I. Introduction

A. Purpose

The purpose of the Taos Field Office Fire Management Plan (FMP) is to identify and integrate all wildland fire management guidance, direction, and activities required to implement national fire policy and fire management direction from the following: Federal Wildland Fire Management Policy and Program Review-1995 and 2001; The Interagency Fire Management Plan Template; and A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment: 10-Year Comprehensive Strategy Implementation Plan, Taos Resource Management Plan (1988) and the Rio Grande Corridor Plan (1998). Public meetings were held at sites throughout the Taos Field office to discuss the 2004 statewide RMP amendment for fire management and the public supported the goals of the program.

The Federal Wildland Fire Management Policy states that every area with burnable vegetation must have an approved fire management plan (FMP). This is a strategic plan that defines a program to manage wildland and prescribed fires based on the approved land management plan. This FMP provides for firefighter and public safety, it includes fire management strategies, tactics and alternatives, and values to be protected. It addresses public health issues and is consistent with resource management objectives, activities of the area, and environmental laws and regulations.

The FMP was developed at the field office level by the fire program planners. It was designed to encompass all aspects of the TAFO fire program: Wildland Urban Interface (WUI), rural fire assistance, prescribed fire, fuels management, wildland fire prevention and suppression, forest/range restoration and wildlife habitat improvement. These are the key components of the fire program and some of the tools for meeting identified fire management objectives.

This FMP addresses the full range of fire management activities: fire planning, fire management strategies, tactics and alternatives, prevention, preparedness and education. It addresses the role of mitigation, post-fire rehabilitation, fuels reduction and restoration activities in fire management. Implementation of this FMP will provide a safe, cost-effective fire management program in support of land and resource management plans through planning, staffing, training, equipment and management oversight.

B. Relationship to Environmental Compliance

All fire management objectives, constraints, and activities contained within this plan are consistent with the following source documents: the Taos Resource Management Plan (1988), the Rio Grande Corridor Plan (1998) and the Fire and Fuels Management Plan Amendment and Environmental Assessment for Public Land in New Mexico and Texas (2004).

C. Collaboration

Collaborative relationships are an integral component of the Taos Fire Program and provide the means for accomplishing a variety of program-wide goals. The field office participates in the Taos Zone Operations committee. Fire Management Officers from the Carson National Forest, Eight Northern Pueblos, State of New Mexico, U.S. Fish and Wildlife Service, and the City of Taos are on the committee. The committee coordinates interagency efforts on fire prevention and education, dispatching, training, fuels management, suppression, rural fire assistance and preparedness. A steering group made up of agency line officers meets regularly to guide the operations of the group and includes a Zone Chairman which is rotated on a biannual basis; currently, Taos BLM is the Zone Chair. Taos Zone operates an Interagency Dispatch Center and Taos BLM funds a Career Seasonal Dispatcher.

The TAFO Fire Program regularly collaborates with more than 15 public and private agencies within the state including: Carson National Forest, Santa Fe National Forest, Taos Pueblo, Santa Clara Pueblo, Eight Northern Pueblos, New Mexico State Forestry, New Mexico Game and Fish, New Mexico Environment Department, Rocky Mountain Elk Foundation, Rocky Mountain Youth Corps, National Youth Corps, Hawks Aloft, Greater Southwestern Boy Scout Council,etc. The TAFO has also collaborated with many out of state agencies including the Lower Colorado River Interagency Group, U.S. Forest Service in Texas at the Sabine, Angelina, Davy Crockett and Sam Houston National Forests and the BIA in Lamedeer, Montana.

Collaborative activities are arranged under Assistance Agreements and Joint Powers Agreements with TAFO both providing and receiving assistance. Activities within these agreements include hazardous fuels reductions such as thinning and prescribed fire and providing technical support. In addition, the TAFO works with the National Weather Service on Fire Behavior, Monitoring and Fuel Sampling. Taos BLM will continue to take advantage of collaborative opportunities throughout the execution of this plan.

D. Authorities

- Protection Act of September 20, 1922 (42 Stat. 857; U.S.C. 594).
- Taylor Grazing Act of June 28, 1934 (48 Stat. 1269; U.S.C. 315).
- Reciprocal Fire Protection Act of May 27, 1955(69 Stat. 66; 42 U.S.C. 1856, 1856a).
- Economy Act of June 30, 1932 (47 Stat. 417; 31 U.S.C. 686).
- The Federal Land Management and Policy Act of 1976 (FLPMA) (Public Law 94-579; 43 U.S.C. 1701).
- Disaster Relief Act, Section 417 (Public Law 93-288).
- 2001 Annual Appropriations Acts for the Department of the Interior.
- United States Department of the Interior Manual (910 DM 1.3).
- 1995 Federal Wildland Fire Management Policy.
- 2001 Updated Federal Wildland Fire Management Policy (1995 Federal Wildland Fire Management Policy Update)Appendix C.
- 1998 Departmental Manual 620 Chapter 1, Wildland Fire Management General Policy and Procedures.
- 1969 National Environmental Policy Act

II. Relationship to Land Management Planning and Fire Policy

A. Program Guidance

The Fire Management Plan has been tiered to the Taos Resource Management Plan 1988 (RMP), the Rio Grande Corridor Plan (1998), and the Federal Wildland Fire Policy (2001). These plans provide the basis for the development of fire management goals and objectives.

The FMP derives overall program guidance from the following:

- 1998 BLM Handbook 9214, "Prescribed Fire Management" which describes authority and policy for prescribed fire use on public lands administered by the Bureau of Land Management.
- September 2000, "Managing the Impacts of Wildfires on Communities and the Environment."
- October 2000, National Cohesive Strategy goal is to coordinate an aggressive, collaborative approach to reduce the threat of wildland fire to communities and to restore and maintain land health.
- August 2001, "Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment -10 Year Comprehensive Strategy" provides a foundation for wildland fire agencies to work closely with all levels of government, tribes, conservation, and commodity groups and community-based restoration groups to reduce wildland fire risk to communities and the environment,
- May 2002, "Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment, 10 Year Comprehensive Strategy – Implementation Plan"
- August 2002, "Healthy Forests - An Initiative for Wildfire Prevention and Stronger Communities."

B. Fire and Fuels Management and Resource Goals derived from the RMP

- **Human Life**: Protect human life, both the public and firefighters, is the single, highest priority in fire management.
- **Property and Resources:** Protect human communities, their infrastructure, and the natural resources on which they depend. The risk of wildfire to communities and property will be reduced using the full range of options available to fire managers.
- **Ecosystem Sustainability:** Allow wildland fire to function as an essential ecological process and natural change agent in fire-dependent ecosystems when it is possible.
- **Wildlife**: Protect, maintain, preserve, and/or restore habitats necessary for the conservation of special

status species, and the ecosystems upon which they depend. Maintain viable and diverse populations of special status native terrestrial and aquatic species. Special Status Species include Federally Threatened, Endangered, Proposed, and Candidate Species, BLM Sensitive Species and State Species of Concern.

- **Vegetation:** Improve ecosystem health by maintaining or restoring the range of ecological conditions on which native floral and herbaceous components depend. Maintain or improve special status plant species. Decrease Noxious weed presence and invasion within the TAFO lands.
- **Cultural, Historical and Paleontological**: Protect high value cultural, historical and paleontological resources.
- **Designated Special Areas**: Protect the characteristics that warranted designation of Areas of Critical Environmental Concern (ACECs), Special Recreation Management Areas (SRMAs), Wilderness Study Areas (WSAs), Special Management Areas (SMAs). Enhance or maintain the wilderness values of the WSAs.
- **Air:** Meet federal and state air quality standards through proper management of emissions. There are no non-attainment areas for air quality within the Taos Field office.
- **Visual:** Meet established Visual Resource Management (VRM) class objectives **t**hrough appropriately planning fuel reduction treatments. VRM will be a consideration for any post-fire erosion control and other burned area rehabilitation and restoration needs.
- **Water/Watersheds:** Meet Federal and State water quality standards and prevent degradation through Best Management Practices during and after fires and vegetative treatments. Enhance and protect watersheds.

III. Wildland Fire Management Strategies

A. General Management Considerations

The first priority in the Taos fire program is to provide for firefighter and public safety. The protection of human life is the single, overriding suppression priority. Setting priorities among protecting communities, properties, improvements, natural and cultural resources, will be done based on the values to be protected, human health and safety and the cost of protection. Once people have been committed to an incident, these human resources become the highest value to be protected. Every effort will be made to suppress fires at a minimum cost, but never at the expense of firefighter or public safety.

The BLM is a partner in the "New Mexico Joint Powers Agreement for Interagency Wildland Fire Protection," (JPA) which coordinates wildland fire management activities among the federal wildland fire management agencies and the New Mexico State Forestry Division. Under the JPA, New Mexico is divided into initial attack areas. In each of these areas, one agency has agreed to take the lead in providing initial attack protection for all lands, regardless of ownership. This provides an equitable exchange of protection and workload, and allows the use of the "closest forces" concept for fire suppression. The net result is a more efficient and effective suppression organization throughout the state.

The full range of fire management activities will be used to help achieve ecosystem sustainability, including its interrelated ecological, economic and social components. The field office staff will conduct fuels treatment, community assistance, education/mitigation programs and rehabilitation/restoration actions to implement management plan direction.

Fire, as a critical natural process, will be integrated into land and resource management plans and activities based on a landscape scale and across agency boundaries. Response to wildland fire is based on ecological, social and legal consequences of the fire. The circumstances under which the fire occurs, and its likely consequences dictate the appropriate response to the fire.

The predominant vegetation zones in the TAFO fall under a fire regime with either a high fire return interval (I or II) or with variability in fire frequency which may include a high fire return interval (III or IV). Condition Classes of these predominant vegetation zones show the highest departure from historic conditions.

Combined, these vegetation zones comprise approximately 90% of the TAFO, with an average Condition Class of "High 2" or "Low 3". If the Fire Management program were to restore these vegetation zones to a Condition Class 1 or 2 and maintain them over time, using either active management or natural disturbance, then disturbance regimes would have to be comparable to the natural fire regimes of each of these zones. Assuming a general fire return interval of 35 years (an average between the high to mid-fire return interval fire regimes), a given area would require an average yearly treatment of approximately 3%. In a vegetation zone with a very high fire return interval of 4 years, such as some cases found in Fire Regimes I and II, annual disturbance would have to be 25%.

Table 2 Pre-Settlement Conditions' Annual Disturbance Regimes

TAFO High Fire Return Interval Acres	Current Annual Targets	3% (35 year FRI)	25% (4 year FRI)
761,348 acres	**4,030 acres**	**22,869 acres**	**190,339 acres**

Table 2 illustrates the annual acreage targets required to successfully maintain the high fire return interval vegetation types found in TAFO. This is a very general analysis of acreage targets, but when compared to current acreage targets, it shows that the program will fall significantly short in accomplishing our objectives of converting areas of Condition Class 2 and 3 to Condition Class 1 and 2. Tables 5 and 6 on pages 70-71 show a detailed list of acreage targets for each Fire Management Unit.

If funding and staffing levels remain the same, strategies will have to change in order to accomplish forest and range restoration objectives on a landscape and watershed scale. Future strategies will need to place more priority on wildland fire use and limited suppression operations, including the administrative support for planning and inventory associated with each.

B. Wildland Fire Management Goals

The TAFO Fire Management Program Objectives are based on the 17 elements in the 2001 Federal Wildland Fire Management Policy.

- Make firefighter and public safety the highest priority in every fire management activity.
- Work collaboratively with communities at risk within the Wildland Urban Interface (WUI) to develop plans for risk reduction. Strive for more local and community involvement in fire management programs.
- Allow wildland fire to protect, maintain and enhance public resources, and as much as possible, be allowed to function in its ecological role when appropriate for the site and situation. Include more Fire-Use and Limited Suppression when conditions are suitable.
- Base all fire management activities on the principles of multiple use and sustained yield and perspectives that take into account the long-term needs of future generations for renewable and nonrenewable resources.
- Protect and improve watershed health including riparian and wetland communities.
- Maintain and enhance important winter range habitat for elk, muledeer and pronghorn antelope.
- Reduce density and increase age class diversity in Pinyon-Juniper Woodland and Savannas. Increase understory herbaceous cover and diversity and allow fire to return as much as possible to historical conditions.
- Increase vigor and diversity of sagebrush rangelands and perennial grasslands and provide a mosaic of conditions within them.
- Improve the general health of all vegetation in order to protect native species and control the spread of invasive species.

C. Wildland Fire Management Options

Fire management specialists, in collaboration with resource specialists from other disciplines, determine fire management categories, management objectives and the appropriate management responses for each FMU.

- **Criteria for developing a management response:**

Management strategies and action points will be based on fire activity and location. Normally, specific actions or combinations of actions will be determined on site by the Incident Commander or fire use manager and will consider the following:

1. Risk to firefighters and public health and safety
2. Land and Resource Management Objectives
3. Weather
4. Fuel Conditions
5. Threats and values to be protected
6. Cost efficiencies

- **Fire Suppression Categories**

The fire management categories are as follows:

1. Category A: ***Areas where fire is not desired at all.***

General Description: This category includes areas where mitigation and suppression are required to prevent threats to life and property. It includes areas where fire never played a large role historically in the development and maintenance of the ecosystem, or because of human development, fire can no longer be tolerated without significant loss or where fire return intervals are long.

Fire Mitigation Considerations: Emphasis should be focused on prevention, detection, and rapid suppression response and techniques that will reduce unwanted ignitions and threats to life, property, natural and cultural resources.

Fire Suppression Considerations: Virtually all wildland fires would be actively suppressed and no fires are prescribed except as required to combat an immediate threat to firefighter or public health and safety.

Fuel Treatment Considerations: Non-fire treatments employed. Unit costs for prescribed fire would be too prohibitive to implement efficiently. Pile burning of mechanically removed vegetation is acceptable.

FMUs categorized as A: Rio Grande Corridor-Well Developed Riparian-10

2. Category B: ***Areas where unplanned wildland fire is not desired because of current conditions.***

General Description: Fire plays a natural role in the function of the ecosystem; however these are areas where an unplanned ignition could have negative effects unless some form of mitigation takes place.

Fire Mitigation Considerations: Emphasize prevention/mitigation programs that reduce unplanned ignitions and threats to life, property, natural and cultural resources.

Fire Suppression Considerations: Fire suppression is usually the objective of unplanned wildfire.

Fuel Treatment Considerations: Fire and non-fuels treatments are utilized to reduce the hazardous effects of unplanned wildfire. Restoration treatments may consist of multiple non-fire treatments before the use of fire will be considered.

All unplanned ignitions will require a fire management response that will have emphasis put on fire fighter and public safety, minimizing suppression costs, and protecting resources. Every attempt will be made to respond to each fire in a timely manner.

FMUs categorized as B: Cerro Del Aire-6, Wild Rivers-7, Black Mesa/Ojo Caliente-9, Copper Hill WUI-12, Thirty-One Mile-13, Fun Valley/Chimayo-14, Sombrillo SMA/Santa Cruz Lake-15, Chimayo Scout Camp-16, Buckman-17 and La Cienega-19.

3. Category C –*Areas where wildland fire is desired, but there are significant constraints that must be considered for its use.*

General Description: Fire is a desirable component of the ecosystem, however, ecological, social or political constraints must be considered. These constraints could include air quality standards, threatened and endangered species, identified cultural, archeological, or historic resources or wildlife habitat considerations.

Fire Mitigation Considerations: Programs should mitigate potential threats to values before ignitions occur and reduce unwanted human ignitions.

Fire Suppression considerations: Ecological and resource constraints along with human health and safety are considered in determining the appropriate suppression response on a case-by-case basis by the incident commander or line officer. Areas in this category would generally receive lower suppression priority in multiple wildland fire situations than would areas in “A” or “B” FMUs.

Fuel Treatment Considerations: Fire and non-fuels treatments may be utilized to ensure constraints are met or to reduce any hazardous effects of unplanned wildfire. Treatments may consist of multiple non-fire treatments before the use of fire is considered.
FMUs categorized as C: TFO-rest of office-1, North Unit/Pot Mountain-2, Rio Grande Corridor ACEC-3, San Antonio Gorge ACEC-4, San Antonio WSA-5, Cebolla/Abiqui-8, Copper Hill ACEC/Sebastian Martin Grant-11, and Archuleta Mesa-20.

- **4. Category D:** ***Areas where wildland fire is desired, and there are few or no constraints for its use.*** **(*Wildland Fire Use)***

General Description: Areas where unplanned and planned wildfire may be used to achieve desired objectives, such as, improving vegetation, wildlife habitat or watershed conditions.

Fire Mitigation Considerations: Implement programs that reduce unwanted human-caused ignitions, as needed.

Fire Suppression/Use Considerations: These areas offer the greatest opportunity to take advantage of the full range of options available for managing wildland fire under the appropriate management response. Health and Safety constraints will apply. Fire use considerations similar to those described for Category C may be identified if needed to achieve resources objectives. Ares in this category would be the lowest suppression priority in a multiple fire situation.

Fuel Treatment Considerations: There is generally less need for hazardous fuel treatment in this category. Prescribed fire for hazardous fuel reduction is not a priority except where there is an immediate threat to health and safety. If treatment is necessary, both fire and non-fire treatments may be utilized, as allowed by the resource management plan. Prescribed fire to obtain desired resource/ecological condition is appropriate.

FMUs categorized as D: Sabinoso WSA-18 and Ute Mountain-21. Chapter IV describes the process to determine if a wildland fire is allowed to burn for resource benefits in this FMU.

D. Descriptions of Fire Management Units
The Taos Field Office includes 14,714,271 acres (the entire surface area including BLM and other lands) and was divided into 21 "Fire Management Units (FMU)." Fire Management Objectives and Strategies were identified for each unit based on the descriptions of the Units and the Fire Regimes and Condition Classes. A detailed discussion of fire history and fire ecology in the Taos Field Office can be found in Appendix D.

The Fire Regime concept is used to characterize the personality of a fire in a vegetation type- how often it visits the landscape, the type of pattern created, and the ecological effects. The following natural fire regimes are arranged along a temporal gradient, from the most frequent to the least frequent fire return interval.

Regime	**Fire Frequency**	**Fire Effect to Dominant above groundVegetation**	**Representative Ecosystem**
Fire Regime I	0-35 years	Low Severity	Dry Pine and oak forests, Pinyon-Juniper forests
Fire Regime II	0-35 years	Stand Replacement	Grasslands, many shrub communities
Fire Regime III	35-100+ years	Mixed Severity	Shrublands, mixed conifer forests
Fire Regime IV	35-100+ years	Stand Replacement	Certain lodgepole pine, dry Douglas-fir forests
Fire Regime V	200+ years	Stand Replacement	High elevation whitebark pine, spruce-fir and Pacific coastal forests

For a given vegetation type, the fire regime condition class (FRCC) concept describes the degree of departure in: (1) vegetation structure, and (2) fire frequency/severity. This measure describes both the health of the fire regime, and also the appropriateness of the vegetation community for the site.
1. **Condition Class 1** corresponds to landscapes where these variables are intact.
2. **Condition Class 2** includes lands having moderate departure in fire regime health and structural integrity.

3. **Condition Class 3** landscapes have highly altered ecological integrity.

Each FMU has been prioritized according to different goals and concerns including: prescribed fire, Wildfire Suppression, Non-Fire Fuels Treatments and Community Protection/Assistance. The rankings are High, Medium or Low priority. A general ranking of priority has been assigned to each FMU as a summary of these four categories and a number has been assigned to each FMU.

FMU	Suppression	Prescribed Fire	Non-Fire Fuels Treatments	Community Protection/ Assistance	Prioritization Number
1. TAFO- rest of Office	High	Med	Med	Med	7
2. North Unit/Pot Mountain	Low	High	Med	Low	14
3. RGC- ACEC	Med	Low	Low	Med	11
4. San Antonio Gorge ACEC	Low	Med	Med	Low	19
5. San Antonio WSA	Low	Med	Med	Low	15
6. Cerro Del Aire	High	High	High	High	2
7. Wild Rivers	High	High	High	High	3
8. Cebolla/Abiqui	Med	Med	Med	Med	8
9. Black Mesa/ Ojo Caliente	Low	Low	Med	Low	17
10. RGC-Well Developed Riparian	High	Low	Med	High	10
11. Cu Hill ACEC	Med	Med	Low	Low	13
12. Cu Hill WUI	High	High	High	High	4
13. Thirty-One Mile	High	High	High	High	5
14. Fun Valley/ Chimayo	Low	Low	Low	Low	20
15. Sombrillo SMA	Low	Low	Low	Low	21
16. Chimayo Scout Camp	High	High	High	High	1
17. Buckman	High	Med	Med	High	6
18. Sabinoso WSA	Low	High	Low	Med	12
19. La Cienega	Low	Low	Low	Med	18
20. Archuleta Mesa	Med	Med	Med	Med	9
21. Ute Mountain	Low	High	Low	Low	16

Fire Management Unit Name: **TAFO, Rest of Field Office**
Category/Number: **C/1**

1. Location: This "unit" includes small parcels of BLM lands throughout the Taos Field Office Management area that are not covered by any other FMU.

2. Characteristics:

- **Total Unit Acreage:** Total unit acreage is 14,714,271 acres with 60,911 acres of that managed by BLM.
- **Terrain and Vegetation:** Considering the breadth of area covered by these small pieces, it is prohibitive to describe each and every parcel. The terrain includes the variety of landscape expressed in other units such as rolling hills, steep mountains, flat rangeland, etc. Vegetation as well includes the entire spectrum seen in the field office such as pinyon-juniper woodland, mixed conifer/ponderosa pine forest, sagebrush flats, grasslands, etc.
- **Wildlife:** Riparian habitat exists throughout this FMU in the form of various rivers, streams, seeps and springs. Riparian areas provide value wildlife habitat in the Taos Field Office in the form of nesting habitat for avian species; cover, forage and opportunities for water to terrestrial species; and the perennial aquatic ecosystem necessary to sustain fisheries. This unit also includes many of the wildlife species common to the Taos Field Office; see Appendix B for a list of these species.
- **Watersheds:** These parcels of land may fall into many different watersheds.
- **Recreation:** Recreation use within these areas may include hiking, biking, wildlife viewing, etc.
- **SMA/ACEC:** These lands include the San Lazaro and Sahiu Special Management Areas. Both SMAs' objectives are protecting cultural resource values and state that "fires in this SMA will have limited suppression."
- **Cultural Values:** This unit includes some areas that contain extensive and important cultural resources including the Galisteo basin south of Santa Fe, Sahiu Pueblo along the Rio Grande river near Velarde, la Puebla area near Santa Cruz, scattered parcels along the Pecos river near Villanueva, and scattered parcels on the plains. BLM sites within the Galisteo Basin include the Pueblos of San Lazaro (a National Historic Landmark) and Burnt Corn, and numerous prehistoric and historic sites primarily dealing with mining within the Cerillos Hills.

Values at Risk/Resource Protection Constraints: Values at greatest risk include cultural and forest and range health. Cultural resources to be protected will be archaeological sites that are on or eligible for the National Register of Historic Places (NRHP) or areas that are likely to contains such resources.

- **Communities at Risk:** Many communities that could be considered at risk are adjacent to these small tracts of BLM lands.

3. Fire Concerns

- **Wildland Fire History**: Between 1984-2004, there were 33 naturally caused and 36 human caused fires within this FMU, burning 165 and 109 acres respectively.
- **Fire Regime:** These lands encompass a wide spectrum that includes Fire Regimes from I-IV.
- **Condition Class**: These lands fall within a Condition Class 2 or 3 because of the moderate to high degree of departure from historical conditions which might include a decrease in herbaceous understory and diversity as well as an increase in density of pinyon and juniper trees or sagebrush in the different areas.
- **Fire Management Objectives**: Fire management objectives include community protection, resource protection, range and forest restoration, watershed health, and wildlife habitat improvement. FRCC objectives will be dealt with on a case by case basis. Because these small parcels are surrounded by lands with ownership other than BLM, emphasis should be placed on accomplishing management objectives identified by adjacent landowners and establishing partnerships and agreements for treatments across ownership boundaries. Special emphasis will be placed on mitigating impacts to cultural resources on these parcels in the FMU.
- **Fire Management Strategies**:

1. Wildland Fire Suppression- Appropriate Management Response (AMR) will be implemented for all suppression actions. All fires occurring at a Fire Intensity Level (FIL) 1-3 will be suppressed at less than 100 acres 90 percent of the time. All fires occurring at FIL 4-6 will be suppressed at less than 500 acres

70% of the time. Response time will be important for initial attack within this FMU.
2. Wildland Fire Use- – Fire Use can be utilized under special conditions with the proper NEPA clearance and an approved burn plan prior to ignition. Using natural or man-made barriers is also an option where aggressive suppression tactics would have a greater negative impact on the resource than the fire activity itself.
3. Prescribed Fire- The target for prescribed fire treatment will be a minimum of 200 acres for broadcast burns and 200 acres for Pile burns per annum.
4. Non-fire Fuels Treatments- Mechanical, biological or chemical treatment targets will be 400 annually.
5. Post-Fire Rehabilitation / Restoration – Since this Unit includes such a variety of areas and parcels, general rehabilitation and restoration strategies will be considered. In sites with erodable soils, reseeding and revegetation might be used, as well as fencing, to keep them from being grazed. Slopes greater than 15% will be assessed for rehabilitation. In general, if a fire occurs at a higher intensity level, the need for post fire rehabilitation and restoration will be evaluated by an interdisciplinary team of resource staff from the Taos Field Office to determine strategies.

Fire Management Unit Name: **North Unit/ Pot Mountain**
Category/ Number: **C/2**

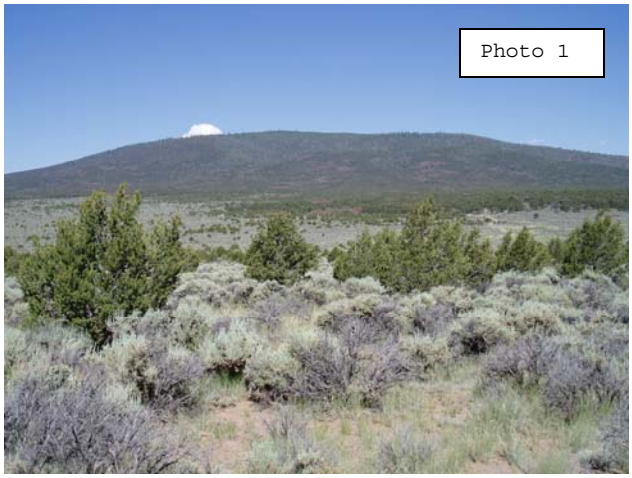
1. Location: This FMU is located between the Rio Grande Gorge to the east and the Tusas Mountain range to the west. It borders the Colorado state line on the north and the Cerro Del Aire FMU to the south. The FMU perimeter borders state, private, U.S. Forest Service and other BLM lands. **Access** is via US 285 on a two-track road.

