UNION COUNTY

COMMUNITY WILDFIRE PROTECTION PLAN

Dry Cimarron Scenic Byway

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WHEREAS, the Healthy Forest Restoration Act of 2003 makes funds available through programs to conduct community protection and wildfire hazard mitigation activities on federal and non-federal lands to qualifying agencies and entities; and

WHEREAS, a mandatory qualification defined in the Healthy Forest Restoration Act of 2003 to access funding programs is to develop a plan called a "Community Wildfire Protection Plan, or CWPP, through local collaboration that prioritizes fuels reduction and addresses treatment of structural ignitability; and

WHEREAS, Union County has hosted and participated in the Union County Community Wildfire Protection Plan Core Team formed in July 2007 which included federal, state, county and city agencies as well as local private land and business owners throughout Union County; and

WHEREAS, this collaboratively developed CWPP meets the requirements set forth and is supported by EMNRD, New Mexico State Forestry Division and the Union County Fire Chiefs:

NOW THEREFORE be it resolved by the Governing Body of Union County that the attached "Union County Community Wildfire Protection Plan" be and herby is adopted

INTRODUCTION TO COMMUNITY WILDFIRE PROTECTION PLANS

The Healthy Forest Restoration Act, which was signed into law in December 2003, first defined a Community Wildfire Protection Plan, or CWPP, and established incentives for communities to create a CWPP. In March 2004, the *Handbook for Wildland-Urban Interface Communities* was published, offering a detailed, user friendly, how-to manual for creating a CWPP.

A CWPP is a plan developed by a community in an area at-risk from wildland fire. The CWPP is a collaborative product involving interested parties, local government, local fire fighting agencies, the state agency which oversees forest management and, if present in the vicinity, federal land management agencies. A valid CWPP has two objectives:

- To identify and prioritize the surrounding area, both federal and nonfederal lands, for hazardous fuels reduction treatments, as well as recommending methods for achieving hazardous fuels reductions.
- The plan recommends measures for reducing structural ignitability through out the at-risk community.

In addition to enhancing safety and reducing risk to human structures and watersheds, communities with CWPPs are also given priority for USFS and BLM funded hazardous fuels reduction projects as authorized under the HFRA.

COMMUNITIES AND THE WILDLAND–URBAN INTERFACE

The wildland–urban interface (WUI) is commonly described as the zone where structures and other human development meet and intermingle with undeveloped wildland or vegetative fuels. This WUI zone poses tremendous risks to life, property, and infrastructure in associated communities and is one of the most dangerous and complicated situations firefighters face. Both the National Fire Plan and the Ten-Year Comprehensive Strategy for Reducing Wildland Fire Risks to Communities and the Environment place a priority on working collaboratively within communities in the WUI to reduce their risk from large-scale wildfire. The HFRA builds on existing efforts to restore healthy forest conditions near communities and essential community infrastructure by authorizing expedited environmental assessment, administrative appeals, and legal review for hazardous fuels projects on federal land. The Act emphasizes the need for federal agencies to work collaboratively with communities in developing hazardous fuel reduction projects, and it places priority on treatment areas identified by communities themselves in a CWPP.

ROLE OF COMMUNITY WILDFIRE PROTECTION PLANS

The HFRA provides communities with a tremendous opportunity to influence where and how federal agencies implement fuel reduction projects on federal lands and how additional federal funds may be distributed for projects on nonfederal lands. A CWPP is the most effective way to take advantage of this opportunity.

BENEFITS TO COMMUNITIES

In the context of the HFRA, a CWPP offers a variety of benefits to communities at risk from wildland fire. Among those benefits is the opportunity to establish a localized definition and boundary for the wildland–urban interface. In the absence of a CWPP, the HFRA limits the WUI to within ½ mile of a community's boundary or within 1 ½ miles when mitigating circumstances exist, such as sustained steep slopes or geographic features aiding in creating a fire break. Fuels treatments can occur along evacuation routes regardless of their distance from the community. At least 50 percent of all funds appropriated for projects under the HFRA must be used within the WUI as defined by either a CWPP or by the limited definition provided in the HFRA when no CWPP exists. In addition to giving communities the flexibility to define their own WUI, the HFRA also gives priority to projects and treatment areas identified in a CWPP by directing federal agencies to give specific consideration to fuel reduction projects that implement those plans. If a federal agency proposes a fuel treatment project in an area addressed by a community plan but identifies a different treatment method, the agency must also evaluate the community's recommendation as part of the project's environmental assessment process.

UNION COUNTY'S NEED FOR A CWPP

"It's just a grass fire…"

It has been said that more fatalities have occurred while fighting grass fires than any other wildfire. In Ordway, CO a farm town in the eastern plains of Colorado, a wildfire in April 2008 was a stark reminder of how devastating grass fires can be. The entire community was evacuated, 24 buildings were destroyed including eight homes, 14 square miles burned and two firefighters lost their lives. Cross Plains, TX a community in the flat, northern plains will never underestimate the potential destruction of a grass fire. In December 2005 a wildfire devastated the town. 85 homes and 25 mobile homes were destroyed and two firefighters and 17 civilians lost their lives. These communities were very similar to the communities found throughout the grasslands of Union County. Neither of these fires took place during what is typically thought of as the "fire season". New Mexico has been experiencing severe drought conditions for the last several years. This coupled with the fire management practices of the past several decades to "fight fire safely and effectively" which has disrupted the natural wildfire cycle. The result has been a shift in species composition in many areas as grass-dominated landscapes gave way to shrubs and trees. Rainfall in the summer leads to increased fuel loads and the dry fall and winter leave these fuels dried and prone to ignition.
Communities, property owners and fire personnel must prepare and preplan for wildfires by recognizing the risk and potential of grass fires, reducing fuel loads, preparing fire suppression resources, and raising awareness on what homeowners can do to protect their property before the fire.

PREPARING A COMMUNITY WILDFIRE PROTECTION PLAN

STEP ONE: CONVENE DECISION MAKERS

Form a core team made up of representatives from the appropriate local governments, local fire authority, and state agency responsible for forest management.

STEP TWO: ENGAGE INTERESTED PARTIES

Contact and encourage active involvement in plan development from a broad range of interested organizations and stakeholders.

Identify and engage local representatives of the USFS and BLM.

Contact and involve other land management agencies as appropriate.

STEP THREE: ESTABLISH A COMMUNITY BASE MAP

Work with partners to establish a baseline map of the community that defines the community's WUI and displays inhabited areas at risk, forested areas that contain critical human infrastructure, and forest areas at risk for large-scale fire disturbance.

STEP FOUR: IDENTIFY PROBLEMS TO BE ADDRESSED

Work with partners to identify problems to be addressed, including fuel hazards; risk of wildfire occurrence; structural ignitability; local preparedness capability; and location of homes, businesses, essential infrastructure and other community values at risk.

This "community risk assessment" can be simple or complex depending on the resources available to the community and partners.

STEP FIVE: ESTABLISH COMMUNITY PRIORITIES AND RECOMMENDATIONS

Use the base map and community risk assessment to facilitate a collaborative community discussion that leads to the identification of local priorities for fuel treatment, reducing structural ignitability, and improving fire response capability.

Clearly indicate whether priority projects are directly related to protection of communities and essential infrastructure or to reducing wildfire risks to other community values.

STEP SIX: DEVELOP AN ACTION PLAN AND ASSESSMENT STRATEGY

Consider developing a detailed implementation strategy to accompany the CWPP, as well as a monitoring plan that will ensure its long-term success.

STEP SEVEN: COMPLETE THE COMMUNITY WILDFIRE PROTECTION PLAN

Consider the CWPP complete for the year and date stamp the document.

Communicate the results to the community and partners.

Collect information to update the plan for revision the following year.

UNION COUNTY CORE TEAM MEMBERS

UNION COUNTY MANAGER

UNION COUNY COMMISSION

UNION WILDLAND FIRE COORDINATOR

UNION COUNTY EMERGENCY MANAGEMENT

UNION COUNTY E911

TOWN OF CLAYTON

CIBOLA NATIONAL FOREST

NEW MEXICO STATE FORESTRY- CIMARRON DISTRICT

DES MOINES VFD

DES MOINES EMS

FOLSOM VFD

FOLSOM EMS

GRENVILLE VFD

GRENVILLE EMS

CLAYTON FD

SEDAN VFD

RABBIT EAR VFD

CAPULIN VFD

AMISTAD VFD

NMSU EXTENSION SERVICE

VARIOUS RANCHERS AND CITIZENS

COLLABORATION

The following agencies were invited to Participate in the Core Team meetings.

Table 1. Invitation List

Union County Manager
Union County Commissioners
Union County Wildland Coordinator/ Fire Marshall
Union County E-911/GIS
Union County Emergency Management
Cibola National Forest
Capulin Volcano National Monument
Ute Creek Soil & Water Conservation District
EMNRD Forestry Division
Clayton Lake State Park
NM Dept. of Game and Fish
Mayor of Folsom
Folsom VFD
Folsom EMS
Clayton FD
Capulin VFD
Amistad VFD
Sedan VFD
Grenville VFD
Des Moines
NMSU Extension Service
NRCS, Water Board
Town of Clayton
Citizens via newspaper, mail outs, e-mail, and public postings

Union County hosted several Core Team meetings. The Meeting dates and places were;

Table 2. Core Team Meetings

July 23, 2007	Clayton, NM
November 16, 2007	Des Moines, NM
November 17, 2007	Clayton, NM
February 6, 2008	Clayton, NM
February 28, 2008	Clayton, NM
March 6, 2008	Clayton, NM

The Core Team worked together to accomplish the goals of this CWPP which include:

- Defining the Union County WUI
- Identifying critical infrastructure at risk
- Creating the Union County WUI map
- Identifying local priorities for fuel treatments
- To provide recommendations for the reduction of fire danger within the WUI and to Critical Infrastructure
- Identifying Fire Department needs
- Recommendations for improving fire response capabilities

UNION COUNTY
AN INTRODUCTION

Union County is located in the northeast corner of New Mexico, bordering Colorado to the north, and both Oklahoma and Texas to the east. The terrain in northwestern Union County consists of high mesas, deep canyons and desiccated plateaus with volcanic mountains scattered throughout. The southern and eastern portions of the county consist mostly of plains with some scattered hills and arroyos. These grassy plains are well suited for cattle ranching; as a result Union County relies heavily upon agriculture for revenue and employment.

POPULATION

While Union County has remained primarily a ranching area since it was first settled, significant changes have occurred in its population and economy. The Union County population has fallen from 14, 221 (1920 census) to 4,174 (2000 census). Union now has the fourth smallest population of New Mexico's 33 counties. Major causes for the decrease were first, the Dust Bowl and depression of the 1930s, which drove most of the homesteaders from their farms, and the second, the need to own much more land to make a living in the cattle industry.

WATER

Union County is mainly dependent on groundwater except for the Dry Cimarron River Valley where less than 3,000 acres are irrigated, and Tramperas Creek area where less than 1,500 acres are irrigated.

After the discovery of ground water for irrigation, farming began to grow again in the 1950s. The acreage being irrigated continued to grow from 1972 through 1984, while number of acres of dryland farming decreased. In the past ten years, the number of acres of irrigated and dryland farming has remained constant.

Most of the groundwater irrigation is located along a strip about 8 miles wide on the east side of the county from a few miles north of Clayton to the Quay County line. The potential for expanding irrigation is limited by lack of water and by economic restrictions.

LAND USE

Union County consists of approximately 2,422,800 acres. The average elevation is 4,970 feet. The average annual rainfall is 15 inches and the temperatures range from highs in the 70's to lows in the 30's.

Land use in the County is 93% grazing, crop lands include 64,477 irrigated acres, 31,739 dry land acres and commercial timber utilizes 17,122 acres.[1]

There is 800 acres of inland water.

LAND OWNERSHIP

The land ownership consists of United States Forest Service, Bureau of Land Management, National Parks, State land and privately-owned land. There are also several archaeological sites peppered throughout the County, including the Santa Fe Trail which runs from the northeastern part of the County southwest toward Gladstone.

