7.9 The fire hazard ratings form not only pre-determines a neighborhood survival, but also to determine each individual home's defensibility during a wildfire. The majority of Cloudcroft currently rate High to Extreme, in 4 of the 5 categories on this form.**



7.10

# Evaluate your home for wildfire safety

by Steve Henry

Thanks to the summer monsoon rains, the Village of Cloudcroft has likely made it through another wildfire season. However, now is the time to begin preparing our properties to be more firewise for the next fire season.

Toward this goal, we should be evaluating our properties for improving the conditions to reduce the potential for spreading a wildfire to damage or destroy our homes. The following self-evaluation form will help you in identifying areas around your home that may need attention to reduce the chance of a wildfire spreading and igniting your home.

By walking around your property and filling out the form provided below, you will be able to determine if your home and property are prepared in case of a wildfire.

In determining the values between 1-10, it is unlikely that you will be at the extreme ends of either 1 or 10; find a value within that range. A score of 100 means your property is as "firewise" as possible, above 60 is very good, below 60 indicates the lowered scored items need attention and below 40 signifies a wildfire could easily spread on your property and destroy your home.

Typically you can easily raise your score by removing flammable materials from around your home, especially within 5 feet, and taking them to the Slash Pit or Village Dump on Mesalero Ave (not your local dumpster).

Flying embers from a wildfire can easily ignite these flammable materials, which can then ignite your home or decks. Placing 1/8" green mesh around any gaps beneath your home and decks, along with a 5 foot border of non-flammable materials should be your goal in order to be prepared for the next fire season.

Home - Flammable Materials within 10 ft of home/decks:

None	Some	Too Much	Totals
10	9	8	7
6	5	4	3
2	1	0	

Stored Items (Chairs, Toys, Equipment, etc.)

10	9	8	7	6	5	4	3	2	1	0	
----	---	---	---	---	---	---	---	---	---	---	--

Trees and branches within 10 ft of home

10	9	8	7	6	5	4	3	2	1	0	
----	---	---	---	---	---	---	---	---	---	---	--

Roof covered with pine needles, leaves, sticks

10	9	8	7	6	5	4	3	2	1	0	
----	---	---	---	---	---	---	---	---	---	---	--

Grounds - Flammable Materials on property:

None	Some	Too Much	Totals
------	------	----------	--------

Live Brush (less than 10 ft high, more than 10 ft from home)

10	9	8	7	6	5	4	3	2	1	0	
----	---	---	---	---	---	---	---	---	---	---	--

Dead Brush/ Tree limbs (more than 10 ft from home)

10	9	8	7	6	5	4	3	2	1	0	
----	---	---	---	---	---	---	---	---	---	---	--

Other Flammable Materials (trash, abandoned items, etc.)

10	9	8	7	6	5	4	3	2	1	0	
----	---	---	---	---	---	---	---	---	---	---	--

Trees - Trees/ Branches within 10 ft of the ground

None	Some	Too Many	Totals
------	------	----------	--------

Small trees less than 10" in diameter

10	9	8	7	6	5	4	3	2	1	0	
----	---	---	---	---	---	---	---	---	---	---	--

Dead trees (more than 4 on lot is too many)

10	9	8	7	6	5	4	3	2	1	0	
----	---	---	---	---	---	---	---	---	---	---	--

Branches less than 10 ft above ground

10	9	8	7	6	5	4	3	2	1	0	
----	---	---	---	---	---	---	---	---	---	---	--

Score \_\_\_\_\_

We hope this information you gathered about your property has been useful.

If we can all put some effort into reducing the flammable materials on our property, the entire Village will be safer.

Much more information about making your home and our community more safe from wildfires can be found at [www.firewise.org](http://www.firewise.org).

