

## I. INTRODUCTION

### A. Purpose

This Resource Management Plan (RMP) for Sabino Canyon Open Space identifies specific objectives and strategies that will help preserve the unique historic and cultural character of the site and protect its abundant natural resources. In addition, it offers suggestions for limited, resource-based recreational opportunities. These objectives and strategies are consistent with the natural and cultural resource issues that have been identified by the public and staff through extensive community participation and a consensus-based planning approach. Most importantly, this is a *working* document that describes the site's complexity and provides guidance for future management and use.

### B. General Information and Location

Bernalillo County (County) purchased Sabino Canyon Open Space (Sabino) in October of 1999 with mill levy funds from a 1998 referendum that approved ½ mill for open space purchases. Community residents encouraged the County to purchase this property to prevent residential development. Bernalillo County Parks & Recreation oversees and manages the property.

Sabino is located on the northern plateau of the Manzano Mountain Range south of Interstate 40, 7 miles south of Tijeras Village and approximately 25 miles southeast of Albuquerque. The Cibola National Forest partially borders the property along its northern boundary and entirely along its western boundary. The eastern and southern boundaries abut private residential development. Sabino comprises 116 acres south of the Cedro Peak Campground and ranges in elevation from 7,000 to 7,200 feet above sea level.

The property was used for dry land farming as of the late 1800s. In the 1920s, the property was sold to the Reidling family and they converted it into a fur farm where 300 to 500 silver foxes were raised until the market crashed late in the decade.

There are several structures on the property. The condition of the structures varies widely. A one-room building built during the 1950s is still in good condition. Fur farm structures remain as well as a defunct water tower. Walls of other structures remain intact and foundations remain from two old houses that burned in the 1970s. [See *Tijeras Canyon: Analyses of the Past*, edited by Linda S. Cordell, for a historical reference of the area.]

### **C. Legal Description**

The site is located in Bernalillo County; Zone Atlas Volume 2, pages M-31, and N-31. The property is zoned A-2, rural residential and is for all intents and purposes, undeveloped. The property includes two parcels. The parcels listed below comprise the 116-acre property.

The legal description is: *Tract A and Tract B as shown on the Final Subdivision Plat of Tracts A, B, and C, Sabino Canyon.* A vicinity map on the following page shows Sabino's location in conjunction with other East Mountain Open Space properties.

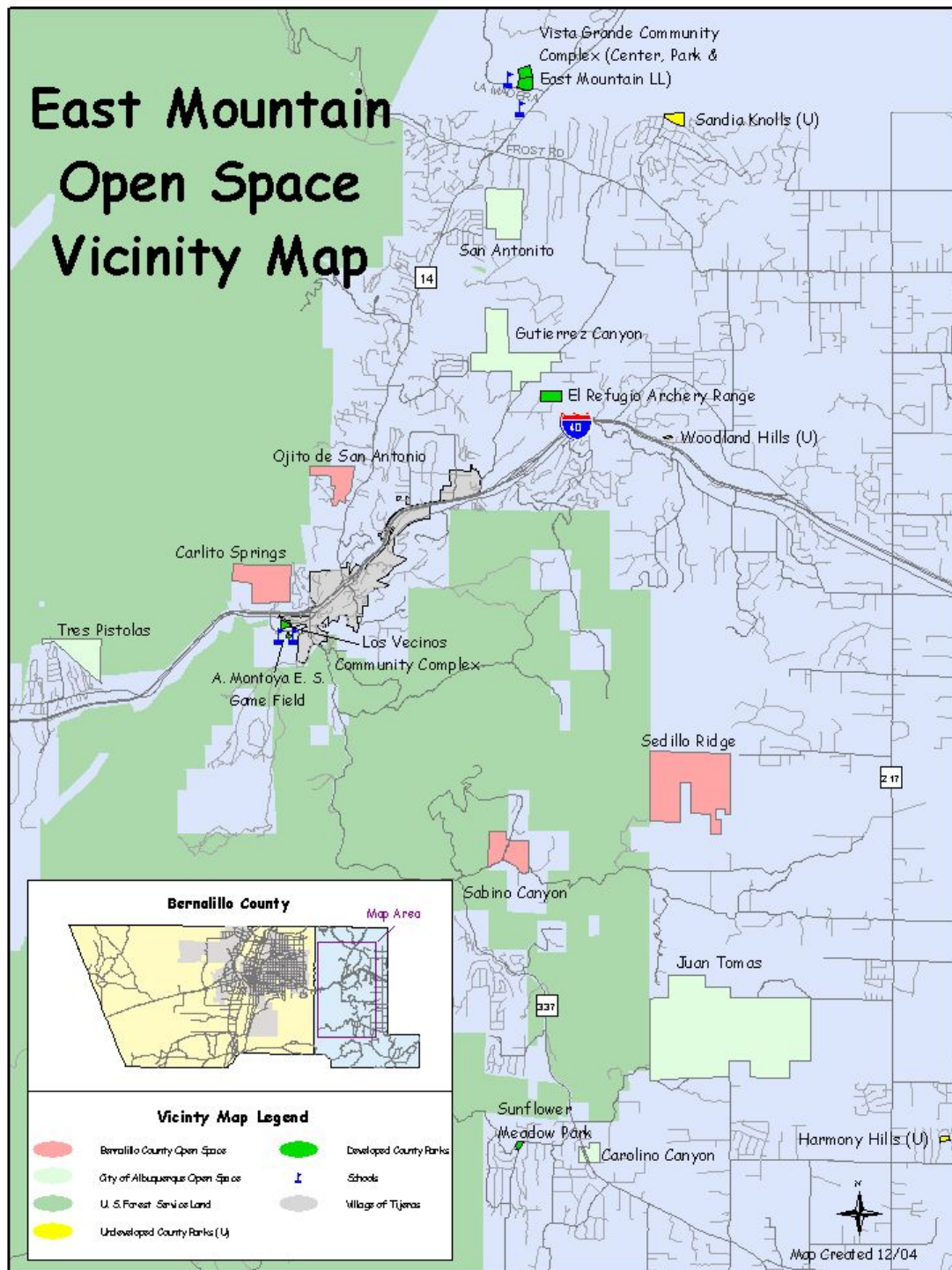
### **D. East Mountain Open Space (EMOS) Planning Process**

In the fall of 2001, Bernalillo County Parks & Recreation (County) applied for and received a technical assistance grant from the Rivers, Trails and Conservation Assistance Program (RTCA) of the National Park Service to support the County's efforts in developing RMPs for recently acquired open space properties in the East Mountains. Recognizing the benefits of partnership planning, the City of Albuquerque Open Space Division and the U.S. Forest Service Sandia Ranger District joined the East Mountain Open Space planning process.