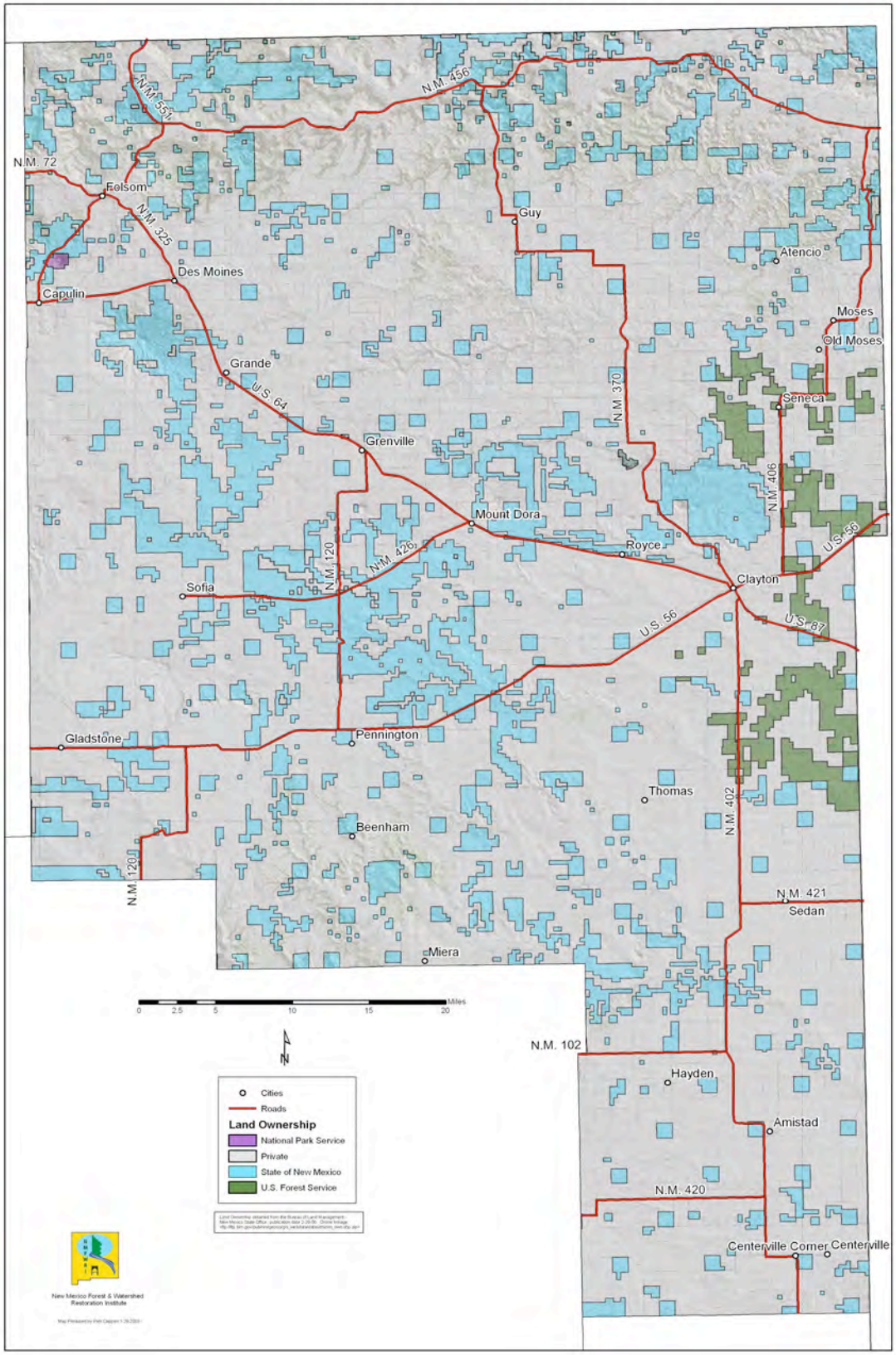
Table 3. Land Ownership

Land Status	Size in acres	Percent of total County
Privately owned	1,922,069	79%
U.S. Forest Service	57,542	2%
BLM	503	>1%
National Parks	740	>1%
State	441,946	18%
Total	2,422,800	100%

The County consists of several small communities. Four of the communities are incorporated and include; Clayton, Des Moines, Grenville and Folsom. Nine of the communities are un-incorporated and include; Capulin, Amistad, Gladstone, Sedan, Mt. Dora, Hayden, Strong City, Thomas and Seneca.

1. Union County Comprehensive Plan 2002, Tab 5

Union County Land Ownership



UNION COUNTY FIRE HISTORY

In the past the fire departments in Union County have not been in the habit of reporting all wildland fires to NM State Forestry as ie required of them. The current fire personnel are working to change that. The fire history on record at NM State Forestry is therefore incomplete. This history is included only to give a vague idea of some of the fire activity in Union. It may be noted that in the time period represented no railroad fires were reported. This has certainly not been the case. This fire history is included to acknowledge that the departments have been slack in reporting and have made a commitment to meet their reporting requirements.

Sixty Two wildfires were reported to New Mexico State Forestry between August 1996 and April 3, 2008. Of those fires 40% burned less than 100 acres, 78% burned less than 1,000 acres. With a total of over 92,203 acres reported burned. Lightning was the leading cause of fires over the last decade, causing 58% of all reported fires in Union County. Humans caused 22% either by equipment use, burning debris, hot ashes, smoking or children.

87% of the fires reported were Grass fires. 6% burned in Pinon/Juniper all caused by lightning and 3% in brush all caused by lightning.

The complete Fire Management System (FMS) Report on record with NM State Foresty is included in the appendix if this CWPP.

Table 4. Fire by Size

Fire Size	# of Fires	Percent
0-10 acres	12	19%
11-99 acres	13	21%
100-500 acres	17	27%
501-999 acres	7	11%
1,000-4,999 acres	7	11%
5,000-9,999acres	3	5%
10,000-19,999 acres	2	3 %
20,000 +	1	2%
Total	62 fires	92,203 acres

Table 5. Fires by Cause

Cause	# of Fires	Percent
Lightning	36	58%
Miscellaneous	11	18%
Equipment Use	7	11%
Debris Burning	3	5 %
Power line	2	3 %
Hot ashes	1	2%
Smoking	1	2 %
Children	1	2 %
Total	62	

Table 6. Fires by Fuel Type

Fuel Type	# of Fires	Percent
Grass	54	87%
Pinon/Juniper	4	6 %
Brush	3	5 %
Other Woodland	1	2 %
Total	62	

UNION COUNTY WILDLAND URBAN INTERFACE

Several Wildland Urban Interface Communities have been identified in Union County by the Core Team and from Community Feedback obtained in the public meetings. A fold-out map is included, "Union County WUI Map", which illustrates the WUI and Infrastructure at risk.

The Core Team defined the Union County WUI by designating the following communities:

- 5 mile radius around Clayton
- 5 mile radius around Folsom
- 2 mile radius around Sedan
- 2 mile radius around Amistad
- 2 mile radius around Capulin
- 2 mile radius around Des Moines
- 2 mile radius around Grenville
- 2 mile radius around Hayden
- 2 mile radius around Mt. Dora
- 2 mile radius around Strong City
- 2 mile radius around Gladstone
- Thomas
- Tramperas Watershed
- Dry Cimarron Watershed

A five mile radius was placed around Clayton because Clayton is the most populous area in Union County. The core team wanted to ensure that a sufficient "buffer zone" around the community was designated and to include the infrastructure surrounding the community in the Clayton WUI. Folsom has a five mile radius because of the forested areas around and within the community. A two mile radius around the remaining WUI communities was deemed sufficient.
The entire Tramperas and Dry Cimarron Watershed areas were significant enough to be included in the Union County Wildland Urban Interface.

WUI COMMUNITY RISK ASSESSMENT RATINGS

Each community was assessed using a nationally recognized Wildfire Hazard Subdivision Assessment Form to rate the Wildfire Hazard of a subdivision or community. The assessments are included in the appendix of this CWPP. Points are given for categories including:

- Ingress and Egress, road width and accessibility
- Lot size, driveway design, street signs
- Fuels types
- Defensible space treatments
- Topography
- Fire history
- Weather
- Building materials, roof and siding
- Available fire protection
- Distance to available Water sources
- Placement of utilities

Table 7. WUI COMMUNITY'S RISK ASSESSMENTS

WUICOMMUNITY	HAZARD ASSESSMENT LOW, MODERATE, HIGH, EXTREME
Folsom	Moderate
Capulin	Moderate
Des Moines	Low
Grenville	Low
Clayton	Low
Sedan	Low
Amistad	Low
Strong City	Low
Hayden	Low
Thomas	Low
Mt. Dora	Low
Gladstone	Low

CRITICAL INFRASTRUCTURE AT WILDFIRE RISK

Values at Risk have been identified in Union County by the Core Team and from Community Feedback obtained in the public meetings. A fold-out map is included, "Union County WUI Map", which illustrates the WUI and Infrastructure at risk.

- Livestock Research Center
- Feedlots
- CO_2 pipeline and wells
- Scenic Byways
- Santa Fe Trail
- Electrical Substations and SWEC Transmission Lines
- Future wind generator field sites
- Ports-to-Plains highway
- Clayton Lake State Park and Wildlife Refuge
- Mandala Center
- Prison
- Cell Towers
- Repeater Towers
- Recreation Sites
- Oxy station
- PNM gas lines leading into Clayton
- Gravel pits
- Historic Buildings and sites
- Railroad

Union County has five feedlot operations with a combined capacity of 70,000 head. Five miles east of Clayton is the Clayton Livestock Research Center where NM State University and the US Forest Service research problems in health, nutrition and management of cattle.

The county also holds the largest and purest carbon dioxide field referred to as the Bravo Dome. Most of the CO_2 is piped to the permian basin for oil recovery in West Texas. Because this natural resource has a high purity rating, it is also trucked, in the liquid form, to companies where it is used for medical applications. Some CO_2 is being processed into dry ice and delivered to companies that ship perishables. The royalties paid to the private landowners for extracting this natural resource is probably the reason the per capita income in Union County remains in the top five for the state average. There is potential for other product development utilizing CO_2 which will be pursued at the local and state level.

The Dry Cimarron Scenic Byway was designated in the early 90s. The Dry Cimarron and The Santa Fe Trail Byway continue to be developed and efforts to improve and promote both byways continue.

The Ports-to-Plains Trade Corridor is an uninterrupted multi-lane divided highway that will transport goods and people from Mexico and the Border Region through West Texas, Oklahoma, New Mexico, Colorado and ultimately Canada and the Pacific Northwest.

Tri-State Electric owns a transmission line that runs south from Colorado to an Oxy, Inc. facility commonly referred to as the Bravo Dome CO_2 plant.

Union County has been contacted by some wind farm development companies indicating an interest in exploring the county for wind generation development. Foresight Energy out of California has secured property leases and available space on a distribution line, erected monitoring towers and is recording data. Wind generation development is a top priority activity for the county because of its revenue potential.

UNION COUNTY WUI MAP

FUEL HAZARDS

FUEL AND WEATHER HAZARDS

There are several areas within Union County where the condition of vegetative fuels is such that, if ignited, they would pose a significant threat to communities and/or firefighter safety. Union also experiences high wind events quite often. The predominant winds are from the south/southwest.

CONSERVATION RESERVE PROGRAM LANDS

There are several tracts of Conservation Reserve Program, or CRP, land along the East flank of the County. CRP land is land which is under government contract to be reseeded to native grass and un-harvested for ten years. CRP was started in 1985 to take fragile, marginal land from crop production. The goals of the program were to reduce soil erosion, decrease sedimentation, increase herbaceous cover, improve water quality, and provide financial incentives for participants. One of the CRP fuel management requirements is that the fuels be managed once every three years during the ten year contract period. This requirement has not been enforced. The resulting tracts have multiple years' growth of grass that is very tall, dense and dry. The CRP land poses a high threat to the communities and ranch homes they are near.

GRAZELANDS AND RAILROAD LINES

Surrounding each of the WUI Communities are large tracts of pasture/graze land that pose a threat of a large scale running grass fire entering or surrounding the communities, ranch headquarters and homes. In addition to the graze land is the presence of railroad lines surrounding the communities. Some treatment recommendations agreed upon by the Core Team included Defensible Space Education, evacuation education, regular mowing, prescribed burning on private and public lands and strategically placed fuel breaks.

FORESTED AREAS

Within the Folsom Fire District there is a forested, mountain area north and west of the community of Folsom called Pine Forest. The area is beginning to see an influx of property owners who are building homes. The home sites require extensive defensible space treatments and on-scene water storage sites need to be developed in order for the local Volunteer Fire Department to provide adequate Fire protection to the developing "Subdivision". The CWPP core team expressed a desire to see the County Commission adopt some Wildland Urban Interface Zoning Codes to address development in forested areas to provide for firefighter safety and to lower the risk of property loss due to wildfire. The County Commission is reviewing the International Urban-Wildland Interface Code (ICC) and considering adopting part or all of the Code. Whether the Commission officially decides to adopt the ICC or not, the CWPP Core Team would recommend the Code be referenced as it has several helpful standards for WUI properties. Another source of helpful information for those building or living in the Wildland Urban Interface is the website, Firewise.org, and the NM State Forestry

Division's Publication, "Living with Fire". Some recommendations are included in the section of this plan entitled, "Protect Yourself: Living in the Wildland Urban Interface".