### Village of Cloudcroft PReWater Project – Direct Potable Reuse

The Village of Cloudcroft, New Mexico will implement the first direct potable reuse (DPR) project in the State of New Mexico. The PReWater project will treat wastewater flows to drinking water quality, for blending with local natural water sources and augmentation into the potable water supply. A multi-barrier treatment approach will be used to purify reclaimed water from the wastewater treatment plant (WWTP), and used for blending with existing well and spring waters that is ultimately used for additional potable water supply and aquifer recharge. This project will help provide the Village with a 40-year water supply. Additionally, for much of the time the project will provide for all of the Village water demands, thereby allowing water for aquifer recharge and other uses.

The Integrated Membrane System (IMS) used for this project begins with conversion of the existing trickling filter WWTP to a membrane bioreactor (MBR) process. The MBR is designed for an average flow of 100,000 gallons per day (GPD). The MBR permeate will be disinfected with chloramines and stored in a 80,000-gallon water storage tank at the WWTP site.

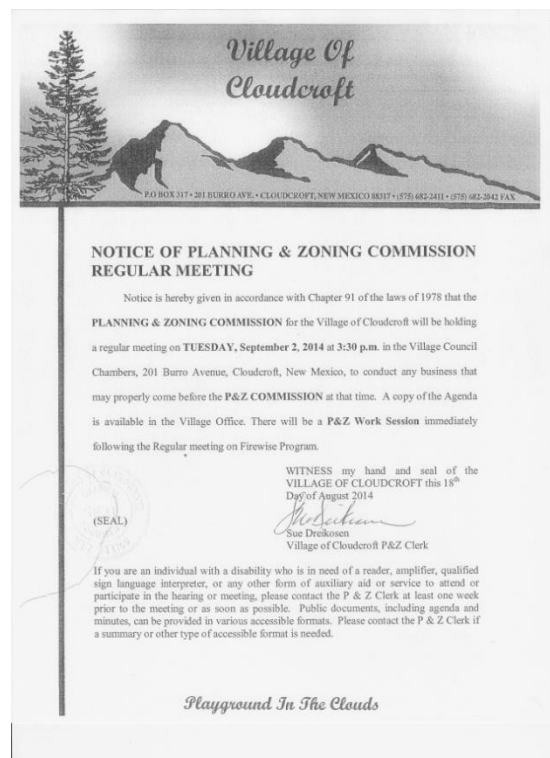
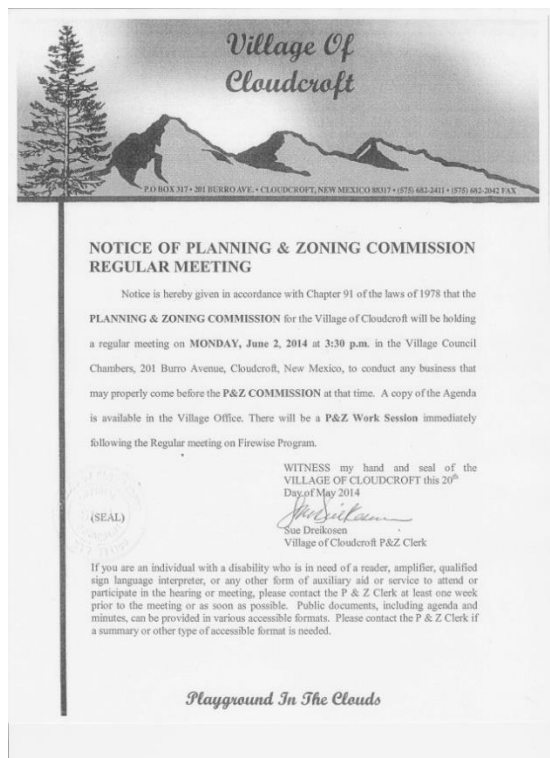
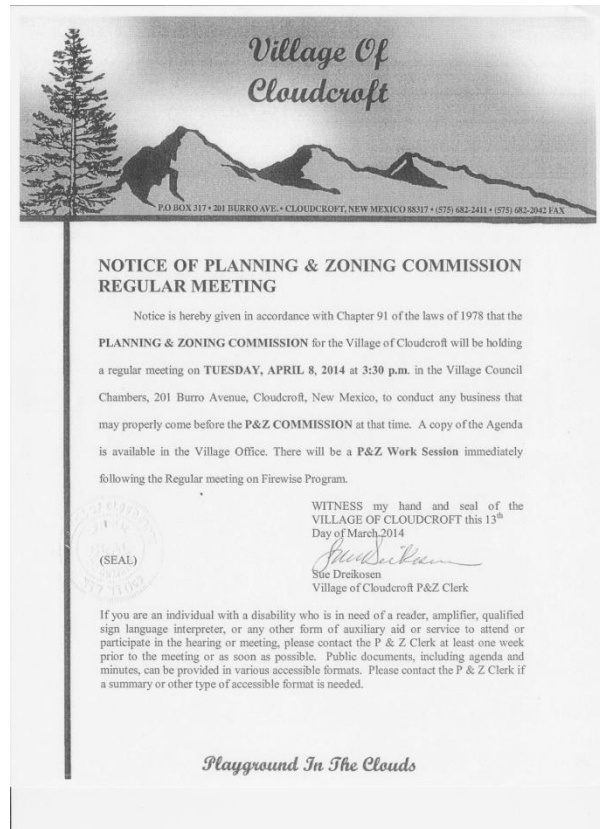
The MBR permeate will be pumped ½ mile to another 80,000-gallon storage tank, and will then flow by gravity downhill to the Water Treatment Facilities (WTF). At the WTF, the MBR permeate is at 175-psi residual pressure and will pass through through a reverse osmosis (RO) system. The RO will be driven completely by gravity pressure, without the need for a pump. Permeate from the RO system will receive ultraviolet light (UV) and hydrogen peroxide disinfection, and discharge into an 1,000,000-gallon covered and lined reservoir. From there, the “new” water will blend with existing spring and ground waters, at a ratio of approximately 50:50.