The National Park Service facilitated a community-based planning process that made concerted efforts to involve all East Mountain residents in open space management discussions. Key planning steps included:

- Forming a steering committee with individuals representing adjacent neighborhoods, land grant associations, trail users, wildlife interests, youth groups, educators, East Mountain Historical Society members, East Mountain Garden Club members, and land management agencies.
- Organizing familiarization tours of each property to better understand site issues, unique values and characteristics, and management opportunities.
- Establishing an *East Mountain Open Space Vision*, organizational mission, and resource management goals.
- Understanding critical issues and concerns related to natural, historical, and cultural resource protection, public use, and adjacent lands.

**Map 1. East Mountain Open Space Vicinity Map**



(Map by Adrienne Candelaria)

- Developing site knowledge through trail construction training, fuel load reduction workshops, Global Positioning System (GPS) mapping of property features, Youth Conservation Corps site restoration work, and Talking Talons Youth Leadership environmental education and research.
- Conducting community outreach through neighborhood meetings, additional site visits, and newspaper feature articles.
- Organizing and hosting community design *Charrette* workshop to consider appropriate uses, facility, and site design elements.
- Developing resource management plans with public support.



*Cages from the fur farm era at Sabino Canyon. (Photo by Lisa Powell, 2004.)*





*Defunct water tower at Sabino Canyon. (Photo by Lisa Powell, 2004.)*

*i. East Mountain Open Space Steering Committee*

Early in the process, citizens endorsed the idea of establishing a project steering committee. Individuals volunteered to serve on the East Mountain Open Space Steering Committee (Steering Committee) to help develop RMPs for each property. Committee members represented neighborhood associations, recreational trail users, adjacent landowners, wildlife interests, forest health, land grant associations, *acequia* organizations, young adults, educators, local media, and regional land management agencies.

**EMOS Steering Committee Organizational Mission:**

In order to provide sustainable public access with natural resource conservation, we will develop stewardship plans for all the East Mountain Open Space properties.

(Adopted by East Mountain Open Space Steering Committee, July 2002)

The key roles and responsibilities of the Steering Committee included:

- Understanding the concerns and desires of the local community regarding open space management.
- Serving as local ambassadors for the project.
- Promoting the values of partnership planning and consensus building.
- Becoming familiar with the issues, concerns, and resources at all of the open space properties.
- Leading community outreach and public involvement activities.
- Agreeing to work with others who may have different opinions.
- Assisting the technical team by organizing meetings, site visits, events, and other community involvement activities.
- Reviewing, developing, and commenting on planning documents.

In addition, each open space property was represented by subcommittees that further investigated issues and opportunities associated with each site. These subcommittees also organized neighborhood meetings and additional site visits to gather more information.

*ii. Public Meetings*

In addition to monthly Steering Committee meetings—that were open to the public—the County also met with neighborhood and special interest groups regarding Sabino and participated in East Mountain area events. These meetings and events are listed in Table 1.

**Table 1. Public Outreach.**

<b>Meeting Type/Location</b>	<b>Property</b>	<b>Date</b>	<b>Attendance</b>
East Mountain Pride Day/Vista Grande Community Center	All Properties	April 29, 2003	Event booth
Neighborhood: Canyon Estates /Wells Fargo Bank	Carlito Springs	May 22, 2003	10
Blessing of the Spring/ Onsite	Ojito de San Antonio	May 7, 2003	Event booth
Neighborhood/ Onsite Tour	Carlito Springs	July 22, 2003	
East Mountain Discovery Days/ Sandia Ski Area	All Properties	July 26, 2003	Event booth
Neighborhood/ Resident Home	Sedillo Ridge	July 10, 2003	22
Neighborhood/ Cedro Campground	Sabino Canyon	Sept. 7, 2003	15
East Mountain Pride Day	All properties	April 25, 2004	Event booth
Design <i>Charrette</i> / Tijeras Ranger District	All properties	Nov. 19, 2003	50
San Antonio Acequia Association	Ojito	Nov. 16, 2004	5
San Antonio Acequia Association and the Office of the State Engineer	Ojito	Dec. 15, 2004	14

**E. Relevant Plans**

General goals and policies for County open space properties were identified in four higher-ranking plans. Those plans are the Albuquerque/Bernalillo Comprehensive Plan (1988), Major Public Open Space Facility Plan (1999), East Mountain Area Plan (1992), and the Bernalillo County Parks, Open Space, Trails Master Plan (2003). Additional related land management strategies may be found in the Cibola National Forest Land and Resource Management Plan produced by the United States Forest Service (USFS) as amended in 1990 and 1996.

*i. Albuquerque/Bernalillo Comprehensive Plan (Comprehensive Plan), 1988.*

The Comprehensive Plan gives broad direction for open space acquisition. Sabino was acquired because it meets many of the purposes outlined in the Comprehensive Plan. The site conserves natural resources and environmental features, preserves archaeological resources, and provides for outdoor recreation and education opportunities.

**Major Public Open Space Purposes:**

1. Conservation of natural resources and environmental features
2. Provision of opportunities for outdoor education and recreation
3. Shaping of the urban form
4. Conservation of archaeological resources
5. Provision for trail corridors

Albuquerque/Bernalillo County Comprehensive Plan, 1988

*ii. Major Public Open Space Facility Plan (MPOS), 1999.*

The MPOS is more specific than the Comprehensive Plan and was adopted by the County in 1999. The MPOS is the primary policy document for open space management. It establishes policies for many of the natural resource management issues and visitor use. The MPOS categorizes open space properties and their associated uses into several categories. **Sabino is defined as a *Protected, Undeveloped Open Space* because it contains existing structures, limited parking, and visitor access will require management to protect the water, plant, and wildlife resources.** [See Appendix A, *Permissive and Conditional Uses in Major Public Open Space* for additional information regarding County designation of public open space properties.]

*iii. East Mountain Area Plan (EMAP), 1992*

The EMAP provides direction specific to East Mountain open space conditions and goals. It also identifies priority acquisition areas in the East Mountains. The EMAP gives specific policy recommendations in two areas: (i) a mandate for the County to work with the USFS and City of Albuquerque (City) on joint projects, and (ii) a mandate to develop interpretive signage that explains historic, natural, and archaeological features along rural and scenic roadways in the East Mountain area. Bernalillo County Planning staff and East Mountain residents are currently updating the EMAP.