WATERSHEDS

The Northern strip of Union County has an abundance of moderate to heavy fuels, including Pinon/Juniper, Ponderosa Pine and Oak Brush, within the Dry Cimarron Watershed area. These forested areas are a priority area for hazardous fuels mitigation. There is an abundance of Pinyon-Juniper in the south central part of Union in an area known as the Tramperas Watershed. This area is also a priority for Hazardous Fuels Mitigation. These priority areas also correspond to the areas that are rated as Fire Regime Condition Class 2 and 3 within the county, as illustrated in the Union County FRCC map.

FIRE REGIME CONDITION CLASS

The USFS in conjunction with USDA FireLab, USGS and the Nature Conservancy has developed a website called "LANDFIRE" (visit http://www.landfire.gov for current data). Included in this data is LANDFIRE Rapid Assessment Fire Regime Condition Class (FRCC) data which delineates a standardized, interagency index to measure the departure of current conditions from reference conditions. FRCC is defined as a relative measure describing the degree of departure from the reference fire regime. This departure results in changes to one (or more) of the following ecological components:

- vegetation characteristics (species composition, structural stages, stand age, canopy closure and mosaic pattern)
- fuel composition
- fire frequency, severity and pattern
- other associated disturbances (such as insect and disease mortality, grazing and drought

FRCC is composed of three classes:

FRCC 1 - Within the natural (historical) range of variability ("reference fire regime") of vegetative characteristics; fuel composition, fire frequency, severity and pattern and other associated disturbances.

FRCC 2 - Moderate departure from reference fire regime of vegetative characteristics; fuel composition, fire frequency, severity and pattern and other associated disturbances.

FRCC 3 - High departure from the reference fire regime of vegetative characteristics; fuel composition, fire frequency, severity and pattern and other associated disturbances.

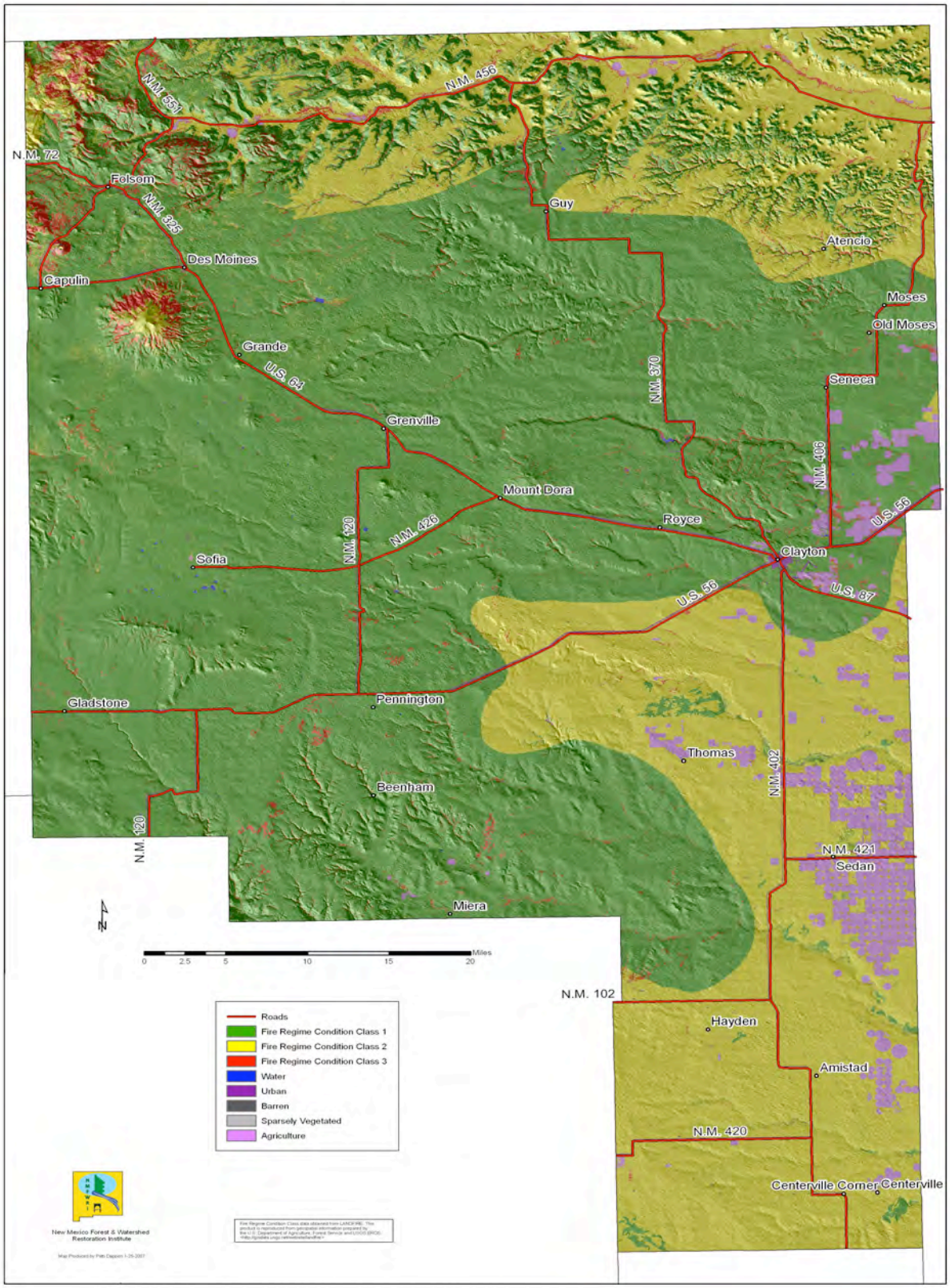
FRCC AND THE UNION COUNTY WILDLAND URBAN INTERFACE

Most of Union County is classified as FRCC 1 and 2. There is some FRCC 3 areas within the Folsom and Capulin WUIs. Most of the grasslands are within the FRCC 1 areas. The FRCC 2 areas correspond with the Forested Dry Cimmarron Watershed WUI area in the northern portion of the County and in the CRP WUI areas to the southwest. (See FRCC Map on page 20.)

Table 8. FRCC and the Union County WUI

WUI COMMUNITY	HAZARD ASSESSMENT Low, mod.,high or extreme	FRCC Rating
Folsom	Moderate	FRCC 1 & 3
Capulin	Moderate	FRCC 1 & 3
Des Moines	Low	FRCC 1 & 3
Grenville	Low	FRCC 1
Clayton	Low	FRCC 1 & 2
Sedan	Low	FRCC 2
Amistad	Low	FRCC 2
Strong City	Low	FRCC 1
Hayden	Low	FRCC 2
Thomas	Low	FRCC 2
Mt. Dora	Low	FRCC 1
Gladstone	Low	FRCC 1

Union County Fire Regime Condition Class



map date 01/2008

UNION COUNTY FIRE SERVICE

Union County is divided into seven fire districts. Only one district has a municipal, paid/volunteer Fire Department which is the Clayton Fire Department in the Rabbit Ear district. (see Table 10)

Table 10. Union County Fire Departments by District

Fire Department Name	Volunteer or Paid	ISO Rating
Amistad	Volunteer	9
Capulin	Volunteer	9
Clayton	Paid/Volunteer	6
Des Moines	Volunteer	9
Folsom	Volunteer	7
Grenville	Volunteer	9
Rabbit Ear	Volunteer	9
Sedan	Volunteer	9
Rosebud	Volunteer	9
Farley	Volunteer	9

The Rabbit Ear District covers the largest area of land in the County, it takes over 90 minutes to get to the northern parts of its district from the Fire Department. In order to improve fire response the Rabbit Ear Volunteer Fire Department needs a substation in Travecere located in the northern part of the district and a substation to the southwest in the Barney area. The Rabbit Ear Volunteer Fire Department did place a request with the NM State Fire Marshall for a Substation up north in the Travecere area and the request was denied due to population requirements.
The Amistad Fire District also needs a substation in the Hayden area.
(See Fire District Boundary Map)

MUTUAL AID FIRE SERVICE FROM OUTSIDE UNION COUNTY

The Rosebud VFD, a Harding County Volunteer Fire Department, provides fire service to parts of the Tramperas Watershed and some southern portions of Union County.
The Farley VFD, a Colfax County Volunteer Fire Department, provides fire service for the community of Gladstone.

FIRE DEPARTMENT FUNDING RESTRICTIONS

Rural Volunteer Fire Departments are increasingly challenged to properly respond to and equip the firefighters to suppress wildland fires. The policies enforced by the New Mexico State Fire Marshall are such that wildland fires are viewed as a very low priority. As such the fire fund monies that fund the Volunteer Fire Departments can not be used for the acquisition of wildland apparatus. Statistically in rural setting such as Union County there are more wildfire calls than structure fire calls in any given year. More and more of these Wildfire are becoming Wildland Urban Interface Fires as people continue to build in wildland areas. There needs to be a policy change made at the State level to recognize that Rural Volunteer Fire Departments are equally responsible for not only structure fire suppression, but also for wildland fire suppression within the Wildland Urban Interface and also outside of it. The monies that fund the Fire Departments need to be made available to adequately equip the Volunteer firefighters to safely perform all the tasks they are depended upon to perform.

Fire district map

FIRE RESPONSE PROCEDURES

To report a wildfire in Union County, one may call 911. When 911 is called dispatch at the Clayton Police Department, which is staffed 24 hours, answers. Based on the location of the fire incident given by the caller, the dispatcher pages out the Fire Department of the affected district. Locations are determined by address and/or Latitude/Longitude coordinates the landline call originated from. If the call originated from a cell phone, Union County is Phase II compliant, however the caller may still need to give the dispatcher a physical description of the location.
All Union County Fire Departments are currently being paged or toned out over their radios on the following frequencies;

Table 12. Union County Fire Frequencies

Department	Rx	Tx	Tone
Amistad			
Capulin			
Clayton	153.980	155.925	127.3
Des Moines			-updates pending-
Folsom			
Grenville			
Rabbit Ear			
Sedan	155.865	155.850	136.5
Rosebud			
Farley			
NMSF	154.310	154.310	
Cibola National Forest	170.525	170.525	203.5

If the responding department finds they need more assistance, the next closest district is called in by the fire department. All the County fire departments have mutual aid agreements with each other. There are also Mutual Aid agreements with the neighboring counties and Texas. Joint Powers Agreements are on file with NM State Forestry, the US Forest Service, the Bureau of Land Management, Harding County and Colfax County. (Copies of these Agreements are included in the Appendix of this CWPP) If the fire is beyond the scope of the local resources NM State Forestry, Cimarron District Office in notified. Due to the distance from NM State Forestry the local US Forest Service is usually dispatched through a Resource Order (and vice versa). The USFS has Air Resources and local Ground Crews.

LOCAL PREPAREDENESS

Union County has a part-time Emergency Management Officer and a part -time Wildland Fire Coordinator. Included in the Appendix of this CWPP is the annual "Wildfire Operating Plan" which is created every year by the Wildland Coordinator in conjunction with the Fire Chiefs, NMSF and the US Forest Service. The "Wildfire Operating Plan" includes standard operating procedures, a communication plan and other pertinent information that is updated every Spring. Some other emergency preplanning has been done.

"The Union County All-Hazard Emergency Plan", authenticated December 13, 2005, on file in the Union County Courthouse states:

> "The Clayton Police Department dispatch is a 24 hour operation and can be used as an emergency communications hub to notify appropriate officials in the event of a significant emergency. The State Police, District Thirteen Dispatcher in Raton covers Union County and may be among the first to know of a disaster. Regardless of who first becomes aware of an emergency with a potential for disaster, they will contact a county official (such as the Sheriff, Chairman of the County Commission or the County Administrative Assistant). The county official contacted will determine if the Emergency Operation Center (EOC) must activate and make all necessary notifications."

Union County All-Hazard Emergency Plan, Annex A, V. , C., County Emergency Operations Center (EOC) Activation, page 11

The Plan also includes an Evacuation Plan in Annex J, Part II and III, which states:

> C. Potential evacuation areas due to natural disasters (flood, wildfire, Etc.) Include the low lying areas in the populated areas. Good warning and prior education are essential for proper flood evacuation and the system should be tested frequently. Wildfire can lead to more than evacuation problems if it gets near hazardous materials. Again evacuation plans should be tested and improvements made from lessons learned.
>
> H. The American Red Cross will select and provide shelters during all but war emergency evacuations. Evacuees will be housed in public-type buildings (i.e., schools, churches, etc.) and not in private residences. Homeowners, however, will be encouraged to share their homes with evacuees.