Up to 180,000 gallons per day of the blended waters (RO permeate, spring and well) will be additionally treated using ultrafiltration (UF), then disinfected with UV, processed through granular activated carbon (GAC) and then final chlorine disinfection. The new ‘PReWater’ is then pumped into the Village’s water distribution system. Because high-quality water from the RO process is used for blending, the overall water quality in the distribution system will be greatly improved. The brine concentrate from the RO process and the UF backwash water is stored in a 300,000-gallon open-top reservoir, and will be beneficially used for dust control, possibly snow making and gravel washing. Alternatively, the RO concentrate may be disposed of using deep well injection.

The benefits from the operation of the PReWater system include the increase in new water supply; reducing the effects of drought on the Village water supply; the recycling of wastewater; providing a clean and green energy efficient wastewater treatment plant to reduce wastewater discharge and sludge handling to landfills; beneficially using wastewater as a resource; and providing a readily available source of water for fighting forest fires; dust control and construction.

Finally, the PReWater project also includes a new efficient and green infrastructure photovoltaic (PV) electricity generating system that will help to operate the water treatment plant. Power not consumed by the RO/UF plant will be sold back to the Otero County Electric Cooperative.

## VILLAGE OF CLOUDCROFT HAZARD MITIGATION PLAN



Infrastructure Capital Improvement Plan FY 2017-2021

Cloudcroft  
Project Summary

ID	Year	Rank	Project Title	Category	Funded to date	2017	2018	2019	2020	2021	Total Project Cost	Amount Not Yet Funded	Phases?
26662	2017	001	Land Acquisition Construction of Water Wells	Water Supply	0	660,000	950,000	0	0	0	1,610,000	1,610,000	Yes
25116	2017	002	Wastewater and Water Line Replacement	Water Supply	0	805,000	390,000	550,000	390,000	550,000	2,685,000	2,685,000	Yes
31233	2017	003	Water Treatment Plant	Water Supply	0	750,000	0	0	0	0	750,000	750,000	No
17375	2017	004	Storm Water Control Improvements	Storm/Surface Water Control	0	465,000	525,000	525,000	525,000	0	2,040,000	2,040,000	Yes
19719	2017	005	Community Center and Library Renovation	Libraries	0	400,000	0	0	0	0	400,000	400,000	No
28131	2018	001	Heavy Equipment	Other	0	0	400,000	0	0	0	400,000	400,000	No
28133	2018	002	Snow Making Improvements	Economic Development	0	0	825,000	0	0	0	825,000	825,000	No
31250	2018	003	Wastewater Solids Treatment Facility	Wastewater	0	0	750,000	0	0	0	750,000	750,000	No
25118	2018	004	Burro St. Improvement Project - Restroom Health-Related Cap Infra Facility		0	0	300,000	0	0	0	300,000	300,000	No
19739	2019	001	Plan, Dsgn, Cnstr Pedestrian Bridge & Parking Lot	Hiways/Roads/Streets/Bridges	0	0	0	840,000	0	0	840,000	840,000	No