*iv. Bernalillo County Parks, Open Space, Trails Master Plan (POST), 2003*

The POST is the most recent plan completed by the County's Park and Recreation Division. It articulates the County's goals and objectives for its open space program and the Open Space Advisory Committee (OSAC). In addition to providing vision and mission statements for the program, the POST also delineates action items for County open space properties, including Sabino. A sampling of pertinent OSAC goals and objectives as listed in the POST follows:

- *OSAC Goal 4: Develop management plans for BCOS properties that conserve and enhance natural and cultural resources while providing opportunities for public education and recreation.*
- *OSAC Goal 5: Preserve and enhance water resources on BCOS properties.*
- *OSAC Goal 7: Form partnerships with agencies and community organizations to build BCOS capacity for land management.*

*v. Cibola National Forest Land and Resource Management Plan  
(as amended 1990 and 1996)*

Sabino is adjacent to the USFS National Forest along its northern and western boundaries. Because of this proximity to federal land, the Cibola National Forest Land and Forest Resources Management Plan may outline beneficial resource management strategies applicable to Sabino. It is mentioned here as a reference and guide for future decision-making at Sabino. The shared boundary presents numerous challenges and opportunities for future use and management.

**BERNALILLO COUNTY OPEN SPACE PROGRAM, 2003**

**VISION**

Bernalillo County Open Space will become a dynamic network of properties with important natural and cultural resources managed to benefit people, plants, and wildlife by protecting or enhancing view sheds, water resources, wildlife habitat, cultural/historic sites, and prime agricultural land; while providing resource-based recreation.

**MISSION**

To preserve and provide natural areas, cultural resources and resource-based recreation for Bernalillo County citizens. These lands are acquired and managed to conserve natural and cultural resources, provide opportunities for education and recreation and to shape the urban environment.

**OPEN SPACE ADVISORY COMMITTEE (OSAC) GOALS**

These goals were written and approved by the OSAC, a citizen body that advises the Bernalillo County Open Space (BCOS) program. The following goals apply to Sabino:

1. Develop management plans for BCOS properties that conserve and enhance natural and cultural resources while providing opportunities for public education and recreation.
2. Preserve and enhance water resources on BCOS properties.
3. Develop best management practices for all properties.
4. Form partnerships with agencies and community organizations to build BCOS capacity for land management.

**F. Guiding Principles for All East Mountain Open Space Properties**

The Steering Committee has developed the following guiding principles for all nine open space properties. These guiding principles were developed to establish a fundamental level of consistency among the sites leading to a more seamless visitor experience.

*i. Site Improvements*

Design and install appropriate site improvements such as boundary fences, trails, and other improvements that will support a quality visitor experience while maintaining the undeveloped character of an open space property.

*ii. Natural and Cultural Features*

Protect and enhance significant natural and cultural features by protecting existing ecosystems and developing strategies to minimize damage, protect riparian areas, revegetate disturbed areas, and minimize the risk of fires.

*iii. Recreational Activities*

Safely accommodate shared uses by supporting diverse recreational activities such as hiking, mountain biking and equestrian, and educational activities while minimizing user conflicts and other safety hazards.

*iv. Educational Opportunities*

Provide diverse educational opportunities to a variety of open space visitors.

*v. Landowner Cooperation*

Cooperate with adjacent landowners/managers to minimize negative impacts and promote opportunities for interagency collaboration.

*vi. Long-term Stewardship*

Sustain long-term stewardship by developing management partnerships and funding strategies that address long-term property needs.

## II. EXISTING CONDITIONS

### **A. Climate**

Temperatures range from an average low of 10 degrees Fahrenheit (F) in January to 90 degrees (F) in July and August. Temperature extremes can vary between -27 degrees (F) to a high of 99 degrees (F).

### **B. Geology**

The bedrock types within the area include sandstone, claystone, and shale. The New Mexico Bureau of Mines and Mineral Resources Memoir 29 notes that the site lies east of the Tijeras Fault (Kelley 1977). Onsite geology is typical of the East Mountain area.

### C. Topography

Elevation onsite ranges from approximately 7,000 to 7,200 feet above sea level.

### D. Soil Conditions

Soil types at Sabino include soils from the Rock outcrop and Seis series. Rock outcrop series soils are formed where sandstone, limestone, or basalt have been exposed through major geologic functions such as faulting, uplifting, or stream channel erosion. These soil conditions are located in areas where slope ranges between 20 and 80 percent and between 6,000 to 10,500 feet in elevation. As a result, runoff is very rapid and water erosion hazard is moderate. Seis series soils are moderately deep, well-drained, moderately permeable soils that formed in weathered limestone residual materials on the sides of mountains (Rich 2000). Soil information specific to Sabino follows:

#### *i. ROF: Rock outcrop-Orthids complex*

Orthids soils typically occur where bedrock materials are limestone, sandstone, or schist and have been exposed at the surface. Slope conditions range between 40 and 80 percent and surface water runoff is very rapid and the potential for erosion by water is moderate. These soils are typically thin to very thin, and contain large amounts of oversized materials. There is little or no vegetation with this soil type (Rich 2000).

#### *ii. SFE: Seis stony loam*

Seis stony loam soils occur in moderate to very steep slope conditions—15 to 60 percent—in the limestone hills of the Sandia and Manzanita Mountains. Runoff is rapid and water erosion is severe. Included in this soil mapping unit are areas that include Silver soils, Rock outcrop, and a soil that is similar to Seis stony loam soil but is 30 to 35 percent coarse fragments and is shallow over bedrock. This soil type supports recreational, wildlife habitat, watershed, and range uses (Rich 2000).

#### *iii. Seis complex*

Also indigenous to the limestone hills of the Sandia Mountains, Seis complex soils are found in 30 to 80 percent slope conditions. Where the surface layer is very stony loam, water erosion is severe. This soil is conducive for wildlife habitat, water, recreation, and range uses (Rich 2000).

## E. Hydrology and Water Quality

Groundwater depth varies between 50 and 400 feet throughout the property. Annual precipitation at the Sandia Ranger Station—the nearest gauging station—is 13.9 inches. Sabino Spring begins on the property and flows a short distance before leaving the property. It was developed into a cistern but has since returned to a surface flow seep. Although persistent drought conditions during the past few years have reduced the flow considerably, this spring continues to provide water for wildlife.

There are two wells located on the property. Water quality measurements should be conducted in order to accurately and effectively monitor changes at each well. In addition, solar powered pumps and wildlife trickle tanks are being considered for each of the wells to enhance the viability of Sabino as wildlife habitat and corridor.

## F. Plant Communities

Soil conditions, precipitation levels, and human influence have contributed significantly to the development of plant life at Sabino. These plant types can be grouped into three different plant communities: piñon-juniper, riparian, and grassland meadow.

### *i. Piñon-Juniper Community*

Approximately 55 percent of the site is comprised of the piñon-juniper community. This plant typology surrounds the riparian and grassland meadow areas with native vegetation typical of the Sandia Mountain Wilderness.