And in Part IV it states:

> C. Evacuation due to natural or man-made hazards will normally be ordered by the Chief Elected Official of the affected political subdivision. In a situation where rapid evacuation is critical to the continued health and safety of the population, the on-scene command authority may order evacuation.
>
> 2. Evacuation routes for a natural or man-caused disaster will be selected by law enforcement officials at the time of the evacuation decision.

The plan in its entirety can be obtained from the county Administrator at the County Courthouse during normal business hours.

Union County adopted the, "Agricultural Prevention, Preparedness, Response and Recovery Union County Agricultural Industry" Plan, October 2006. The first revision was completed February 2007. A copy of this "Ag Plan" is included in the Appendix.

FIRE DEPARTMENT NEEDS

The greatest needs the fire departments expressed were Communications, Water, Training and Equipment. There is also a very real need for substations in the Rabbit Ear and Amistad Fire Districts.

COMMUNICATIONS

Good, Reliable Communication is vital for firefighter safety when fighting fire. The communication system in place in Union County is in need of an upgrade. There are large "dead" areas in the County where radio or even cell coverage are nonexistent. The Fire Departments need updated radio equipment and repeater sites to improve the Communications County Wide. The fire departments also need to be able to communicate across jurisdictional, county and state boundaries.

(see Fire Response Procedures, below)

WATER

There are few natural draft sites in Union County, most departments rely on community storage tanks to draft water from. More water tenders are needed to increase water shuttling capabilities. In the event of a large scale WUI fire, water will become critically low very quickly. Each of the Fire Departments needs to have their own water storage tanks strategically placed throughout the Fire Districts. This will provide for quick turn around times when refilling equipment and will also not overburden community water supplies when fighting large scale fires. The increased water capacity will also help to improve fire department ISO ratings. The fire chiefs are working on agreements with land owners to use private storage tanks to draft. The proposed new substations will need a minimum of 10,000 gallon water storage tanks at the department.

TRAINING

The Greatest challenge a Volunteer Fire Department faces in ensuring that each of the Volunteer Firefighters gets all the training they need to safely and effectively fight fire. The Union County Fire Departments are no exception. There is a critical need for training among the firefighters. All volunteer firefighters are required to have at least the Introductory Wildfire Training which includes the S-130/190, I-100 and L-180 trainings and the annual fireline safety refresher. There needs to be some sort of compensation for the firefighters to make attending the required trainings more feasible. Firefighters need verifiable, identifiable training certificates working toward red card requirements.

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EQUIPMENT

There is an overall need for more and better equipment in all of the Fire Departments. Older, unreliable, unsafe equipment needs to be retired and replaced. Fire fund monies need to be made available to purchase wildland equipment. See table 11. for a detailed list.

Besides the consumable items that the Fire Departments always need to replenish such as, hose {Hard line hose (1" to 4")} and tools each of the departments expressed the following equipment and training needs:

Table 11. Fire Department Needs

Fire Dept.	Wildland apparatus and gear	Training
Rabbit Ear FD	• Type II Water Tender, 2000 gal or greater • (2) Type VI wildland fire engines 4x4 • (2) total pump replacement units for Type VI engines • (4) Motorola hand held radios • 35 sets wildland PPE and boots • 35 sets Bunker gear • 35 next generation fire shelters and packs	• S-130/190, I-100, L-180 • Annual Fireline Safety Refresher • S-211 Portable Pumps • S-215 WUI • S-290 • Annual Sand Table exercises
Amistad VFD	• Type II Water Tender, 2000 gal or greater • (1) Type VI wildland fire engine, 4x4 • (4) Motorola hand held radios • 10 sets wildland PPE and boots • 10 sets Bunker gear • 10 next generation fire shelters	• S-130/190, I-100, L-180 • Annual Fireline Safety Refresher • S-211 Portable Pumps • S-215 WUI • S-290 • Annual Sand Table exercises
Grenville VFD	• Type II Water Tender , 2000 gal or greater • (4) Motorola hand held radios • 10 sets wildland PPE and boots • 10 sets Bunker gear • 10 next generation fire shelters	• S-130/190, I-100, L-180 • Annual Fireline Safety Refresher • S-211 Portable Pumps • S-215 WUI • S-290 • Annual Sand Table exercises
Capulin VFD	• Type II Water Tender, 2000 gal or greater • (4) Motorola hand held radios • 10 sets wildland PPE and boots • 10 sets Bunker gear • 10 next generation fire shelters	• S-130/190, I-100, L-180 • Annual Fireline Safety Refresher • S-211 Portable Pumps • S-215 WUI • S-290 • Annual Sand Table exercises
Des Moines VFD	• (4) Motorola hand held radios • 10 sets wildland PPE and boots • 10 sets Bunker gear • 10 next generation fire shelters	• S-130/190, I-100, L-180 • Annual Fireline Safety Refresher • S-211 Portable Pumps • S-215 WUI • S-290 Annual Sand Table exercises
Folsom VFD	• (4) Motorola hand held radios • 10 sets wildland PPE and boots • 10 sets Bunker gear • 10 next generation fire shelters	• S-130/190, I-100, L-180 • Annual Fireline Safety Refresher • S-211 Portable Pumps • S-215 WUI • S-290 Annual Sand Table exercises
Sedan VFD	• (4) Motorola hand held radios • 20 sets wildland PPE and boots • 20 sets Bunker gear • 20 next generation fire shelters	• S-130/190, I-100, L-180 • Annual Fireline Safety Refresher • S-211 Portable Pumps • S-215 WUI • S-290 Annual Sand Table exercises

PUBLIC LANDS IN UNION COUNTY

CLAYTON LAKE STATE PARK AND WILDLIFE REFUGE

Some concern was expressed over the wildfire risk at the Clayton Lake State Park, especially during large public events like the annual fishing derby. At one of the Core Team meetings the Park Manager expressed his concern over the risk. The policies of the State Park and Wildlife Refuge do not allow for any fuels reduction. As a result the Park has an abundance of fuels and overgrowth. There is one primary access route in and out of the park, the road in places is narrow and has sharp bends. The capacity of the park is 4,000 people, during events like the fishing derby the park's capacity reaches its limit. The park has some fire suppression equipment at the park, but limited personnel to sufficiently suppress a large scale wildfire. The park relies heavily upon the local volunteer fire departments for fire protection. At the Core Team meeting the local fire departments were made aware of the situation at Clayton Lake State Park and renewed a commitment to the State Park to increase the fire departments presence at the lake during large events. The fire departments also made a commitment to staff wildfire apparatus at the park 24 hours during the fishing derby to patrol and distribute fire evacuation plans to the public. The evacuation plan is included in the appendix of this CWPP. The park manager made a commitment to;

- Do defensible space treatments around campsites,
- Make and distribute evacuation plans to all park attendees, and
- To pre-identify safety zones throughout the park. These safety zones will be clearly identified and included in the evacuation plan.

KIOWA NATIONAL GRASSLANDS PROPOSED PROJECTS

The Kiowa and Rita Blanca National Grasslands, which are managed by the Cibola National Forest have a five year fuels management plan. The attached map highlights the proposed prescribed burn areas throughout Union County. All federal and state requirements will be met and the appropriate public notices will be made prior to any burning. The two proposed areas are both identified as "Union CWPP" on the attached "Proposed Fuels Project" map. The proposed areas are:

- north of Clayton approximately eight miles and include section 53 and part of section 52,
- and northeast of Clayton approximately eight miles just north of the Texas state line and include sections 43, 45 and 46.

For more information on proposed fuels reduction projects on the National Grasslands contact the local Cibola National Forest Office during regular business hours.

Kiowa map-

WILDFIRE SCIENCE

TYPES OF WILDFIRE

In order to change potential wildfire conditions and impact the associated fuels, it is necessary to understand the various types of wildfire and the conditions in which they exist.
Fire scientists and managers recognize three general types of wildland fire, depending on the fuel stratum in which the fire is burning.

- A ground fire is one that burns in the ground fuels such as duff, organic soils, roots, rotten buried logs, and so forth. Ground fuels are characterized by higher bulk density than surface and canopy fuels. Ground fires burn with very low spread rates, but are sustainable at relatively high moisture contents. Fuel consumption through ground fire can be great, causing significant injury to trees and shrubs. Although ground fuels can be ignited directly, they are most commonly ignited by a passing surface fire.
- A surface fire is one that burns in the surface fuel layer, which lies immediately above the ground fuels but below the canopy, or aerial fuels. Surface fuels consist of needles, leaves, grass, dead and down branch wood and logs, shrubs, low brush, and short trees. Surface fire behavior varies widely depending on the nature of the surface fuel complex.
- A crown fire is one that burns in the elevated canopy fuels. Canopy fuels normally consumed in crown fires consists of the live and dead foliage, lichen, and fine live and dead branch wood found in a forest canopy. They have higher moisture content and lower bulk density than surface fuels. [1]

Three types of crown fire are generally recognized, passive, active, and independent.

1. A passive crown fire, also called torching or candling is one in which individual or small groups of trees torch out, but solid flame is not consistently maintained in the canopy. Passive crowning encompasses a wide range of fire behavior, from the occasional tree torching out to a nearly active crown fire. The increased radiation to surface fuels from passive crowning increases flame front spread rate, especially at the upper end of the passive crown fire range. Embers lofted during passive crowning can start new fires downwind, which make containment more difficult and increase the overall rate of fire growth. Passive crowning is common in many forest types, especially those with an under story of shade-tolerant conifers.
2. An active crown fire, also called a running or continuous crown fire, is one in which the entire surface/canopy fuel complex becomes involved, but the crowning phase remains dependent on heat from the surface fuels for continued spread. Active crown fires are characterized by a solid wall of flame extending from the fuel bed surface through the top of the canopy. Greatly increased radiation and short-range spotting of active crown fires lead to spread rates much higher than would occur if the fire remained on the surface. Medium and long-range spotting associated with active crowning leads to even greater rates of fire growth. An independent crown fire is one that burns in canopy fuels without aid of a supporting surface fire. Independent crown fires occur rarely and are short lived, requiring a combination of steep slope, high wind speed, and low moisture content. Many apparently independent crown fires may actually be active crown fires in which the canopy phase is momentarily pushed ahead of the surface phase under the influence of steep slope or strong wind [2]

FUELBEDS

Fire behavior and severity depend on the properties of the various fuels (live and dead vegetation and detritus) strata and the continuity of those fuel strata horizontally and vertically. The fire hazard for any particular forest stand or landscape can be characterized by the potential for the fuels to cause specific types of fire behavior and effects. Understanding the structure of fuelbeds and their role in the initiation and propagation of fire is the key to developing effective fuel management strategies.[3]

Fuelbeds are classified in six strata:

- tree canopy
- shrubs/small tree
- low vegetation
- woody fuels
- moss, lichens, and litter
- ground fuels (duff).

Each of these strata can be divided into separate categories based on physiognomic characteristics and relative abundance. Modification of any fuel stratum has implications for fire behavior, fire suppression, and fire severity.

SURFACE FUELS

Surface fuels consist of grasses, shrubs, litter, and woody material lying on, or in contact with the ground surface. Crown fuels as those suspended above the ground in trees or vegetation (vines, mosses, needles, branches, and so forth). High surface fire intensity usually increases the likelihood for igniting overstory canopy fuels, but surface fuel types with longer residence times can contribute to drying aerial fuels in a forest canopy, which also leads to torching (when a tree's or group of trees' foliage ignites carrying the fire into the canopy).

CROWN FUELS

Crown fuels are the biomass available for crown fire, which can be ignited from a surface fire via the understory shrubs and trees, or from crown to crown. The shrub/small tree stratum is also involved in crown fires by increasing surface fireline intensity and serving as "ladder fuels" that provide continuity from the surface fuels to canopy fuels, thereby facilitating crown fires. These essentially bridge the vertical gap between surface and crown strata. The size of this gap is critical to ignition of crown fire from a surface fire below.