2. Characteristics:

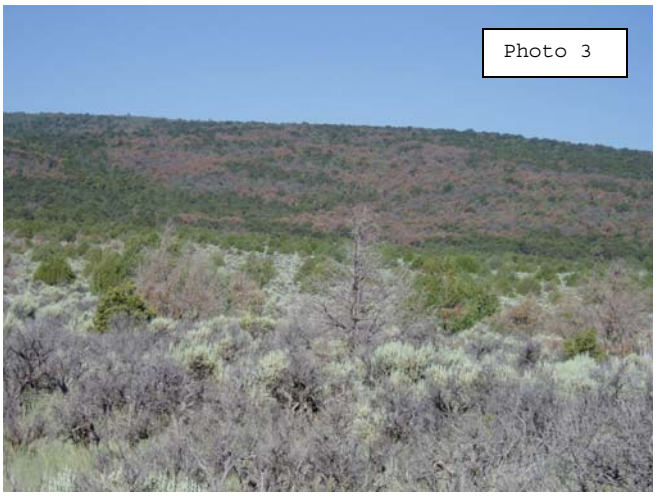
- **Total Unit Acreage:** BLM= 156,233 acres, Private= 24,076 acres, State land= 33,484 acres and Total Surface area=213,793 acres.
- **Terrain and Vegetation:** The majority of the land is relatively flat rangeland with three major topographical features; Pot Mountain, Cerro Chiflo and the north, east and southern slopes of San Antonio Mountain. Vegetation on this unit is primarily sagebrush and grassland. Common grass species include blue grama, western wheatgrass, needleandthread and Indian ricegrass. Other species include broom snakeweed, winterfat, broomweed, kochia, and chenopodium spp. Shrub species found at higher elevations include mountain mahogany, serviceberry, gambel oak, and chokecherry. Pinyon, juniper, ponderosa pine, Engelmann spruce, Douglas-fir, and aspen are found at higher elevations on the slopes of the mountains.
- **Wildlife:** The North Unit FMU includes the Winter Range ACEC which contains the largest populations of deer, elk and antelope in the Taos Field Office and is considered the most important elk winter range on public lands in the state. Due to the unique geology and steep cliffs on the adjacent Upper Gorge, it has critical habitat for the prey base of nesting raptors along the Rio Grande. This unit also includes many of the wildlife species common to the Taos Field Office; see Appendix B for a list of these species.
- **Watersheds:** This FMU includes many drainages and is immediately adjacent to the Upper Gorge Unit of the Rio Grande River.
- **Recreation:** Recreation activities include hunting, hiking and casual use.
- **SMA/ACEC:** The Winter Range ACEC places special emphasis on the management of winter range for rocky mountain elk and muledeer.
- **History:** Land survey records from 1881 and 1940 indicate that the landscape has changed considerably. Records from 1881 stated that the main flatland areas were rolling prairie land with good bunchgrass and grama components and scattered pinyon pine and juniper. Lakes and ponds were also spread throughout the area and these areas were already being used for grazing. The mountainous areas were described as being 'cedar timber' (juniper and mixed conifer), and pinyon pine with aspen thickets and a good scrub oak undergrowth. In 1940, the surveyor reported considerable overgrazing of lands and an increased sagebrush component. Many of the lakes and ponds that were reported to be good water sources in the 1880's were either lake basins or nonexistent in the 1940's. The surveyor made the recommendations that the only further use for the land would be continued grazing.
- **Values at Risk/Protection Constraints**: Values at greatest risk include cultural and winter range habitat for elk and other wildlife. Archaeological sites on or eligible for the National Historic Register of Historic Places (NRHP) and areas likely to contain such sites will be protected.
- **Communities at Risk:** Tres Piedras and Cerro Del Aire community development are communities at risk as well as other private residences on the southeast slope of San Antonio Mountain and a private residence/ranch on the southern unit boundary between Pot Mountain and No Agua Peaks.

3. Photos & Descriptions

The slopes of Pot Mountain (**photo 1**) and Cerro Chiflo (**Photo 2**) are covered by pinyon pine and juniper. Ponderosa, fir and spruce trees are found on the upper slopes of Pot Mountain but not on Cerro Chiflo. It seems that many trees are in the same age class of about 20-50 years. The area has been logged in the past and there are not very many large trees. Some of the largest living trees are approximately 20-50 inches in diameter. In general on all slopes, the trees are dense and canopy closure is 75-100%.



Herbaceous ground cover is minimal between the trees. There is some coniferous litter and some grass covering the ground, but it is not continuous. It is not likely that a ground fire would carry in these areas unless there were a strong wind. Throughout the mountainsides there is a mosaic of beetle-killed trees. Ground cover under these trees is significantly greater than that under the live trees and in some areas a ground fire could carry. Downslope, the vegetation changes to PJ mixed with sagebrush and then morphs into sagebrush flats. PJ is invading some of the downslope areas (as seen in **Photo 3**).



Sagebrush covers the areas between Cerro Chiflo and Pot Mountain and south and east towards the Rio Grande Gorge. **Photo 4** shows some of the other rangeland areas, which are covered by a variety of grasses, shrubs and forbs. *Agropyron smithii* (western wheatgrass) is common just northwest of Pot Mountain.

Photo 5 shows different mixes of cover. Some areas include chamisa, snakeweed and broomweed while others are primarily grasses; poa species, western wheat grass, and blue grama. In general, the rangeland sections are covered by intermitant vegetation with 30-60% bare ground. This area would need a fairly strong wind to carry a fire. Pot Mountain experienced a fire on the northwestern slope in 2000. **Photo 6** shows the sections that were burned where 90-100% of the trees were killed resulting in almost no live canopy cover. Ground cover in the burned area is significantly higher than in the unburned area, with an increased grass and forb component
Photo 7 shows the understory in the burned area on the left side of the picture and then in the right side, the unburned area with little ground cover.

4. Fire Concerns

- **Wildland Fire History:** There have been 7 naturally-caused, and 3 human-caused, fires recorded within the past twenty years of more than 1,000 acres. Lightning accounted for nearly 90% of them.
- **Fire Regime:** This FMU consists of a. degraded rangelands, b. pinyon-juniper woodlands, and c. mixed conifer which comprise Fire Regimes II, III, and III respectively.
- **Condition Class:** Each vegetation type as mentioned in Fire Regime has its own condition class which corresponds to a. high 2, b. high 2 or low 3, and c. 2. These condition classes were based on the degree of departure from historical fire regimes. Shrublands/grasslands is a 2 because of the decline and lack of vigor in native grasses and the increase in invasive shrubs such as snakeweed (as seen in photos 4, 5, and 6). The pinyon-juniper woodland and mixed conifer stands are in class 3 because of the increase in density of trees and lack of herbaceous understory and a general decrease in diversity as seen in photo 7.
- **Fire Management Objectives:**

1. Restore all condition class areas of high 2/low 3 to 1/low 2. Natural disturbance and management actions combined would total no less than 4,000 acres, and no more than 35,000 acres, per year.
2. Reduce hazardous fuels in the Wildland Urban Interface.
3. Improve winter range conditions throughout the Winter Range ACEC.
4. Reduce overall fire management costs by reducing the numbers of large fires.

- **Fire Management Strategies:**

1. *Wildland Fire Suppression* – Appropriate Management Response (AMR) will be implemented for all suppression actions. All fires occurring at FIL 1-3 will be suppressed at less than 500 acres 70 percent of the time. All fires occurring at FIL 4-6 will be suppressed at less than 2000 acres 75 percent of the time. Appropriate Management Response (AMR) will be implemented for all suppression actions. When

conditions allow, mimimum impact suppression strategy will be used.
2. Wildland Fire Use – Fire can be utilized in the C category under special conditions if there is proper NEPA clearance and an approved burn plan prior to ignition. Using natural or man-made barriers is also an option where aggressive suppression tactics would have a greater negative impact on the resource than the fire activity itself. TAFO will be planning some fire use in the area when appropriate conditions allow.
3. Prescribed Fire – Slash produced from thinning operations will be burned following mechanical treatment at a target of 200 acres per year. Broadcast burning will be conducted in both treated and untreated areas to maintain low fuel loadings and promote herbaceous groundcover at a minimum of 400 acres per year. Cooperate with adjacent landowners to complete projects in hazardous fuels reduction, forest/range restoration, and wildlife habitat improvement.
4. Non-fire Fuels Treatments – A minimum annual target for mechanical treatment will be 200 acres which includes using all 200 acres for collecting wood for sale to the public (biomass utilization).
5. Post-Fire Rehabilitation / Restoration - Rehabilitation of lands might be necessary in areas with highly erodable soils that are adjacent to watersheds, following fires of higher intensity levels (6-10). No rehabilitation will be necessary in most pinyon–juniper woodlands.

Fire Management Unit Name**: Rio Grande Corridor ACEC**
Category/Number: **C/3**

1. Location: This FMU begins at the La Sauses Cemetery in Colorado, 22 miles north of the Colorado-New Mexico state line and extends for about 47 miles along the Rio Grande to its confluence with the Rio Pueblo. **Access** points exist throughout the FMU along SR 68 and SR 570. The Upper gorge area is only accessible by road at a few points, while the lower gorge area is accessible by road throughout most of its length.

2. Characteristics:

- **Total Unit Acreage:** BLM= 29,939 acres, State Land= 1,011 acres, Forest Service= 1,307 acres, Private= 2,901 acres and total surface area= 35,158 acres.
- **Terrain and Vegetation:** As the Rio Grande River enters into New Mexico, the river cuts into the lava flows characteristic of the Taos Plateau and the gorge is 200 feet wide and 150 feet deep. In the Wild Rivers area, the gorge is nearly ½ mile across and 800 feet deep. The Lower Gorge area is much wider and open than the Upper Gorge and provides a much richer riparian environment. The vegetation on the slopes includes scattered pinyon-juniper and ponderosa trees and sagebrush. These lead into flatter riparian areas with willow, cottonwood, tamarisk, and shrub and grass species.
- **Wildlife:** Riparian habitat exists throughout this FMU in the form of various rivers, streams, seeps and springs. Riparian areas provide valuable nesting habitat for avian species; cover, forage and opportunities for water to terrestrial species; and the perennial aquatic ecosystem necessary to sustain fisheries. Mule Deer and Rocky Mountain Elk are abundant in this Unit and utilize the Sagebrush-Steppe and mixed conifer habitat, as well as the riparian zones. There are sections of this FMU that contain long-term and occupied habitat for the Southwestern Willow Flycatcher (a T & E species). The unique geology of the Upper Gorge represents critical habitat for cliff nesting raptors such as Peregrine Falcon, Golden Eagle, Prairie Falcon and Red-Tailed Hawk. This FMU also includes the wildlife species common to the Taos Field Office; see Appendix B for a list of these species.
- **Watersheds:** This FMU's primary watershed is the Rio Grande River which encompasses numerous drainages and springs.
- **Recreation:** There are developed recreation sites along the river at Wild Rivers Recreation Area, John Dunn Bridge and the Orilla Verde Recreation Area. Recreation includes boating (Class II-IV whitewater), fishing, hiking and camping.
- **ACEC/SMA:** The Rio Grande Special Recreation Management Area (4,595 acres) follows the river for 22 miles from its northernmost boundary to the CO-NM border. The section was designated to provide special management for the significant natural, scenic and recreational values along this stretch of the Rio Grande. A large portion of the river is designated as Wild and Scenic.
- **Cultural Values:** 67 archaeological sites recorded within the Wild Rivers Recreation Area include quarries, campsites, rock art and lithic scatters.
- **History:** Records from the late 1800's to the 1920's indicated that the land near the river was used for irrigation and farming purposes. Some of the area was mentioned as having good grass in the 1800's and was used for grazing.
- **Values at Risk/Protection Constraints:** Values at greatest risk include watershed health along the Rio Grande River and Southwestern Willow Flycatcher habitat and developed recreation sites along the river. Archaeological sites on or eligible for the National Historic Register of Historic Places (NRHP) and areas likely to contain such sites will be protected as well.
- **Communities at Risk:** The WUI concerns in this FMU are small communities along the unit including Pilar and the Embudo Valley.

3. Photos and Descriptions:

Photo 1 shows the typical vegetation found within the Rio Grande Gorge. The upper slopes have scattered Pinyon, Juniper and Sagebrush while the lower slopes and flatter areas are a mix of grass and shrubs including Apache Plume.

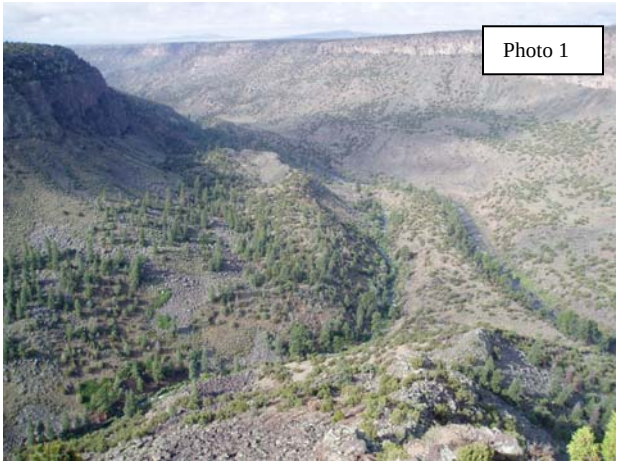


Photo 2 shows the confluence of the Red River and the Rio Grande. Pinyon and Juniper trees are scattered throughout this area and can be seen in denser pockets as well.

4. Fire Concerns:

- **Wildland Fire History:** Before 2002, there were 14 fires, six of which were on BLM lands.
- **Fire Regime:** There are two kinds of fire regime classifications within this unit; sagebrush (II) and foothills/pinyon-juniper/sagebrush transition area (I).
- **Condition Class:** Both fire regimes are class 2. The sagebrush vegetation lacks carrier fuels which would historically hold a fire. The second vegetation group has an increase in pinyon-juniper density as well as a decrease in understory diversity and increase in invasive species.
- **Fire Management Objectives:**

1. Restore all areas to a Condition Class 1, dependant on other resource interests. Natural disturbance and management actions combined would total no less than 900 acres and no more than 8,000 acres per year.
2. Cooperate with adjacent landowners to complete projects in hazardous fuels reduction, forest/range restoration, and wildlife habitat improvement.
3. Consider management concerns of southwestern Willow Flycatcher habitat for all actions in the FMU.
4. Mitigate impacts to recreation and Wild and Scenic River values, with special emphasis on areas adjacent to the Wild Rivers Recreation Area and the Orilla Verde Recreation Area.

- **Fire Management Strategies:**

1. *Wildland Fire Suppression* – Appropriate Management Response (AMR) will be implemented for all suppression actions. All fires occurring at FIL 1-3 will be suppressed at less than 20 acres 90% of the time. All fires occurring at FIL 4-6 will be suppressed at less than 50 acres less than 75 percent of the time. In areas where developed recreational and cultural sites are located heavy equipment dozers will not be used unless fire conditions require it. Special emphasis will be placed on protecting recreational and cultural values.

2. Wildland Fire Use – Fire Use can be utilized in the C category under special conditions if there is proper NEPA clearance and an approved burn plan prior to ignition. Using natural or man-made barriers is also an option where aggressive suppression tactics would have a greater negative impact on the resource than the fire activity itself.

3. Prescribed Fire – Slash produced from thinning operations will be burned following mechanical treatment at a minimum rate of 10 acres per year. Broadcast burning will be conducted in both treated and untreated areas to maintain low fuel loadings and promote herbaceous groundcover growth also at a rate of 10 acres per year..

4. Non-fire Fuels Treatments – Consideration will be given to all non-fire fuels treatments and will include a minimum goal of 10 acres per year.

5. Post-Fire Rehabilitation / Restoration -There will be no need for rehabilitation or restoration projects.

Fire Management Unit Name: **San Antonio Gorge ACEC**
Category/Number: **C/4**

1. Location: This FMU is located immediately north of San Antonio Mountain. Its borders are formed by the San Antonio Wilderness Study Area which surrounds it on all sides. Access is from the south end of the gorge via a Forest Service and BLM road which can be reached from US 285.

2. Characteristics:

- **Total Unit Acreage:** BLM= 271 acres, Private= 8 acres, State Land= 97 acres and total surface area= 376.
- **Terrain and Vegetation:** Terrain is composed solely of a steep gorge that cuts through the basalt plain several hundred feet down to the San Antonio river. Vegetation includes ponderosa pine, Douglas-fir and aspen towards the top half of the canyon and shrub species in the canyon, which include sagebrush, mountain mahogany, serviceberry, gambel oak and chokecherry.
- **Wildlife:** Riparian habitat exists throughout this FMU in the form of various rivers, streams, seeps and springs. Riparian areas provide nesting habitat for avian species; cover, forage and opportunities for water to terrestrial species; and the perennial aquatic ecosystem necessary to sustain fisheries. Muledeer, Pronghorn Antelope and Rocky Mountain Elk are abundant and utilize the adjacent grassland, sagebrush-steppe and mixed conifer habitat as well as the riparian zones. This unit also includes many of the wildlife species common to the Taos Field Office; see Appendix B for a list of these species.
- **Watersheds:** The whole area is contained in the San Antonio River watershed.
- **Recreation:** There are no developed recreation sites.
- **ACEC/SMA:** This FMU consists of the San Antonio Gorge ACEC.
- **Cultural Concerns:** The gorge has had little inventory and contains one site.
- **History:** 1881 survey records mention third rate soil and good grama and bunch grass in the river.
- **Values at Risk/Protection Constraints:** Values at greatest risk include cultural, winter range habitat for elk and other wildlife, riparian habitat and watershed health as well as state inholdings. Archaeological sites on or eligible for the National Historic Register of Historic Places (NRHP) and areas likely to contain such sites will be protected.
- **Communities at Risk:** There are no WUI concerns or communities at risk.

3. Photos and Descriptions:

Photo 1 shows the shallower lower end of the gorge which includes a good shrub and grass component with some juniper on the walls. The fuels at the bottom of the canyon are fairly continuous and could carry a fire. **Photo 2** depicts the mixed conifer component. There are many big trees and there are no signs of logging in the area. There is some encroachment of juniper. This area also has continuous fuels in the form of grasses and shrubs and could carry a fire.

4. Fire Concerns:

- **Wildland Fire History:** Lightning is the predominate cause of wildfires in the FMU accounting for over 90% of the fires.
- **Fire Regime:** There is one fire regime here which is the Mixed Conifer-III.
- **Condition Class:** The Condition class is 1 as it has not been significantly altered from its historical regime.
- **Fire Management Objectives:**

1. Maintain the majority of the FMU at a Condition class 1. Natural disturbance and management actions combined would total no less than 10 acres and no more than 60 acres per year.
2. Improve winter range conditions for elk and muledeer.
3. Mitigate impacts to wilderness values within the San Antonio WSA.

- **Fire Management Strategies:**

1. *Wildland Fire Suppression* – Appropriate Management Response (AMR) will be implemented for all suppression actions. All fires occurring at FIL 1-3 will be suppressed at less than 100 acres 70% of the time. All fires at FIL 4-6 will be suppressed at less than 300 acres 80% of the time. Suppression strategies will be tailored to address the riparian area within the FMU.
2. Wildland Fire Use – Fire Use can be utilized in the C category under special conditions if there is proper NEPA clearance and an approved burn plan prior to ignition. Using natural or man-made barriers is also an option where aggressive suppression tactics would have a greater negative impact on the resource than the fire activity itself.
3. Prescribed Fire – A minimum of 10 acres per year will be targeted for both prescribed fire and pile burning. Cooperate with the state to complete projects in forest/range restoration, and wildlife habitat improvement.
4. Non-fire Fuels Treatments – Consideration will be given to all non-fire fuels treatments with a target goal of a minimum 10 acres per year.
5. Post-Fire Rehabilitation / Restoration - There will be no need for rehabilitation/restoration projects within this FMU.

Fire Management Unit Name: **San Antonio Wilderness Study Area**
Category/Number: **C/5**

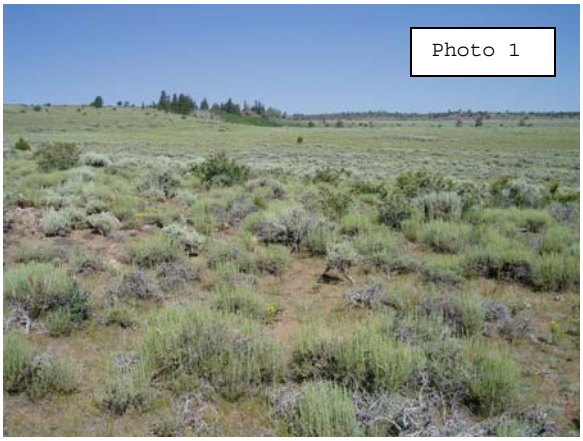
1. Location: This FMU is located in Rio Arriba County, NM. It lies northwest of San Antonio Mountain, approximately six miles southwest of Antonito, CO and 12 miles northwest of Tres Piedras, NM. **Access** is through Road C (pavement then dirt two tracks) in Colorado from the north and through a Forest Service/BLM marked dirt road off of US 285 from the south.

2. Characteristics:

- **Total Unit Acreage:** BLM=7,044 acres, State Land= 1,199 acres and total surface area= 8,243 acres.
- **Terrain and Vegetation:** Terrain is mostly flat with some gently rolling hills. The FMU is bisected east to west by the 200 feet deep Rio San Antonio Canyon. The northwest section (Los Pinos) of the FMU is also separated by the Rio de Los Pinos and the private land surrounding it. Vegetation includes sagebrush flats as well as grasslands composed of western wheatgrass, Indian ricegrass and grama spp with some scattered juniper. There are also pockets of aspen and mixed conifer (Douglas-fir, spruce, ponderosa pine) and shrubs (ribes spp., mountain mahogany, chokecherry and serviceberry).
- **Wildlife:** Riparian habitat exists throughout this FMU in the form of various rivers, streams, seeps and Springs, providing nesting for avian species; cover, forage and opportunities for water to terrestrial species; and the perennial aquatic ecosystem necessary to sustain fisheries. Muledeer, pronghorn antelope and rocky mountain elk are abundant and utilize the adjacent grassland, sagebrush-steppe and mixed conifer habitat as well as the riparian zones. This unit also includes many of the wildlife species common to the Taos Field Office; see Appendix B for a list of these species.
- **Watersheds:** The Los Pinos section includes two ephemeral drainages leading to the Rio de Los Pinos. The other main watershed is the San Antonio River which passes through the area.
- **Recreation:** Recreation activities include hiking and hunting, but there are no developed recreation sites.
- **ACEC/SMA:** This FMU is designated as a Wilderness Study Area and is under review for a Wilderness designation. It is part of the larger San Antonio Special Management Area. The New Mexico Department of Game and Fish identified this area in 1984 as the most important winter range on public lands in the entire state. Management Objectives for this area include protection of thermal cover, in both crucial winter ranges and summer ranges, for elk, deer and pronghorn antelope. (Taos Resource Management Plan 1988)
- **Cultural Values:** There are no cultural concerns.
- **History:** 1882 surveyor's records indicated that the area had scattered pinyon, ponderosa and juniper and that there was good grazing in some of the places. Other records mentioned scattered lakes and areas of cottonwood, ponderosa, juniper, spruce and aspen.
- **Values at Risk/Protection Constraints:** Values at greatest risk include winter range habitat for elk, the historic Cumbres-Toltec Railroad and state inholdings. Archaeological sites on or eligible for the National Historic Register of Historic Places (NRHP) and areas likely to contain such sites will be protected.
- **Communities at Risk:** There are no communities at risk within this FMU, but there are some private inholdings.

3. Photos and Descriptions:

Photo 1 shows the typical rangeland area of the FMU. Sagebrush flats interspersed with grassland and mountain mahogany lead to scattered Juniper and pockets of mixed conifer and aspen with a shrub and grass understory (as seen in **photo 2**). Track for the historic Railroad is also shown in Photo 2.



Photos 3 and 4 depict different areas of rangeland within the FMU. **Photo 3** shows an artificially seeded rangeland area where there is both sagebrush and western wheatgrass in equal parts and there is some continuous cover. This area could only burn if a strong wind was present.

Photo 4 shows an unseeded area with sagebrush, rabbitbrush and intermixed grass. Fuels are not continuous in every area, but with a strong wind a fire could carry.

Photo 5 is an area with scattered rabbitbrush, broom snakeweed, yucca and grass spp. Although vegetation is somewhat sparse, grass cover is generally 60-70% and bare ground accounts for the rest.

4. Fire Concerns:

- **Wildland Fire History:** Lightning accounts for more than 90% of the fires. Embers from the scenic railroad have been responsible for four documented ignitions.
- **Fire Regime:** This FMU has primarily two fire regimes, III and II corresponding to mixed conifer and sagebrush/grassland.
- **Condition Class:** The mixed conifer regime has not significantly departed from historical conditions (seen in photo 2) and is a class 1. The sagebrush/grassland is classified as a high 2 or low 3 because of its sparse native grass cover and heavy component of invasive shrubs. There are not sufficient fuels to support fires required to maintain the grassland and limit shrub invasion. Some of the fuel arrangements might support a stand replacement fire but without the necessary seed bank required to recolonize the are with native grasses which poses a risk for noxious weed invasion.
- **Fire Management Objectives:**

1. Maintain the small patches of mixed conifer at a condition class 1. Restore the sagebrush/grassland to a condition class 1. Natural disturbance and management actions combined would total no less than 200 acres and no more than 1,500 acres per year.
2. Reduce hazardous fuels, restore forest, range and watershed health.
3. Improve winter/summer range conditions for elk, mule deer, and pronghorn, as directed by the Taos RMP.
4. Mitigate possible adverse impacts to wilderness values within the San Antonio WSA.

- **Fire Management Strategies:**

1. *Wildland Fire Suppression* – Appropriate Management Response (AMR) will be implemented for all suppression actions. All fires at Fire Intensity Level (FIL) 1-3 will be suppressed at less than 1000 acres 90% of the time. All fires at FIL 4-6 will be suppressed at less than 500 acres 75% of the time. Whenever

the fire poses a threat to adjacent private property, the appropriate suppression strategy will allow for aggressive suppression tactics. Minimum Impact Suppression (MIST) strategy will be utilized whenever the situation will allow. MIST allows for the use of natural and/or man-made barriers to act as fire breaks.
2. Wildland Fire Use – Fire Use can be utilized in the C category under special conditions if there is proper NEPA clearance and an approved burn plan prior to ignition. Using natural or man-made barriers is also an option where aggressive suppression tactics would have a greater negative impact on the resource than the fire activity itself.
3. Prescribed Fire – Cooperate with adjacent landowners, to complete projects in hazardous fuels reduction, forest/range restoration, and wildlife habitat improvement. Slash produced from thinning operations will be burned following mechanical treatment. Broadcast burning will be conducted in both treated and untreated areas at a minimum rate of 200 acres each per year.
4. Non-fire Fuels Treatments – Consideration will be given to all non-fire fuels treatments and will have a minimum goal of 100 acres per year.
5. Post-Fire Rehabilitation / Restoration - There will be no need for rehabilitation/restoration projects within this FMU.