Two rare and sensitive plant species may be found in this area. Gypsum Sand Verbena, *Abronia bigelovii*, is found in both grasslands and piñon-juniper woodlands. Santa Fe Milkvetch, *Astragalus feensis*, is found primarily in piñon-juniper areas. These species have not been located at Sabino thus far; however, the property will be monitored for their presence. [See Appendix B for photos of Gypsum Sand Verbena and Santa Fe Milkvetch.]

### *ii. Riparian Community*

The riparian plant typology may be characterized as *water influenced* vegetation and includes native species commonly found in wetter areas throughout the state. The Sabino spring has created a small ribbon of riparian vegetation along the southern property boundary. It is comprised of mostly native vegetation, and provides a small area for wildlife to water.



Although the riparian area is a small portion of the 116-acre property—less than 1 percent—it contributes to the site’s identity and provides enhanced habitat diversity.

There is one endangered plant species that may be found in this habitat type. The Great Plains Lady Tresses Orchid, *Spiranthes magnicamporum*, is primarily found in riparian areas less than 7500 feet in elevation. To date, the Lady Tresses Orchid has not been found onsite. [See Appendix B for photo of Lady Tresses Orchid.]

*iii. Grassland Meadow Community*

The grassland meadow area most likely dates back to the late 1800’s. It has likely been reestablished over the years after dry land farming and wood gathering in the area ceased. It comprises approximately 45 percent of the property.



*Piñon pine tree die-off in transition zone between piñon-juniper and grassland meadow plant communities at Sabino Canyon. (Photo by Lisa Powell, 2004)*

### **G. Forest Health and Fuel Load Reduction**

The current condition of the forest is estimated to be in fair to poor condition. In some areas, fuel-loading hazards have developed. Over the years, a substantial amount of fuel wood has been removed from the area, which has improved forest health. Selective thinning has been conducted in other areas.

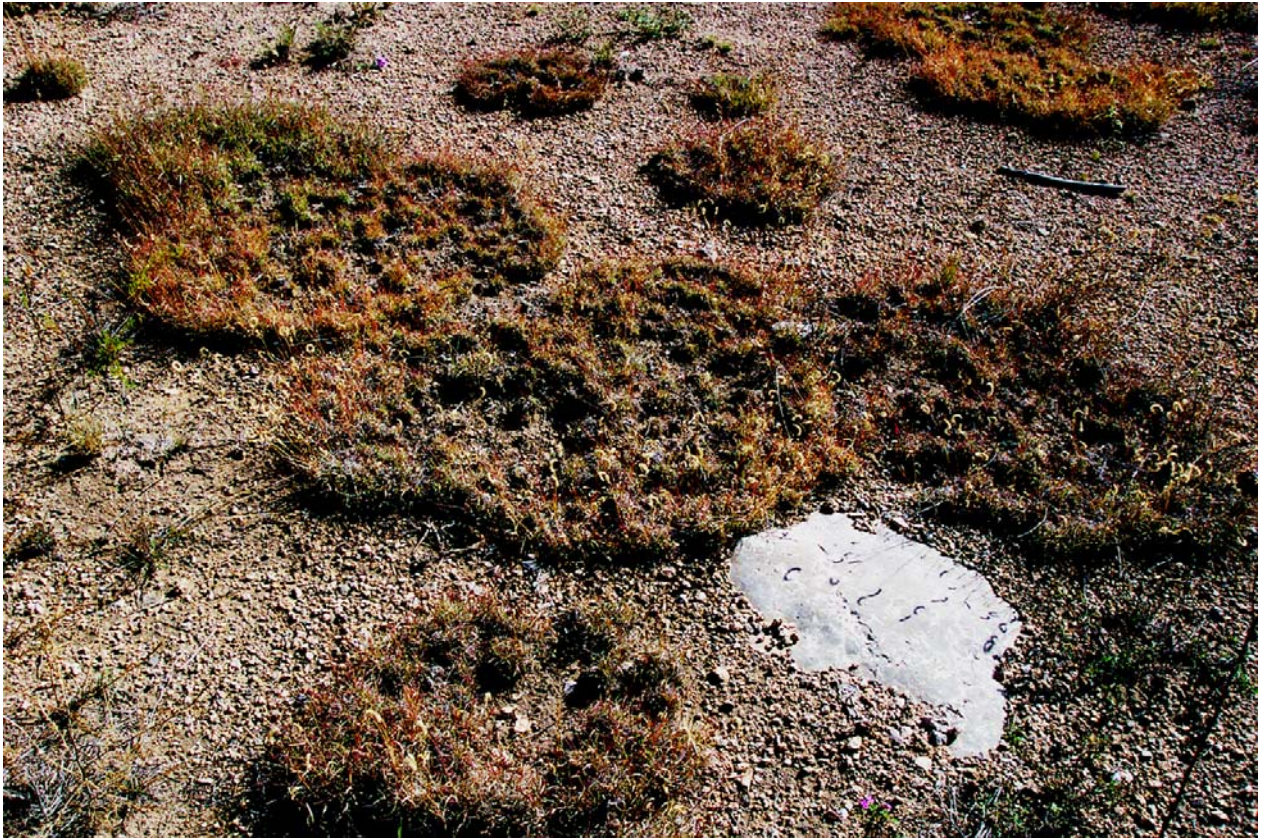
### **H. Forest Pests**

Forest pests are insects that can degrade the overall plant health of the forest. Signs of slow degradation throughout the Sabino watershed have been noted and an effort will be made to curtail the damage caused by these insects. Primary pests are those that attack tree species and that are likely to be found at Sabino. Open Space management should be concerned with Ips Bark Beetles, Piñon Pitch Nodule Moth, Western Cedar Bore, Twig Beetles, Round headed and Fatheaded Wood Borer. Significant piñon pine tree die-off is due to persistent drought conditions and the invasion of bark beetles. Fuel loading hazards from the die-off will likely decrease once affected trees drop their needles.



*Native grass in the piñon-juniper plant community at Sabino Canyon. (Photo by Lisa Powell, 2004.)*





*Ring muhly—a native grass in the grassland meadow plant community at Sabino Canyon.  
(Photo by Lisa Powell, 2004)*

## **I. Noxious Weeds**

There are three classes of noxious weeds in New Mexico as defined by the New Mexico State University Cooperative Extension Services publication, *New Mexico's Invasive Weeds* (Lee 1999). Class A weeds are not native to an ecosystem and are not presently found in the state but are threatening to invade. Preventing infestations and eliminating new infestations is the highest priority for this class. Class B weeds are not native to the ecosystem and are presently limited to particular areas within the state. Preventing new infestations should be a priority for weeds in this class. Class C weeds are also not native to the state yet are widespread throughout the state. The following noxious weeds have been identified at Sabino: Class A—Hoary cress (*Cardaira draba*), Canada thistle (*Cirsium arvense*), and Scotch thistle (*Onopordum acanthium*); Class B—Russian knapweed (*Acroptilon repens*), and Musk thistle (*Carduus nutans*); and, Class C—Field bindweed (*Convolvulus arvensis*), and Jointed goatgrass (*Aegilops cylindrica*).