AERIAL FUELS

Aerial fuels separated from surface fuels by large gaps are more difficult to ignite because of the distance above the surface fire, thus requiring higher intensity surface fires, surface fires of longer duration that dry the canopy before ignition, or mass ignition from spotting over a wide area. Once ignited, high density canopy fuels are more likely to result in a spreading crown fire (active crown fire) than low density canopies.[3]

CROWN FIRES

The nature of crown fires--- intense, fast moving, and destructive---suggests that potential for damage is great whenever a crown fire occurs. Assessing the hazard posed by crown fires is therefore a matter of assessing the potential for their occurrence—of identifying the physical situations that lead to crown fire occurrence. [2]

The most effective strategy for reducing crown fire occurrence and severity is to:

- reduce surface fuels
- increase height to live crown
- reduce canopy bulk density
- reduce continuity of the forest canopy[3]

TREATMENTS

Fire behavior responds to fuels, weather, and topography. Changes to fuels, for example from prescribed fire burning or thinning, are related to potential fire behavior at that site and have resulted in reduced severity of wildfires where fuel treatments have occurred. For many fuel management objectives, the goal is to limit surface fires from becoming crown fires. Crown fires are the main contributor to a wildfire being considered severe, fuel conditions that are conducive to crown fires must be modified in order to eliminate severe wildfire.

The three basic categories of tools available to forest managers for altering vegetative conditions are prescribed fire, mastication or mowing, and thinning. The effectiveness of each of these methods in altering the structure of or reducing the amount of ground and ladder fuels, and reducing crown bulk density is different. Consequently, each of these leaves residual stands with different vegetative characteristics and environmental effects. Each type of treatment also has a different set of financial costs, and in times of tight budgets the choice of which method to use is important in achieving the best combination of risk reduction and environmental effects within the available budget[4]

PRESCRIBED FIRE

Prescribed fire is generally used to remove ground fuels, under story vegetation, and small trees, and sometimes to kill larger trees. It is not a precise way of reducing stand density, and several prescribed fires spread over many years are often necessary to accomplish management objectives. Prescribed fire is, however, often seen as more environmentally benign than other methods for modifying vegetation.

WILDFIRE USE

The application of the appropriate management response to naturally ignited wildland fires to accomplish specific resource management objectives in pre-defined designated areas. Unlike Prescribed fire, wildfire use is a fuel management option that uses wildfires that start in pre-designated areas. The fire suppression policies of the NM State Forestry on privately owned land has been to, “Fight fire safely and aggressively”. The NM State Forestry and the local fire departments have done a very good job of safely and aggressively suppressing fire in New Mexico. As a result the natural wildfire cycle has been altered. Recently a shift in the fire management practices has begun to take place.

More and more land managers are seeing the benefits of wildfire. The fire personnel in Union County are beginning to explore the possibility of using wildfire for its inherent benefits. The policy is still to fight fire safely and aggressively, but in some areas it is more beneficial, safer and cost effective to let "nature take its course" and allow the naturally occurring wildfire to not be actively suppressed but monitored. In order to use wildfire the land owners, fire departments and NM State Forestry need to pre-identify potential areas that would benefit from wildfire and have a wildfire use plan in place.

MASTICATION

Mastication or grinding is a special case of thinning without removal of the thinned materials. In the case of mastication, the thinned materials are ground and left on the site. This does not remove the biomass, but cuts it into smaller pieces leaving the material distributed on the ground, adding to the surface fuel load. If the masticated material exceeds 2 or 3 inches, there is a potential to alter the moisture regime adversely affecting tree growth and survival.

THINNING

Thinning is also quite precise and, like prescribed fire, can include removal of biomass from the site, some of which may be in the form of merchantable trees. Thinning is not particularly useful at reducing under story plants or ground fuels, and it typically adds to the surface fuel load in the form of tops and limbs if not removed. In the Southwest it is generally recommended to pile and burn thinned trees, chip or remove from the site. Like mastication, the precision of thinning makes it useful for accomplishing large changes in vegetative structure and composition in one entry.[4]

There is no one-size-fits-all recommendation for how mechanical thinning or prescribed fire should be used at a given location in order to reduce wildfire risk, but thinning of both canopy and ladder fuels is generally needed to reduce crown fire potential.[5]

1 USDA Forest Service Research Paper RMRS-RP-29. 2001.

2. (Scott, Joe H, Reinhardt, Elizabeth D. 2001. Assessing crown fire potential by linking models of surface and crown fire behavior. USDA Forest, Service, Rocky Mountain Research Station, research paper RMRS-RP-29. 3-6).

3. Graham, Russell T, McCaffrey, Sarah, Jain, Theresa B. 2004. Science basis for changing forest structure to modify wildfire behavior and severity. USDA Forest Service, Rocky Mountain Research Station, General Technical Report RMRS-GTR-120. 8-12

4. (Fight, Roger D, Barbour, James R. 2005. Financial analysis of fuel treatments. USDA Forest Service, Pacific Northwest research Station, General Technical Report PNW-GTR-662. 1-2).

5. (Lowe, Kimberly. 2006. Northern Arizona University, Ecological Restoration Institute, Working papers in southwestern ponderosa pine forest restoration, number 15).

UNION COUNTY PROPOSED ACTION PLAN

The CWPP Core Team agreed that some measures need to be taken to reduce the fire danger in the WUI priority areas. Some recommendations include;

- The Core Team has agreed to form an Interagency Outreach/Education team which will address; Public education on fuels reduction, Fire Wise, defensible space and fuel breaks
- County Ordinances addressing WUI fuels reduction
- More water storages
- Fuels reduction programs and fuel breaks via mowing, grading, grazing, fire use, Prescribed burns, and thinning
- Wildfire Use Plans on Private Land
- Wildfire Use Plans on Public Lands
- The State Land permit fees need to be addressed for projects that will reduce fire danger
- Projects should be monitored by local VFD, wildland coordinator, NRCS, NMSF, local officials and property owners.

Table 9. Proposed Wildfire Hazard Mitigation Recommendations

WUI Or Infrastructure at Risk	Potential for Reducing fire danger	Proposed prescription to reduce fire danger, improve fire response capabilities and for hazardous fuels treatment	Responsible party	International Urban-Wildland Interface Code Recommended
Clayton	Good	• Public education • Defensible Space • Mow along highways • Awareness signs along Highway • Mow along Railways • Increase water storage capacity • Fuel Break along WUI Boundary • Fuels reduction by Rx burn or fire use • VFD Substation in Northern & Southwestern part of FD	• Interagency Outreach/Education Team • Property Owner • NM-DOT • USFS • Railroad • County/ VFDs • Property Owners • Property Owners/VFDs • Rabbit Ear VFD and NM State Fire Marshall	Yes
Folsom	Good	• Public education • Defensible Space • Mow along highways • Awareness signs along Highway • Mow along Railways • Increase water storage capacity • Fuels reduction by Rx burn or Fire Use • Fuel Break along WUI Boundary	• Interagency Outreach/Education Team • Property Owner • NM-DOT • USFS • Railroad • County/ VFDs • Property Owners/ VFDs • Property Owners	Yes

WUI Or Infrastructure at Risk	Potential for Reducing fire danger	Proposed prescription to reduce fire danger, improve fire response capabilities and for hazardous fuels treatment	Responsible party	International Urban-Wildland Interface Code Recommended
Des Moines	Good	• Public education • Defensible Space • Mow along highways • Mow along Railways • Increase water storage capacity • Fuel Break along WUI Boundary • Fuels reduction by Rx burn or Fire Use	• Interagency Outreach/Education Team • Property Owner • NM-DOT • Railroad • County/ VFDs • Property Owners • Property Owners/VFD	Yes
Grenville	Good	• Public education • Defensible Space • Mow along highways • Mow along Railways • Increase water storage capacity • Fuel Break along WUI Boundary • Fuels reduction by Rx burn or Fire Use	• Interagency Outreach/Education Team • Property Owner • NM-DOT • Railroad • County/ VFDs • Property Owners • Property Owners/VFDs	Yes
Mt. Dora	Good	• Public education • Defensible Space • Mow along highways • Mow along Railways • Increase water storage capacity • Fuel Break along WUI Boundary • Fuels reduction by Rx burn or Fire Use	• Interagency Outreach/Education Team • Property Owner • NM-DOT • Railroad • County/ VFDs • Property Owners • Property Owners/ VFDs	Yes
Sedan	Good	• Public education • Defensible Space • Mow along highways • Awareness signs along Highway • Increase water storage capacity • Fuel Break along WUI Boundary • Fuels reduction by Rx burn or Fire Use	• Interagency Outreach/Education Team • Property Owner • NM-DOT • USFS • County/ VFDs • Property Owners • Property Owners/ VFDs	Yes
Amistad	Good	• Public education • Defensible Space • Mow along highways • Awareness signs along Highway • Increase water storage capacity • Fuel Break along WUI Boundary • Fuels reduction by Rx burn or Fire Use	• Interagency Outreach/Education Team • Property Owner • NM-DOT • USFS • County/ VFDs • Property Owners • Property Owners/VFDs	Yes

WUI Or Infrastructure at Risk	Potential for Reducing fire danger	Proposed prescription to reduce fire danger, improve fire response capabilities and for hazardous fuels treatment	Responsible party	International Urban-Wildland Interface Code Recommended
Capulin	Good	• Public education • Defensible Space • Mow along highways • Awareness signs along Highway • Increase water storage capacity • Fuel Break along WUI Boundary • Fuels reduction by Rx burn or Fire Use	• Interagency Outreach/Education Team • Property Owner • NM-DOT • USFS • County/ VFDs • Property Owners • Property Owners/ VFDs	Yes
Hayden	Good	• Public education • Defensible Space • Mow along highways • Increase water storage capacity • Fuel Break along WUI Boundary • VFD Substation • Fuels reduction by Rx burn or Fire Use	• Interagency Outreach/Education Team • Property Owner • NM-DOT • County/ VFDs • Property Owners • Amistad VFD and NM State Fire Marshall • Property Owners/ VFDs	Yes
Strong City	Good	• Public education • Defensible Space • Mow along main road • water storage • Fuel Break along WUI Boundary • Fuels reduction by Rx burn or Fire Use	• Interagency Outreach/Education Team • Property Owner • County • County/ VFDs • Property Owners • Property Owners/VFDs	Yes
Gladstone	Good	• Public education • Defensible Space • Mow along main road • water storage • Fuel Break along WUI Boundary • Fuels reduction by Rx burn or Fire Use	• Interagency Outreach/Education Team • Property Owner • County • County/ VFDs • Property Owners • Property Owners/VFDs	Yes
Clayton Lake State Park (wildlife refuge)	Poor	• Defensible space around campsites • Educate park visitiors about evacuation procedures & any pertinent fire restrictions guidelines • Increased fire department presence during large events	• State Park • State Park • Local VFDs	No
Cell and Repeater Towers	Moderate	• Fuel reduction by mowing, grazing, mechanical removal	• Tower Owners	No
Transmission Lines and electrical substations	Moderate	• Fuel reduction by mowing, grazing, mechanical removal	• Property Owners and SWEC	No
Railroad Lines	Good	• Mow along Railways	• Railroad	No
WUI Or	Potential for Reducing fire	Proposed prescription to reduce fire danger, improve	Responsible party	International Urban-Wildland

Infrastructure at Risk	danger	fire response capabilities and for hazardous fuels treatment		Interface Code Recommended
Port to Plains Highway	Good	• Mow more frequently along highway	• NM-DOT	No
Tramperas Watershed	Good	• Public education • Fuels reduction by thinning, Rx burn, fire use, mechanical removal	• VFDs • Property Owners/NRCS	Yes
Dry Cimarron Watershed	Good	• Public education • Fuels reduction by thinning, Rx burn, fire use, mechanical removal	• VFDs • Property Owners/NRCS	Yes
CRP Lands	Good	• Fuel breaks around boundaries • Shred land to remove invasive species, annually if needed. (Can shred 100% of the acreage once in ten years, usually no more than 50% in one year.) • Graze, once in ten years	• Property Owners	No

OPEN BURNING REQUIREMENTS

When determining which fuels treatment to utilize on your land consider what will be done with the resulting materials. If thinning or mechanically removing excess fuels be aware that the NM Environment Department, Air Quality Bureau has a statewide Open Burning Policy in place. Title 20 Environmental Protection, Chapter 2 Part 60 Open Burning states:

20.2.60.1 ISSUING AGENCY:	Environmental Improvement Board
20.2.60.2 SCOPE:	All geographic areas within the jurisdiction of the environmental improvement board
20.2.60.3 STATUTORY AUTHORITY	Environmental Improvement Act, NMSA 1978, Sections 74-1-1 to 15, including specifically Subsections 74-1-8 (A) (4) and (7) and Air Quality Control Act, NMSA 1978, Sections [20.2.60.3 NMAC-Rp20.2.60.3 NMAC, 12/31/03]
20.2.60.4 DURATION	Permanent
20.2.60.5 EFFECTIVE DATE	December 31, 2003
20.2.60.6 OBJECTIVE	The objective of this part is to protect public health and welfare by establishing controls on pollution produced by open burning. This part does not preempt any more stringent controls on open burning provided in: A. any other NM statute or regulation, or any local law, ordinance or regulation; or B. any lawfully issued restriction on open burning, including those that may be issued for prevention of wildfires.
20.2.60.7 DEFINITIONS	a. Air pollution episode-an air pollution alert, warning or emergency issued by the department pursuant to the air pollution episode contingency plan for NM, as included in New Mexico's state implementation plan as adopted y the environmental improvement board b. Household waste-any waste including garbage and trash derived from households including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds and day use recreation areas. c. Nonattainment area-an area which has been designated under Section 107 of the federal Clean Air Act as nonattainment for one or more of the national ambient air quality standards y the federal environmental protection agency d. Open burning-any manner of burning, whether caused, suffered or allowed, not in a device or chamber designed to achieve open combustion, where the products of combustion are emitted, directly or indirectly, into the open air; open burning does not include detonation of manufactured explosives e. Part-an air quality control regulation under Title 20, Chapter 2, of the NM administrative code, unless otherwise noted, as adopted or amended by the board f. Pile volume-the gross volume of a pile, including the air space between solid constituents, as calculated from the overall dimensions and shape of the pile g. Salvage operation-any operation to salvage or reclaim any material for use or sale, such as reprocessing of used motor oils, metal, wire, chemicals, shipping containers, or drums, and specifically including automobile graveyards and junkyard h. Vegetative material-plant material, including: • Grass, grass clippings, leaves, conifer needles, bushes, shrubs, trees and clippings from bushes, shrubs and trees, resulting from maintenance of yards or other private or public lands

- Wood waste, clean lumber, wood and wood products, including tree stumps (whole or chipped), trees, tree limbs (whole or chipped), bark, sawdust, chips, scraps, slabs, millings, and shavings, which have not been painted, pigment-stained, or treated with compounds containing chromium, copper, arsenic, petachlorophenol, or creosote

20.2.60.110 OPEN BURNING OF HOUSEHOLD WASTE

B. effective June 1, 2004, open burning of household waste, other than vegetative material as defined in 20.2.60.7 NMAC is prohibited

20.2.60.111 OPEN BURNING OF VEGETATIVE MATERIAL

A. Applicability:

1. this section applies to open burning of vegetative material as defined in 20.2.60.7 NMAC, for purposes of disposal of such material, provided that burning of areas with non-piled vegetative material does not exceed ten acres per day, or burning of piled, vegetative material, including material gathered in a pit or open container, does not exceed one thousand cubic feet of pile volume per day. In determining daily burn area and daily burn pile volume, areas or piles that are within three hundred feet of each other shall be considered to constitute a single burn if the burning occurs on the same day and on property under ownership or possessory control of the same person. Burning in excess of these daily limits is subject to 20.2.65 NMAC (Smoke Management)

2. This section does not apply to any open burning of vegetative material which is subject to 20.2.65 NMAC

3. open burning of vegetative material is prohibited in nonattainment areas.

B. Open burning of vegetative material under this section shall meet the following requirements:

1. burning shall be conducted at least 300' from any occupied dwelling, workplace or place where people congregate, which is on property owned by or under possessory control of, another person; burning that does not meet this requirement is subject to 20.2.65 NMAC

2. burning shall begin no earlier that one hour after sunrise, and shall be extinguished no later than one hour before sunset; burning outside of this time limitation is subject to 20.2.65 NMAC

3. burning shall be attended at all times

4. the appropriate local fire department or dispatch or firefighting authority shall be notified prior to burning

5. for burns exceeding one acre per day or 100 cubic feet of pile volume per day, the burner shall provide prior notice of the date and location of the burn to all households within one quarter of a mile of the burn

6. burning shall e in compliance with 20.9.1 NMAC (Solid Waste Management)

7. burning shall not be conducted when air pollution episode is in effect

8. auxillary fuel or incendiary devices may be used to ignite the burning allowed by this section provided that;

   a. No oil heavier than number two diesel shall be used
   b. No more than the minimum amount of auxillary fuel necessary to complete the burn shall be used

9. polyethylene sheeting may be burned with the vegetative materials, provided that;

   a. The sheeting has been covering piled vegetative material for at least one month prior to burning
   b. The amount of sheeting burned is no more that the minimum necessary to cover the pile
   c. Removal of the sheeting before burning is impractical
   d. The burner is able to provide evidence, such as purchase records or package labeling, that the sheeting is polyethylene and not some oter form of plastic

10. the burner shall consider alternatives to burning prior to igniting a burn

11. material to be burned shall be as dry as practicable

AIR QUALITY BUREAU
SMP I REQUIREMENTS FACTSHEET

- Fill out the SMP I Registration form for crops of for grasslands/shrubs/forests depending on the type of vegetation you are planning to burn. Submit for to the Air Quality Bureau's Santa Fe office b 10:00 am one business day prior to the day you plan to start the burn project. You can submit the form on-line at http://smoke.state.nm.us, or mail the form to the Air Quality Bureau with any questions regarding the smoke management program at 1-800-224-7009 and ask for the Smoke Management line.
- Although it is not required, think about alternative ways of disposing of the vegetative material other than burning. For example, grass clippings can be composted. Some communities have chipping facilities available for woody vegetative material. Another option would be to take the material to a solid waste transfer station or landfill. Other alternatives to burning are given in Appendix C of the Smoke Management Program Guidance Document.
- Although not required, consider whether you can use any emission reduction techniques for you burn. Appendix D of the Smoke Management Program Guidance Document gives a detailed list of potential emission reduction techniques.
- Burn only between the hours of one hour after sunrise to one hour before sunset. Do not burn within 300 feet of an occupied dwelling, office, school, campground, etc. Or, you may choose to urn only when the ventilation category for that day is good or better. A worksheet for determining ventilation category for you specific area is available from the Air Quality Bureau. Appendix E of the Smoke Management Program Guidance Document descries how to determine ventilation category. In this case, you will also need to do visual monitoring of the smoke from the urn. Watch the smoke and note the color of the smoke and the direction it goes. A smoke monitoring worksheet is available from the Air Quality Bureau.
- Notify the local fire authority (for example, local fire department or fire dispatch) before you start to burn.
- If the burn will be within one mile of other people, you must notify them by an appropriate method. This may be done by posting flyers or calling people, or by any other method that will give them adequate notification. This notification must be done no later than two days prior to beginning burning. See the Smoke Management Program Guidance Appendix G for additional on public notification.
- If the burn will be within one mile of other people, you must visually monitor the smoke from the burn. Watch the smoke and note the color of the smoke and the direction it goes.
- If you haven't completed you burn within the initial seven days noted on the registration form, complete a burn continuation notification form and submit it to the Air Quality Bureau within one business day prior to start of that continued seven day period.
- Within two weeks following the end of the burn, submit a tracking form to the Air Quality Bureau with the information on the amount you actually burned and whether you used any emission reduction techniques for your burn.

For more information please contact New Mexico Environment Department, Air Quality Bureau, Smoke Management Program, 2044 Galisteo Street, Santa Fe, NM 87505 1-800-224-7009.

RISK OF WILDFIRE OCCURRENCE

Lightning is the leading cause of natural fires in Union County. There are several human caused fires annually. One suggestion was the use of signs on the highway with Fire Prevention themes and/or daily fire danger ratings. A request for the NM Department of Transportation to mow the right of way along the highways more frequently has also been placed.

- Despite our best prevention efforts, much of New Mexico will continue to experience wildfire.
- The number of homes located in New Mexico's high fire danger, wildland urban interface is greatly increasing every year.
- Many of these homes, neighborhoods, and communities are not prepared to survive a wildfire.

LIVING IN A HIGH WILDFIRE HAZARD AREA

The potential for loss of human life and property due to wildfire across New Mexico is growing. In response, local, state, federal, private, and nonprofit organizations have banded together to create *Living With Fire*, a wildfire threat reduction program for homeowners.
The *Living With Fire* program is not about fire prevention. Its purpose is to teach people how to live more safely with the threat of wildfire. For many areas in our region, it is not a question of "if" wildfire will occur, but "when.".

BENEFITS OF PRE-FIRE PLANNING

Why do some houses survive a wildfire, while others are destroyed? Research findings prove that house survival during wildfire is not random, miraculous, or "dumb luck." Rather, it is how the house is built, the characteristics of the adjacent vegetation and other fuels, and routine maintenance that often determine which homes burn and which survive. These types of actions are called "pre-fire" activities. Pre-fire activities are actions completed before a wildfire occurs which improve the survivability of people and the home. The "winners" will be the people who implement pre-fire activities.

Wildfire will threaten your house in three ways…

CONTACT BY FLAMES

This type of threat occurs when vegetation and other fuels burning near the house produce flames that come in contact with the home and ignite it. Often, it happens when fire burns through a uniform layer of vegetation right up to the house. Direct contact by flames is probably what most homeowners visualize when they think of a house burning during wildfire.

FLYING EMBERS

More houses burn due to flying embers than any other reason. If fire conditions are right, embers can be lifted high into the air and transported more than a mile. Burning embers can also be carried by wind and fire whirls. If these burning embers land in easily ignitable materials, a new fire can start.

RADIATEDHEAT

Radiated heat melted the vinyl siding on this house. Flames never came in contact with it. Radiated heat is produced by invisible electromagnetic waves that travel out in all directions from a flame. When a house receives enough radiated heat for sufficient time, it will ignite. Sometimes radiated heat can burst windows and allow burning embers to enter the house.

RECOMMENDATIONS TO REDUCE STRUCTURAL IGNITABILITY

The most effective thing a homeowner can do to reduce the structural ignitability of their homes and other structures is to create a defensible space around their structures.

> The term "defensible space" refers to the area between a house and an oncoming wildfire where the vegetation has been managed to reduce the wildfire threat and allow firefighters to safely defend the house.

In the event that firefighters are not available, defensible space also improves the likelihood of a home surviving without assistance. Unfortunately, when some homeowners hear the term "defensible space," they envision a large expanse of bare ground surrounding their home. While this is certainly effective at increasing home survivability, it is unacceptable for aesthetic reasons and can contribute to soil erosion. It is also unnecessary.

SIMPLE STEPS TO CREATE AN EFFECTIVE DEFENSIBLE SPACE

STEP ONE

- Determine the size of an effective defensible space: The size of the defensible space is usually expressed as a distance extending outward from the house in all directions. The recommended distance is not the same for every home. It varies depending on the Dominant vegetation surrounding the home and steepness of slope. Use the Recommended Defensible Space Distance table to determine the right size for your home.

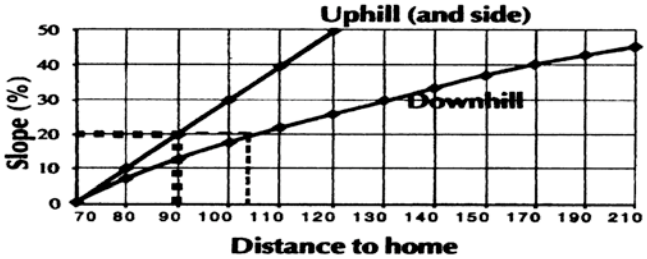

Figure 2: This chart indicates the minimum dimensions for defensible space from the home to the outer edge of Zone 2. For example, if your home is situated on a 20 percent slope, the minimum defensible space dimensions would be 90 feet uphill and to the sides of the home and 104 feet downhill from the home.

- Once the recommended distance for defensible space is known, mark it by tying strips of cloth or flagging to shrubs. This becomes the "Defensible Space Zone." If the Defensible Space Zone exceeds your property boundaries, seek permission from adjacent landowners before doing work on their property. It is important to note that

the effectiveness of the Defensible Space Zone improves when entire neighborhoods implement defensible space practices.

STEP TWO

- Remove dead vegetation: Within the recommended Defensible Space Zone, remove:
    1. dead and dying trees
    2. dead native and ornamental shrubs
    3. dead branches
    4. dead leaves, needles, and twigs that are still attached to plants, draped on live plants, or lying on the ground within 30 feet of the house
    5. dried grass, weeds, and flowers

STEP THREE

- Create a separation between tree branches and lower growing plants: If trees are present within the Defensible Space Zone, there should be a separation between the lower growing vegetation and the lowest tree branches. Vegetation that can carry a fire burning in low growing plants to taller plants is called "ladder fuel." The recommended separation for ladder fuels is three times the height of the lower vegetation layer.
- Prune the lower tree branches, shorten the height of shrubs, or remove lower plants. Do not, however, remove more than one-third of the total tree branches. When there is no understory vegetation present, remove lower tree branches to a height of at least 2 feet above ground. During a fire, this will help prevent burning needles and twigs that are lying on the ground from igniting the tree.