Fire Management Unit: **Cerro del Aire and Surrounding Southern Area**
Category/Number: **B/6**

1. Location: This fire management unit is located between the Rio Grande gorge and the Tusas Mountain range in the North Unit grazing allotments, bordered on the north by FMU 2, North Unit / Pot Mountain, and on the south by a checkerboard ownership of private and USFS lands. **Access** is via US 285.

2. Characteristics:

- **Total Unit Acreage:** BLM= 43,663 acres, State Land= 15,152 acres, Forest Service= 39 acres, Private= 92,332 acres and total surface area= 151,186 acres.
- **Terrain and Vegetation:** The majority of the unit is relatively flat rangeland, with an assemblage of large volcanic mountains (Cerro Montoso and Cerro del Aire in the north, Cerros de Taos and Tres Orejas in the east and south). Vegetation on the unit is primarily sagebrush and grassland (common grass species include but are not limited to blue grama and western wheatgrass), with pockets of pinyon pine and juniper limited to the lower slopes of the three mountains, rock outcroppings, and draws throughout the unit. The higher elevations on Cerro del Aire include ponderosa pine, Engelmann spruce, Douglas-fir, and aspen. Shrub species found in the higher elevations on all the mountains, rock outcroppings, and draws include mountain mahogany, serviceberry, oak, and chokecherry.
- **Wildlife:** This FMU includes many of the wildlife species common to the Taos Field Office; see **Appendix B** for a list of them. In addition, Cerro Del Aire supports significant populations of deer, elk and antelope. The lowlands surrounding Cerro Del Aire are noted for antelope fawning and deer and elk also utilize the sagebrush-steppe around Cerro Montoso and Pot Mountains in severe winters. For these reasons, all management actions will consider impacts to habitat and for these large ungulates.
- **Watersheds:** The FMU lies in the watershed of the Arroyo de la Petaca and the Rio Grande River.
- **Recreation:** Recreation use in the unit includes hunting and casual use.
- **ACEC/SMA:** This unit lies adjacent to the Rio Grande Wild and Scenic River Corridor and the Wild Rivers Recreation Area, where special consideration is given to watershed, recreational, and visual resource management. Northern portions are included in the Winter Range ACEC, an area considered to be the most important elk winter range in the state.
- **Cultural Values:** The Cerro del Aire Unit is not well known archaeologically. The records search showed that numerous topographic maps covering the area show relatively few inventories or recorded archaeological sites. The sites that have been recorded within the area include artifact scatters and rock features dating to the Archaic, Anasazi, and Historic Periods. It is apparent that the general area was used intensively by prehistoric peoples over a long period of time. These people were likely drawn to the area because of the many local resources including big game, vegetal resources, lithic material, and permanent water. Sites tend to be located near playas and arroyos, along the rims of the gorge, and in the small mountain ranges. Most sites are located in wooded areas. Historic sites related to homesteading, mining, ranching, and logging are known within the area. The historic Chili Line Railroad crosses the FMU.
- **History:** Survey records from the late 1800s and early 1900s revealed that the land in this FMU did contain adequate water in a few areas and was suitable for some agriculture. Most of the land was considered "dry" but still supported grass suitable for grazing. Timber in the mountains was mostly juniper, pinyon, and ponderosa pine. There were a few settlers on the land with some agriculture and stock grazing. Most of the surveys were conducted within a few years of each other so a comparison between growth in the same areas was not available. In 2003, the BLM initiated hazardous fuels reduction, forest/range restoration, and wildlife habitat improvement projects in the Wind Mountain Management Area. Since that time, approximately 600 acres have been converted from a Condition Class III to Class I and II.
- **Values at Risk/Protection Constraints:** Values at greatest risk include deer and elk habitat, historic structures, watershed health and recreational concerns (hunting). Archaeological sites on or eligible for the National Historic Register of Historic Places (NRHP) and areas likely to contain such sites will be protected.
- **Communities at Risk:** The community of Tres Piedras, the Chewena Housing development near the south slope of Cerro Del Aire and many private residences near Colorado could be considered to be at risk. Road on both sides of NM 64, and a small number of private inholdings with private residences scattered throughout the northeastern portion of the unit.

3. Photos and Descriptions

Photo 1 shows Cerro Montoso and adjacent rangeland which is heavily encroached by sagebrush, with little grass and herbaceous ground cover. Vigorous grass in the foreground is the result of the roadside effect and is not representative of the FMU as a whole. **Photo 2** shows a pinyon-juniper woodland on the northwest side of Cerro del Aire with typical large patches of bare ground and low density of herbaceous ground cover are common.

4. Fire Concerns

- **Wildland Fire History:** Lightning accounts for more than 60% of the fires. In the last five years, eight human-caused fires have started on the edge of US 285.
- **Fire regime:** This FMU has three fire regimes a. Pinyon-Juniper woodland (II),b. Sagebrush (II) and c. Mixed Conifer (III).
- **Condition class:** The condition classes correspond to the fire regimes listed above a. high 2, b. high 2 or low 3, c. 2. The pinyon-juniper woodland exhibits an increase in age class variation with a higher abundance of ladder fuels. Increase in canopy density has resulted in a corresponding decrease in groundcover vegetation which would commonly support a large stand-replacement fire rather than the mixed severity fires found in historic stands. In the sagebrush area, there has been an increase in invasive shrubs and a decrease in native grass cover and health with a subsequent loss of carrier fuels. The mixed conifer area has conditions which would support higher intensity stand-replacement fires. This deviates from the typical natural mosaic of conditions which historically supported mixed severity fires.
- **Fire Management Objectives:**

1. Convert all fire regimes from Condition Class 2 or 3 to Condition Class 1. Natural disturbance and management actions combined would total no less than 1,000 acres and no more than 10,000 acres per year.
2. Continue hazardous fuels reduction activities, including the maintenance of previously treated areas.
3. Place special emphasis on management of winter range for muledeer, pronghorn and elk.
4. Maintain early to mid-seral conditions in forests, woodlands, and rangelands in order to retain the herbaceous groundcover component necessary to reduce erosion and contribute to overall watershed health.
5. Reduce overall fire management costs by reducing the numbers of large wildfires.

- **Fire Management Strategies:** The Cerro Del Aire Management Area Forest and Range Restoration\EA (#NM-020-02-020) identifies strategies for hazardous fuels reduction, forest and range restoration, and wildlife habitat improvement on approximately 9,000 acres of the FMU. Planning efforts are ongoing to identify strategies for range improvement and hazardous fuels reduction projects throughout the rest of the unit, with most efforts focused on lands north of NM 64 where BLM ownership is more continuous and found in larger blocks.

1. *Wildland Fire Suppression* – Appropriate Management Response (AMR) will be implemented for all suppression actions. All fires at Fire Intensity Level (FIL) 1-3 will be suppressed at less than 25 acres. All

fires at FIL 4-6 will be suppressed at less than 200 acres 75% of the time. Aggressive fire suppression will be conducted on all wildland fires which threaten private property.
2. Wildland Fire Use – This strategy is not an option under FMU category B.
3. Prescribed Fire – Slash produced from thinning operations will be burned following mechanical treatment. Broadcast burning will be conducted in both treated and untreated areas to maintain low fuel loadings and promote herbaceous groundcover growth. Prescribed annual fire acreage goals include a minimum of 200 acres per broadcast burns and pile burns. Cooperation will continue with adjacent landowners to complete projects in hazardous fuels reduction, forest/range restoration, and wildlife habitat improvement.
4. Non-fire Fuels Treatments – Mechanical treatments, including thinning, are targeted at a minimum of 200 acres per year. Consideration will be given to all non-fire fuels treatments.
5. Post-Fire Rehabilitation / Restoration - Rehabilitation and restoration activities will be implemented in all areas of the FMU where needed. Emergency rehabilitation strategies for wildfire depend upon the severity of the fire and might include public access restrictions and route closure as well as seeding. Any other resource concerns would be addressed by the multi-resource staff at the TAFO.

Fire Management Unit name: **Wild Rivers**
Category/Number: **B/7**

1. Location: This FMU lies at the confluence of the Red and Rio Grande Rivers in the Upper Gorge. It is bordered on the west by the Rio Grande Gorge, on the east by the Red River and on the north by public and private land and the community of Cerro, NM. **Access** is via a paved road from SR 522.

2. Characteristics:

- **Total Unit Acreage:** BLM= 11,225 acres, State Land= 1,239 acres and total surface area= 12,464 acres.
- **Terrain and Vegetation:** Terrain is highly varied from the Rio Grande Gorge corridor up through sagebrush flats and grasslands and continues to the heavily forested Guadalupe Mountains. Vegetation includes a riparian plant community directly alongside the river consisting of apache plume, various grasses, willows, cottonwoods and tamarisk spp. The rangeland areas consist of *Artemesia spp.* (sagebrush), Indian ricegrass, needleandthread, blue grama, and western wheatgrass. Pinyon pine and juniper are in some sections of the rangeland. The Guadalupe Mountains have dense spacing of pinyon pine, juniper, Engelmann spruce, and ponderosa pine with an understory of mountain mahogany, scrub oak, serviceberry, chokecherry and numerous grass species.
- **Wildlife:** Riparian habitat exists in the form of various rivers, streams, seeps and springs providing nesting for avian species; cover, forage and opportunities for water to terrestrial species; and the perennial aquatic ecosystem necessary to sustain fisheries. The unique geology of the Gorge represents critical habitat for cliff nesting raptors, such as peregrine falcon, golden eagle, prairie falcon and red-tailed hawk. Muledeer and rocky mountain elk are abundant on the sagebrush-steppe and in the mixed conifer habitat, as well as riparian zones. This unit also includes many of the wildlife species common to the Taos Field Office; see **Appendix B** for a list of these species.
- **Watersheds:** The Rio Grande and Red Rivers mark the boundaries of this FMU. There are four identified drainages coming from the Guadalupe Mountains: two on the northwest side, one on the west side and one on the southwest side.
- **Recreation:** Wild Rivers Recreation Area is popular with locals and tourists alike as it has a visitor's center and more than 22 developed and 19 undeveloped, camping areas. Recreation includes hiking, biking, fishing and wildlife viewing.
- **ACEC/SMA:** This FMU is the Wild Rivers Recreation Area and includes portions of the Rio Grande and Red River Wild and Scenic Rivers. Goals for watershed management include, "Woodlands and shrub grasslands will be treated to promote forest and watershed health. Fire suppression and mechanical thinning will be limited to the methods least disturbing to soils and vegetation." Wildlife management goals include, "Emphasize wildlife viewing as a principle use in the recreation area by promoting habitat improvement projects that will enhance the abundance and variety of wildlife in the area." (Rio Grande Corridor Final Plan 1998)
- **Cultural Values:** Eleven sites have been recorded on Guadalupe Mountain alone. Dating to the Archaic and Anasazi Periods, as a result of the proposed Molycorp Tailings Facility (Seaman, 1983 and 1989; Seaman and Chapman, 1993). 56 other sites have been identified within the Wild Rivers area, most of which date to the Archaic and Anasazi periods and include quarries, campsites, rock art and lithic scatters.
- **History:** The survey records indicate that the land near the Rio Grande was deemed tillable and was being cultivated by 1881. The 1896 survey record described the mountainous areas as having a 'dense growth of pinyon and juniper,' and the flatter land between the mountains and the Rio Grande as having been seeded for grazing. The land was used for grazing and agriculture (including bean and alfalfa fields in the northern sections) at this time. A 1982 survey stated that the eastern portion of the FMU ranges from dense growth of pinyon pine, juniper and ponderosa pine in the mountainous areas to sagebrush in the flatter areas.
- **Values at Risk/ Protection Constraints:** Values at greatest risk include recreation facilities, wildlife habitat and cultural. Archaeological sites on or eligible for the National Historic Register of Historic Places (NRHP) and areas likely to contain such sites will be protected.
- **Communities at Risk:** The WUI concerns in this FMU include the communities of Cerro and Questa,NM.

3. Photos and Descriptions:

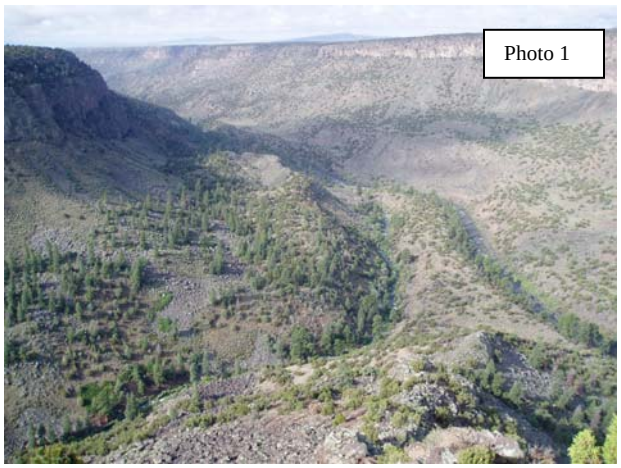
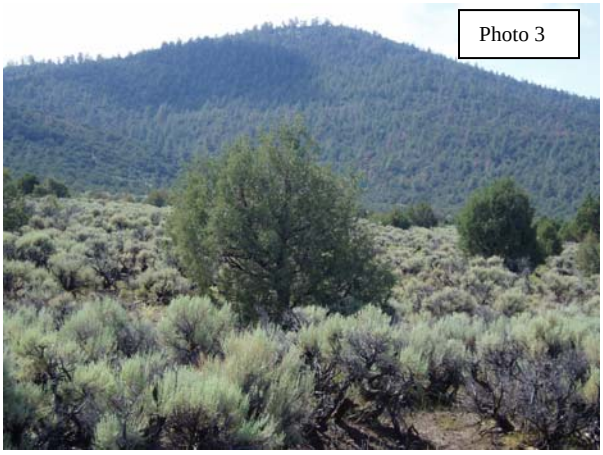


Photo 1 was taken from La Junta point and shows the confluence of the Red and Rio Grande Rivers with scattered pinyon pine and juniper on the steeper slopes and denser pockets along the river and in shallow canyons.

A Grassland area is depicted in **Photo 2**. It was treated for sagebrush removal more than 20 years ago and still has relatively little sagebrush. Ground cover consisted of mostly grass (40-60%), a few forbs (5-10%) and a little sagebrush cover (5-10%). Bare ground accounted for 40% of cover on average.



Sagebrush flats with scattered juniper are shown in **Photo 3**. The Guadalupe Mountains are in the background. Ground cover between sagebrush plants was varied with some areas having a good grass component that could carry a fire. Other areas were sparser and would only carry a fire in a strong wind event.

Crowded pinyon and juniper mark the slopes of the Guadalupe Mountains as seen in **Photo 4**.


Photo 5


Photo 6

Canopy cover in this area ranges from 50-100%. This area has close to 100% continuous ground cover consisting of grass and coniferous litter as seen in **photo 5**. The top of Guadalupe Mountain, near the Overlook is shown in **photo 6**. This picture shows the old logging road that leads up to the top. This area consists of tall ponderosa pines, some spruce and small pinyon pine and juniper. Grass covers much of the understory in this area, especially on old road sites. Canopy cover is generally 50-75% in this area.

4. Fire Concerns:

- **Wildland Fire History:** Lightning accounts for over 90% of the fires. This unit has records of at least three wildfires per year.
- **Fire Regime:** There are three different vegetation communities with two different fire regimes; a. pinyon-juniper woodland (II), b.sagebrush/grassland (II), and c. mixed Conifer (III).
- **Condition Class:** All three communities are classified as condition class 3 as conditions have severely departed from historical fire regimes. The sagebrush/grassland community can not support a fire in most areas except for some fuel arrangements of the shrub canopy which may support a stand replacement fire without the necessary seed bank required to recolonize the are with native grasses. The woodland areas both have high canopy densities with higher abundances of ladder fuels. Both increases in canopy density have lead to corresponding decreases in ground cover vegetation which has significantly altered the fire regime.
- **Fire Management Objectives:**

1. Convert all fire regimes from Condition Class 3 to Condition Class 1 or low 2. Natural disturbance and management actions combined would total no less than 300 acres, and no more than 2,500, acres per year.
2. Mitigate impacts to recreation in the Wild Rivers Recreation Area.
3. Use limited suppression tactics where possible to mitigate impacts to cultural resources in the FMU.
4. Place special emphasis on management of winter range for mule deer, pronghorn, and elk in the FMU.
5. Maintain early to mid-seral conditions in forests, woodlands, and rangelands in order to retain the herbaceous groundcover component necessary to reduce erosion and contribute to overall watershed health.
6. Reduce overall fire management costs by reducing the numbers of large fires.

Fire Management Strategies:

1. *Wildland Fire Suppression* – Appropriate Management Response (AMR) will be implemented for all suppression actions. All fires at Fire Intensity Level (1-3) will be suppressed at less than 50 acres 90% of the time. All fires at Fire Intensity Level 4-6 will be suppressed at less than 200 acres 75% of the time. The priority is to prevent wildland fire from spreading to private lands and to prevent fire from damaging improvements. Aggressive fire suppression will be conducted on all wildland fires which threaten private property. This will include the use of aerial initial attack using air tankers and helicopters.

2. Wildland Fire Use – This strategy is not an option under FMU category B.

3. Prescribed Fire – Prescribed fire treatments including both pile burning and broadcast burning and will be conducted at a minimum rate of 200 acres each per year. Cooperate with adjacent landowners, including private and state lands, to complete projects in hazardous fuels reduction, forest/range restoration, and wildlife habitat improvement.

4. Non-fire Fuels Treatments – Consideration will be given to all non-fire fuels treatments. Mechanical

thinning treatment targets will be a minimum of 200 acres per year.
5. Post-Fire Rehabilitation / Restoration - Post-fire rehabilitation and restoration activities will vary depending on the resources effected and the specific characteristics of the burn that are influenced by weather, topography, and fuels. Rehabilitation and restoration activities will be implemented in all areas of the FMU where needed. Rehabilitation efforts might include seeding of an area to facilitate re-establishment of native plants and to prevent erosion in order to protect watershed health. Grazing may be deferred to allow the vegetation to recover after a fire.

Fire Management Unit Name: **Cebolla/Abiqui**
Category/Number: **C-8**

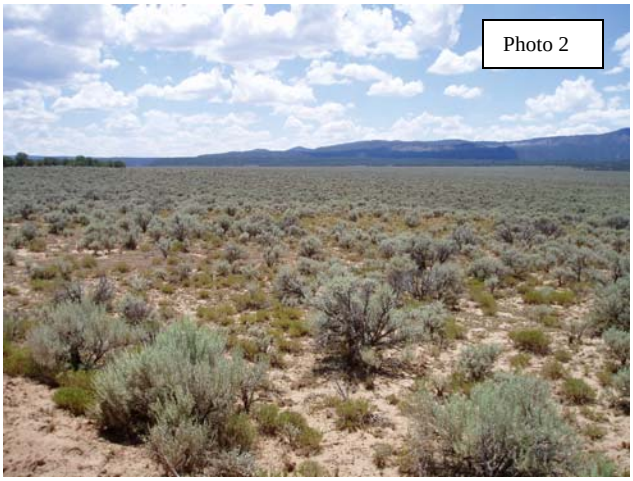
1. Location: This FMU is a patchwork of BLM lands and mixed ownership located west of Cebolla, NM. It is bordered by private land to the north and east, tribal lands to the northwest, and U.S. Forest Service lands to the south. **Access** is via SR 112 from the north or SR 221 from the south.

2. Characteristics:

- **Total Unit Acreage:** BLM= 35,539 acres, State Land= 6,703 acres, Private= 28,297 acres, Forest Service= 8 acres and total surface area= 70,547 acres.
- **Terrain and Vegetation:** Terrain varies widely with gently rolling plains covered by sagebrush and grass in the eastern sections. The western sections which abut the Rio Chama include mountains and deep gorges and canyons from 200 to 800 feet deep, covered by mixed conifer at upper levels and pinyon and juniper on the lower slopes. The understory of these areas includes shrubs, such as mountain mahogany, serviceberry, gooseberry and grasses such as Indian ricegrass, grama and western wheatgrass.
- **Wildlife:** Riparian areas exist along the Rio Chama, Rio Nutrias and Rio Cebolla providing nesting habitat for avian species; cover, forage and opportunities for water to terrestrial species; and the aquatic ecosystem necessary to sustain fisheries. The Rio Nutrias and Rio Cebolla have limited flows and would not support trout species; however, the Rio Chama is classified as a cold water fishery and is a large perennial system. Mule deer and rocky mountain elk are abundant and utilize the sagebrush-Steppe and mixed conifer habitat along the rim, as well as the riparian zones. The pinyon-juniper/ sagebrush draws are important corridors for movement in the landscape. There is potential long-term Southwestern Willow Flycatcher habitat. This FMU also includes many of the wildlife species common to the Taos Field Office; see Appendix B for a list of these species.
- **Watersheds:** This FMU contains the following drainages and natural springs: The Rio Chama, Rio Cebolla, Canada del Humo, Canada de la Lagurita, Arroyo Blanco and the Rio Nutrias.
- **Recreation:** Recreational uses include boating, swimming, fishing, hunting and hiking.
- **SMA/ACEC:** It is part of the Rio Chama Special Management area and a Wild and Scenic River Corridor. Management Objectives include managing woodland and forest resources to enhance wildlife values. Fires in this SMA will have limited suppression except in the riparian zone and no surface disturbance will be allowed. (Taos Resource management Plan 1988)
- **Cultural Values:** Structural sites from the Gallina culture and from the historic period have been recorded within the Rio Chama canyon.
- **History:** Survey records show that by the late 1800's there were settlers farming and grazing sheep and cattle grazing. Some of the mountainous areas were described as having ponderosa pine, pinyon pine, juniper, aspen and oak. The earliest reports (1878) mention areas with good grass while the later reports (1914) mention an undergrowth of sagebrush 3-4 feet high. The surveyors also mention trout in the streams and bear, deer and turkey in the mountains.
- **Values at Risk/Protection Concerns:** Values at greatest risk include Rio Chama SMA and Wild and Scenic River Corridor, state inholdings, wildlife habitat and cultural. Archaeological sites on or eligible for the National Historic Register of Historic Places (NRHP) and areas likely to contain such sites will be protected.
- **Communities at Risk:** Communities which could be considered at risk include Cebolla, Nutrias, Alire, La Mesita and Placitas.

3. Photos and Descriptions:

Mixed conifer woodland as seen in **Photo 1**, on a high area of the Rio Chama canyon is typical of the canyon and mountain areas. **Photo 2** depicts the open sagebrush flats of the eastern sides which includes broom snakeweed, very little grass and considerable bare ground.



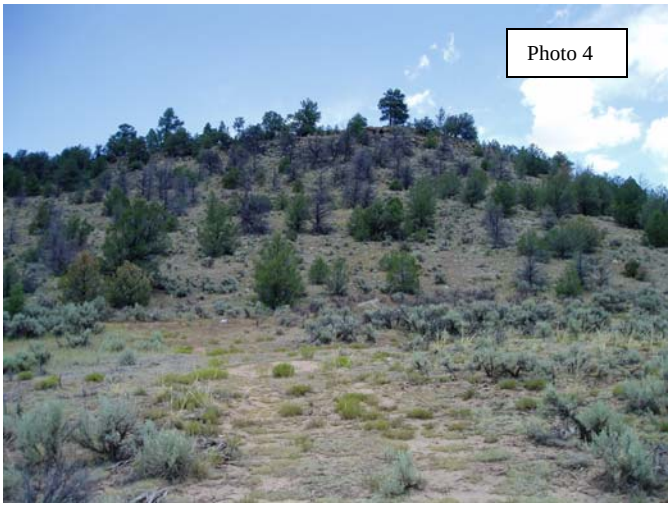


Photo 3 shows a transition zone between grassland and sagebrush flats and dense pinyon-juniper and mixed conifer woodland. Canopy cover on this slope ranged from 50-100%.

In contrast, another slope has the same basic plant progression but with sparser understory and canopy cover (as seen in **Photo 4**). This particular area was affected considerably by beetle kill. These two areas were directly opposite each other with Photo 3 being a north aspect and Photo 4 being a south aspect.

The Rio Nutrias riparian area can be seen in **Photo 5.** This area is vegetated by grasses, shrubs and juniper trees. Ground cover is fairly continuous and is broken up by the creek.

4. Fire Concerns:

- **Wildland Fire History:** Prior to 2003 there have been nine lightning-caused fires and two human-caused fires.
- **Fire Regime:** There are three vegetation communities; a. sagebrush/grassland (II), b. mixed conifer (III) and c. pinyon-juniper woodland (II).
- **Condition Class:** The condition classes correspond to the different fire regimes: a. 3, b. high 2 or low 3 and c. high 2.The sagebrush/grassland community has a heavy component of invasive shrubs and extremely low native grass cover. In most cases, fuels would not support the historical fire regime. The mixed conifer area and pinyon-juniper woodland both exhibit an increase in tree density with corresponding declines in groundcover vegetation. The increased density would more commonly support large stand-replacement fires rather than the mixed severity fires found in historic stands.
- **Fire Management Objectives:**

1. Restore the sagebrush/grasslands to a Condition Class 1 or 2, mixed conifer to a Condition Class 1, and the pinyon-juniper woodland to a Condition Class 1. Natural disturbance and management actions combined would total no less than 1,000, and no more than 8,000, acres per year.
2. Consider resource concerns in all management activities, with special emphasis on the Rio Chama Special Management Area and Wild and Scenic River Corridor, wildlife values, and limiting surface disturbance as directed by the Taos Resource Management Plan (1988).
3. Maintain early to mid-seral conditions in forests, woodlands, and rangelands in order to retain the herbaceous groundcover component necessary to reduce erosion and contribute to overall watershed health.
4. Reduce overall fire management costs by reducing the numbers of large fires.

- **Fire Management Strategies:** The Esperanza/Rio Nutrias Allotment Management Plan #NM-020 03-017 outlines strategies for the management of grazing allotments #561 and #579, which cover the majority of the western portion of this FMU.