Noxious weeds require long-term treatment to effectively control their populations. The County will consider using environmentally sensitive control measures to control weed infestations.

## **J. Wildlife Communities**

Several wildlife species use Sabino's favorable habitat conditions for plant and water resources. The primary mammal found at Sabino is the mule deer. It is not uncommon to find them bedded in the juniper during the summer months or traveling to and from water sources. Sabino provides habitat for these large animals during times of drought and minimizes the potential conflict that may occur if they had to travel longer distances for food and water. Deer visitation typically occurs between July through October.

Sabino also offers a unique mixture of habitat for birds because of the presence of water. The combination of riparian, piñon-juniper, and grassland meadows is an exceptional haven for a rich diversity of bird life. It would be beneficial to conduct a comprehensive bird survey that would identify habitat preferences and document the presence of priority species at Sabino. This documentation could then be used to enhance plant and wildlife diversity by prioritizing conservation efforts. [A condensed list of commonly found East Mountain mammal and bird species is attached as Appendix C.]

### *i. Federal Endangered Species*

There are two endangered mammals found in Bernalillo County—the Spotted Bat and the Meadow Jumping Mouse. The Spotted Bat habitat includes all forest types known to occur in this area; however, it has less than regular occurrence. The degradation of habitat in areas where these bats exist can be detrimental to their populations. A variety of rangeland management activities contribute to the loss of habitat for the Meadow Jumping mice.

### *ii. State Sensitive Species*

A wildlife biology inventory will be conducted to assess habitat viability for federally listed threatened and endangered species as well as state listed and candidate species of concern. Where appropriate, site improvements will be considered to enhance the viability of the identified species at Sabino. In addition to site-specific enhancements, it is recognized that encouraging wildlife corridors throughout open space properties in the East Mountains,

including those owned by the City of Albuquerque, Bernalillo County, and the U.S. Forest Service, is an important consideration for resource development at all open space properties.

### III. HISTORY AND CULTURE

The property has a long history of habitation. Archeological evidence of Spanish Colonial settlement has been located. Those sites, however, have not been excavated. Written history dates back to the early 1800s when the community of Sabino was established. This small community used the surrounding area for dry land farming and wood gathering. Some residents recount coming to Sabino by horse and wagon from other communities to collect water.

The Riedling family purchased the property during the 1920s. They established the Riedmont Fur Farm on the property and raised silver fox, until the depression forced them to close that operation. After the crash of the fox market, mink and rabbits were raised until each of their market values also crashed. Remnants of several structures remain on the property.

### IV. LAND USE

#### A. Onsite Activities

The County has been relying on the Sabino Canyon Neighborhood Association to report suspicious and illegal activity. No improvements have been made at Sabino other than the installation of signage to indicate property ownership. There have been no coordinated activities at Sabino since the County purchased it.

#### B. Structures

There are several structures onsite that help tell the story of Sabino's past. A one-room building is the only useable structure remaining. Old house foundations, a defunct water tower, and the remnants of fur farm structures remain at the site. A stone ruin also endures on the property.





*Animal stalls at Sabino Canyon. (Photo by Lisa Powell, 2004.)*



*Stone ruin at Sabino Canyon. (Photo by Lisa Powell, 2004.)*

### **C. Resource-based Recreation**

Primary recreational opportunities will be enjoying views of the Sandia and Manzano Mountains, hiking, and picnicking. Informal trails wind through the site and connect to existing USFS trails near the property boundary. Local residents frequently use these single-track trails.

Wildlife viewing is also an appropriate use of this property. Though minimal in size, the riparian area attracts numerous raptors and songbirds in addition to large mammals such as black bear and mule deer. Encounters with an occasional rattlesnake are possible and must be considered when visiting the site.

### **D. Education and Interpretation**

Talking Talons' Leadership Center with support from the Youth Conservation Corps conducted assessments of all nine East Mountain Open Space sites (City and County) to identify resource based education and interpretation opportunities specific to each site's conditions. The following are their suggestions for Sabino:

#### *i. Trails System*

Currently, there are no formal or developed trails at Sabino. There is a road that leads to the fur farm ruins that, after looping offsite into private land, leads back to Juan Tomas Road (Forest Road 242).

#### *ii. Seasonal Events*

Sabino's clear skies, rich history, and easy access from Juan Tomas Road, makes an excellent camp setting for young stargazers and a memorial for East Mountain entrepreneur and community leader, Dr. Wade Douglas. There are two open meadows on the site that may be favorable settings for fireside chats, stargazing events, and primitive camping sites.

#### *iii. Interpretive Displays*

Informational, interpretive displays should be erected at each of the historic ruins. Sabino's traditions of fur farming and settlement patterns throughout the area are two appropriate themes for interpretive displays.

### **E. Access and Parking**

To access the site from I-40, proceed south on NM Highway 337, turn left on Juan Tomas Road (follow Cedro Peak Campground signs). Turn left on Forest Road 252 and continue approximately .2 miles. A Bernalillo County Open Space sign indicates the primary access to the property. There is no formal parking area. Vehicles typically park along the road or across from the Bernalillo County Open Space sign in a flat clearing. Discussions with the Sabino Canyon Neighborhood Association regarding proposed parking areas are ongoing. [See Appendix D for an evaluation of potential parking areas prepared by the County's Public Works Department.]

### **F. Fencing & Signage**

Existing fences were installed by adjoining property owners. Some County Open Space boundary signs have also been installed.

### **G. Adjacent Land Use**

Sabino is surrounded by single-family residential development along the eastern and northern boundaries. The western boundary abuts the Cibola National Forest. Predominant uses of adjacent, nonresidential property include hiking and nature observing.

## **V. COMMUNITY FEEDBACK**

The Steering Committee played an important role in planning efforts by participating in dialogue about management goals for Sabino. Their responses to key questions regarding values, issues and concerns, and opportunities reflect current and future management goals at Sabino. Their responses are summarized below.

### What do you think are the most important **values**?

- Perennial springs and riparian area
- Remnants of Riedmont Fur Farm
- Bordered by National Forest on two sides
- Town of Sabino footprint
- Stone building ruins
- Good public access
- Diversity of wildlife and plants

- Acquisition supported by Sabino Canyon Neighborhood Association
- Adjacent to Cedro Peak Recreation Area
- Two wells on the property
- Great night sky, natural quiet, open meadows

What are the **issues** and **concerns** that need to be addressed?