19722	2019	002	Plan, Dsgn, Constr Main Street Improve	Economic Development	0	0	575,000	170,000	0	0	745,000	745,000	No
10325	2019	003	Plan, Dsgn, Constr New Public Safety Ctr	Adm/Service Facilities (local)	0	0	0	1,150,000	0	0	1,150,000	1,150,000	No
19720	2020	001	Plan, Renov Village Office Complex	Adm/Service Facilities (local)	0	0	0	0	565,000	0	565,000	565,000	No
25117	2020	002	Plan, Dsgn, Const. Zenith Park CofC Econ Imprv	Economic Development	0	0	0	0	460,000	0	460,000	460,000	No

Tuesday, August 18, 2015

Cloudcroft/ICIP 15213



## **8.0 Bibliography**

### **8.1 List of Exhibits and Photos**

Cover Page photo of Mexican Trestle Railroad Bridge, 2014 (cover)

Village of Cloudcroft Aerial, Google Earth (pg. 4-5)

Otero County Sacramento District Map (pg. 9)

Evacuation Drill Photos (pg. 12)

Calculated Priority Risk Index (pg. 16)

Hazard/Threat Analysis Map (pg. 18)

Photo of the Mayhill Fire in 2011, located 17 miles east of Cloudcroft, (pg. 20)

WUI Fire Hazard Score & Rating Assessment (pg. 21)

Scotty's LPG Propane Storage Facility & Aerial Photo, 2013 (pg. 23)

Historic Wildfires Map (pg. 25)

Cloudcroft Water Treatment & Storage Plant Photo, 2014 (pg.28)

Flooding Mitigation Map (pg. 29)

Historic Winter Storms & Photos (pg. 31)

Winter Storm Hazard Areas map (pg. 33)

Core Capabilities/Desired Outcomes Worksheet (pg. 36)

NM State Forestry Tree Thinning Project 2014 (pg. 38)

NFPA Practices for Wildfire Safety Guidelines (pg. 39)

Evacuation Route Map (pg. 41)

Recovery Cost vs Mitigation (pg. 42)

Wildfires STAPLEE Chart (pg. 45)

Drought STAPLEE Chart (pg. 46)

Winter Storms STAPLEE Chart (pg. 47)

Sample Newspaper Article (pg. 49)

## **8.2 Participants and Stakeholders**

Mario Romero- Otero County Electric Coop, CEO

Brandon Eamuellio- Tularosa Basin Tele-Communications, Lineman Manager

Patrick Blue- USFS, Law Enforcement Officer

Phyllis Turner- Cloudcroft Chamber of Commerce, Director

Marrienne Neimiester- Cloudcroft Senior Citizen Center, Director

Arlen Ponder- Holloman Air Force Base, Public Affairs Officer

Jennifer Green- Cloudcroft Animal Hospital, Veterinarian/Owner

Steve Grulke- The Lodge Retreat, Head of Safety and Maintenance

Jay Northcott-USFS, Lincoln NF Fire Management Officer

Robin Kimball- United Methodist Church, Pre-School Director

Steve Henry- Cloudcroft Historical Directory, President

Lisa Thomassie- The Lodge Resort, General Manager

Jim Maynard- Green Mountain Realtors & Developers, Owner

Mel Adams- Ski Cloudcroft, Manager

Marsha Slane- Cloudcroft Properties, Owner/Broker

Ed Woten- Mountain Monthly, Editor

Jerrilyn Russell- Alta Vista Hotel, Owner

Craig Turner- Burro St. Exchange Mall, Owner

Cloudcroft Municipal School District Board- Bill Denney- Board President, Gerold Green-Vice