1. *Wildland Fire Suppression* – Appropriate Management Response (AMR) will be implemented for all suppression actions. All fires occurring at Fire Intensity Level (FIL) 1-3 will be suppressed at less than 300 acres 90% of the time. All fires occurring at FIL 4-6 will be suppressed at 500 acres 75% of the time.
2. Wildland Fire Use – Fire Use can be utilized in the C category under special conditions if there is proper NEPA clearance and an approved burn plan prior to ignition. Using natural or man-made barriers is also an option where aggressive suppression tactics would have a greater negative impact on the resource than the fire activity itself. Wildland fire use for resource benefits is being considered for this FMU but could be planned after fuels management activities can be implemented.
3. Prescribed Fire –Cooperate with adjacent landowners in designing hazardous fuels reduction, forest/range restoration, and wildlife habitat improvement projects. Broadcast and pile burns will be considered.
4. Non-fire Fuels Treatments – Consideration will be given to all non-fire fuels treatments. Current annual mechanical and chemical treatment targets are 1,000 acres each per year.
5. *Post-Fire Rehabilitation / Restoration* - Post-fire rehabilitation and restoration activities will depend on the resources affected and the specific characteristics of the burn that are influenced by weather, topography, and fuels. Soils near the Rio Chama may be re-seeded or re-vegetated with native plants to prevent tamarisk invasion. Any other rehabilitation or restoration measures will be planned by an interdisciplinary team.

Fire Management Unit Name: **Black Mesa/Ojo Caliente**
Category/Number: **B/9**

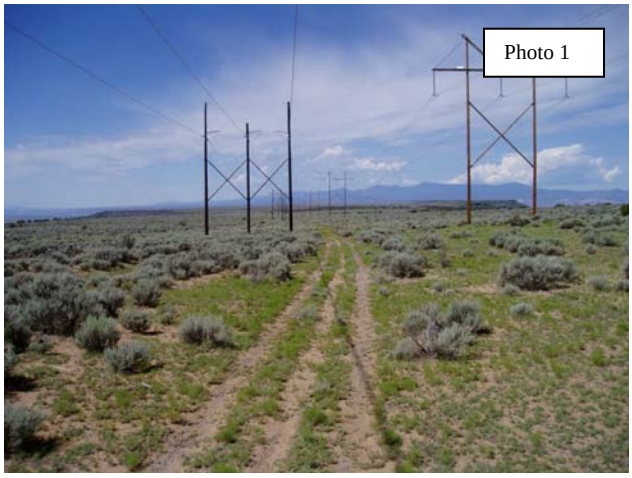
1. Location: This FMU is located around the town of Ojo Caliente, both east and west of US 285. It is bordered by U.S. Forest Service and private land on all sides. **Access** is via US 285.

2. Characteristics:

- **Total Unit Acreage:** BLM= 67,099 acres, State Land= 5,688 acres, Private= 4,422 acres and total surface area= 77,209 acres.
- **Terrain and Vegetation:** This FMU can be broken into two parts, Black Mesa (east of US 285) and Ojo Caliente. Black Mesa has steep slopes consisting of basalt boulder embedded in rocky soils leading up to the flat mesa above. The vegetation community on the mesa is a sagebrush flat with a small amount of grass (blue grama, Indian ricegrass, etc.). The edges of the mesa, near the cliffs, have pinyon and juniper woodland. The lower areas of the mesa consist of Pinyon-Juniper grassland. Ojo Caliente includes rolling hills and wide drainages with similar vegetation but with substantial beetle-kill and more bare ground. There is riparian vegetation as well along the Ojo Caliente and Rio Grande rivers.
- **Wildlife:** This FMU contains the common wildlife species found within the Taos Field Office, see Appendix B for a list. It also has riparian areas which provides nesting habitat for avian species; cover, forage and opportunities for water to terrestrial species; and the perennial aquatic ecosystem necessary to sustain fisheries. Species listed in Birds of Conservation Concern 2002 (USFWS, 2002), which may occur in this habitat type include: Southwestern Willow Fly Catcher and Cuckoo.
- **Watersheds:** This FMU includes sections that are adjacent to, or drain into the Chama, Ojo Caliente and Rio Grande Rivers In addition there are more than ten drainages throughout the FMU.
- **Recreation:** Recreational activities include hiking, horseback riding and archaeological site viewing.
- **SMA/ACEC:** The Black Mesa ACEC and Ojo Caliente ACEC are part of this FMU.

The Black Mesa ACEC's management objectives focus on maintaining and improving the stability of vegetative populations. Black Mesa contains the following rare and endemic plant species: *Astragalus canes, Astragalus pumices var. Gertrud's, Alerts sop.* and *Predicates papyracanthus* and was therefore nominated for special management by the Nature Conservancy. The Ojo Caliente ACEC's primary management goals are to preserve cultural and interpretive values with limited suppression of wildfires.

- **Cultural Values:** The Ojo Caliente area contains many important archaeological sites including large pueblo ruins.
- **History:** The historical records for Ojo Caliente indicated that in the southern section in the later 1800's there were no settlers. The only water was from the Ojo Caliente River and there was considerable growth of scrub juniper, pinyon pine and bunch grass that would be desirable for grazing. The 1970's records mention the same conditions using the word "moderate" for pinyon pine and juniper growth and indicated that the land was used primarily for grazing and agriculture. The northern section of Ojo Caliente had an abundance of Ponderosa in the mountains, and dense growth of oak, aspen, juniper and pinyon pine in 1882. The survey records described the Black Mesa as having a heavy covering of pinyon pine, juniper and grass in 1930.
- **Values at Risk/Resource Protection:** Values at greatest risk include Black Mesa's rare and endemic plants, watershed health and cultural. Archaeological sites on or eligible for the National Historic Register of Historic Places (NRHP) and areas likely to contain such sites will be protected.
- **Communities at Risk:** There are four communities located along US 285 in the center of the unit; Ojo Caliente, Gallegos, Duranes, and Gavilan.



3. Photos and Descriptions:

Photo 1 shows sagebrush and broom snakeweed on the top of Black Mesa. There is very little grass, cover is not continuous and a strong wind would be needed to sustain a surface fire.

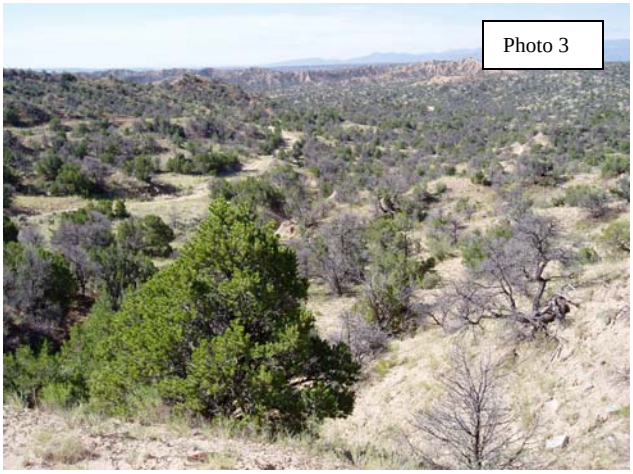


Photo 2 gives a view of the slope from the southeastern side of Black Mesa. The rims of the mesa and the slopes leading down have scattered pinyon-juniper trees with sagebrush understory. **Photo 3** gives an overview of the Ojo Caliente area. Note the rolling hills and cliffs caused by erosion in the distance.

Photo 4 shows typical vegetation layers; the foreground is Indian Ricegrass intermixed with juniper, beetle-killed pinyon pine and sagebrush. Aspect plays a strong role in the amount of vegetation on a slope as seen in **Photo 5**. The north aspect has a denser concentration of pinyon-juniper while the south aspect is barely covered. The lower area of the south aspect also shows bank cutting from the water flowing through this drainage.

Photo 6 is typical of the many drainages found here. During the monsoon rains, the grass is especially vigorous. **Photo 7** depicts the erosion that is common in ephemeral drainages.

4. Fire Concerns

- **Wildland Fire History:** As of 2002 there have been four reported human caused fires and three lightning ignitions.
- **Fire Regime:** Black Mesa FMU has two vegetation communities with the same fire regime, Sagebrush-I and Pinyon-Juniper Savannah-I.
- **Condition Class:** These regimes are in class 3, and high 3, respectively. Each of these vegetation communities has experienced significant departure from its historical fire regime. As seen from the photos above, there has been significant erosion and there is a lack of carrier fuels to support a surface fire.
- **Fire Management Objectives:**

1. Restore the pinyon-juniper woodland throughout the FMU to a Condition Class 1 and 2. Natural disturbance and management actions combined would total no less than 2,000 acres, and no more than 15,000 acres, per year.
2. Protect rare plants and cultural resources.
3. Maintain early to mid-seral conditions in forests, woodlands, and rangelands in order to retain the herbaceous groundcover component necessary to reduce erosion and contribute to overall watershed health.

- **Fire Management Strategies**

1. *Wildland Fire Suppression* - Appropriate Management Response (AMR) will be implemented for all suppression actions. All fires occurring at Fire Intensity Level (FIL) 1-3 will be suppressed at less than 75 acres 80% of the time. All fires at FIL 4-6 will be suppressed at less than 200 acres 90% of the time. Whenever fire poses a threat to adjacent private property or improvements aggressive suppression tactics will be used.
2. Wildland Fire Use – This strategy is not an option under FMU category B.
3. Prescribed Fire – There are no current targets set for prescribed fire.
4. Non-fire Fuels Treatments – Consideration will be given to all non-fire fuels treatments. Need for non-fire treatments will be determined on a case-by-case basis. Hazardous fuels reduction, forest/range restoration, and wildlife habitat improvement projects will be designed as collaborative efforts with adjacent private landowners and the State.
5. Post-Fire Rehabilitation / Restoration - Post fire rehabilitation/restoration will be done in Black Mesa to improve or maintain the habitat of rare and endemic plants found there. Other possible projects would be decided by an interdisciplinary team following a wildfire event.

Fire Management Unit: **Rio Grande Corridor Well Developed Riparian Area**
Category/Number**: A/10**

1. Location: This FMU is a long and narrow corridor containing the developed Orillo Verde Recreation area complex between Pilar, NM and the Taos Junction Bridge along SR 570 and the Rio Grande River. **Access** is via SR 64.

2. Characteristics:

- **Total Unit Acreage:** BLM= 7,460 acres, State Land= 268 acres, Private= 380 acres and total surface area= 8,108 acres.
- **Terrain and Vegetation:** The Rio Grande Gorge's unique natural geography and its recreational opportunities are key components. The FMU is defined by the riparian area lining the Rio Grande River from the north and south boundaries. It also includes the Taos Valley Overlook and the Petaca trails area which is on the southeastern and northwestern sides above the gorge. Vegetation consists of important riparian habitat immediately adjacent to the river such as willow, tamarisk, white-top and various grasses. Areas that are near the canyon bottom include sagebrush, rabbitbrush, mountain mahogany, service berry, pinyon, juniper and many grasses. The areas above the rim include pinyon pine, juniper and ponderosa pine, sagebrush, scrub oak, Indian ricegrass, needleandthread, etc.
- **Wildlife:** Riparian areas includes various rivers, streams, seeps and springs which provides nesting habitat for avian species; cover, forage and opportunities for water to terrestrial species; and the perennial aquatic ecosystem necessary to sustain fisheries. Muledeer are frequent in the sagebrush benches and in mixed conifer habitat, as well as the riparian zone. Hondo Canyon, just south of the Taos Valley Overlook, is an important wildlife corridor between the Picuris Mountains and the river, providing important thermal and hiding cover for large animals. Most of this FMU contains occupied and short-term potential habitat for the Southwestern Willow Flycatcher (SWWFC). Although the Taos Field Office SWWFC Management Plan (1998) identifies some of the area as occupied, no nesting flycatchers have been reported since 1993. The unique geology of the gorge contains critical habitat for cliff nesting raptors, such as peregrine falcon and golden eagle. Ospreys are observed annually in this FMU. This unit also includes many of the wildlife species common to the Taos Field Office; see Appendix B for a list of these species.
- **Watersheds:** This FMU contains the Rio Grande Corridor and the Rio Pueblo drainage.
- **Recreation:** Recreation is an important resource concern as there are many developed and undeveloped recreation sites. It is heavily used for fishing and boating, picnicking and camping sites as well as its access to the Taos and Espanola communities.
- **SMA/ACEC:** This FMU includes two SMAs: Orilla Verde Recreation Area (OV) and the Lower Gorge ACEC. The RMP addresses fire concerns under the 'Watershed' heading and states that for the OV site, "Fire suppression activities will be conducted in a manner least disturbing to soils and vegetation." For the Lower Gorge ACEC, parts are defined as a "full-suppression zone," and "In the rest of the ACEC, fire prescription and burn plan will be developed to meet vegetation management objectives."
- **History:** Survey records indicated that the area had been used to supply water for grazing and agriculture since at least 1877. Areas that were not disturbed by grazing or agriculture were described as having 'good grass.' The records from 1904 say the same thing about the use of the water for domestic and irrigation purposes. The 1927 record described the area as a very rough canyon with a scattering of pinyon pine and juniper and a few springs in the area that supplied water for stock and irrigation.

Values at Risk/Resource Protection Constraints: Values at greatest risk include BLM developed recreation sites along the river from Pilar to Taos Junction Bridge, Southwestern Willow Flycatcher habitat, the Rio Grande Gorge Visitoris Center, watershed health and cultural. Archaeological sites on or eligible for the National Historic Register of Historic Places (NRHP) and areas likely to contain such sites will be protected.

- **Communities at Risk:** The community of Pilar is adjacent to the FMU and can be considered a community at risk.

3. Photos and Descriptions of the FMU

The photos below show the range of habitat types.

Photo 1 is the FMU as seen from the rim of the gorge including the Orilla Verde Recreation Area. The vegetation changes in relation to elevation. The flat areas on the rim are sagebrush grasslands with pinyon-juniper (P-J) encroachment. The gorge sides are scattered P-J and sagebrush leading into riparian vegetation along the canyon bottom. This picture was taken from the Petaca Area. **Photo 2** shows the riparian area, called the Tamarisk forest, which is potential Southwest Willow Flycatcher habitat

Photo 3 shows the diversity of vegetation just above the river. This area includes cottonwoods, sagebrush, grasses, serviceberry, and sumac. Ground cover is fairly continuous in this area and a fire could carry, but would probably not travel vertically up the gorge due to the scattered vegetation and rocky ground. Arroyo Hondo is shown in **photo 4**. This canyon is an important wildlife corridor and is just below the 'horseshoe' area of US 64. It includes tall ponderosa pines as well as younger pinyon pine and juniper. In the canyon, there are many robust and tall gambel oaks. The understory consists of grass and shrubs. Ground cover is not continuous and could not sustain a fire. There are ladder fuels but the canopy is very open (25-40% cover) and would not sustain a crown fire.

Taos Valley Overlook is shown in **photo 5**. This area is sagebrush flats leading up to pinyon-juniper grassland. A ground survey transect indicated an average of 40-60% bare ground with almost no grass. The rest of the coverage was either sagebrush or P-J. This area could only carry a fire with a very strong wind.

4. Fire Concerns

- **Wildland Fire History:** Since 1999, there have been at least three documented human-caused fires in this FMU.
- **Fire Regime:** This area has a mix of three plant communities which includes: a. sagebrush (II), b. pinyon-juniper woodlands (I), and c. pinyon-juniper savannah (I).
- **Condition Class:** The classes are a. 3, b. high 2 and c. 2. The sagebrush community has a high degree of departure from the historical fire regimes because of lack of fuels to support a surface fire which has increased invasive shrubs. The pinyon-juniper woodlands and savannah have an increased tree density with a matching decrease in herbaceous understory. Traditionally, grasses supported low-intensity surface fires which killed pinyon and juniper seedlings and kept the density lower. The current low herbaceous understory and lack of carrier fuels indicates extensive deviation from historical fire regimes.
- **Fire Management Objectives:**

1. Convert areas of Condition Class 3 and 2 to 1 and 2. Natural disturbance and management actions combined would total no less than 200 acre and no more than 1,500 acres per year.
2. Improve conditions around developed recreation areas to reduce the risk of wildfire.
3. Mitigate impacts to Willow Flycatcher habitat from all fire management projects or suppression activities.
4. Reduce overall fire management costs by reducing the numbers of large fires.

- **Fire Management Strategies:**

1. *Wildland Fire Suppression* - Appropriate Management Response (AMR) will be implemented for all suppression actions. All fires at Fire Intensity Level (FIL) 1-3 will be suppressed at less than 25 acres 75% of the time and all fires at FIL 4-6 will be suppressed at less than 50 acres 90% of the time. The priority is to prevent wildland fire from spreading to private land and to prevent fire from damaging improvements. Aggressive fire suppression will be conducted on all wildland fires which threaten private property. This will include the use of aerial initial attack using air tankers, seats and helicopters. The use of aerial fire retardants and foam products will be prohibited on all suppression operations in and around riparian and wetland areas; unless, life and property are severely endangered.
2. Wildland Fire Use – This strategy is not an option under FMU category A.
3. Prescribed Fire – Cooperate with adjacent landowners, including private, U.S. Forest Service, and the Taos Pueblo to complete projects in hazardous fuels reduction, forest/range restoration, and wildlife habitat improvement. Plan prescribed pile burns at no fewer than 10 acres per year.
4. Non-fire Fuels Treatments – Consideration will be given to all non-fire fuels treatments. Non-fire treatments will include mechanical at an annual target of 10 acres.
5. Post-Fire Rehabilitation / Restoration - Rehabilitation and restoration activities will be implemented in all areas of the FMU where needed by an multi-resource team. Restoration activities will be targeted towards maintaining Southwest Willow Flycatcher habitat and re-seeding or re-vegetating of areas to prevent further Tamarisk invasion.

Fire Management Unit: Copper Hill ACEC/Sebastian Martin Grant
Category/Number: C/11

1. Location: This FMU is found immediately southeast of US 68. The northern boundary is near the village of Pilar and the southern boundary lies at Alcalde, NM and extends east to border Fun Valley FMU. The eastern boundary is formed by U.S. Forest Service land, Picuris Pueblo land and private land. This FMU is bisected into two parts, the northern section being the Copper Hill ACEC and the southern section being the Sebastian Martin Grant. **Access** is via SR 75 or US 68.

2.Characteristics:

- **Total Unit Acreage:** BLM= 53,371 acres, State Land= 5,218 acres, Private= 5,512 acres and total surface area= 64,101 acres.
- **Terrain and Vegetation:** Terrain includes rolling hills and mountains with flatter prairie land near the village of Alcalde. In general, vegetation consists of pinyon-juniper grasslands and shrublands. Higher elevation areas within the Copper Hill ACEC are mixed conifer including ponderosa pines, aspen, fir and spruce trees with an understory of sagebrush, mountain mahogany, oak and various grass species including grama spp., Indian ricegrass, needleandthread and Squirrel tail.
- **Wildlife:** Riparian areas exist throughout providing nesting habitat for avian species; cover, forage and opportunities for water to terrestrial species; and the aquatic ecosystem necessary to sustain fisheries. Mule deer and rocky mountain elk use the mountainous areas of Copper Hill as well as the riparian zones. Parts of this FMU include potential short-term Southwestern Willow Flycatcher habitat. This FMU also includes many of the wildlife species common to the Taos Field Office; see Appendix B for a list of these species.
- **Watersheds:** There are many drainages, the major ones include: Agua Caliente, Canada de Piedra Lumbre, Rio Embudo and Canada de las Entranas. The Agua Caliente drainage runs generally south to north and is located near the town of Pilar. The Agua Caliente drainage is listed in The Rio Grande Corridor Final Plan- January 2000 as the Agua Caliente Protection Zone as it supplies water to the village of Pilar that is used for irrigation. This watershed contains noteworthy riparian and fish habitat so the BLM wants to continue the cooperative effort with the NM Department of Game and Fish for the reintroduction of Rio Grande Cuttthroat trout to Agua Caliente Canyon after the existing population of rainbow trout is removed. The Canada de Piedra Lumbre and Rio Embudo drainages (the most significant being the Rio Embudo.) run east to west through the FMU. The Embudo canyon is a deep, box canyon with outstanding scenic, wildlife, and recreation values. The portion of the Rio Embudo known as the Embudo Box is recommended for designation as a wild component of the Wild and Scenic River System. The Canada de las Entranas also runs east to west in this FMU and is located on the Sebastian Martin Grant.
- **Recreation:** Recreation use in this unit includes boating, hiking, wildlife viewing and hunting**.**
- **ACEC/SMA:** This FMU contains the Copper Hill ACEC which is divided into four zones: Agua Caliente Protection Zone (AC), Rio Embudo Protection Zone (RE), Lower Embudo Cultural Protection Zone (LE) and the Central Protection zone (C). These areas' special values include the following: important drainage and watershed (AC zone); Wild and Scenic River Study Area, and Rio Embudo box canyon; important archaeological sites (LE zone); and boundaries of the Wild and Scenic River Study Areas (C zone).
- **Cultural Values:** This unit contains a variety of archaeological resources with sites dating from the Archaic, Pueblo, and Historic periods and contains many historic trails. Mining sites are common in the area on and around Copper Hill. Historic Apache sites have been encountered in the area. The Lower Embudo Cultural Protection Zone, which covers 498 acres as the former Lower Embudo SMA is in this FMU. The Area contains archaeological sites dating to the Anasazi Coalition Period (A.D. 1200-1325). The Rio Grande Corridor Plan states that in this area, "Use limited techniques to suppress fires. Suppression techniques causing earth disturbance will not be used in this zone."
- **History:** The FMU area was surveyed many different times from the the 1870's to the 1950's. In general, within this FMU, there have been no distinct changes in vegetation between surveys. Some areas were reported to have an undergrowth of sagebrush, chamisal and other plants in an early report, but do not have the same information about undergrowth in subsequent surveys. Copper Hill ACEC was described as being very mountainous and with 4th rate soil in many places. The only survey from the 1870's is vague and stated that the area was good for grazing. In 1915, the area was said to have a 'scattered covering of pinyon pine, ponderosa pine, fir and juniper timber.' In addition aspen, scrub oak and sagebrush were

noted. The Rio Picuris, Rio Grande and Rio Embudo rivers were noted as the only sources of water. The land was characterized as good for grazing in most reports, however, in one report from 1901 the grass was defined as poor. In the 1920's there were settlers and mines in the area. The Sebastian Martin Grant, in contrast, has fewer surveys, but was described as being hilly with very little timber and grass in 1876. By 1922, the land had scattered scrub cedar (juniper) and pinyon in the east, no surface water was present and the land was said to be good for grazing and firewood.

- **Values at Risk/Protection Constraints:** Values at greatest risk include resource values within the Copper Hill ACEC and four protection zones, cultural sites, watershed health and the private residence within the FMU. Archaeological sites on or eligible for the National Historic Register of Historic Places (NRHP) and areas likely to contain such sites will be protected.
- **Communities at Risk:** There are several communities at risk and Picuris Pueblo, Penasco and Chamisal are located on the eastern boundary, Dixon is located within the FMU. Alcalde, Velarde, Embudo, Rinconada, and Pilar are on the western boundary. The adjacent FMU (Copperhill WUI) has had thinning, pile burning, and prescribed fire to protect the communities on the western boundary

Photos and Descriptions:


Photo 1


Photo 2

Photos 1 and 2 show the highest elevation areas of the Copper Hill ACEC which are mixed conifer woodland. Tree density is high and canopy cover ranges from 50-100%. This area has experienced extensive beetlekill as seen in **photo 1**. The understory is a mix of scrub oak, cacti, forbs and grasses with ground cover ranging from 25-75%. In some areas coniferous litter contributes to continuous ground cover. **Photo 2** shows the sagebrush flats which have varying degrees of herbaceous ground cover. The Sebastian Martin Grant is shown in **Photos 3 and 4**. In general, this area is rolling hills with wide drainages in between. The hillsides have scattered pinyon pine and juniper with very little cover. Estimates from ground cover transects indicated an average cover of 5-20% for grass, 0.5-10% for forbs and 50-70% for bare ground.


Photo 3


Photo 4

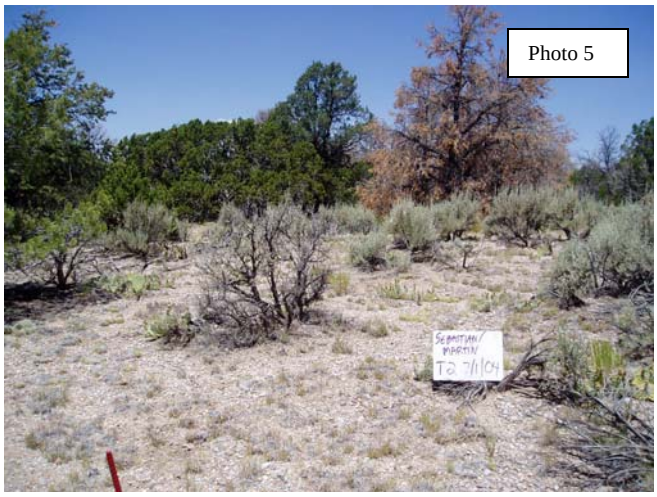


Photo 5 shows the typical range of vegetation and spacing in the Sebastian Martin Grant. There are some beetle-killed trees, sagebrush, and very little grass cover. This area would not support a fire due to the lack of continuous fuels.

4. Fire Concerns

- **Wildland Fire History:** Since 2000 there have been two fires, both human-caused. Pre 2000, 95% of fires were human caused.
- **Fire Regime:** There are four vegetation commmunities regimes; a. Mixed Conifer (III), b. ponderosa/ pinyon-juniper **w**oodland (I), c. wagebrush (II), d. pinyon-juniper savannah (III).
- **Condition Class:** The condition classes are a. 3, b. high 2, c. 2 and d. 2. The mixed conifer and Ponderosa-Pinyon-Juniper woodlands and savannah have both experienced an increase in tree density with a corresponding decrease in understory vegetation. The mixed conifer area has a stand structure that deviates more than 30% from historic conditions and is more likely to experience a stand-replacement burn of high intensity resulting in a less natural mosaic required for mixed severity burns in the future. The P-J woodlands and P-J savannah exhibit an increase in age class variation with a higher abundance of ladder fuels in the woodlands. This causes a high degree of deviation from traditional low-intensity or mixed severity fires at shorter intervals. The sagebrush area has an increased component of invasive shrubs with a decrease in both the diversity and vigor of native bunchgrasses. This alters the high frequency fire intervals of historic conditions.
- **Fire Management Objectives:**

1. Restore the sagebrush/grasslands to a CC 1 or 2, mixed conifer to a CC1, and the pinyon-juniper woodland and savannah to a CC1. Natural disturbance and management actions combined would total no less than 1,500 acres and no more than 12,000 acres per year.
2. Consider resource concerns in all management activities, with special emphasis on resource concerns identified within the Copper Hill ACEC and its four Protection Zones: Agua Caliente Protection Zone, Rio Embudo Protection Zone, Lower Embudo Cultural Protection Zone and the Central Protection zone. These areas' special values include the following: important drainage and watershed (AC zone); Wild and Scenic River Study Area and Rio Embudo box canyon; important archaeological sites (LE zone); and boundaries of the Wild and Scenic River Study Areas (C zone).
3. Maintain early to mid-seral conditions in forests, woodlands, and rangelands in order to retain the herbaceous groundcover component necessary to reduce erosion and contribute to overall watershed health.
4. Reduce overall fire management costs by reducing the numbers of large fires.