STEP FOUR

- Create a separation between trees and shrubs: Within the Defensible Space Zone, native trees and shrubs, such as ponderosa pine, piñon, juniper, and sagebrush should not occur in a dense stand.
- Dense stands of trees and shrubs pose a significant wildfire threat. Thin dense tree and shrub stands to create more space between them.

STEP FIVE

- Create a Lean, Clean, and Green Area extending at least 30 feet from the house: There are two goals for the Lean, Clean, and Green Area. The first goal is to eliminate easily ignitable fuels, or "kindling," near the house. This will help prevent embers from starting a fire in your yard. The second goal is to keep fire intensity low if it does ignite near the house. By proper management of the fuels near the house, a fire would not be able to generate enough heat to ignite the home. For most homeowners, the Lean, Clean, and Green Area is also the residential landscape. This area often has irrigation, is planted with ornamental vegetation, and is regularly maintained.

LEAN, CLEAN, AND GREEN AREA TIPS

• Remove most or all flammable wildland plants, including big sagebrush, bitterbrush, rabbitbrush, cheatgrass, pinyon, juniper, and manzanita. If you wish to retain a few of these as specimen plants, make sure they are free of dead wood and leaves, pruned to reduce the amount of fuel, and separated from adjacent brush fields.
• Select less flammable plants for the home landscape. Some rules of thumb in selecting landscape plants for the Lean, Clean, and Green Area are...
• Shorter plants, less than 2 feet tall, are better choices than taller plants.
• When green, herbaceous plants, such as grass and non-woody flowers, are better choices than shrubs and trees.
• Deciduous shrubs and trees are better choices than evergreen types. Avoid planting juniper, mugo pine and arborvitae.
• Emphasize the use of hard surfaces and mulches. Hard surfaces include materials such as concrete, asphalt, and brick. Mulches include rock and wood types. Wood mulches should not be used within 3 feet of the house.
• Clear all flammable vegetation from within 10 feet of the propane tank.
• Remove tree limbs that are within 10 feet of the chimney, touching the house or deck, within 6 feet of the roof, or encroaching on power lines.
• Create a noncombustible area at least 3 feet wide around the base of the house. Emphasize the use of irrigated herbaceous plants, such as lawn, ground covers, and flowers. Also use rock mulches and hard surfaces.

STEP SIX

- Maintain the Defensible Space Zone: Maintaining a defensible space is an ongoing activity. Plants grow back and flammable vegetation needs to be routinely removed and disposed of properly.
- Before each fire season, reevaluate your property using the previous five steps and implement the necessary defensible space recommendations.

PROTECT YOURSELF!

Living in the Wildland Urban Interface

This reference guide is included to provide tips and recommendations to homeowner's on how to reduce structural ignitability and improve preparedeness when it comes to wildland urban interface fires.

BEFORE THE FIRE - Reducing Structural Ignitability

Building Materials

- Roofs – the most vulnerable part of a home to ignition by falling embers. Metal roofs provide the best resistance to ignition. Slate, tile, Class A Asphalt shingles also provide fire resistance. Avoid wood and other combustible materials for roofs. Keep gutters clear of debris such as leaves.
- Siding, decks and fences – noncombustible materials are recommended, adobe, stucco, block, brick, noncombustible siding. Keep the area below the deck clear of leaves and debris, screen off the area leaving openings no larger that one-half inch. Do not stack firewood on or below deck or right up against the home. Keep other flammable materials, paint, oil, gasoline in approved containers away from the home and any ignition source.

Potential Ignition Sources

- Chimneys and Fireplaces – Inspect you chimney and damper at least twice a year. Clean the chimney before first use and periodically thereafter, depending on frequency of use. Have the spark arrestor inspected and confirm that it meets the latest safety code. Keep chimneys and stovepipes clear of leaves, limbs and debris.
- Ashes – Never place hot ashes in a nonmetal container or dump them on the ground. Place in a metal container and either soak with water or cover and allow to cool for several days before disposing.
- Propane Tanks – should be at least 30 ft. from any structure. Keep flammable at least 10 ft. from tank. Learn how to turn the tank off and on. In case of fire, turn off the gas before evacuating *if* time and safety allow.
- Fireworks – never allow children to play with or ignite fireworks or other incendiaries unattended.
- Smoking – Never throw lit cigarettes, cigars, etc. into a fuel source such as dead leaves, dry grass, debris, etc. Always use an ashtray and make sure to fully extinguish.
- Burning dtches- Before attempting to burn ditches a call should be made to the local fire department or State Forestry office to ensure there are no fire restrictions in place. Also the State Forestry can provide a weather forecast for the area you are planning on burning. A call to the local fire department should be made to inform them that you are planning to burn, the size of area you planning to burn, the fuel type you are going to burn and how long you expect to be burning.

Defensible Space

- Zone 1 – this is the area closest to the structure. This well-irrigated area encircles the structure for at least 30 ft. on all sides, providing space for fire suppression equipment in the event of an emergency. Plantings should be limited to carefully spaced low flammability species. If possible maintain a mowed green lawn. Remove dead vegetation and leaves, exposing mineral soil is recommended in a 2 ft. wide perimeter along the foundation of the structure. Focus on fuel breaks such as concrete patios, walkways, rock gardens, and irrigated grass or garden within this zone. Gravel is recommended over wood chips or pine needles.

- Zone 2 – Low flammability plant materials should be used here. Plants should be low-growing, and the irrigation system should extend into this section.
- Zone 3 – Place low-growing plants and well-spaces trees in this area, remembering to keep the volume of vegetation low.

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- Trees – all trees within the safety zones should have lower limbs removed to a height of 6-10 ft. remove all branches within 15 ft. of your chimney or overhanging part of your roof.
- Ladder fuels – are short shrubs or trees growing under eaves of the house or into the tree canopy that can "carry" fire up. The removal of ladder fuels within about 100 ft. of the structure will help limit the risk of crown fire around the structure.

Access

Limited access may prevent firefighters from reaching homes in the event of a WUI fire.

- In the event of a WUI fire, leave your gate open
- Keep driveway uncluttered and at least 12 ft. wide
- Slope of driveway should be less than 10 percent
- Trim overhanging branches to allow at least 13.5 ft. of overhead clearance
- Ensure overhead line are at least 14 ft. above ground
- Consider a turn around within your property at least 45 ft. wide especially if you driveway is more than 300 ft. in length.
- Bridges must be designed to hold the weight of a fire engine

DURING THE FIRE

When Fire Threatens – Before an evacuation is called

- Do not jeopardize your life
- Park your car facing the direction of escape with windows rolled up
- Place all valuable you want to take with you in the vehicle
- Open your Gate
- Close all windows, doors, vents in house
- Disconnect automatic garage openers
- Leave exterior doors unlocked
- Close all interior doors
- Move furniture away from windows and glass doors
- Remove lightweight curtains
- Close heavy curtains, drapes, and blinds
- Leave a light on in each room
- Turn off propane tank
- Move firewood and flammable patio furniture away from house
- Connect garden hoses to outdoor faucets
- Place a ladder against the side of home opposite the direction of the approaching fire

When Evacuation is Ordered

- Leave immediately
- Check out at designated location, if one is set up
- Do not try to enter an area that is being evacuated

AFTER THE FIRE

- Do not attempt to return until it has been deemed safe to do so
- Check for hazards, such as gas or water leaks, downed electrical lines, etc.

More information can be obtained at www.firewise.org or y visiting you local NM State Forestry Office in Cimmaron, New Mexico. You can also call to request a "Living with Fire, a Guide for the Homeowner from your local State Forester.

We the undersigned endorse and support the Union County Community Wildfire Protection Plan:

UNION COUNTY

County Manager _____

Angie Gonzales date

County Commission, Chair _____

Richard Arguello date

Union County Fire Marshall _____

Jim O'Bryant date

We the undersigned endorse and support the Union County Community Wildfire Protection Plan:

UNION COUNTY FIRE DEPARTMENTS

Amistad VFD Fire Chief _____

Marty Mathis date

Capulin VFD Fire Chief _____

Garland King date

Clayton City Fire Chief _____

Terry Short date

Des Moines VFD Fire Chief _____

Lee Dixon date

Folsom VFD Fire Chief _____

Darien Brown date

Grenville VFD Fire Chief _____

Phillip Bramblett date

Rabbit Ear VFD Fire Chief _____

Pat Riley date

Sedan Fire Chief _____

Randy Podzemmy date

We the undersigned endorse and support the Union County Community Wildfire Protection Plan:

HARDING COUNTY FIRE DEPARTMENT

Rosebud Fire Chief _____

Josh Smith date

We the undersigned endorse and support the Union County Community Wildfire Protection Plan:

COLFAX COUNTY FIRE DEPARTMENT

Farley Fire Chief _____

Frank Rice date

We the undersigned endorse and support the Union County Community Wildfire Protection Plan:

TOWN OF FOLSOM

Mayor _____

Brad Atwater date

We the undersigned endorse and support the Union County Community Wildfire Protection Plan:

TOWN OF CLAYTON

Mayor

_____

Garth Boyce date

We the undersigned endorse and support the Union County Community Wildfire Protection Plan:

EMNRD STATE FORESTRY DIVISION, CIMARRON DISTRICT

District Forester _____

Ernie Lopez date

We the undersigned endorse and support the Union County Community Wildfire Protection Plan:

EMNRD STATE PARKS DIVISION
CLAYTON LAKE STATE PARK

Manager

_____

Charles Jordan date

We the undersigned endorse and support the Union County Community Wildfire Protection Plan:

BUREAU OF LAND MANAGEMENT, TAOS FIELD OFFICE

Supervisor _____

Sam Des Georges date

We the undersigned endorse and support the Union County Community Wildfire Protection Plan:

CIBOLA NATIONAL FOREST

Forest Supervisor _____

Nancy Rose date

We the undersigned endorse and support the Union County Community Wildfire Protection Plan:

NATIONAL PARK SERVICE,
CAPULIN VOLCANO NATIONAL MONUMENT

Head Ranger _____

Mark Davison date

We the undersigned endorse and support the Union County Community Wildfire Protection Plan:

UTE CREEK SOIL AND WATER CONSERVATION DISTRICT

Chair _____

Harry Hopson date

We the undersigned endorse and support the Union County Community Wildfire Protection Plan:

NORTH EASTERN SOIL AND WATER CONSERVATION DISTRICT

Chair _____

Justin Bennett date

APPENDIX

1. Overview Protecting Your Home from Wildfire
2. Clayton Lake State Park Evacuation Plan Joint Powers Agreements
3. 1997-2007 FMS Report
4. Community Assessment Forms
5. Annual Operating Plan
6 "Ag Plan"
7. Memorandum of Understanding
8.

OVERVIEW PROTECTING YOUR HOME FROM WILDFIRE

Do you live in or near wildland areas? In the wildland/urban interface, fire is a natural force that cannot always be stopped. Firefighters do not have the resources available to save every home; some homes are so closely surrounded by flammable vegetation that they cannot be saved. You must take responsibility to reduce fuels that could carry a wildfire to your home.

Create a Defensible Space

- Remove all trees and large shrubs within 20 feet of the home.
- To a distance of 100 feet (200 feet on steep lots), remove some trees and shrubs to create 10 feet of space between adjoining tree's outermost branches. Prune lower branches of remaining trees up to 10 feet off the ground.
- Remove ladder fuels, young trees and shrubs planted close to larger trees that could carry a ground fire into the tops of large trees.

Minimize Flammable Debris

- Keep roofs and rain gutters free of needles, leaves, and other flammable material.
- Keep firewood and other flammable debris a minimum of 50 feet from the house, preferably on the uphill side.
- Mow grasses to a height of less than 6 inches within 50 feet of the home.

Use Fire Resistant Construction and Landscaping

- Wood shake shingle roofs are highly flammable. Convert roof to Class A fire resistant materials such as fiberglass-asphalt, metal and tile.
- Construct decks and siding with non-combustible materials.
- Screen openings under decks and attic and foundation vents.
- Check with local nurseries to learn about fire resistant landscaping.
- Call your local State Forestry office for more information.