- How to protect and interpret the Town of Sabino
- Contamination of the wells
- Water pollution to riparian areas
- Liability and risk management issues: stabilization or demolition of ruins; lumber, fencing, and other hazards
- Locations of site developments (parking) concern neighbors
- Neighborhood concerns over speeding traffic on access road, parking area location and size
- What uses will be allowed on the property?

What **opportunities** present themselves at the site?

- Astronomy and star gazing
- Hiking
- Picnicking
- *Base Camping* for cycling and equestrian events
- Salvage Fur Farm wood planks for site improvements
- Extend Cedro Peak trails to property

What **information** exists and who has it?

- Cedro Peak Trails Map
- East Mountain Historical Society
- East Mountain Area Plan references Sabino Canyon and its unique characteristics
- UNM Library on Riedmont Fur Farm

## VI. MANAGEMENT OBJECTIVES FOR RESOURCES, VISITORS, AND STEWARDSHIP

The information compiled in this section is a result of analyzing site baseline data and key issues identified through community input. This section begins with a statement that describes the desired future conditions at Sabino. This statement was developed with strong community involvement and it is not meant to limit future site opportunities or decisions.

***“Sabino will provide habitat for bears, mountain lions and other wildlife. People will come to the site to learn about habitat conservation, the site’s cultural history, and to relax. The property will be used for educational purposes. Recreation opportunities will be compatible with wildlife conservation. Neighboring residents and community organizations will become stewards of the property; helping to accomplish forest health and riparian restoration projects. The County will be able to provide leadership that leverages scarce funding and reinforces stewardship partnerships”.***

The County will use management objectives and strategies to assure that all resources are available to the public, yet cared for in a manner that will sustain them over time. Early in the planning process, those involved recognized the need for balancing habitat protection with public use. These management objectives try to achieve such a balance. Zones have been developed with specific objectives and strategies in mind. Despite similarities, they may vary considerably from one zone to the next. The management objectives and strategies included in this section are not static and will be reviewed periodically in terms of their effectiveness. If changes are needed, they will be implemented in a timely manner to assure that damage or misuse does not continue unchecked.

## **A. Management Zones**

### *i. Historic/Cultural Zone*

This area includes the remnants of several structures.

### *ii. Forest Zone*

The majority of the property falls within this management zone. Portions of the property are steeply sloped—especially along the southern boundary—and contain typical flora coverage found on the rest of the south facing slopes of the Manzano Mountains.

### *iii. Riparian Zone*

The ribbon of deciduous vegetation along the southern boundary is included in this management zone.



*iv. Archaeological Zone*

This zone(s) will not be shown on any maps and will be managed with the sole intention of preserving those elements of the past that may be found on the property. Because of the sensitive nature of these areas, the primary management objective will be to limit any impact that could occur on these sites. A draft site plan is included on the following page. The draft site plan outlines proposed management zones and trails network.

**B. Management Objectives and Strategies**

*i. Historic/Cultural Zone Management Objectives and Strategies*

- The area surrounding the built environment could be a staging area for group discussions and presentations. Any construction and/or maintenance of this area shall be done with this in mind and design should consider human safety.
- Trails that are to be used to access these areas should use a higher design standard to facilitate the highest-level public access. Wider construction and stabilized surfaces on trails is appropriate.
- Investigate feasibility for a non-profit group to maintain existing one-room structure and provide public education on themes such as: community history, wildlife habitat, and Spanish Colonial settlement history. Buildings that remain on the site as remnants from the fur trade, in addition to the stone ruin, will remain *as is*. Neither demolition nor renovation is currently being planned for these structures.
- Complete a cultural landscape study of the Sabino property according to the National Park Service's Cultural Landscapes Program. This includes defining a site's appropriate landscape typology in addition to an evaluation of the site's integrity and overall ability to convey the story of its development and the condition in which the property endures. [See Appendix E for a list of cultural landscape definitions and typologies.]

*ii. Forest Zone Management Objectives and Strategies*

- Trails in this area shall be of a lower design standard to maintain the natural character of the area. Less disturbance and more fuel loading adjacent to such trails is appropriate.
- Heavily wooded areas should be thinned from the current stocking levels of up to 160 square feet (trunk area) per acre to 40 to 60 square feet (trunk area) per acre. Removing only the less favorable trees species in this area will do this. The trees to keep are as follows (listed in priority):
  - Alligator Juniper
  - Ponderosa Pine



Map 2. Sabino Canyon Site Plan



**Legend:**

-  Primitive camping potential
-  Parking/trailhead
-  Scenic view/special interest
-  Equestrian use
-  Hiking
-  Cultural/historic
-  Riparian zone
-  Proposed trail network

**Comments:**

- Day use only.
- Interpretive trail opportunity around old Sabino village.
- Future connection to USFS trail to west and north of site.
- Potential for overnight camping by permit only.
- Good stargazing potential.
- 20' contour lines.



NTS



Piñon Pine  
Rocky Mountain Juniper (Local Priority)  
One Seed Juniper.

- Re-establish healthy forest conditions throughout the property
  - Adopt and implement a *Sabino Forest Health Restoration Plan*
  - Reduce risks of catastrophic wildfire on property
  - Conduct wildlife biology inventory to assess habitat viability for sensitive, threatened, and endangered species.
- Maintain and enhance wildlife habitat
  - Designate and separate wildlife habitat corridors from visitor use
  - Evaluate the property for designation as an *Important Bird Area*
  - Balance conservation of bird habitat with other species needs
  - Complete an inventory of wildlife species
  - Monitor wildlife behavior and activity
  - Allow for wildlife to access water at key points.
- Inventory plant species on the property
  - Inventory and monitor presence of invasive species
  - Implement volunteer plant removal projects
  - Monitor for possible presence of sensitive plant species.

*iii. Riparian Zone Management Objectives and Strategies*

- This area shall be closed to the public.
- Monitor water quality and quantity for adverse changes.
- Enhance riparian corridor
  - Maintain water supply to riparian vegetation
  - Enhance riparian vegetation with additional native plantings
  - Monitor and prevent additional site erosion
  - Install solar powered water pumps and wildlife trickle tanks.
- Develop visitor management programs that protect bird nesting activities and fall wildlife forage activities.

*iv. Archaeological Zone Management Objectives and Strategies*

- No person shall damage, injure, collect, remove or disturb any object of paleontological, archaeological, or historical interest or value located on these lands.
- Existing corridors in these areas shall be eliminated. Any activities in these areas shall have minimal resource impact and include a fire suppression component.