- **Fire Management Strategies:**

1. *Wildland Fire Suppression* - Appropriate Management Response (AMR) will be implemented for all suppression actions. All fires at Fire Intensity Level (FIL) 1-3 will be suppressed at less than 100 acres 75% of the time. All fires at FIL 4-6 will be suppressed at less than 200 acres 90% of the time. Aggressive suppression tactics will be used when private property is threatened or the fire may escape from the FMU boundaries. Within the Lower Embudo SMA, limited techniques will be used to suppress fires and suppression activities causing earth disturbance will not be used.
2. Wildland Fire Use – Fire Use can be utilized in the C category under special conditions if there is proper NEPA clearance and an approved burn plan prior to ignition. Using natural or man-made barriers is also an option where aggressive suppression tactics would have a greater negative impact on the resource than the fire activity itself. Wildland fire use for resource benefits is not currently planned for this FMU but will be considered after fuels management activities can be implemented to reduce the severity of an unplanned ignition.
3. Prescribed Fire – Slash produced from thinning operations will be burned following mechanical treatment at a minimum rate of 100 acres per year. Broadcast burning will be conducted in both treated and

untreated areas to maintain low fuel loadings and promote herbaceous groundcover growth also at a minimum rate of 200 acres per year. Hazardous fuels reduction, forest/range restoration, and wildlife habitat improvement projects will be developed collaboratively with adjacent landowners.
4. Non-fire Fuels Treatments – Need for non-fire treatments will be determined on a case-by-case basis. Mechanical treatments will be targeted at a rate of 200 acres per year.
5. Post-Fire Rehabilitation / Restoration - Post-fire rehabilitation and restoration activities will vary depending on the resources affected and the specific characteristics of the burn that are influenced by weather, topography, and fuels. Rehabilitation and restoration activities will especially be considered in watershed areas and areas with cultural concerns. These rehab activities might include re-vegetation of the area or temporary fences in areas where grazing pressure may inhibit re-establishment of native plants following a wildfire event. All possible activities will be assessed by a multi-resource team.

Fire Management Unit: **Copper Hill WUI**
Category/Number: **B/12**

1. Location: The Copper Hill WUI FMU is located approximately 5 miles west of the community of Penasco, NM. It is bordered on the east by Picuris Pueblo, on the north by U.S. Forest, on the south by private lands, and on the west by private, state, and BLM lands. This FMU serves as a wildland urban interface fuels management area between BLM lands located in the Copper Hill ACEC and adjacent lands, primarily private and Picuris Pueblo. There are many two track roads that provide limited access to this area. **Access** in much of the unit is limited by steep, densely wooded terrain. SR 75 is the main route through this FMU.

2. Characteristics:

- **Total Unit Acreage:** Total surface acreage is 1,314 acres of BLM.
- **Terrain and Vegetation:** The terrain is mountainous and the vegetative component consists mainly of dense pinyon/ juniper woodland with several stands of ponderosa pine. Other vegetative components include oak species, mountain mahogany, sagebrush, cacti, willow (in the Embudo canyon), cottonwood, and several grasses such as blue grama, sideoats grama, indian ricegrass, pine dropseed, and bottlebrush squirreltail.
- **Wildlife:** Riparian habitat exists along the Rio Embudo and represents the highest value wildlife habitat in the Taos Field Office in the form of nesting habitat for avian species; cover, forage and opportunities for water to terrestrial species; and the aquatic ecosystem necessary to sustain fisheries. This FMU also contains many of the animal species common to the Taos Field Office; see Appendix B for a list of these species.
- **Watersheds:** There are two main drainages, the Canada de Piedra Lumbre and Rio Embudo drainages which run east to west through the area. The Embudo canyon is a deep box canyon with outstanding scenic, wildlife, and recreation values and is included in the management of the Rio Grande Corridor.
- **Recreation:** Recreation includes river use of the Rio Embudo Wild and Scenic River Study Area, hunting, and primitive camping throughout the FMU.
- **ACEC/SMA:** This FMU lies within the 17,280 acre Copper Hill ACEC and in the Rio Embudo Protection Zone and the Lower Embudo Cultural Protection Zone Special Management Areas. Special emphasis is placed on the management of scenic, wildlife, recreation, and cultural resources.
- **Cultural Values:** The Lower Embudo SMA has a management prescription that states "fires in the SMA will have limited suppression". Since many sites are expected, archaeological inventories should be performed before prescribed fire and non-fire fuels treatment projects. The intensity of archaeological inventory will be determined for each proposed project based on the potential for earth disturbing activities, fuel types, projected site types, etc. Archaeological sites, including agricultural terraces, should be treated by careful thinning of trees and removal of wood and slash to be piled and burned off-site. Taos Field Office Archaeologists will determine which sites may benefit from treatment and what types of treatment should be used. BLM should work closely with Picuris Pueblo to ensure that sites important to them, including any possible Traditional Cultural Properties (TCPs) are not disturbed by any proposed projects.
- **History:** Survey records over the last century document that: most of this FMU was timbered with pinyon pine and juniper with mostly rocky or sandy 3rd rate soil. There were no reports of good grass at any time. The Rio Grande and Embudo rivers supplied some of the area with water. A few settlements were reported along the Rio Grande but most of the land was deemed unsuitable for agriculture because of the lack of water. There were no distinct changes in vegetation and physical attributes between surveys. Some areas were reported to have an undergrowth of sagebrush and other plants in more recent surveys. Most of the land was reported to be suitable for grazing and has already been used for this purpose in some areas.

  In 1999, hazardous fuels reduction and forest restoration activities were initiated by the BLM resulting in approximately 1200 acres having been fully converted from Condition Class III to Condition Class I and II through thinning and prescribed fire.
- **Values at Risk/Protection Constraints:** All management actions will take into consideration the restrictions associated with the proposed Wild and Scenic River status of the Rio Embudo in the FMU. Values at risk also include wildlife habitat, watershed health and cultural. Archaeological sites on or

eligible for the National Historic Register of Historic Places (NRHP) and areas likely to contain such sites will be protected.

- **Communities at Risk:** These include the communities of Penasco, Chamisal, and Picuris Pueblo located to the east of the FMU.

3. Photos and Descriptions:

Photo 1 shows the Rio Embudo canyon on the southern end of the FMU. Mixed conifer forest exists on the north facing slopes of this canyon, with pinyon-juniper woodland dominating the drier, south-facing slopes.
Photo 2 shows a typical ponderosa pine stand found in the FMU, with heavy encroachment of the understory by younger age class trees and a continuous layer of duff and litter. Herbaceous ground cover in these stands is relatively low, averaging 5-15%.

Photo 3 shows a south-facing ridgeline in the central portion of the FMU. These drier site pinyon-juniper woodlands show heavy encroachment by younger age class trees of both species. Herbaceous ground cover is generally sparse being inversely proportional to tree canopy closure. **Photo 4** shows the structure of typical ponderosa-pinyon-juniper woodland found in the central and north portions of this FMU. **Photo 5** is from the same photo point following fuels treatment, after ladder fuels and canopy closure have been reduced.

4. Fire Concerns

- **Wildland Fire History:** There is no known fire history for this FMU and since 2000, there have been no reported fires in this FMU.
- **Fire Regime:** Mixed Conifer (III) and Ponderosa-Pinyon-Juniper Woodland (I) are the two fire regimes.
- **Condition Class:** Both fire regimes are in condition class 2. The mixed conifer community has a stand structure which has deviated more than 30% from historic conditions. Mixed severity fires are less common with more fires being high intensity stand replacement burns, resulting in less natural mosaic required for mixed severity burns in the future. The P-J woodland exhibits an increase in age class variation with a higher abundance of ladder fuels. Increase in canopy density has resulted in a corresponding decrease in groundcover. Increased density and ladder fuels would more commonly support large stand-replacement fires rather than the mixed severity fires found in historic stands.
- **Fire Management Objectives:**

1. Maintain the mixed conifer and ponderosa-pinyon-juniper woodland at a Condition Class 2, and restore areas to a Condition Class 1 where required by specific resource interests such as wildlife or range. Natural disturbance and management actions combined would total no less than 40 acres and no more than 300 acres per year.
2. Continue hazardous fuels reduction activities, including the maintenance of previously treated areas.
3. Maintain early to mid-seral conditions in forests, woodlands, and rangelands in order to retain the herbaceous groundcover component necessary to reduce erosion and contribute to overall watershed health.
4. Reduce overall fire management costs by reducing the numbers of large fires.

- **Fire Management Strategies:** The Copper Hill Wildland Urban Interface Hazardous Fuels Reduction EA #NM-020-03-022 outlines strategies for managing the majority of this FMU, except the Rio Embudo Wild and Scenic River Corridor.

1. *Wildland Fire Suppression* - Appropriate Management Response (AMR) will be implemented for all suppression actions. All Fires at Fire Intensity Level (FIL) 1-3 will be suppressed at less than 50 acres 90% of the time. All fires at FIL 4-6 will be suppressed at less than 200 acres 80% of the time.
2. Wildland Fire Use – This strategy is not an option under FMU category B.
3. Prescribed Fire – Slash produced from thinning operations will be burned following mechanical treatment and broadcast burning will be conducted in both treated and untreated areas to maintain low fuel loadings and promote herbaceous groundcover growth at a rate of 200 acres each per year. The TAFO will collaborate as much as possible with adjacent landowners, including private, state, U.S. Forest Service, and the Picuris Pueblo to complete projects in hazardous fuels reduction, forest/range restoration, and wildlife habitat improvement.
4. Non-fire Fuels Treatments – Consideration will be given to all non-fire fuels treatments. Mechanical thinning will be targeted at 200 acres per year.
5. Post-Fire Rehabilitation / Restoration - There is no need for post-fire rehabilitation or restoration projects within this FMU.

Fire Management Unit Name: **Thirty-One Mile**
Category/Number: **B/13**

1. Location: This FMU is located in Rio Arriba County, 8 miles west of the town of Espanola and just east of the Jemez Mountains. The area is bordered by the Santa Fe National Forest to the north and west and the Santa Clara Indian Reservation to the south. **Access** is from the southeastern section on a forest road 144. There are other access points from two tracks on the western side of SR 30.

2. Characteristics:

- **Total Unit Acreage:** BLM=11,712 acres, State Land= 1,030 acres, Private= 199 acres and total surface area= 12,941 acres.
- **Terrain and Vegetation:** The FMU encompasses diverse geology with elevations ranging from 7,200 feet in the southeast corner of the FMU to 8,200 feet in the northwest. Clara Peak is less than a mile to the north and the deep arroyo, Espiritu-Wauquie, lies on the southern boundary. Vegetation generally consists of juniper savanna while the easternmost sections consist of dense pinyon-juniper woodlands with herbaceous understory. The arroyos also contain ponderosa pines. In general, the understory is predominantly grama and bunch grasses, scrub oak, mountain mahogany, prickly pear and cholla.
- **Wildlife:** This area includes the wildlife species commonly found in the Taos Field Office, see Appendix B for a list of these animal species. There are no known threatened and endangered species.
- **Watersheds:** One major seasonal water source is the Arroyo de La Plaza Larga which bisects the FMU from west to east. There are five other drainages on the eastern side including Arroyo del Ojitos and the Arroyo de la Presa in the Rio Grande watershed.
- **Recreation:** There are no developed recreation sites at this area, but recreational uses include hiking and off highway vehicle use.
- **ACEC/SMA:** This FMU contains the Ku Pueblo SMA which contains a management prescription that states, "fires in the SMA will have limited suppression."
- **Cultural Values:** Ku Pueblo was a large, multistoried adobe and cobble pueblo. The management objective for the Ku Pueblo SMA is to protect cultural resource values. Much of the area has been in use since the archaic period and there are numerous such archaeology sites.
- **History:** In the 1880's, the mountains were reported to contain juniper, scrub oak, ponderosa pine, and aspen in different areas and water was reported to be present in various areas. The survey conducted in the 1910's reports a scarcity of water. The soil was called first rate with a fair growth of grass. None of the surveyors recorded the presence of inhabitants in the area and grazing was not mentioned.
- **Values at Risk/Protection Constraints:** Values at risk also include radio towers and cultural and religious sites important to Santa Clara Pueblo, cultural and state inholdings. Archaeological sites on or eligible for the National Historic Register of Historic Places (NRHP) and areas likely to contain such sites will be protected.
- **Communities at Risk:** The Sikh educational center is located within the western section and contains several permanent structures, year-round residents, thousands of summer visitors and presents a WUI concern.

3. Photos and Descriptions:

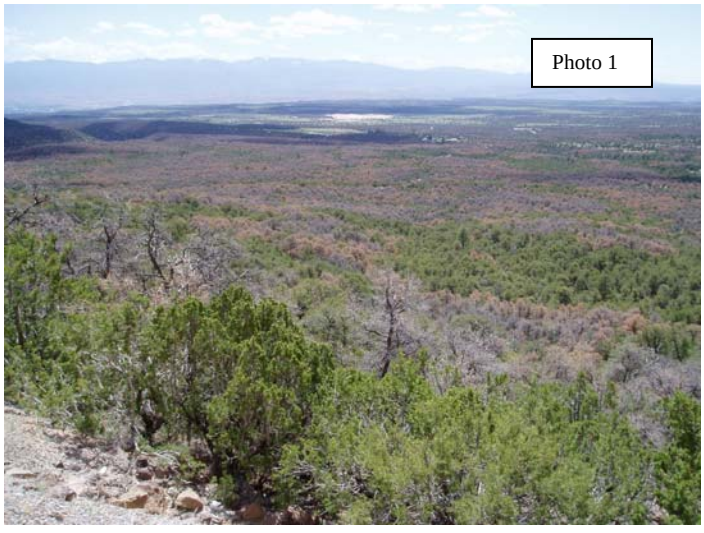


Photo 1 is a view of 31 mile from the western boundary showing the dense spacing of pinyon and juniper trees. Canopy closure is 50-100%. The understory consists of grass, coniferous litter, and shrubs and is not continuous. There are many ladder fuels and a surface and crown fire could carry. There is a mosaic of beetle-killed areas within the pinyon-juniper woodlands.

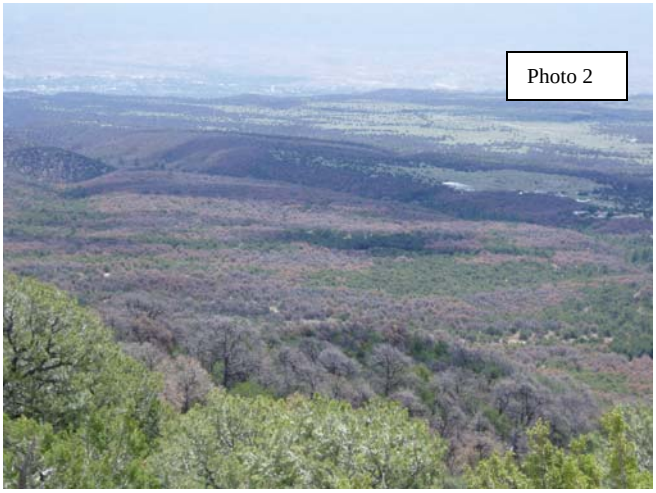


Photo 2 gives a good view of the whole area. The Arroyo de la Plaza Larga can be seen in the top section of the photo. In the top right corner, there is the Sikh Educational center as well as some grasslands in the distance. The Sikh center is the biggest WUI concern in the FMU as it is surrounded by dense pinyon and juniper woodland.
Photo 3 shows the flatter areas where ground cover is generally sparse. Bare ground accounts for approximately 50%, grass accounts for 12%, and forbs only 1%. A fire could not carry in these sparse grassland areas.

4. Fire Concerns:

- **Wildland Fire History:** Half of wildfires are lightning-caused and half are human-caused.
- **Fire Regime:** This area has two vegetation communities; pinyon-juniper savannah-I and pinyon juniper woodland-I.
- **Condition Class:** These two regimes are in class 2, and high 2 or low 3, respectively. The p-j savannah demonstrates an increase in age class and density of woodland trees with an associated decrease in groundcover that historically supported high fire return intervals required to maintain savannah characteristics. The p-j woodland exhibits an increase in age class variation with a higher abundance of ladder fuels and higher canopy density. Increased density and ladder fuels are more typical of large stand-replacement fires rather than the mixed-severity fires found in historic stands.
- **Fire Management Objectives:**

1. Restore areas of Condition Class 2 and 3 to Condition Class 1 and 2, with priority on the wildland urban interface and areas containing other critical resource concerns. Natural disturbance and management actions combined would total no less than 300 acres, and no more than 3,000 acres, per year.
2. Continue hazardous fuels reduction activities, including the maintenance of previously treated areas.
3. Maintain early to mid-seral conditions in forests, woodlands, and rangelands in order to retain the herbaceous groundcover component necessary to reduce erosion and contribute to overall watershed health.
4. Reduce overall fire management costs by reducing the numbers of large fires.

- **Fire Management Strategies:** The 31 Mile Wildland Urban Interface Thinning Project Categorical Exclusion 1.12 (Hazardous Fuels Reduction Activities) #NM-020-04-014 outlines fuels management strategies for approximately 850 acres of this FMU.

1. *Wildland Fire Suppression* - Appropriate Management Response (AMR) will be implemented for all suppression actions. All fires occurring at Fire Intensity Level (FIL)1-3 will be suppressed at less than 100 acres 90% of the time. All fires occurring at FIL 4-6 will be suppressed at less than 500 acres 80% of the time. Priority is to prevent wildfires from spreading to private property and other agencies' land. In addition, the priority is to prevent fire spread from damaging sites where cultural resources are known or suspected.
2. Wildland Fire Use – This strategy is not an option under FMU category B.

3. Prescribed Fire – Projects in hazardous fuels reduction, forest/range restoration, and wildlife habitat improvement will be planned with input from adjacent landowners, including private, state, U.S. Forest Service, and the Santa Clara Reservation. Broadcast burning will be conducted in both treated and untreated areas to maintain low fuel loadings and promote herbaceous groundcover growth at a minimum rate of 200 acres per year. 200 acres of pile burns will also be conducted annually after mechanical treatments.

4. Non-fire Fuels Treatments – 200 acres of mechanical treatments will be implemented annually.

5. *Post-Fire Rehabilitation / Restoration* - There is no need for post-fire rehabilitation and restoration.

Fire Management Unit Name: **Fun Valley and Chimayo**
Category/Number: **C/14**

1. Location: This FMU is located two miles northeast of Espanola, NM. Boundaries of the FMU include BLM lands to the north, Forest Service land to the east, tribal lands to the west and private lands to the south. **Access** is from NM 68 or NM 76.

2. Characteristics:

- **Total Unit Acreage:** BLM= 25,621 acres, State Land= 2,570 acres, Private= 707 acres and total surface area= 28,898 acres.
- **Terrain and Vegetation:** Topography is characterized by steep escarpments with high, sharply eroded ridges in the northwest corner of the unit tapering to rolling hills and arid low lands. Vegetation includes scattered pinyon and juniper trees with an understory of sagebrush, and a few herbaceous species including needleandthread, Indian ricegrass, poa spp and grama. Santa Fe Cholla (*Opuntia viridiflora)* is found within this unit and is a State listed Species of Concern.
- **Wildlife:** This Unit includes many of the wildlife species common to the Taos Field Office. See Appendix B for a list of these species. There are no known Threatened and Endangered Species.
- **Watersheds:** Drainages include the Canada Ancha, Canada del Apache, Arroyo del Pueblo, Arroyo del Palacio, Canada Parida, Arroyo Chinguague, Arroyo de los Martinez, and Arroyo de los Ajuelos spring. There are no perennial streams in this area.
- **Recreation:** Off Highway Vehicle (OHV) use is heavy and there is an established race track for dirt bikes and ATVs.
- **SMA/ACEC:** This FMU is part of the Fun Valley SMA which is primarily used by OHV riders. Taos RMP directs that any fires in this SMA will be fully suppressed. This FMU also includes the Ojo Del Zorro Pueblo SMA and the Pueblo Quemado SMA, both of which are managed for protection of cultural resources and call for limited suppression of wildfires. (Taos Resource Management Plan 1988)
- **Cultural Values:** Cultural resources have been identified for protection in the Ojo del Zorro Pueblo SMA and the Pueblo Quemado SMA.
- **History:** 1910 survey records state that the soil was second and third rate and was gravelly in some places and sandy in others. There was scrub cedar (juniper) brush and greasewood ground cover with scattered pinyon pine timber. Along the southern border of the FMU there were a few settlements with springs and the land was generally suitable for grazing.
- **Values at Risk/Protection Constraints:** Values at risk include cultural resources within the Ojo del Zorro Pueblo SMA and Pueblo Quemado SMA. Archaeological sites on or eligible for the National Historic Register of Historic Places (NRHP) and areas likely to contain such sites will be protected.
- **Communities at Risk:** This FMU is immediately adjacent to the communities of Quarteles, La Puebla, Chimayo, Rio Chiquito and Cordova, which due to the current fuel conditions, are at minimal risk from wildfire.

3. Photos and Descriptions:

Photo 1 shows the overlay of the land as seen from the south. **Photo 2** depicts the typical fuel arrangement of scattered Juniper trees intermixed with some grass species, shrubs and extensive bare ground.

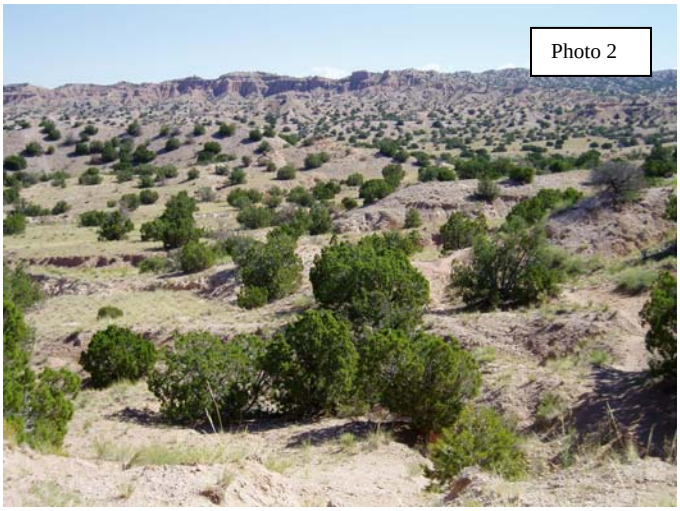



Photo 3

An example of the ubiquitous roads and two-tracks can be seen in **Photo 3**.

4. Fire Concerns:

- **Wildland Fire History:** There have been three human-caused fires within the past twenty years with 1.3 acres burned.
- **Fire Regime:** This area has one fire regime, Pinyon-Juniper savannah (I).
- **Condition Class:** The majority of the FMU is a Condition Class 2. There is very little ground cover, extensive erosion and many roads and paths. There are almost no fuels that could sustain a surface fire and so a highly altered fire regime.
- **Fire Management Objectives:**

1. Restore the pinyon-juniper woodland to a CC1. Natural disturbance and management actions combined would total no less than 700 acres and no more than 6,000 acres, per year.
2. Maintain early to mid-seral conditions in woodlands and rangelands in order to retain the herbaceous groundcover component necessary to reduce erosion and contribute to overall watershed health.
3. Consider impacts of all management actions to OHV use throughout the FMU.
4. Protect cultural resources within the Ojo del Zorro Pueblo SMA and the Pueblo Quemado SMA.

- **Fire Management Strategies:**

1. *Wildland Fire Suppression* - Appropriate Management Response (AMR) will be implemented for all suppression actions. Limited suppression strategies are required within the Ojo del Zorro Pueblo SMA and the Pueblo Quemado SMA. All fires at Fire Intensity Level(FIL) 1-3 will be suppressed at less than 50 acres 90% of the time and all fires at FIL 4-6 will be suppressed at less than 100 acres 100% of the time. The priority is to prevent wildland fire from spreading to private land and other agencies' land.
2. Wildland Fire Use – Fire Use can be utilized in the C category under special conditions if there is proper NEPA clearance and an approved burn plan prior to ignition. Using natural or man-made barriers is also an option where aggressive suppression tactics would have a greater negative impact on the resource than the fire activity itself.
3. Prescribed Fire – Design hazardous fuels reduction, forest/range restoration and wildlife habitat improvement projects in conjunction with adjacent private landowners. The goal is to treat 100 acres per year as broadcast burns.
4. Non-fire Fuels Treatments – Mechanical treatments (thinning, disking, blading, etc.) would be targeted at 100 acres per year.
5. Post-Fire Rehabilitation / Restoration - Post-fire rehabilitation and restoration projects might include public access restrictions and route closure and grazing might be deferred to allow vegetation to recover.

Fire Management Unit Name: **Sombrillo SMA/ Santa Cruz Lake**
Category/Number: **B/15**

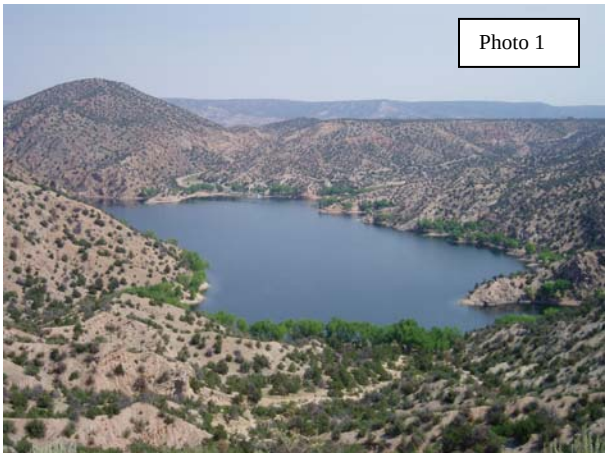
1. Location: This FMU is located south of the town of Chimayo and East of Espanola, NM. It is bordered by private land to the north and west, private and U.S. Forest Service land to the east and Nambe tribal lands to the south. **Access** is via SR 503.