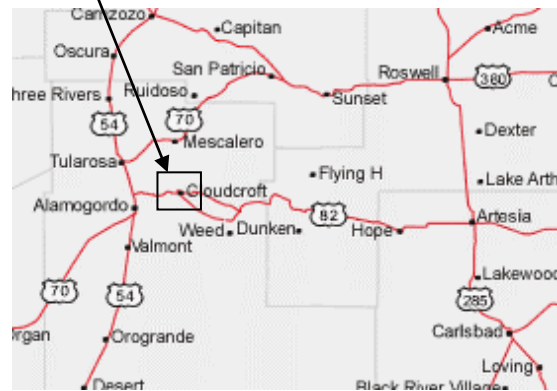
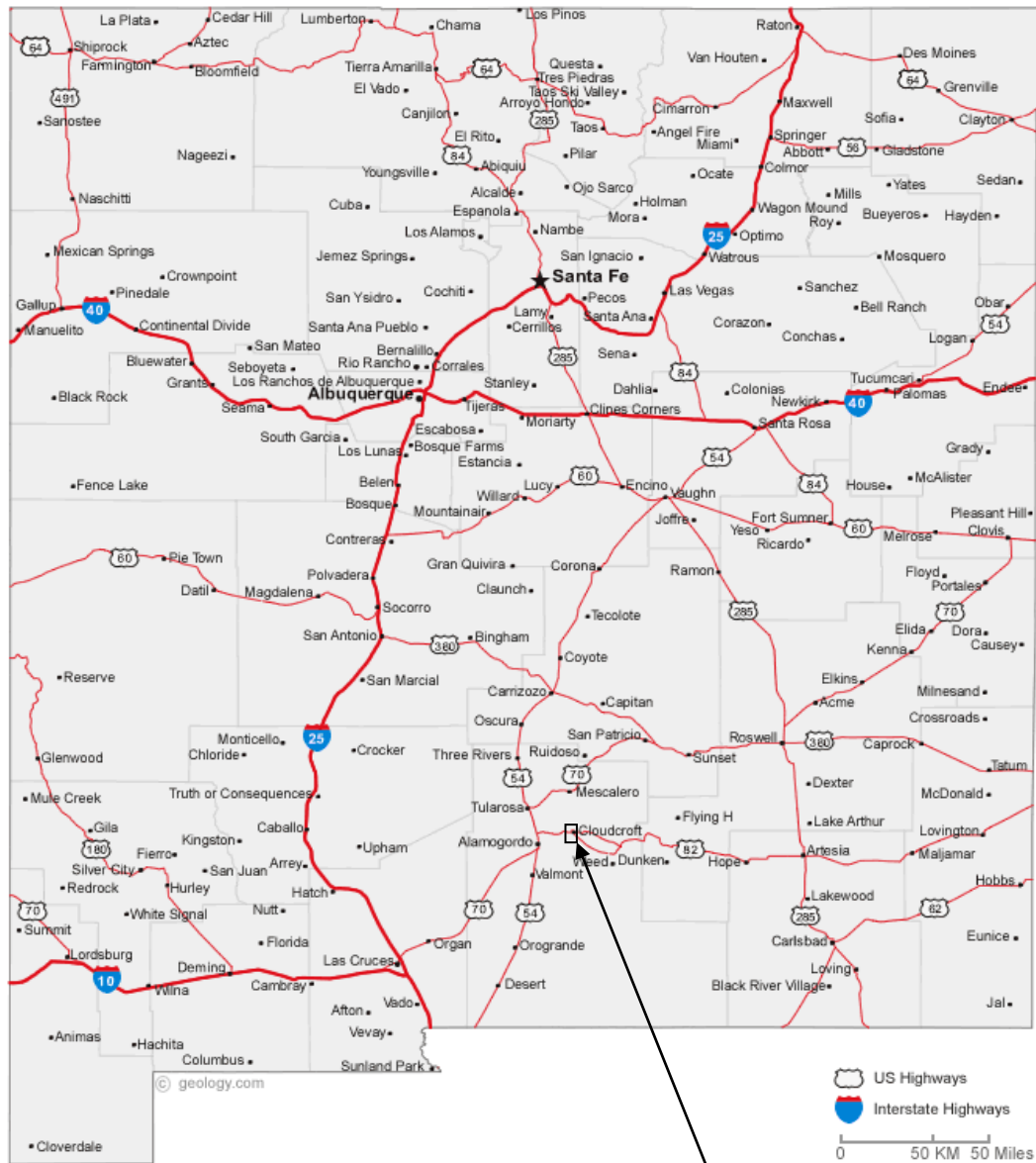
President, Lance Wright-Secretary, Arlen Ponder-Member, Ace Wimsatt-Member