- Identify and protect archeological sites
  - Minimize visitor impacts and access to archeological sites
  - Enter sites into NM Archeological Records Management Service.

*v. Visitor Management Objectives and Strategies*

Sabino environment is a natural draw to people seeking quiet refuge. Public access to Sabino is important because it fulfills a goal of the *Major Public Open Space Facility Plan*. Sabino's role as habitat for wildlife species requires that recreational use be balanced with natural and cultural resource conservation. This balance means that not all types of recreation are appropriate at Sabino and that the area may require seasonal closures to protect said resources. Appropriate recreational activities include hiking, picnicking, nature walks, research, and other educational activities.

- Balance recreational and educational uses with conservation of wildlife habitat and cultural resources
  - Assess the site's ecological, physical, facility, and social carrying capacity (Shelby and Heberlein 1986)
  - Develop baseline standards for monitoring impacts and change at Sabino and implement corrective action using *Limits of Acceptable Change* models (see Section C. Management Method)
  - Minimize human and wildlife conflicts through trail location and design, signage, and education
  - Educate visitors and enforce Bernalillo County Open Space Rules and Regulations.
- Provide adequate parking, trails and other facilities as needed for visitor activities.
  - Encourage foot access to the National Forest from Sabino
  - Post regulations at information kiosk
  - Explore site access and trail development opportunities appropriate for use by persons with disabilities
  - Evaluate parking alternatives. [See Appendix D.]
- Develop a trail network that provides recreational and educational opportunities while protecting sensitive site resources.
  - Adopt Open Space trail standards for different uses and/or areas
  - Explore trail opportunities appropriate for use by disabled visitors.
- Develop interpretive programs and exhibits that explore the sites unique characteristics, history and culture.
  - Offer day trip opportunities to school groups
  - Provide thematic information regarding Sabino's fur farming, land grant, and settlement pattern history.

- Develop interpretive displays e.g. fur industry, land grant, and settlement pattern history.
- Adopt Specific Rules and Regulations for visitor use.
  - Pets shall be allowed in this area, but shall be kept on a leash, due to the sensitive nature of the environment and the concentration of activities
  - No person shall smoke in this area
  - No fireworks are allowed in this area
  - No person shall damage, injure, collect, remove or disturb any object of paleontological, archaeological, or historical interest or value located on these lands
  - Bicycles are not appropriate in this area due primarily to the size of property and to the sensitive nature of the environment
  - No trapping, hunting, or fishing shall be allowed in this area
  - There shall be no games or miscellaneous activities in this area without written approval from the Parks and Recreation Department
  - Request amendment to Bernalillo County ordinance to strengthen these rules and regulations.

*vi. Site Stewardship Management Objectives and Strategies*

Volunteers from the *Sabino Canyon Neighborhood Association* have played an important role at Sabino since its purchase in 1999. Continued site stewardship is critical for the ongoing success of the County's Open Space program. These objectives help assure a sustainable stewardship program.

- Organize a cadre of East Mountain Open Space volunteers.
  - Broaden the scope of existing open space organizations to support East Mountain projects
  - Develop consistent communication tools among volunteers, organizations, and land managers.
- Support volunteer initiatives at Sabino in a timely manner.
  - Improve efficiency of Bernalillo County response to volunteer requests
  - Identify primary contacts for Sabino and Bernalillo County
  - Collaboratively develop annual work plans considering staff, equipment and budget needs.
- Develop stewardship projects that significantly improve Sabino and also provide benefits to adjacent landowners.



### C. Management Method

The *Limits of Acceptable Change* (LAC) is a management tool that identifies recreational carrying capacity standards for a specific land area. Principally, the LAC process is a means of resolving conflict. It may be thought of as a method for land managers to resolve conflicts between *"managing visitors to provide for the experiences they seek and to deal with the problems of their social and biophysical impacts"* (McCool 1996). The LAC process is most beneficial in situations where (1) stakeholders are willing to establish a hierarchy of natural resource goals, (2) where two or more established goals are in conflict, and (3) where all goals may be compromised to some extent as long as they meet or exceed established standards (Cole and McCool, 1998). Where these conditions can be established, Bernalillo County intends to use the LAC method as a useful strategy for continued planning and implementation of resource-based recreational activities at Sabino. [See Appendix F for more LAC information.]

### D. Operations and Maintenance

The operation and maintenance of Sabino depends heavily on Bernalillo County staff to work with community organizations and residents on varying stewardship projects. The Sabino Canyon Neighborhood Association has expressed an interest in helping the County manage the property, and administration of these partnerships will require County staff time.

The County plans on formalizing a Memorandum of Agreement with the Sabino Canyon Neighborhood Association to assist with work on the property. This arrangement will include property improvements, with County providing funding, equipment, and staff time to assist where possible.

Maintenance needs range from staff to coordinate forestry-thinning projects, to site improvements, and trail rehabilitation. [Estimates for site maintenance are included in Appendix G, Action Work Plan.]

## VII. INTERAGENCY COORDINATION

Sabino will benefit from interagency coordination in several ways. Key coordinating partners and issues are listed below.

### **A. USFS/Cibola National Forest**

The Cibola National Forest on the far north and west sides borders Sabino. The site has good potential to provide connector trails to existing Forest Service Trails in the Cibola National Forest. Potential trail connections include:

- Sabino to Forest Road 542 and Cedro Peak trail system
- Sabino to Juan Tomas Open Space
- Sabino to Sedillo Ridge Open Space.

### **B. Bernalillo County Parks and Recreation Department, Public Works Division, and the New Mexico Department of Transportation**

Bernalillo County Parks and Recreation (BCPR) and Public Works Division (BCPW) have prepared an East Mountain Trails and Bikeways Master Plan. Adoption of this plan is concurrent with approval of the RMPs in the spring of 2005. The Trails and Bikeways Master Plan attempts to link County- and City-owned open space properties, residential areas, commercial nodes, and lands of the Sandia Ranger District. This will be accomplished through a system of suitable shoulder improvements on State of New Mexico and County roads and hard and soft surface trails either within public rights-of-way or on private properties. The Trails and Bikeways Master Plan has incorporated all County and City open space properties and their respective access points and trailheads identified in each RMP. Continued coordination with BCPR and BCPW shall be maintained as the Trails and Bikeways Master Plan and each RMP are implemented.

### **C. National Park Service/Cultural Landscapes Program**

The Cultural Landscapes Program of the National Park Service could assist with a cultural landscape evaluation of Sabino and help further identify resource analysis priorities, appropriate uses, and potential eligibility of the property for the National Register of Historic Places. This analysis process may show that Sabino has precious and sensitive cultural landscape qualities that provide a record of how communities and individuals have, over time, adapted to and modified landscapes in the East Mountains.