2. Characteristics:

- **Total Unit Acreage:** BLM= 20,187 acres, Private= 426 acres and total surface area= 20,613 acres.
- **Terrain And Vegetation:** The terrain includes rugged, rolling hills with mesas and steep canyons. Santa Cruz Lake is a man-made reservoir. Vegetation is primarily pinyon-juniper savannah/grassland with an understory that includes sagebrush, snakeweed and grasses (Indian ricegrass, needleandthread, blue grama, and western wheatgrass). Cottonwood and willow grow along the shoreline of Santa Cruz Lake.
- **Wildlife:** Riparian habitat exists within this FMU on the Rio Medio, Rio Frijoles, Santa Cruz River and other drainages across the landscape. Riparian areas provide nesting habitat for avian species; cover, forage and opportunities for water to terrestrial species; and the perennial aquatic ecosystem necessary to sustain fisheries. This unit also includes many of the wildlife species common to the Taos Field Office; see Appendix B for a list of these species.
- **Watersheds:** The Santa Cruz Lake was created by the 535' Santa Cruz Dam and collects water from the Rio Medio and Rio Frijoles reservoir and is part of the Rio Grande watershed.
- **Recreation:** Santa Cruz Lake contains developed and undeveloped recreation sites including numerous shelters and campsites. Recreation at this site includes boating, fishing, hiking and camping, and a high use of OHVs.
- **SMA/ACEC:** This FMU is part of the Sombrillo ACEC and Santa Cruz Lake Recreation SMA which are being managed for paleontological resources, recreation, cultural resources and riparian and aquatic habitat. Both call for full suppression of wildfires and OHV use to be limited to designated trails.
- **Cultural Values:** La Caja Pueblo and Pueblo Sarco are both prehistoric Tewa Pueblos and hundreds of small sites consisting of artifact scatters with small structures have been recorded. These areas call for limited suppression of wildfires.
- **History:** A 1920's surveys mention that there was a small amount of grazing, but that generally the soils were second rate, sandy and gravelly. There were no permanent springs or streams mentioned in the area as well as no inhabitants. The 1986 survey mentions scattered pinyon, juniper and sagebrush with lowlands covered in cottonwood. Grasses, cactus and sagebrush were mentioned as primary understory cover.
- **Values At Risk/Protection Constraints:** Values at risk include paleontological resources, recreation, cultural resources, riparian and aquatic habitat found in the Sombrillo ACEC and Santa Cruz Lake Recreation SMA. Archaeological sites on or eligible for the National Historic Register of Historic Places (NRHP) and areas likely to contain such sites will be protected.
- **Communities at Risk:** WUI concerns include the communities of Chimayo, Rio Chiquito, La Puebla, Cundiyo, and the developed corridor along State Highway 285/84. An additional concern is the Camp Frank Rand Boy Scout camp which is located along the eastern boundary of the FMU and has many structures and seasonal residents.

3. Photos and Descriptions:

Santa Cruz Lake is shown in **Photo 1**. Scattered junipers are visible on the slope and cottonwoods surround the riparian area. **Photo 2** depicts the typical vegetation spread and cover.



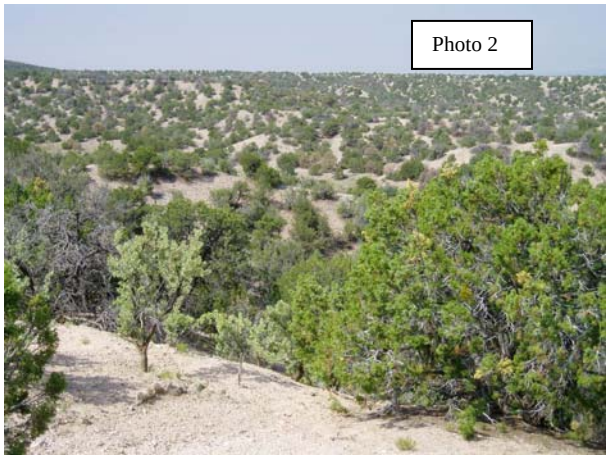


Photo 3 shows higher amounts of vegetation cover in contrast to **Photo 4** which shows an area nearby with sparse ground cover. A transect survey was conducted in this area and cover consisted of an average of 70% for bare ground, 5-10% for grass and 12% for shrubs. Some areas had almost no vegetative cover and were considerably eroded as seen in photo 4.

4. Fire Concerns:

- **Wildland Fire History:** This unit has limited documentation of fire history with two human-caused fires having been reported in the past 10 years.
- **Fire Regime:** There are two vegetation communities within this FMU, Pinyon-Juniper Savannah (I) and Grassland (I).
- **Condition Class:** Both fire regimes are condition class 2. with both vegetation communities having significantly departed from historical fire regimes. There is extensive erosion and very little groundcover throughout the area (as seen in the photos above) which limits the possibilities for historical fire return intervals.
- **Fire Management Objectives:**

1. Restore the pinion-juniper savannah and grasslands to a Condition Class 1. Natural disturbance and management actions combined would total no less than 600 acres and no more than 5,000 acres per year.
2. Consider resource concerns in all management activities, with special emphasis on Paleontological resources, recreation, cultural resources, riparian and aquatic habitat found in the Sombrillo ACEC and Santa Cruz Lake Recreation SMA.
3. Maintain early to mid-seral conditions in woodlands and rangelands in order to retain the herbaceous groundcover component necessary to reduce erosion and contribute to overall watershed health.

- **Fire Management Strategies**

1. *Wildland Fire Suppression* - Appropriate Management Response (AMR) will be implemented for all suppression actions. AMR in this FMU may include: full suppression or containment using natural or pre-existing fuel breaks. All fires at Fire Intensity Level (FIL) 1-3 will be suppressed at less than 50 acres 90% of the time and all fires at FIL 4-6 will be suppressed at less than 100 acres 90% of the time. The priority is to prevent wildland fire from spreading to private lands, other agencies' lands and areas of cultural concerns.
2. Wildland Fire Use – This strategy is not an option under FMU category B.
3. Prescribed Fire – Cooperate with adjacent landowners in designing hazardous fuels reduction, forest/range restoration, and wildlife habitat improvement projects. Prescribed broadcast and pile burns would be targeted at 100 and 70 acres per year. Broadcast burning will be conducted in both treated and untreated areas to maintain low fuel loadings and promote herbaceous groundcover.
4. Non-fire Fuels Treatments – This area will need substantial mechanical treatments to return the area to its historic conditions. Other techniques to improve the area would include deferring grazing, road closures and public access restrictions to allow the area to rest before fuels treatments.
5. Post-Fire Rehabilitation / Restoration - Post-fire rehabilitation and restoration activities will include deferred grazing, public access restrictions and closures as well as seeding. Other restoration projects would be decided by an interdisciplinary team.

Fire Management Unit: **Chimayo Scout Camp**
Category/Number: **B/16**

1. Location: This FMU is located approximately 10 miles east of Espanola and 3 miles southeast of Chimayo, NM. The boundaries of this FMU are that of Camp Frank Rand, a scout camp managed by the Boy Scouts of America (BSA). BLM retains surface management responsibility of the area under a Recreation and Public Purpose Patent sold to the BSA more than 40 years ago. It is bordered on the east by Santa Fe National Forest and the Pecos Wilderness, on the south by the Nambe Indian Reservation, on the north by private lands in the Santo Domingo de Cundiyo parcel, and on the west by BLM lands. 400 acres of private land including residential and business properties lie a 1/2 mile from the western boundary. . **Access** is via SR 503.

2. Characteristics:

- **Total Unit Acreage:** Total surface area is 2,614 acres of private land.
- **Terrain and Vegetation:** Terrain consists of steep slopes and rolling hills with a limited range of vegetation zones and habitat types. The canopy is a mix of ponderosa pine, juniper, and pinyon pine. The understory is composed of various grasses, forbs, and shrubs, including blue grama, side-oats grama, longleaf squirreltail, lupine, broom snakeweed, gamble oak, and mountain mahogany.
- **Wildlife:** This unit includes many of the wildlife species common to the Taos Field Office, see **Appendix B** for a list of these species.
- **Watersheds:** The FMU lies in the Rio Frijoles watershed. Several drainages flow into the Chimayo Scout Camp from the Pecos Wilderness, including the Chimayo Canyon and Rio Frijoles. Watershed health will be addressed when conducting all suppression, fuels reduction, and forest/range management activities.
- **Recreation:** Recreation in the FMU is limited to activities by the boy scouts which include wildlife viewing, nature/interpretive hikes, outdoor survival activities, shooting sports, and camping. The area is not open to the public for recreational use.
- **ACEC/SMA:** There are no ACECs or SMAs within the project area.
- **Cultural Values:** The Chimayo Boy Scout Camp has a rich collection of cultural resources. Sites are primarily late pre-history, with several structural sites and many lithic sites. 1,111 acres were intensively inventoried; which documented 65 sites dating from the thirteenth and fourteenth centuries. Their field notes stated that " the presence of three major adobe pueblos, a range of small structures, shrines, and gardens and the high level of preservation of all these features present circumstances rarely seen elsewhere in the region."

- **History:** Cadastral surveys were conducted in the 1890's-1980's. On all survey records, there was a general agreement that the land was very "barren" and "useless," although, good grass and grazing land was reported in limited sections. There was some scattered pinyon pine, ponderosa pine, and juniper but nothing significant for cutting. Water sources were not present in the area. There were no inhabitants of the land. Records begin in the late 1890's and characterize some sections as high-barren and rocky mesas with no timber and other sections as having poor grass in the mountainous area with a dense undergrowth. The area was reported to have been used for some goat grazing. By 1908, the descriptions mention a covering of scrub pinyon and juniper. The 1920's records stated that there was a dense growth of scrub juniper in the foothills and some ponderosa at higher elevations. In another area of the FMU around the same time, the descriptions stated that there was a dense growth of Pinyon and Juniper in the mountains with some grass that would be fair grazing. The latest records from 1982 mention scattered pinyon pine, juniper and some ponderosa pine, some willow along the river with mainly sagebrush for ground cover. In 1998, hazardous fuels reduction and forest restoration activities were initiated by the BLM at the camp. Since that time, approximately 400 acres have been fully converted from Condition Class 3 to Condition Class 1 and 2 through thinning and prescribed fire.
- **Values at Risk/Protection Constraints:** Values at risk include scout camp facilities, the "Cerro Pinyon" radio tower repeater and cell tower, wildlife habitat, watershed health and cultural. Archaeological sites on or eligible for the National Historic Register of Historic Places (NRHP) and areas likely to contain such sites will be protected.
- **Comunities at Risk:** There are several private residences to the west and north and the community of Cundiyo

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3. Photos and Descriptions:

Photo 1 shows most of section 4; with some of the scout camp facilities. **Photo 2** shows a typical ponderosa pine stand found in the FMU, with heavy encroachment of the understory by ponderosa pine, pinyon pine, and juniper.
Photo 3 shows a typical canopy density of the pinyon-juniper woodland**. Photo 4** shows a pinyon-juniper woodland immediately following mechanical thinning.

4. Fire Concerns:

- **Wildland Fire History:** Prior to 2000 there have been many unrecorded fires; one fire was started by a boy scout. Since 2000 there have been five fires caused by lightning which were all less than ten acres in size. In 2003 there was a fire in the Pecos Wilderness of the Santa Fe National Forest (Molina Complex) that burned approximately 7000+ acres within a mile of the FMU. Between 1996 and 2002, there were two additional large fires near this unit. Fire history of lands around the scout camp suggests that the primary cause of ignitions is lightning, however, given the high level of human activity in the scout camp it is likely that human-caused ignitions pose a significant threat to the area as well.
- **Fire regime:** The fire regime within this area consists of Pinyon-Juniper Savannah-I, and Pinyon Juniper/Ponderosa Woodland-I.
- **Condition Class:** Since 1998, approximately 400 acres have been converted, since 1998, from a Condition Class 3 to a Condition Class 1 and 2 by thinning and prescribed fire. The remaining 2,093 acres are in Condition Class 3, and characterized by increased canopy density with low understory vegetation and a greater potential for stand-replacement fires rather than the mixed severity fires of historical conditions. Photos 3 and 4 display the contrast between pre and post treatment conditions and the associated fire severity potentials.
- **Fire Management Objectives:**

1. Convert the remainder of Condition Class 3 areas to a Condition Class 1 and/or 2. Maintain areas already in Condition Class 1 and 2. Natural disturbance and management actions combined would total no less than 70 acres and no more than 600 acres per year.
2. Coordinate with the Boy Scouts of America to continue hazardous fuels reduction activities, including

the maintenance of previously treated areas.
3. Maintain early to mid-seral conditions in forests, woodlands, and rangelands in order to retain the herbaceous groundcover component necessary to reduce erosion and contribute to overall watershed health.
4. Complete projects in hazardous fuels reduction, forest/range restoration, and wildlife habitat improvement with the cooperation of adjacent landowners, including private, U.S. Forest Service, and the Nambe Pueblo.
5. Reduce overall fire management costs by reducing the numbers of large fires.

- **Fire Management Strategies:** The Chimayo Scout Camp Hazardous Fuels Reduction EA (NM-020 03-016) outlines actions for treating the majority of pinyon-juniper woodland and some ponderosa forest within the FMU.

1. *Wildland Fire Suppression* - Appropriate Management Response (AMR) will be implemented for all suppression actions. AMR in this FMU may include: full suppression or containment using natural or pre-existing fuel breaks. All fires at Fire Intensity Level (FIL) 1-3 will be suppressed at less than 25 acres 80% of the time and all fires at FIL 4-6 will be suppressed at less than 100 acres 75% of the time. Since the Chimayo Scout Reserve is a recreation site used by more than 400 young scouts at any one time the Taos Fire Management Officer will pre-plan suppression strategies with the camp management to insure a quick and aggressive response on all wildfires that may threaten life, property and recreation improvements at the camp and adjacent private lands.
2. Wildland Fire Use – This strategy is not an option under FMU category B.
3. Prescribed Fire – Slash produced from thinning operations will be burned following mechanical treatment. Broadcast burning will be conducted in both treated and untreated areas to maintain low fuel loadings and promote herbaceous groundcover growth. 200 acres of pile burning and 200 acres of broadcast burning will be targeted each year.
4. Non-fire Fuels Treatments – Mechanical thinning will be continued at a rate of 200 acres per year.
5. Post-Fire Rehabilitation / Restoration – No post-fire rehabilitation and restoration activities will be necessary.

Fire Management Unit Name: **Buckman**
Category/Number: **B-17**

1. Location: This FMU is located in northwest Santa Fe County and is bordered by the Santa Fe National Forest on the west, San Ildefonso Pueblo on the north, the Jacona Land Grant on the northeast, residential developments on the southeast and the Municipal Recreation Center on the south. **Access** is via NM 599.

2. Characteristics:

- **Total Unit Acreage:** BLM= 21,330 acres, State Land= 639 acres, Private= 3,168 acres and total surface area= 25,137 acres.
- **Terrain and Vegetation:** This Unit consists of low hills, Diablo Canyon and part of the Rio Grande River. Vegetation includes a juniper savannah with an understory of sagebrush, snakeweed and grasses (Indian ricegrass, needleandthread, blue grama, etc). The Rio Grande area includes a riparian habitat and associated vegetation of willow, cottonwood and tamarisk.
- **Wildlife:** This FMU includes many of the common wildlife species found in the Taos Field Office, see list in Appendix B**.** In addition, riparian habitat exists along the Rio Grande River, providing nesting for avian species; cover, forage and opportunities for water to terrestrial species; and the perennial aquatic ecosystem necessary to sustain fisheries. Species listed in Birds of Conservation Concern 2002 (USFWS 2002) which may occur in this habitat type include: cuckoo, gray vireo and loggerhead shrike.
- **Watersheds:** The Rio Grande River runs through this FMU, as well as other unnamed drainages.
- **Recreation:** Hiking, fishing, camping and OHV use are the major recreation activities.
- **SMA/ACEC:** There are no ACEC's or SMA's.
- **Cultural Values:** Archaeological sites have been documented and it was recommended that earth disturbing activities should be avoided.
- **History:** Survey records from the 1890's and 1920's indicated that the land was densely covered with pinyon pine and juniper and there were roads that lead into these forested areas. A few settlers were reported in 1923 to have small acreages of crops and the land was said to be suitable for grazing even with the lack of water.
- **Values at Risk/Protection Constraints:** Values at greater risk include private or state inholdings, watershed health and cultural. Archaeological sites on or eligible for the National Historic Register of Historic Places (NRHP) and areas likely to contain such sites will be protected.
- **Communities at Risk:** There are four privately owned ranches throughout the unit and several subdivisions near the southeast boundary.

3. Photos and Descriptions:

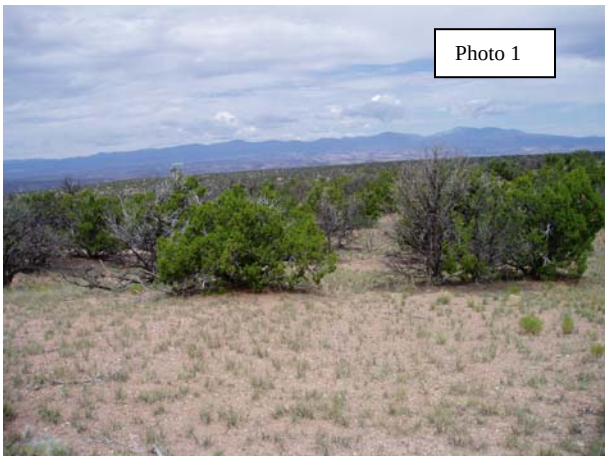


Photo 1 displays the typical vegetation spread and ground cover. There has been extensive beetlekill of pinyon pine with the junipers remaining unaffected. The understory is sparse. Diablo Canyon can be seen in **Photo 2.** Vegetation in the canyon consists of junipers and a number of shrubs. Water flows ephemerally within the canyon.

The Rio Grande River riparian area can be seen in **Photo 3**; including willow, tamarisk and other shrub species. The other bank has almost no vegetation.

4. Fire Concerns:

- **Wildland Fire History:** Wildland fire is infrequent.
- **Fire Regime:** This FMU consists of pinyon-juniper savannah and grassland which are fire regime II.
- **Condition Class:** This FMU is in condition class 2 as both vegetation communities have experienced a significant decrease in both the density and vigor of native grasses and a subsequent increase in invasive shrubs. Without carrier fuels, there are fewer opportunities for surface fires to be supported and as such a severe departure from historic fire conditions.
- **Fire Management Objectives:**

1. Restore the pinyon-juniper woodland throughout the FMU to a Condition Class 1 where resource management objectives are identified (ex. WUI, range improvement, etc.). Natural disturbance and management actions combined would total no less than 600 acres and no more than 5,000 acres per year.
2. Maintain early to mid-seral conditions in forests, woodlands, and rangelands in order to retain the herbaceous groundcover component necessary to reduce erosion and contribute to overall watershed health.
3. Design hazardous fuels reduction, forest/range restoration, and wildlife habitat improvement projects cooperatively with adjacent private landowners and the U.S. Forest Service.

- **Fire Management Strategies**

1. *Wildland Fire Suppression* - Appropriate Management Response (AMR) will be implemented for all suppression actions. All fires at Fire Intensity Level (FIL) 1-3 will be suppressed at less than 300 acres 80% of the time and all fires at FIL 4-6 will be suppressed at 100 acres or less 90% of the time. Aggressive fire suppression will be used on all wildfires that may threaten to escape onto private lands and adjacent residential subdivisions. In areas where there are known cultural sites, heavy equipment will not be allowed. When any dozer lines are constructed, an on-site archaeologist/resource advisor will monitor all work activities. Aerial support will follow established national guidelines for restricting aerial fire retardant applications near streams and riparian areas. Emphasis will be placed on using existing roads and fuel modification zones for firelines, anchor points, etc.
2. Wildland Fire Use – This strategy is not an option under FMU category B.
3. Prescribed Fire – Slash produced from thinning operations will be burned following mechanical treatment at a target rate of 100 acres per year.
4. Non-fire Fuels Treatments – Mechanical treatments will be targeted at a rate of 100 acres per year.
5. Post-Fire Rehabilitation / Restoration - Post-fire rehabilitation and restoration activities will vary depending on the resources effected and the specific characteristics of the burn that are influenced by weather, topography, and fuels. Rehabilitation might include public access restrictions and route closures and seeding and revegetation of native plants.

Fire Management Unit Name: **Sabinoso Wilderness Study Area**
Category/Number: **D/18**

1. Location: The Sabinoso WSA FMU is located in San Miguel County, approximately 8 miles northeast of Trujillo, NM and 1 mile due west of Sabinoso, NM. **Access** is via rugged two-track dirt roads which have experienced extensive erosion.

2. Characteristics:

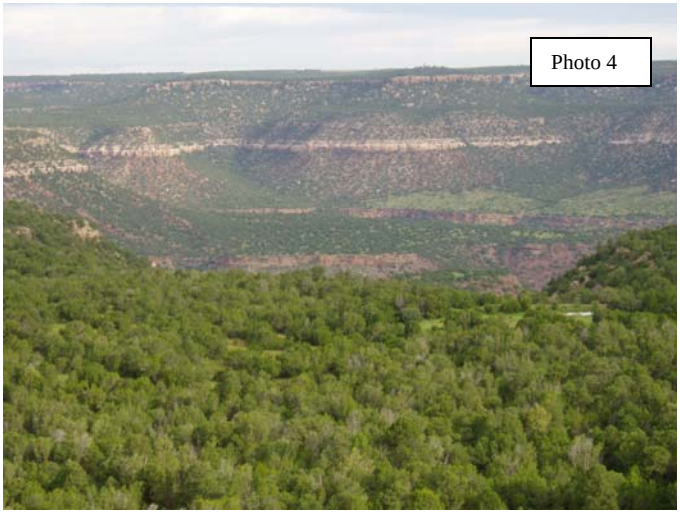
- **Total Unit Acreage:** BLM= 21,462 acres, State Land= 6,569 acres, Private= 27,317 acres and total surface area= 55,348 acres.
- **Terrain and Vegetation:** The terrain is dramatic with deep canyons, benches and mesas. Vegetation is consistent; mostly ponderosa/pinyon pine-juniper woodland and pinyon-juniper savannah. Understory includes oak brush and grama grass. There are some meadows and the canyon bottoms are more open with grass and some riparian vegetation.
- **Wildlife:** Riparian habitat exists along the Canadian River and in the Canyon Largo. providing nesting for avian species; cover, forage and opportunities for water to terrestrial species; and the perennial aquatic ecosystem necessary to sustain fisheries. This unit also includes many of the wildlife species common to the Taos Field Office; see Appendix B for a list of these species.
- **Watersheds:** There are two main drainages; the Canadian River and the Canyon Largo. Canyon Largo has an ephemeral stream that runs west to east and enters the Canadian River at the town of Sabinoso. The Canadian River winds north to south along the eastern boundary of the FMU.
- **Recreation:** Recreation uses is limited by difficult access and includes hunting, horseback riding and hiking.
- **ACEC/SMA:** This FMU includes the Sabinoso Special Management Area whose primary objectives include improving wildlife habitat, recreation and hunting opportunities. Management prescriptions include limited suppression of wildfire. This area is a Wilderness Study Area.
- **Cultural Values:** There are many archaeological sites, which include homestead sites, lithic and ceramic scatters, and mines.
- **History:** The surveyors' records began in the 1880's and confirmed that the land has not changed much. Pinyon pine, juniper, and ponderosa pine timber still cover most of the mountainous regions. There was no report of large amounts of cutting. A few rivers supplied water to some of the land for stock raising. Some land near the water had good grass and primarily sandy soil. One area had man-made reservoirs and windmills. The land was used for stock raising since the 1880's.
- **Values at Risk/Protection Constraints:** Values at greater risk include historical structures, watershed health, wildlife habitat and cultural. Archaeological sites on or eligible for the National Historic Register of Historic Places (NRHP) and areas likely to contain such sites will be protected. watershed health, wildlife habitat, historical structures
- **Communities at Risk:** There are several communities at risk. The town of Sabinoso is located on the eastern boundary. Trujillo is on the western boundary, and many homeowners have land either abutting the FMU boundaries or within the FMU boundaries.


Photo 1

3. Photos and Descriptions:

Photo 1 gives a typical view of the terrain and vegetation. High mesas lead down to steep canyon walls and into flat canyon bottoms. This picture shows the confluence of the Canyons Largo and Olguin. Vegetation is dense pinyon-juniper on the slopes with Ponderosa Pines on the mesa tops. Surface and stand replacement fires could carry throughout this FMU. However, there are many natural barriers that would help to keep the fire size relatively minimal even under extreme circumstances.

Photo 2 shows a meadow area with juniper encroachment. This meadow had a very good grama component. **Photo 3** gives a view of the bottom of Canyon Largo. At the time of this picture, there were only a few pools located at the canyon bottom and no actual stream. **Photo 4** depicts a dense pinyon-juniper woodland located on a bench overlooking Canyon Largo. Ground cover in these areas consists of oak as a major shrub component along with some mountain mahogany. Due to the dense canopy cover of 50-100% and the ladder fuels, this area could carry a stand replacement fire under the right circumstances. **Photo 5** shows the understory in an area with fewer pinyon and juniper.



4. Fire Concerns

- **Wildland Fire History:** There have been 34 naturally-caused fires within the past twenty years. Since 1996, there have been nine fires, one of which was 400 acres.
- **Fire Regime:** This FMU includes two vegetation communities, both in Fire Regime I: ponderosa/pinyon-juniper woodland and pinyon-juniper savannah.
- **Condition Class:** These areas fall within condition class 2 and 1 respectively. The ponderosa/pinyon juniper woodland exhibits an increase in age class variation with a higher abundance of ladder fuels. An increase in canopy density has resulted in a corresponding decrease in groundcover vegetation. Such density and fuels would more commonly support large stand-replacement fires rather than the mixed

severity fires found in historic stands. The pinyon-juniper savannah is currently close to historic conditions and could support historic fire return intervals.

- **Fire Management Objectives:**

1. Restore all areas of condition class 2 to a condition class 1. Natural disturbance and management actions combined would total no less than 600 acres and no more than 5,000 acres per year.
2. Cooperate with adjacent landowners, including private and state, when planning projects in hazardous fuels reduction, forest/range restoration, and wildlife habitat improvement.
3. Allow wildfire to serve its natural role in the two fire regimes.
4. Reduce overall fire management costs by reducing the numbers of large fires.
5. Mitigate impacts to wilderness values within the Sabinoso WSA.

- **Fire Management Strategies:**

1. *Wildland Fire Suppression* - Appropriate Management Response (AMR) will be implemented for all suppression actions. All fires at Fire Intensity Level 1-3 will be suppressed at less than 500 acres 90% of the time. All fires at FIL 4-6 will be suppressed at less than 2000 acres 80% of the time. The fire management suppression strategy will be to manage the wildfire using MIST (Minimum Impact Supression Strategy) whenever the situation will allow or until an approved Fire Use plan is finished. MIST will allow for the use of natural and man-made barriers for fire breaks. The priority for MIST is to prevent fire suppression activities from doing more damage to the resource than the fire itself. Heavy equipment, such as dozers and graders will only be allowed for protection of private property and improvements on state and private land adjacent both within and adjacent to the FMU boundaries.
2. Wildland Fire Use – A Fire Use Plan and its accompanying NEPA documentation will be completed to allow wildfire to serve its natural role in the woodlands and rangelands. Under the management option of fire use, mitigation will eliminate wildfire threats to adjacent properties and reduce negative impacts to other resource concerns.
3. Prescribed Fire –Broadcast burning will maintain low fuel loadings and promote herbaceous groundcover at a targeted rate of 500 acres per year.
4. Non-fire Fuels Treatments – No fuels treatments are planned but consideration will be given to all non-fire fuels treatments in the future.
5. Post-Fire Rehabilitation / Restoration - There will be no need for post-fire rehabilitation or restoration measures.