If a Wildfire is Burning Near Your Home

- Stay calm. Call 911 to report a fire.
- Cover all eave and roof vents.
- Cover large picture windows with plywood.
- Close all windows and doors; open drapes.
- Evacuate to a safe location

More information can be found at FireWise, a resource of many proportions. How to make defensible space around your home. Rate your home chances of surviving a wildland fire. Interactive items, publications, other links. Brought to the Internet by The National Wildland/Urban Interface Fire Protection Program.

Clayton Lake State Park
2008
Fire Evacuation Plan

Clayton Lake State Park:

Clayton Lake State Park (CLSP) is located in Union County, eleven miles North of the Town of Clayton, via highway 370. The 400 acre park is located in a canyon, surrounded by relatively flat rangeland. Although there are few trees in the area, and much of the terrain consist of rock, the park itself has not been grazed in over fifty years, which has allowed the native prairie grasses to flourish, creating a fire hazard in areas of the park.

Fires in CLSP are relatively rare, and historically have been quickly suppressed by staff, but drought conditions increase the chance of larger fires. Heavy fuels, limited firefighting resources and staff, and a single entrance/exit route contribute to potential threats to life and property. Due to the park being located in a canyon, there are no alternative routes leaving the park.

The staff at CLSP consists of: Manager, two Rangers and a Park Technician. Occasionally a Camp Host Volunteer would be available for assistance.

Assisting Agencies:

Local agencies include the Rabbit Ear Volunteer Fire Department, with one pumper truck and three "fire trucks"(trucks specifically designed to fight grass fires), The Kiowa National Grasslands, with one pumper truck and one fire truck, and if requested, the Town of Clayton, with three pumper trucks, three fire trucks, and a tanker (for hauling additional water).

Historically, for regional fires that were large enough, other agencies respond, such as Boise City (OK) fire department, Kenton (OK) volunteer fire department and the Sedan (NM) volunteer fire department. These three agencies are each approximately 40 – 50 miles away, limiting their response time.

The local emergency teams are available by phoning 911. Individual agency numbers are:

Clayton Police Department: 374-2504
Rabbit Ear Volunteer Fire Department: 374-0922
Kiowa National Grasslands: 374-9652
Clayton Fire Department: 374-2435.

Communications:

In the event of an evacuation, communications between park staff will be conducted via the park base station and hand-held two way radios. Due to the park being located in a canyon, cell phone reception is unreliable. The Clayton Police Department dispatch is the central contact, as they maintain emergency communications for all agencies in county by both phone and radio.

Campgrounds:

There are no fire hydrants at CLSP, although pumper trucks can replenish their tanks from the lake. There are standard frost-free hydrants available to replenish backpack tanks located at the comfort station, Roadrunner group shelter and in the electrical sites.

Due to the prevailing winds and vegetation, the two campgrounds most susceptible to wildfire are Peach Point and the Rock Garden, both located on the west side of the park. The Cove and Electrical campgrounds are relatively devoid of vegetation, and also have the shortest evacuation route if needed. Although the Chicano Beach campground is located at the extreme end of the park from the entrance/exit, it is relatively secure, as there are only two campsites, and very little vegetation. The dinosaur track way is located on the Clayton Lake dam spillway, devoid of fuel.

Fire Plan:

In the event of a fire, either in the park or surrounding rangeland, regardless of size, park staff immediately notifies the Clayton Police Dispatch via radio or park phone. At this point, the Rabbit Ear Volunteer Fire Dept. is immediately dispatched. Response time in the past has been approximately 25-30 minutes.

The park manager will maintain contact with the Clayton Dispatch via radio.

For small fires, not requiring immediate evacuation of the park, park staff will immediately proceed to the fire with the park's water tank trailer. This trailer carries 300 gallons of water, and has a pressure pump to spray water. Two staff members will operate the water tank trailer, while the Park Manager will assess the danger, and if circumstances warrant, the third staff member will alert park visitors of the possibility of evacuation.

Evacuation:

If the fire warrants evacuation of CLSP, two staff members will immediately be dispatched to the West side of the park, and began notifying visitors in the South Loop, Rock Garden and Peach Point campgrounds of the need to evacuate. In the event that fire prevents vehicles from the Rock and Peach Point campgrounds from reaching the exit, staff will direct them to the Chicano Beach area, since, as noted, there is little vegetation in that area.

The third staff member will begin notifying campers in the cove campground and the electrical sites. The Park Manager will notify Clayton Dispatch of the decision, notify any occupants of the park residence, than will immediately turn off the valve on the propane tank that services both the comfort station and the visitor center. The Park Manager will attempt to maintain a count of vehicles evacuating, and request dispatch to station a local officer at the city limit to ensure all vehicles have arrived safely back in town.

In the event that the fire is located at the park exit, all visitors will be advised to assemble on the North Point, a large, flat area adjacent to the lake, with very little vegetation.

After all visitors have been advised to evacuate, three staff members will assist visitors as needed. As two roads merge into the single park exit, the park manager will be stationed there, to direct traffic and to advise arriving agencies on areas where they are needed.

After staff ensures all visitors have been evacuated, park staff will assemble at the park exit. At this time, two staff members will pull pay-tubes and put all receipts in the fireproof safe at the shop, the other two will remove computers out of the visitor center office, and place in park vehicles for safe keeping.

Park staff will then continue to assist the agencies as needed.

Once the emergency has ended and permission has been give to return to the park, the Park Manager and staff will make a complete survey of the buildings, campgrounds and equipment. All safety precautions will be followed. ***No electrical or gas systems should be energized or turned on until they have been inspected and have been found safe for use***. All damaged areas, damage to equipment, buildings or other state property should be noted, and if possible, photographed.

State of New Mexico - Energy, Minerals & Natural Resources Department

Forestry Division

Morning Report

State FY: 1997 - 2008

strict(s): 2
unty(s): Union
eType(s): X, N, F, R

General Cause: **All**
Specific Cause: **All**

FMAZ: **All**
Cover Type: **All**
Size Class: **All**

1

64 results returned!

Incident Number	Incident Name	County	Gen. Cause	Acres	Cover Type	IA Agency	IA Unit Name	Fire Date
08-20240655X	CLAPHAM	Union	PL	1329	GR	RFD	SED	04/03/08 10:30
08-20230654X	MARQUEZ	Union	EQ	188	GR	RFD	GRE	04/02/08 12:10
08-20210519X	PINER	Union	PL	54	GR	RFD	GRE	12/09/07 13:57
08-20160272X	KENNEDY	Union	LT	70.9	GR	RFD	GRE	08/28/07 14:05
08-20150271X	DOHERTY	Union	LT	2	GR	RFD	GRE	08/25/07 18:30
08-20140270X	D BAR	Union	LT	25.75	GR	MFD	DES	08/25/07 17:55
08-20130269X	ATCHLEY	Union	LT	185.5	GR	RFD	GRE	08/23/07 15:30
08-20120268X	TRIPLE M	Union	LT	513.4	GR	RFD	FAR	08/23/07 15:30
08-20090219X	GLADSTONE	Union	LT	300	GR	RFD	FAR	08/23/07 15:30
07-20180462X	STRONG CITY	Union	HA	2	GR	RFD	RAR	03/20/07 14:29
07-20170441X	COBLE	Union	EQ	2000	GR	RFD	SED	03/17/07 10:30
06-21231416X	SENECA CREEK	Union	MS	3	OW	UFS	CIF	06/23/06 18:00
06-21191398X	ZURICH	Union	LT	250	GR	RFD	SED	06/21/06 17:50
06-21081331X	GLADSTONE	Union	LT	23000	GR	RFD	FAR	06/15/06 16:30
06-20971212X	VIRGIL	Union	LT	0	GR	UFS	CIF	06/05/06 13:15
06-20961189X	PASAMONTE	Union	LT	0	GR	UFS	CIF	06/03/06 14:40
06-20891134X	PRAIRIE DOG	Union	MS	135	GR	RFD	SED	05/28/06 14:15
06-20821086X	FOLSOM	Union	LT	250	BR	MFD	FOL	05/22/06 11:05

06-20771055X	CAPULIN	Union	LT	1000	GR	RFD	CAU	05/20/06 14:50
06-20751019X	ROAD SIDE	Union	MS	0.5	GR	UFS	CIF	05/16/06 18:18
06-20740998X	TAFOYA	Union	SM	0.25	GR	UFS	CIF	05/12/06 10:20
06-20720980X	TRIPLE M	Union	EQ	2000	GR	RFD	FAR	05/08/06 15:50
06-20660961X	TRAVESSOR	Union	LT	15	GR	RFD	RAR	05/02/06 19:00
06-20550920X	UNION	Union	LT	4300	GR	RFD	FAR	04/23/06 14:00
06-20530895X	FERGUSON	Union	LT	7750	GR	RFD	RAR	04/23/06 14:20
06-20500860N	CLAYTON TOWN	Union	MS	40	GR	MFD	CLA	04/15/06 11:01
06-20480800X	BENNETT	Union	MS	250	GR	MFD	DES	04/06/06 12:10
06-20450700X	CLAPHAM	Union	MS	11520	GR	RFD	SED	03/12/06 15:00
05-20150288X	GLADSTONE	Union	EQ	12350	GR	UFS	CIF	04/13/05 13:00
05-20130227X	LIKE	Union	DB	960	GR	RFD	RAR	02/19/05 11:10
04-20400383X	MACARLEY	Union	EQ	80	GR	RFD	SED	02/09/04 00:00
03-20350282X	GRANDE	Union	LT	2	GR	MFD	DES	10/21/02 15:55
03-20310258X	SIERRA	Union	LT	10	GR	MFD	DES	09/05/02 18:18
02-20700916X	KENTON	Union	LT	6815	BR	MFD	FOL	06/01/02 11:30
02-20690912X	GALLEGOS	Union	LT	300	GR	RFD	GRE	05/31/02 18:30
02-20680911X	SIERRA	Union	LT	300	GR	RFD	FOL	05/31/02 18:45
02-20630890X	DRY	Union	LT	80	BR	MFD	FOL	05/28/02 17:13
02-20390549X	UNION	Union	CH	805	GR	RFD	FAR	03/22/02 12:55
02-20370439X	WILKERSON	Union	LT	50	GR	RFD	FAR	02/19/02 05:30
01-20360351X	SKILES	Union	LT	600	GR	RFD	RAR	08/12/00 17:00
01-20320342X	RABBITEAR	Union	LT	940	GR	RFD	RAR	08/09/00 15:25
00-20651161X	MOSES	Union	LT	65	PJ	RFD	RAR	06/19/00 11:45
00-20460994X	SIERRA	Union	LT	30	PJ	NMS	N2S	05/31/00 21:00
00-	BLIND GAP	Union	LT	1100	GR	MFD	DES	02/10/00

20160319X								14:35
00-20010007X	FOLSOM	Union	LT	280	PJ	MFD	FOL	07/02/99 16:30
99-20240577X	SMITHSON	Union	LT	120	GR	RFD	SED	04/21/99 18:45
99-20200407X	SOFIA	Union	MS	80	GR	MFD	DES	02/12/99 16:10
99-20190393X	SNIDER	Union	LT	3500	GR	RFD	FAR	02/06/99 13:30
99-20180371X	BERSON	Union	DB	900	GR	RFD	SED	01/25/99 14:30
99-20170369X	MILLER	Union	MS	250	GR	RFD	FAR	01/23/99 15:00
99-20150330X	BRIGGS	Union	MS	67	GR	MFD	DES	12/20/98 10:00
99-20120271X	POOLE	Union	LT	450	GR	RFD	SED	09/13/98 00:00
98-20450929F	TAOS CREEK	Union	DB	0	GR			01/25/99 14:30
98-20440928N	SHADYBROOK	Union	DB	0	GR			01/25/99 14:30
98-20240314X	PUCKET	Union	DB	300	GR	MFD		01/22/98 11:35
98-20170155X	BARELA	Union	LT	4	GR	RFD		07/28/97 16:00
97-20250543X	VANVIER	Union	MS	250	GR	RFD		04/19/97 10:15
97-20240529X	RICKESTON	Union	LT	730	GR	RFD		04/18/97 19:00
97-20230528X	SHUGART	Union	LT	30	GR	RFD		04/18/97 18:00
97-20220527X	SHIELDS	Union	LT	160	GR	RFD		04/18/97 17:00
97-20180456X	RINKER	Union	EQ	5200	GR	RFD		03/24/97 14:45
97-20170452X	KORNELLIE	Union	MS	10	GR	RFD		03/22/97 19:15
97-20150379X	HAM	Union	EQ	200	GR			03/08/97 12:00
97-20100151X	BANNON	Union	LT	1	PJ	UNK		08/21/96 15:10
Total	**64**			**92,203.30**				