Travis Dempsey- Cloudcroft Municipal School District Superintendent.

### 8.3 References

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# VILLAGE OF CLOUDCROFT HAZARD MITIGATION PLAN



**VILLAGE OF CLOUDCROFT  
OTERO COUNTY  
STATE OF NEW MEXICO**

**RESOLUTION NO. 2017-07**

**ADOPTION OF HAZARD MITIGATION PLAN**

**WHEREAS**, the Village of Cloudcroft recognizes the threat that natural hazards pose to people and property within the Village of Cloudcroft; and

**WHEREAS**, the Village of Cloudcroft has prepared a multi-hazard mitigation plan, hereby known as the Village of Cloudcroft Hazard Mitigation Plan dated May 2017, in accordance with the Disaster Mitigation Act of 2000; and

**WHEREAS**, the Village of Cloudcroft identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in Cloudcroft from the impacts of future hazards and disasters; and

**WHEREAS**, adoption by the Village of Cloudcroft demonstrates their commitment to hazard mitigation and achieving the goals outlined in the Hazard Mitigation Plan of May, 2017.

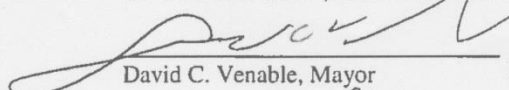
**NOW THEREFORE BE IT RESOLVED BY THE VILLAGE OF  
CLOUDCROFT, NEW MEXICO, THAT:**

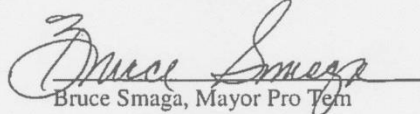
The Village of Cloudcroft adopts the Hazard Mitigation Plan of May, 2017.

**ADOPTED** by a vote of 3 in favor; 0 against and 0 abstaining.

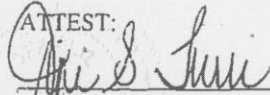
**PASSED, APPROVED AND ADOPTED THIS 13<sup>th</sup> DAY OF JUNE, 2017.**

GOVERNING BODY FOR THE VILLAGE  
OF CLOUDCROFT, NEW MEXICO

  
David C. Venable, Mayor

  
Bruce Smaga, Mayor Pro Tem

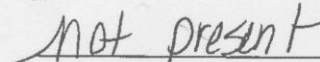
ATTEST:



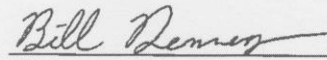
Jim S. Turri, MMC  
Village Administrator/Clerk/Treasurer



Jim Maynard, Trustee



Cindy Voight, Trustee



Bill Denney, Trustee