Fire Management Unit Name: **La Cienega**
Category/ Number: **B/19**

1. Location: This FMU is located approximately 12 miles southwest of Santa Fe, NM, just west of the Santa Fe Municipal airport and the confluence of the Arroyo Calabasas and the Santa Fe River. It is bordered on the northern side by state land and along the northwestern and western sides by U.S. forest service land. Private land forms the border along the eastern and southern sides. **Access** is via NM 599.

2. Characteristics:

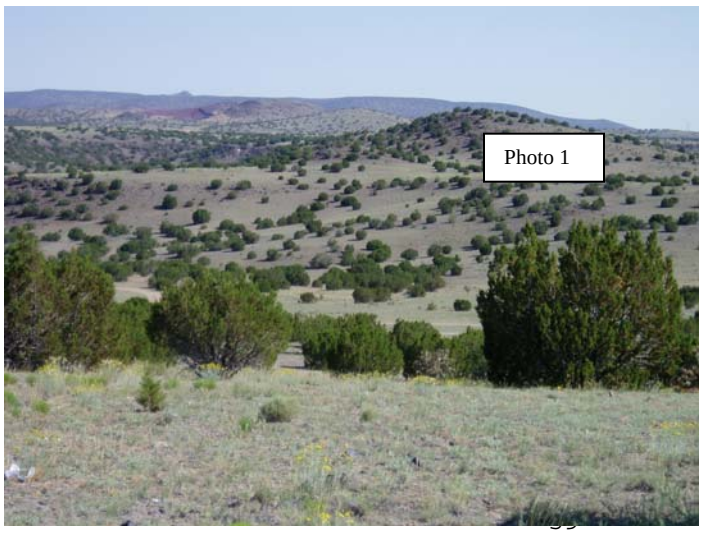
- **Total Unit Acreage:** Total surface area= 13,897 acres of BLM land.
- **Terrain and Vegetation**: The terrain varies widely. Elevation ranges from about 6000 feet in the lower drainages and riparian areas to 6800 feet on the low hills with rocky cliffs and flat rangelands in btween. Vegetation in the riparian areas includes willow, Russian olive and tamarisk. About 60% of the unit is sparsely vegetated grasslands with shrubs, tree cholla and rabbitbrush. The vegetation changes to juniper savannah, then pinyon-juniper woodland as the elevation increases, which accounts for the rest.
- **Wildlife:** Riparian habitat exists along the Santa Fe River, providing nesting for avian species; cover, forage and opportunities for water to terrestrial species; and the perennial aquatic ecosystem necessary to sustain fisheries. Species listed in Birds of Conservation Concern 2002 (USFWS 2002) which may occur in this habitat type include the Gray Vireo. This FMU also contains many of the wildlife species common to the Taos Field Office; see **Appendix B** for a list of these species.
- **Watersheds:** This FMU includes the Sante Fe River and some drainages throughout the area.
- **Recreation:** Recreation uses at this site include petroglyph viewing, hiking, fishing and OHV use.
- **ACEC/SMA:** This FMU is primarily composed of the La Cienega Area of Critical Environmental Concern. This ACEC was designated in 1992 as an amendment to the Taos RMP. The amendment outlines the management objectives and prescriptions needed to protect resources on 3,556 acres of public land and 7 miles of the Santa Fe River canyon. The management objectives are to protect cultural and interpretive values. Management prescriptions designated this area as a limited suppression zone.

Cultural Values: This FMU contains nationally significant paleontological and prehistoric and historic cultural resources on the National Register of Historic Places (NRHP). These sites, and other areas likely to contain such resources, will be protected.

- **History:** Cadastral surveys from the 1870's, 1930's and 1980's mention rolling prairie land with scrub pinyon and juniper. The Santa Fe River was reported to be the only water source and was used by some inhabitants in the 1890's for irrigation of crops. The flat rangeland areas were reported to be good for grazing by all surveyors.
- **Values at Risk/Protection Constraints:** There are many important cultural resources including thousands of petroglyphs which are protection concerns. Watershed health of Santa Fe River, riparian habitat
- **Communities at Risk:** The communities at risk include La Cienega and Canon as well as private lands along US 25 on the southern border.

3. Photos and Descriptions of La Cienega:

Photo 1 shows the rolling hills and juniper savanna with an understory of widely spaced grama. A fire could not carry in this area at this time.



Photos 2 and 3 give a closer view of the ground cover at La Cienega, both on top of a hillside (left) and on the flatter rangeland (right). Note in the right picture, the presence of tree cholla. Two vegetation transects were done in both of these sites and both indicated very little vegetative cover. Both transects indicated cover of grass being between 10-30% and bare ground or rock covering the rest (between 60-70% combined). Random cholla and juniper trees accounted for cover in some of the transect squares.

Photo 4 shows the riparian area on the banks of the Santa Fe River. The Russian olive, willows and saltcedar are visible in this picture, as well as other deciduous shrubs and some grass. This riparian area is located near the road.

4. Fire Concerns

- **Wildland Fire History:** Fire history is limited with three fires were reported in the Fall of 1996.
- **Fire Regime:** There are two regimes in this unit, grasslands (II) and pinyon-juniper savannah (I).
- **Condition Class:** Both fire regimes are in high 1 categories. Currently, conditions in both vegetation communities are relatively close to historical conditions, though ground cover vegetation is decreasing in some areas.
- **Fire Management Objectives:**

1. Maintain grasslands and pinyon-juniper savannah at a Condition Class 1. Natural disturbance and management actions combined would total no less than 400 acres, and no more than 3500 acres, per year.
2. Protect paleontological, cultural and interpretive values within the La Cienega ACEC.
3. Reduce overall fire management costs by reducing the numbers of large fires.

Fire Management Strategies:

1. *Wildland Fire Suppression* - Appropriate Management Response (AMR) will be implemented for all suppression actions. AMR in this FMU may include one or more of the following strategies: full suppression or containment using natural or pre-existing fuel breaks. Limited suppression tactics will be used in the La Cienega ACEC. All fires at Fire Intensity Level (FIL) 1-3 will be suppressed at 30 acres or less 90% of the time and all fires at FIL 4-6 will be suppressed at 100 acres or less 90% of the time. Aggressive fire suppression will be done on all wildfires that may threaten to escape from the FMU into

private lands and adjacent residential subdivisions. In areas where there are known cultural sites, heavy equipment will not be allowed. When any dozer lines are constructed, an on-site archaeologist/resource advisor will monitor all work activities. Aerial support will follow established national guidelines for restricting aerial fire retardant applications near streams and riparian areas. Emphasis will be placed on using existing roads and fuel modification zones for firelines and anchor points because of the large amount of cultural sites.

2. Wildland Fire Use – This strategy is not an option under FMU category B.

3. Prescribed Fire – Cooperate with adjacent landowners to plan projects in hazardous fuels reduction, forest/range restoration, and wildlife habitat improvement. Broadcast burning will be conducted in areas to maintain low fuel loadings and promote herbaceous groundcover growth.

4. Non-fire Fuels Treatments – Currently, no fuels treatments are planned, but future consideration will be given to all non-fire fuels treatments. The need for non-fire treatments will be determined on a case-by-case basis.

5. Post-Fire Rehabilitation / Restoration - Post-fire rehabilitation and restoration activities will vary depending on the resources effected and the specific characteristics of the burn that are influenced by weather, topography, and fuels. Rehabilitation and restoration activities might include public access restrictions and road closures as well as grazing deferments to facilitate the re-establishment of native plants.

Fire Management Unit Name**: Archuleta Mesa**
Category/Number: **C/20**

1. Location: This Unit lies in the Northwestern corner of the Taos Field Office. It is bordered on the north by the Colorado border, on the south and west by the Jicarilla-Apache nation, and on the east by private land. It is directly north of Dulce, NM. **Access** is from the southeast via a BIA dirt road.

2. Characteristics:

- **Total Unit Acreage:** BLM= 3,997 acres, State Land= 582 acres, Private= 584 acres, Tribal= 1 acre and total surface area= 5,164 acres.
- **Terrain and Vegetation:** It is comprised of the high elevation Archuleta mesa in the northwest corner, leading to the eastern and southern edges which drop abruptly into steep slopes and cliffs. Also included are the Vigil Mesa and Mesa Diamante, which lie 6 miles east of Archuleta Mesa, and have the same terrain. Vegetation is primarily Ponderosa pine woodland and grassland. Some areas have a mixed conifer canopy of Douglas-fir, Ponderosa pine and aspen. The understory on the mesa consists of Gambel oak and mountain mahogany. Grasses include Poa, grama, Indian Ricegrass, Western wheatgrass, oatgrass and yellow-nut sedge.

Wildlife: This unit includes many of the common species found within the Taos Field Office; see **Appendix B** for a list of these species.

- **Recreation:** This area is closed off to motorized vehicles.
- **Watersheds:** The Abeyta canyon forms drainage in the eastern section of this unit (Mesa Diamante). The Navajo river lies directly southeast of the Archuleta FMU.
- **SMA/ACEC:** There are no SMAs or ACECs within this FMU boundary.

Cultural Values: Archaeological sites on, or eligible, for the National Register of Historic Places, as well as those areas likely to contain such resources, will be protected.

- **History:** A cadastral survey from 1881 noted generally rolling prairie with a large amount of good grama and bunch grass. By this time, the area had already been used for stock and sheep grazing for many years. A survey from 1943 mentions low broomweed undergrowth and fair sod grasses and states that the area was badly overgrazed. It recommended that the area was only good for more grazing.
- **Values at Risk/Protection Constraints:** Tribal, State and private inholdings exist within the FMU boundaries. Watershed health, wildlife habitat, lookout tower, radio tower repeater: Archuleta
- **Communities at Risk:** The community of Dulce, NM is located south of the Archuleta Mesa and it could pose a WUI concern.

3. Photos and Descriptions:

Photo 1 gives a wide view of the Archuleta Mesa. The slopes are dominated by large diameter Ponderosa pine and mixed conifer, which can be seen in **Photo 2**. This second picture was taken on the road leading up to the top of the mesa.

A severe wildfire burned much of Archuleta mesa in 1998. **Photos 3-6** show the different vegetation and recovery within the burn area. **Photo 3** shows a mosaic of live and dead Ponderosa pines along with the accompanying regrowth. **Photo 4** is a closer view of a nearby area which was not affected as intensely, the area has scattered Ponderosa pine with a good understory of grasses and shrubs. **Photos 5 and 6** depict the significant increase in Gambel oak and aspens, respectively.

The mixed conifer higher slopes on Vigil-Abeyta Mesa (located adjacent to Mesa Diamante) can be seen in **Photo 7**, while **Photo 8** gives a wider view of mesa Diamante from the south.

4. Fire Concerns:

- **Wildland Fire History:** Lightning has accounted for more than 90% of fires. In 1996, a lightning caused wildfire burned more than 19,000 acres, 4,000 acres of which were on BLM. .
- **Fire Regime:** There are two fire regimes; Ponderosa/Pinyon-Juniper woodland-I and Mixed Conifer III.
- **Condition Class:** Both fire regimes are categorized as Condition Class 1. Since there was a recent fire event (less than ten years ago), the FMU is currently at early successional stages and the vegetation conditions is comparable to historic conditions.
- **Fire Management Objectives:**

1. Maintain forest stand structures throughout the FMU at a Condition Class 1 or 2. Natural disturbance and management actions combined would total no less than 100 acres and no more than 1000 acres per year.
2. Restore forest conditions and improve wildlife habitat.
3. Reduce overall fire management costs by reducing the numbers of large fires.

- **Fire Management Strategies:**

1. *Wildland Fire Suppression* - Appropriate Management Response (AMR) will be implemented for all suppression actions. All fires at Fire Intensity Level (FIL) 1-3 will be suppressed at less than 50 acres 80% of the time and all fires at FIL 4-6 will be suppressed at less than 100 acres 75% of the time. All wildland fires will be suppressed aggressively where there are known cultural sites and where the fire may escape from the FMU onto private land or adjacent residences. Emphasis will be placed on working with the local tribal forestry and suppression programs.
2. Wildland Fire Use – Fire Use can be utilized in the C category under special conditions if there is proper NEPA clearance and an approved burn plan prior to ignition. Using natural or man-made barriers is also an option where aggressive suppression tactics would have a greater negative impact on the resource than the fire activity itself.
3. Prescribed Fire – Cooperate with adjacent landowners, and the Durango BLM office, to complete projects in hazardous fuels reduction, forest restoration, and wildlife habitat improvement. Broadcast burning will be conducted in areas to maintain low fuel loadings and promote herbaceous groundcover growth at a rate of 200 acres per year.
4. Non-fire Fuels Treatments – Currently, no fuels treatment projects are planned, but consideration will be given to all non-fire fuels treatments. Need for non-fire treatments will be determined on a case-by-case basis.
5. Post-Fire Rehabilitation / Restoration - There is no need for post-fire rehabilitation and restoration projects.

Fire Management Unit Name: **Ute Mountain**
Category/Number: **D/21**

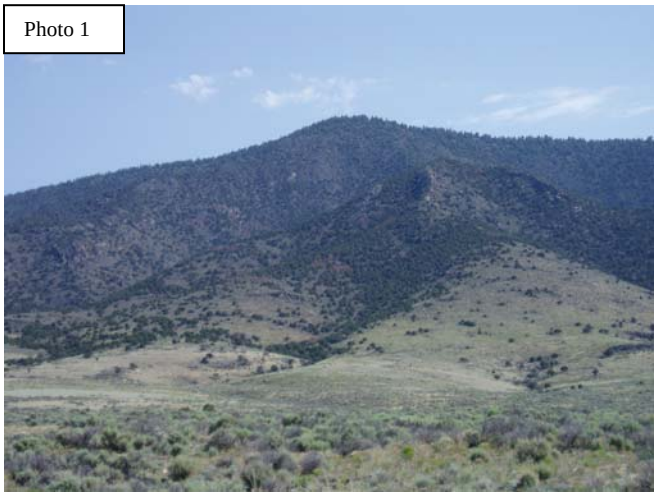
1. Location: Ute Mountain is located just west of Costilla, NM and north of Sunshine Valley. Its western boundary is formed by the Rio Grande Gorge and Its other boundaries are private land. **Access** is through either the northern end (locked gate) and through the southern end via Sunshine Valley.

2. Characteristics

- **Total Unit Acreage:** Total surface area= 11,487 acres of BLM land.
- **Terrain and Vegetation:** This FMU consists of freestanding Ute Mountain and the land immediately surrounding it. This mountain's main features are ridges and drainages on all sides. It's primary vegetation is pinyon and juniper in various densities. Herbaceous ground cover varies generally consisting of grass (blue grama and needleandthread), sagebrush, mountain mahogany, and some forbs. The slopes contain mostly scattered sagebrush, with some denser pockets in different areas. The drainages have higher PJ concentrations.
- **Wildlife:** This Unit is adjacent to the Rio Grande River and includes critical foraging habitat for cliff nesting raptors, as well as foraging and cover habitat for significant populations of deer, elk and antelope. Western burrowing owls are found in active or abandoned prairie dog towns, mountain plovers nest in the winterfat ground cover during the summer, and potential long-term habitat for the Southwestern willow flycatcher is found near the confluence of the Rio Grande and Costilla drainage. This FMU also includes the wildlife species common to the Taos Field Office; see Appendix B for a list of these species.
- **Watersheds:** In addition to the Rio Grande Gorge, which marks the western boundary of the FMU, there are 12 intermittent drainages located in Ute Mountain. These are spread out through all sides of the mountain and one on the northwest side becomes Costilla Creek.
- **Recreation:** There is no public access to Ute Mountain.
- **ACEC/SMA:** There are no designated ACECs or SMAs.
- **Cultural Values:** No archaeological surveys have been performed, but it is believed that there are many important sites including petroglyphs.
- **History:** The southern part of Ute Mountain and the land below it, was originally part of the Sangre De Cristo Land Grant. The only cadastral survey record is from the 1880's. These records stated that ponderosa pine, juniper and pinyon pine were present on Ute Peak and on the slopes. The rolling prairie surrounding the mountain contained good quality bunch and grama grass and was reported good for grazing as well.
- **Values at Risk/Protection Constraints:** Values at greatest risk include wildlife habitat, watershed health and cultural. Archaeological sites and areas on or eligible for the National Register for Historic Places (NRHP) and areas likely to contains such sites will be protected.
- **Communities at Risk:** There are no WUI concerns or communities.

3. Photos and Descriptions

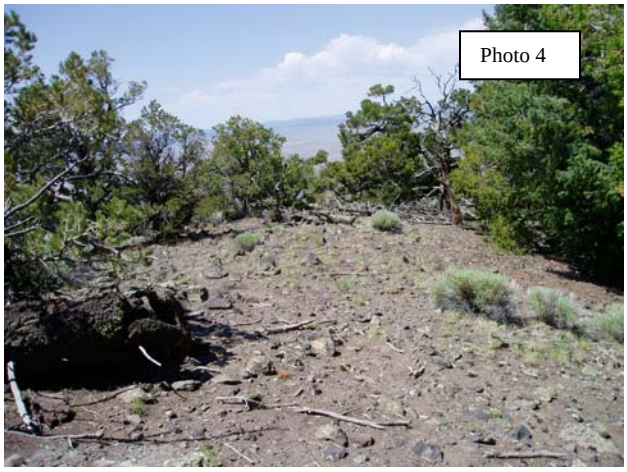
Photo 1

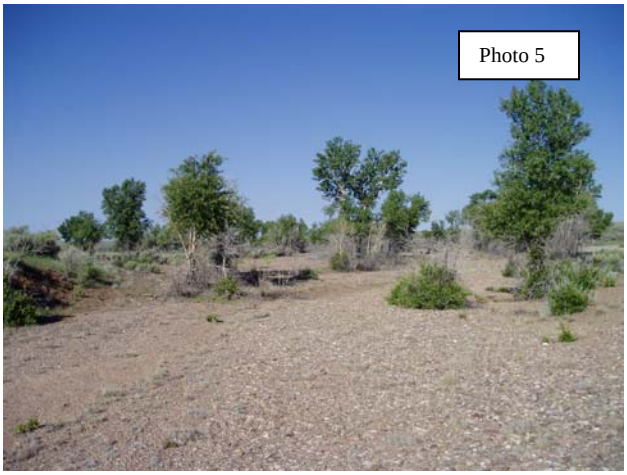


Ute Mountain is depicted in **Photo 1**. This is a good representation of the entire mountain. The lower areas are covered by either sagebrush or some grass component (primarily foxtail barley). There is scattered PJ in the lower areas and denser pockets in the drainages. On the higher slopes, the PJ is too scattered to carry a crown fire. Canopy cover on the slopes is around 50 % with little herbaceous ground cover. In the Drainages, canopy cover is 75-100%. A crown fire might carry in the lower drainages

Photo 2 shows a typical drainage on the western side of Ute Mountain. On the left side is the scattered PJ with the grass component. In the foreground, there is the sagebrush component. To the right, in the picture, is the denser concentration of PJ in the drainage and then the spacing of the PJ higher on the slopes.

Photo 3 shows ground cover at the top. There are thousand-hour fuels, some snags and herbaceous ground cover. There was evidence of a fire 10-30 years ago.
Photo 4 shows the ground cover on one saddle. In the background are pinyon and juniper. There is some sagebrush, some thousand-hour fuels and much bare ground.
Photo 5 shows a wash area near Costilla Creek. The soils were very sandy and not wet at all but there was evidence of surface flow and elk and deer sign. Nearby, there was sagebrush and some grass but generally not much herbaceous cover.





4. Fire Concerns:

- **Wildland Fire History:** Lightning accounts for more than 90% of ignitions.
- **Fire Regime:** There are four vegetation types in this FMU; a. ponderosa-pinyon-juniper woodland (I), b. grassland (II), c. sagebrush (II) and d. mixed conifer (III).
- **Condition Class:** The condition classes correspond to the fire regimes; a. 2, b. high 1, c. high 1-low 2, d. low 2. The ponderosa-pinyon-juniper woodland has increased in canopy density with a subsequent decrease in groundcover and a departure from historical fire regime conditions. The grassland and sagebrush communities are fairly close to historical conditions and could support surface fires consistent with the historical fire regime class. The mixed conifer area has more ladder fuels with higher canopy density. It is more likely to experience a high intensity stand-replacement burn resulting in less of a mosaic of conditions which would support mixed severity burns in the future.

- **Fire Management Objectives:**

1. Restore all areas of condition class 2 to a condition class 1. Treatment targets should total no less than 300 acres per year in simulating natural disturbance, accomplishing resource objectives, or allowing fire use.
2. Reduce hazardous fuels, improve wildlife habitat and restore forest, range and watershed health.
3. Allow wildfire to serve its natural role in the four fire regimes found throughout the FMU.
4. Maintain early to mid-seral conditions in forests, woodlands, and rangelands in order to retain the herbaceous groundcover component necessary to reduce erosion and contribute to overall watershed health.
5. Reduce overall fire management costs by reducing the numbers of large fires.

- **Fire Management Strategies:**

1. *Wildland Fire Suppression* - Appropriate Management Response (AMR) will be implemented for all suppression actions. All fires at Fire Intensity Level (FIL) 1-3 will be suppressed at less than 1000 acres 90% of the time and all fires at FIL 4-6 will be suppressed at less than 2000 acres 90% of the time. The fire management/suppression strategy will be to manage the wildfire using MIST (Minimum Impact Suppression Strategy) until an approved Fire Use Plan can be implemented. Whenever the situation allows, MIST suggests the use of natural and man-made barriers for fire breaks. The priority is to prevent fire suppression activities from doing more damage to the resource than the fire would. Heavy equipment such as dozers and graders, will only be allowed for protection of private property and improvements on adjacent private and state lands.
2. Wildland Fire Use – A Fire Use Plan and its accompanying NEPA documentation will be completed to allow wildfire to serve its natural role in the woodlands and rangelands. Under the management option of fire use, mitigation will be done to eliminate wildfire threats to adjacent properties and reduce negative impacts to other resource concerns identified in the FMU.
3. Prescribed Fire – Cooperate with adjacent landowners, including private and state, to complete projects in hazardous fuels reduction, forest/range restoration, and wildlife habitat improvement. Broadcast and pile burning will be conducted in both treated and untreated areas to maintain low fuel loadings and promote herbaceous groundcover. Broadcast and pile burns will be targeted at 400 and 100 acres per year respectively.
4. Non-fire Fuels Treatments – Annual targets for mechanical treatments will be 100 acres. Need for non-fire treatments will be determined on a case-by-case basis.
5. Post-Fire Rehabilitation / Restoration - There will be no need for post-fire rehabilitation or restoration projects.

VI. Wildland Fire Management Program Components

A. Wildland Fire Suppression

- **Fire History:** Between 1998 and 2004, the TAFO averaged 17 BLM surface fires and 32 general suppression actions associated with the initial attack area per year. These burned an average of 300 acres annually. On average 60% are human-caused and 40% are naturally-caused (lightning ignitions).

The number of fires varies widely from year to year and the size of the fires is dependent on the current weather conditions, especially moisture and wind. The highest number of fires on BLM land in one season was 32, reported in 2002. Fires occur most often within the largest FMU, North Unit/Pot Mountain. Most are Class A and B fires with occasional C and D fires. The largest fires in the past 20 years have been Archuleta Mesa in 1998 and Pot Mountain fire in 2000. Archuleta Mesa, burned 3,000 BLM acres and 16,000 total acres while 1,200 BLM acres burned at Pot Mountain. Both fires were lightning-caused and were associated with drought conditions. The Taos Interagency Zone has mobilized 2 type-I, 3 type-II and 17 type-III incident management teams in the past 10 years. Multiple fires occurring concurrently in the zone happened on average 4 times per season with as many as 3 fires in one day recorded. Annually, the TAFO gets 4-8 fires that are suppressed by local rural fire departments and many times are not reported to the TAFO in a timely manner. Since they are staffed by volunteers, this information is often not received until after the fiscal year closes and many times is not reported to the national databases. The Taos fire program is looking at better ways to secure this information.

70% of the surface area of the TAFO is within 2-3 miles of structures. Although Taos has not reported a significant number of acres burned on an annual basis, there is great potential for structural and resource damage by wildfires. Much of this land is pinyon-juniper woodland with trees at concentrations of 500-1500 per acre with considerable beetle kill (Ips) and many ignitions become FIL 4-6 in the crowns. Most fires within the TAFO are wind driven events and vary in size and intensity. Generally, only high intensity fires occur in the heavily wooded areas and lower intensity fires occur in the grassland/sagbrush areas and are easily suppressed.

- **Fuel Types:** There is an extensive range of topography within the field office, from 1,000 foot deep gorges to 11,000 foot high mountains, resulting in a wide variety of fuel types including: grasslands, sagebrush, sagebrush/grass, pinyon-juniper woodland, oak-brush/grass, ponderosa pine and ponderosa pine/mixed conifer. All fuel types are associated with heavily encroaching community developments adjacent to public lands. This mix of topography, slopes, elevation and fuel types can be very complex.

- **Suppression and Preparedness Actions:** Suppression operations are coordinated by the Taos Zone Interagency Dispatch Center. Four different federal and state agencies, and eight community agencies, operate under a Zone charter operating plan which was put together as a Joint Powers Agreement. TAFO is responsible for 50,000 acres of Initial Attack on U.S. Forest Service land in Taos Canyon and for approximately 120,000 acres of state and private land along the Rio Grande Corridor under the charter.

TAFO has one type 6 engine, an engine module leader, assistant engine foreman, engine operator, a senior firefighter and a firefighter on staff, four of which could be career seasonals. It also funds a seasonal dispatcher as required. TAFO needs to have a career seasonal GS-7 dispatcher (within the Taos Zone Center) and 2 additional fire dispatch-qualified staff members to support prescribed fire and extended suppression operations. TAFO wants a qualified fire suppression person to support suppression operations in aircraft, and an additional engine, and two engine foremen, to assist in suppression operations during peak fire season and assist in prescribed fire the remainder of the time. There is one type III Incident Command person on staff and one more is needed along with 3-4 additional people being qualified as strike team leaders or division superintendents.

The field office will use the Appropriate Management Response to suppress all fires in accordance with management objectives for the FMU based on current conditions and fire location. An appropriate response may include one or more of the following strategies: full suppression to minimize acres burned, limited suppression using pre-existing natural or man-made fuel breaks, and monitoring of wildland fire use. Rapid suppression response for the field office would be to prevent wildland fires from spreading to private land or threatening cultural resources or improvements on BLM lands. Minimizing cost must be

considered for any type of response. Requirements for fire operations can be found in the Interagency Standards for Fire and Aviation Operations. The Field Office has a Fire Danger Operating Plan, as part of which a Preparedness and Dispatch Response Matrix was developed. This system is based on the National Fire Danger Rating System (NFDRS).

Table 3 Preparedness and Dispatch Level Matrix

Staffing Class Preparedness Level	Burning Index	Fire Danger	Management Actions
PL-1	0-10 (FIL-1)	**Low-**Initiating fires low intensity with low resistance to control; fine fuels drying	1. Normal tour of duty 0800-1630 2. One engine dispatched initial attack response 3. Phone & radio monitored by Taos Zone until 1630 (or longer if initial attack is extended)
PL-2	11-21(FIL-2)	**Moderate-** Initiating fires moderate intensity with low-moderate resistance to control; heavy fuels drying	All above plus: 1. Daily Roster/staffing reports to Taos Zone started
PL-3	22-42 (FIL-3)	**High-** Initiating fires of moderate-high intensity with potential for spotting w/ winds & passive crowning possible; all fuel classes available at high end BI	All above plus: 1. Consider increased patrols following dry lightning storms; 2. Predicted LAL between 4-6, bump up to Level IV
PL-4	43-50 (FIL-4)	**Very High-** Fires present moderate to high intensity and high resistance to control; escapes are common at high end BI; all fuels classes available for rapid combustion; air temps high, humidities low with high winds possible; spotting & intermittent crowning likely	All above plus: 1. Briefings for agency Administrators as needed 2. Advise Taos Zone if extended staffing hours required 3. Consider fire restrictions; fire safety messages distributed 4. Consider canceling planned prescribed-fires and postponing project work
PL-5	51+ (FIL-5+)	**Extreme-** High to extreme intensities with crowning, short-long range spotting common; project fires likely under high wind conditions	All above plus: 1. Consider: ordered-standby/cancel, annual leave, etc. 2. Consider daily briefings for AA and press releases issued regularly 3. Review AA Briefing package

- **Prevention**

  1. Annual Prevention Program: Programs include a variety of interagency and independent outreach efforts throughout the field office. Annual outreach events include fire prevention day at Kit Carson Park, participation in radio interviews on local stations, workshops hosted by local conservation groups and Taos elementary schools, and presentations to Taos Business Alliance and the NM Native Plant Society. Other activities include presenting Firewise workshops in the community in collaboration with the U.S. Forest Service and talking with the public at Fish Fiestas 4 times per year.

  The fire program collaborates with more than 30 local fire departments and sponsors workshops on fire prevention. TAFO also hosts S-130/190 "Red Card" training for Administratively Determined (A.D.) temporary firefighters and rural volunteer firefighters. TAFO hires more than 40 A.D.s per year for both prescribed fire support and suppression. Taos has well-developed relations with the 8 Northern Pueblos, Taos Pueblo, Santa Clara Pueblo and Picuris Pueblo and coordinates prevention actions with

them.

Until now, outreach efforts have been conducted by fire program employees whose primary duty is not prevention activities; however, filling an outreach/prevention position would facilitate the development of the prevention program at the Taos Field Office.

2. Special Orders and Closures: The field office manager, or delegated acting authority will issue restrictions and closures. Criteria for restrictions and closures:

a. Retain strong interagency coordination
b. Develop and maintain strong intra-zone and state coordination and communication.
c. Control will be kept at local Field Office Manger for restrictions and closures
d. Keep it simple, coordinated and consistent
e. Maintain a strong communication plan for in-house and the public (radio, tv, newspaper, etc.)
f. Have a process for enforcement
g. Base closures on fuel samples, fire starts, regional and local weather, both long and short-term forecasts.
h. Use quantitative criteria with thresholds for weather, ERC's, 1000 hour fuels, live fuel moisture, preparedness levels, flame lengths and rate of spread, etc.

Stages of restrictions and closures will be

a. Stage 1- Allow campfires and smoking on developed recreation sites. Fireworks are not allowed.
b. Stage 2- No explosives, campfires, smoking, or use of equipment that may cause a spark is allowed as long as mitigation measures have been taken.
c. Stage 3- Partial field office closure with exceptions as decided by the Field Office Manager.
d. Stage 4- Full field office closure with very few exceptions

There are some allowable activity-based exemptions:

a. Exemptions to the restrictions or closure orders may be authorized through entry or activity permits.
b. Would require mitigation acceptable to the field office manager.
c. Exemptions should be managed according to risks and benefits.

All closures and restriction will be pursuant to 43 CFR 9212.2 (a) order number xxx-xxx applicable to the Bureau of Land Management.

3. Fire Training: Training and fitness requirements for all personnel involved in fire/suppression support can be found in the Interagency Standards for Fire and Aviation Management. Attendance at the refresher training, along with successful competition on the appropriate level of work capacity testing, is a prerequisite for the issuance of a Red Card.

Annual fireline training is required for all personnel participating in fire suppression operations, or prescribed fire activities, who may be assigned to the fireline. Annual training includes discussions on entrapments, current issues, fire shelters, hazards and safety issues. Annual fire refreshers will be given to approximately 40 employees each year between March and June. In addition, the fire program has an average of 15 people participating in fire support, logistics, dispatching, planning, resources, geographic coordination, GIS, operations and staging. As the Taos fire program has grown, there has been a need for specialized training in Prescribed Fire, Fire Use Training (FUTA), JACK or apprenticeship programs, fire monitoring, agreements and contracts, etc. Additional funding will help improve the effectiveness and efficiency of the program and its safety.

4. Detection: Detection of fires within the TAFO is generally dependent upon reports from other agencies' lookouts, field office employees, and the public. Patrols are routinely conducted in the TAFO when conditions are categorized as severe. 60% of all fires detected within the Taos Field Office come from 911 emergency calls to one of the County Emergency Dispatch Centers. TAFO does not utilize fire towers or other traditional means for fire detection. During periods of high lightning activity, the fire staff request aerial detection flights on an as-needed basis. These flights are usually done on a joint basis with the USFS, BIA and the New Mexico State Forestry.

5. Fire Weather and Danger: TAFO depends on the USFS's RAWS station on Picuris mountain. The fire program wants to set up a permanent RAWS station in the North Unit for establishing long term fire rating. Taos participates in the Statewide Live Fuel Moisture Fuel Sampling program. The TAFO currently has two portable FTS station which are used primarily for prescribed burns and are set-up during severe conditions. Taos has been trackin fuels moisture samples for the past five years and keeping a log of the results. Taos tracks energy release components and is working to develop the danger rating system.

6. Aviation Management: The Fire Management Officer (FMO) has been designate as the Unit Aviation Officer. There are two vendors located in Farmington, NM who are signed up under the OAS aircraft rental agreement (ARA) to provide point to point transportation, aerial ignition platforms, reconnaissance missions or other resource management activities (e.g. deer herd counts) These type of aircraft and services are coordinated with the Taos Zone and the state office Aviation Manager.

The use of helicopters for firefighting in the TAFO has been limited. They are periodically ordered and used on remote fires and aerial reconnaissance, etc. This practice has proven practical and will continue to be used in the future. Copies of the Taos Aviation Plan, Aircraft Pre-Accident Plan, state aviation plan and the IHOG can be obtained at the Taos Zone Dispatch and at the TAFO.

7. Initial Attack: All fires within the field office will be managed with suppression actions consistent with preplanned dispatch protocols in conformance with the resource management objectives identified in this plan. Tactics and strategies will be based on the current and predicted weather and fire behavior. Firefighter and public safety is always the first priority. The highest IA priorities for the field office are the FMUs with WUI concerns. All Initial Attack is conducted under the Taos Zone Mobilization Plan.

8. Extended Attack: Extended attack operations are based on fire occurrence and conditions and on the Interagency Standards for Fire and Fire Aviation Operations. Extended attack operations are also coordinated on a Zone-wide basis.

B. Wildland Fire Use: The Sabinoso Wilderness Study Area FMU (D-18) and Ute Mountain FMU (D-21) have been approved for Wildland Fire Use as part of the Fire and Fuels Management Plan Amendment and Environmental Assessment for Public Land in New Mexico and Texas (2004).

C. Prescribed Fire: Fire is recognized as a natural and indispensable process in fire-adapted ecosystems and can also be used to achieve objectives for other resources. Prescribed fire projects are planned on an individual basis and are tiered from the Taos Resource Management Plan. These projects are initiated by the fire program and by other resource areas such as wildlife and range. Such projects require a multi-resource review, NEPA analysis and a burn plan. Each burn plan includes a list of required personnel, prescription requirements, fire plan, air quality and smoke management, documentation requirements and monitoring protocol. All prescribed fire plans follow the guidelines and policies of the 9214. NEPA analysis is conducted on a project-by-project basis and can include a variety of treatments. Eleven NEPA documents have been completed which cover ongoing activities and another eight are in progress which will cover future activities.

Projects have been funded from a variety of sources: Joint Fire Science, Rocky Mountain Youth Corps, Los Alamos National Labs, Taos Business Alliance, New Mexico State Forestry, 319 Funds (New Mexico Water Quality), Rocky Mountain Elk Foundation, New Mexico Environmental Department, tribal funds and state funds, and the Sikes Act. Collaboration is ongoing with landowners adjacent to project sites as well as many local agencies including Carson National Forest, Santa Fe National Forest, Taos Pueblo, Santa Clara Pueblo and Eight Northern Pueblos Agency. The Taos Fire Management Plan and the decisions of the Taos Field Office Management Team will be used for guidance to establish priorities for future treatments.

The acreage treated by prescribed fires has increased substantially each year, from 671 in 2000 to 4,118 in 2004. Where conditions are suitable, prescribed fire is used to maintain non-hazardous levels of fuels and

to reduce the adverse affects of unplanned wildland fires. WUI areas are maintained by mechanical treatments designed primarily to remove over-stocked, dense, stands of pinyon pine, juniper, and Ponderosa pine which have become established in the absence of fire and competing herbaceous vegetation. This unnatural growth has become an obvious and dangerous situation for adjacent communities as well as watershed upon which they depend.

The Taos Fire Program is working on seven multi-year WUI projects and is in the planning stage of three more. 2004 production was within our annual targets: mechanical thinning, 600 to 2,000 acres; broadcast burning, 3,000 to 5,000 acres; pile burning, 600 to 1,000 acres; and biological monitoring and archaeological clearance 3,000 to 8,000 acres each, NEPA 4,000 acres. This is accomplished through hiring seasonal resource specialists, contracting, assistance agreements, collaboration (e.g. Rocky Mountain Youth Corps), force account, government employees, and stewardship contracting. TAFO would like to have a minimum of: one professional resource person and one technician; one archaeologist and one technician; one prescribed fire specialist; one fuels specialist and eight fuels technicians; and one fire educator. Our goals have been achieved through a multi-lateral approach involving contracting, assistance agreements, in-house resources, and collaboration which serves to leverage increasingly scarce resources and funds. These activities are complemented by other non-fire fuels applications.

D. Smoke Management/Air Quality: Air Quality within the field office is good. There are no non-attainment areas or Class I airsheds within the field office. Permits for burning are obtained from the New Mexico State Environment Department (NMED) in advance of any prescribed burning.

E. Non-Fire Fuels Applications

Approximately 1,000-3,000 acres of non-fire fuels treatment are planned each year across the field office and include: mechanical shaving, blading/disking, mechanical thinning and piling, and chemical applications. As of 2004, the field office has two assistance agreements for mechanical thinning and burning with Taos Pueblo and Santa Clara Pueblo. These agreements are working well and will treat over 800 acres in the WUI. Much of this work will be a combination of chemical control, mechanical removal, and piling for burning. This acreage will be converted from condition class 3 to condition class 2. Along with these projects we have shaved 400 acres, disked 600 acres, and are spiking 3,000 in 2004. The majority of the TAFO's fuels projects include fuelwood returns. During the past six years, biomass utilization from 4,200 acres has yielded more than 5,000 cords of wood whose sale returned more than $70,000 to the Treasury. The field office will continue to increase the yearly acreage treated by non-fuels applications.

F. Fuel Treatment Summary

Annual Treatment targets are listed below. These acreage figures are based on a full funding and staffing scenario. In the description of each FMU the acres treated is based on this best case scenario. Since these numbers are based on an annual target the actual annual acres will probably never be treated in a given year. Some years no acres may be treated in a given FMU but in other years more acres may be treated so over time it should average out. Once the burn acre target has been met, from either planned or unplanned ignitions, a review of objectives and strategies will be initiated to develop new suppression criteria on all wildland fires. Annual fuels treatment targets by FMU are shown in table 5.

Table 5 **Annual Fuels Targets for each FMU**

Fire	Broadcast	Pile	Mechanical	Non-	Biomass	Cultural	Monitoring	NEPA

Management Unit	Burn	Rx		Fire/Fuels	Utilization	Clearance		
TAFO-Rest of Office	200	200	200	200	200	200	200	200
North Unit/Pot Mountain	400	200	200	0	0	200	200	200
Rio Grande Corridor ACEC	10	10	10	0	0	10	10	10
San Antonio Gorge ACEC	10	10	10	0	0	10	10	10
San Antonio WSA	200	200	100	0	0	200	200	200
Cerro del Aire	200	200	200	0	0	200	200	200
Wild Rivers	200	200	200	0	0	200	200	200
Cebolla/Abiqui	0	0	1,000	1,000	0	1,000	1,000	1,000
Black Mesa/Ojo Caliente	0	0	100	0	100	100	100	100
RGC-Well Developed Riparian	0	10	10	0	10	10	10	10
Copper Hill ACEC	200	100	200	0	200	200	200	200
Copper Hill WUI	200	200	200	0	200	200	200	200
31 Mile	200	200	200	0	200	200	200	200
Fun Valley/Chimayo	100	0	100	0	100	100	100	100
Sombrillo SMA/Santa Cruz Lake	100	70	100	0	100	100	100	100
Chimayo Scout Camp	200	200	200	0	200	200	200	200
Buckman	0	100	100	0	100	100	100	100
Sabinoso WSA	500	0	0	0	200	200	200	200
La Cienega	200	0	0	0	200	200	200	200
Archuleta Mesa	200	0	0	0	200	200	200	200
Ute Mountain	400	100	100	0	200	200	200	200
Project Targets	3,520	2,000	2,210	1,200	2,210	4,030	4,030	4,030
Target Range*	3,000-5,000	600-2,000	600- 2,000	1,000-3,000	2,000	3,000-8,000	3,000-8,000	4,000-5,000

* Vary depending upon weather, budget, staffing, etc.

G. Emergency Rehabilitation and Restoration: Historically, the emergency stabilization and rehabilitation (ESR) workload has been very light. Although large fires have occurred in the Taos Resources Area, resource managers have found it more efficient to let natural processes rehabilitate damaged areas, which has proved both relatively quick and effective. Short-term ESR would be aimed primarily at repairing suppression-related damage from roads, fences, water bars, and fire lines. Long-term ESR might include: aerial seeding of native grasses and shrubs to stabilize critical slopes and to reduce the establishment of non-native, invasive, vegetation species; constructing water bars, and contour falling, to prevent watershed damage, soil movement, and the loss of habitat; and erecting temporary fences, or defering livestock grazing, until sufficient vegetation returns. ESR will be done on an as-needed basis determined by a multi-resource team and a line manager.

H. Community Protection/Community Assistance: Taos Field Office has assisted many local government agencies and fire departments over the last 6 years, under the Rural Fire Assistance program. This program is designed to build the capacities of the volunteer and rural fire departments to suppress wildfires on public lands, especially in the wildland urban interface, by funding training and equipment. Through this program we have established positive relationships with not only the fire departments but the local governments who are responsible for their oversight. This relationship has lead to many non-fire suppression collaborations in managing of natural resources and acquisition of properties and common resource interests.

Fuels reduction projects are either ongoing or planned around these communities but none has completed a community Risk Action plan. TAFO is collaborating with Penasco and Picuris Pueblo to develop their plans. The following is a table of the organizations benefiting from assistance and the obligated amount.

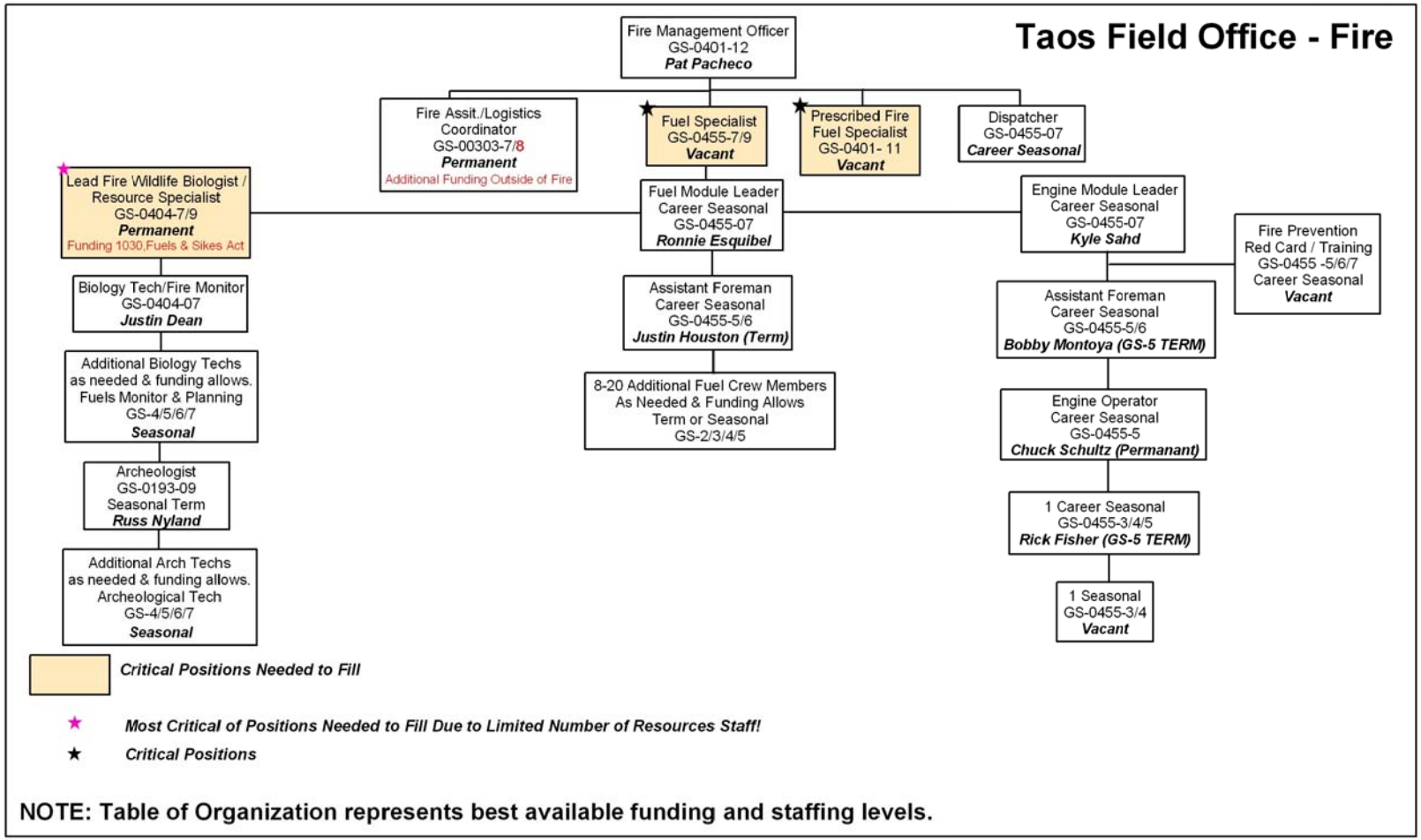
Table 7 Community Assistance

Community	Obligated Amount	Fiscal Year
Dixon Volunteer Department	$15,000	2001
Red River Fire Department	$16,000	2001
Taos Volunteer Fire Department	$20,000	2001
Questa Volunteer Fire Department	$7,224	2001
Tres Piedras Volunteer Fire Department	$5,500	2001
Santa Fe County	$46,000	2001
Latir Volunteer Fire Departmen	$17,000	2002
Rio Arriba County	$17,820	2002
Cerro Volunteer Department	$7,250	2002
San Miguel County	$20,000	2002
San Miguel County	$20,000	2002
San Juan County Treasurer	$96,000	2002
Rio Fernando Volunteer Fire Dept.	$10,000	2003
Taos County Treasurer	$4,000	2003
Mora County	$10,000	2003
City of Espanola	$10,000	2003
Rio Arriba County	$20,000	2003
Village of Chama	$13,000	2003
Santa Clara Pueblo Tourism	$250,000	2003
Taos Pueblo Warchiefs Office	$250,000	2003
Rio Arriba County	$93,090	2003
Santa Clara Pueblo	$20,000	2004
Village of Questa	$12,000	2004
Town of Red River	$6,000	2004
Town of Taos	$20,000	2004
Rio Fernando Volunteer Fire Dept.	$9,900	2004
Taos County Treasurer	$5,600	2004
Mora County	$16,200	2004

VII. Organization and Budget

Table 8 Organization and Budget 2004

Resource	Current Staffing	Desired Staffing	Normal Activation	Sub Activity	Cost
Fire Management Officer	1	1	Yearly	2810	$72,000
Prescribed Fire and Fuels Specialist	0	1	Yearly	2810/2823/2824	$66,000
Fuels Specialist	0	1	Yearly	2823/2824	$51,600
Fire Assist. /.Logistics Coordinator	0	1	Yearly	2810/2823/2824	$42,000
Fuels Crew		8-20		2823/2824	Project Driven
To maintain equipment and (FOR) on vehicles for fuels program				Minimum dollars 2823/2824	$60,000
Fuels Module Leader	1	1	Yearly	2823/2824	$38,400
Fire Prevention Red Card / Training	0	1	Career Seasonal	2810	$38,400
Assistant Fuels Foreman	1	1	Career Seasonal Term	2823/2824	$34,800
Dispatcher	0	1	Career Seasonal	2810/2823/2824	$38,400
Lead Fire Wildlife Biologist/ Resource Specialist	0	1	Yearly	2823/2824	$35,000
Biology Tech/ Fire Monitor	1	1	Yearly	2823/2824	$38,400
Additional Biology Techs as needed & funding allows. Fuels Monitor & Planning			Seasonal	2823/2824	$38,400
Archeologist	1	1	Seasonal Term	2823/2824	$51,600
Additional Arch Techs as needed & funding allows.			Seasonal	2823/2824	Project Driven
Engine Module Leader- Career Seasonal	1	1	Career Seasonal	2810	$38,400
Assistant Engine Foreman Career Seasonal	1	1	Career Seasonal Term	2810	$34,800
Engine Operator- Career Seasonal	1	1	Yearly	2810	$31,800
One Career Seasonal Term	1	1	Career Seasonal	2810	$30,000
One seasonal	0	1	Seasonal	2810	$24,000
2823-2824	Total $410,600				
2810	Total $351,100				
Grand Total	$761,70				


Taos Field Office - Fire
Fire Management Officer
GS-0401-12
Pat Pacheco
Fire Assit./Logistics Coordinator
GS-00303-7/8
Permanent
Additional Funding Outside of Fire
Fuel Specialist
GS-0455-7/9
Vacant
Prescribed Fire Fuel Specialist
GS-0401- 11
Vacant
Dispatcher
GS-0455-07
Career Seasonal
Lead Fire Wildlife Biologist / Resource Specialist
GS-0404-7/9
Permanent
Funding 1030,Fuels & Sikes Act
Fuel Module Leader
Career Seasonal
GS-0455-07
Ronnie Esquibel
Engine Module Leader
Career Seasonal
GS-0455-07
Kyle Sahd
Fire Prevention Red Card / Training
GS-0455 -5/6/7
Career Seasonal
Vacant
Biology Tech/Fire Monitor
GS-0404-07
Justin Dean
Assistant Foreman
Career Seasonal
GS-0455-5/6
Justin Houston (Term)
Assistant Foreman
Career Seasonal
GS-0455-5/6
Bobby Montoya (GS-5 TERM)
Additional Biology Techs as needed & funding allows. Fuels Monitor & Planning
GS-4/5/6/7
Seasonal
8-20 Additional Fuel Crew Members As Needed & Funding Allows
Term or Seasonal
GS-2/3/4/5
Engine Operator
Career Seasonal
GS-0455-5
Chuck Schultz (Permanant)
Archeologist
GS-0193-09
Seasonal Term
Russ Nyland
1 Career Seasonal
GS-0455-3/4/5
Rick Fisher (GS-5 TERM)
Additional Arch Techs as needed & funding allows. Archeological Tech
GS-4/5/6/7
Seasonal
1 Seasonal
GS-0455-3/4
Vacant
Critical Positions Needed to Fill
Most Critical of Positions Needed to Fill Due to Limited Number of Resources Staff!
Critical Positions
NOTE: Table of Organization represents best available funding and staffing levels.

VIII. Monitoring and Evaluation

Monitoring and evaluating of the fire program will determine if the program and associated projects are meeting the various resource plans direction, and to determine if the costs of implementing the fire program and management effects are occurring as predicted.

Project monitoring will also require that the Burn Boss conduct First Order Effects Monitoring. This protocol consists of the development of prescriptive parameters (i.e. weather, fuel loading, fuel moistures, etc.) to meet desired objectives, then to evaluating the success or failure of the parameters in meeting the objectives of the treatment. The Burn Boss or a subordinate will document: burn patterns, consumption, plant mortality, scorch height, air quality and other requirements related to fire treatment objectives. The Burn Boss will compile all data and file in the appropriate project file.

Taos Field Office has taken a systematic approach to monitoring prescribed fire and non-fire treatments. Projects are subject to pre-and-post-treatment monitoring which will be conducted according to the Monitoring Protocol established by the Taos Field Office Fire and Fuels Program. Fire and Surface Monitoring Protocol was developed in 2002 and 2003 to mandate a minimum level of monitoring and documentation of management effects to insure that monitoring methods will be replicable and consistent over time, and to establish a documentation program to insure that information is organized, available and protected.

Program evaluation is a priority periodic fire and fuels program reviews will be conducted to evaluate the program in its entirety (suppression, fire, fuels, and NEPA) and to insure that the overall program is meeting national standards. This will consist of formal Readiness Reviews and/or informal evaluations/site visits of specific projects and programs. All reviews and evaluations will be documented and results will be given to the Taos Field Office Manager and the Fire Management Staff.

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