### **D. New Mexico Department of Game and Fish**

The New Mexico Department of Game and Fish could provide biological reviews, habitat assessments, wildlife inventories, and baseline studies at all four County EMOS properties. These types of wildlife evaluations may expand our appreciation for the role that any future

development—including simple fencing projects—may play in enhancing or degrading wildlife viability at Sabino.

#### **E. New Mexico Forestry Division**

The New Mexico State Forestry Division may be able to offer assistance with determining basal area calculations of the piñon-juniper plant community at Sabino. Basal area is defined as the cross sectional area of the tree at breast height. For example, a tree 16 inches in diameter would have a basal area of 1 square foot. Basal area is calculated to show how trees are distributed on a site. A larger basal area number means that trees are growing closer together, which has a variety of effects on forest health, including higher fire risk, decreased water infiltration, and additional susceptibility to plant and insect diseases.

#### **F. Albuquerque Public Schools (APS) and Bernalillo County Community Centers**

Both of these entities are potential partners for a variety of educational and stewardship projects. A common thread throughout the planning process has been community desire for *educational opportunities* at Sabino. Bernalillo County should form partnerships with both APS School staff and County Community Center staff to initiate curriculum development, student field trips, community events, and other educational activities. Certain events at Sabino will require parking along Forest Road 252 due to limited parking capacity onsite and the need to curtail vehicle impacts.

#### **G. Law Enforcement and Emergency Responders**

Trespassing, vandalism, wood hauling, paintball, partying, and destruction of historic ruins have been identified as the primary law enforcement issues at Sabino. Currently, the Bernalillo County Sheriff's Department is responsible for responding to emergency calls at all nine East Mountain Open Space properties (City and County). City of Albuquerque Open Space rules and regulations have been adopted by Bernalillo County as the governing ordinance for its open space properties. As a result, it could be mutually beneficial for the City and the County to cooperatively fund open space ranger personnel dedicated to the East Mountain area. Although funding is currently not allocated to fill such positions, open space planners from the City and the County should begin a collaborative training effort to assist fire, emergency medical personnel, and law enforcement agencies by preparing detailed response plans. At the same time, predicting public use at the properties during the next 5 to 10 years is essential.

These response plans should be presented in an interagency workshop format. The following is a list of items to be included in the response plans along with suggestions for improving the implementation of the plans:

- Compile briefing packets that include detailed maps, sites plans, boundary information, aerial photos, and driving directions to all nine open space properties.
- Include copies of all relevant City/County Open Space ordinances and USFS rules and regulations.
- Distribute briefing packets to appropriate Bernalillo County Sheriff's deputies, management, and support staff as soon as possible.
- Request City and County information technology departments to enter open space property descriptions and pertinent GPS information into Map Quest for patrol unit reference.
- Train site stewards (including neighborhood association members and Crime Watch volunteers) in incident report preparation.
- Distribute a comprehensive list of interagency personnel contact information and emergency response telephone numbers.

## VIII. COMMUNITY PARTNERSHIPS

### A. Open Space Stewardship

Another goal of this RMP is to develop sustainable stewardship practices for East Mountain Open Space. Currently, neither the City of Albuquerque nor Bernalillo County Open Space programs have the staff or financial resources to fully develop the recommendations identified in these site plans. A key finding of this planning process is the need for neighborhood associations, community organizations, trail user groups, business community members, and schools to take an active part in open space management.

Some levels of community stewardship are already occurring. Some examples are Trail Partners performing trail maintenance, East Mountain High School and the Intermountain Conservation Trust addressing watershed restoration concerns, the Carnuel Land Grant Association tackling forest health issues, Talking Talons Youth Leadership Center committing to environmental education programs, neighbors training as Trail Watch volunteers, the Albuquerque Amateur Radio Club providing detailed maps, and the Sabino Canyon Neighborhood Association helping to protect the Sabino Canyon Open Space. These activities should continue with better coordination between land management agencies.

Demonstration projects have been completed that illustrate neighbors and community groups can organize and complete open space resource management projects. In March 2003, more than 25 volunteers attended a trail construction and maintenance workshop that taught participants skills to assess and improve open space trails. In December 2003, more than 25 volunteers learned fuel-load reduction techniques and applied that knowledge on land at San Antonito Open Space. Additional training workshops in orchard trimming, invasive species removal, historical and cultural site preservation, wildlife monitoring, erosion control, forest restoration and other topics will provide open space land managers with a cadre of volunteers who can assist with land management and take home skills to better manage their own land. Continued training and support of volunteers is critical for a sustainable stewardship program. Stewardship goals and strategies for East Mountain Open Space are being developed.

## **B. Volunteer Organizations**

Volunteers have played an important role in Sabino since its purchase in 1999. The primary community organization that has been involved with Sabino is the Neighborhood Association, and they have provided volunteer labor to help fence the entrance to Sabino. Continued coordination with this organization will be helpful to Sabino as the site's recreational and educational capacity is developed. Neighborhood association can also provide a watchful eye and instill local ownership of the property. Bernalillo County intends to foster this partnership and forge new relationships with additional groups, as well. The following groups have shown an interest in Sabino:

### *i. Sabino Canyon Neighborhood Association*

Continue to partner with the association. Neighbors may be interested in participating in site stewardship projects, such as an "Adopt-an-Area" program.

### *ii. Talking Talons Youth Leadership Center*

Continue to partner with Talking Talons and the Youth Conservation Corps to accomplish various projects. Talking Talons is interested in using the site for environmental education.

### *iii. Thursday Birders/Partners In Flight*

Talking Talons has worked closely with members of these two groups and Sabino has been recommended for Important Bird Area designation. These groups can provide technical

assistance for conducting bird species inventories and helping to create management decisions that sustain bird habitat at Sabino.

*iv. Albuquerque Amateur Radio Club*

The Albuquerque Amateur Radio Club assisted Bernalillo County's site mapping efforts by producing a detailed site map for Sedillo Ridge Open Space using GPS technology in 2003. The remaining County-owned EMOS properties also need to be mapped at this level. It may be possible to procure these services from the Albuquerque Amateur Radio Club in exchange for access to these sites for Club sponsored events.

IX. CONCLUSION

Bernalillo County purchased Sabino to preserve and protect its natural resources and environmental features as a *Protected, Undeveloped Space*. In addition, the purchase of the property was intended to preserve archeological resources and to provide outdoor recreational and educational opportunities for residents and visitors to Bernalillo County. The purpose of this Resource Management Plan is to provide a roadmap to achieve these original goals in addition to the management objectives and strategies agreed to by community stakeholders during the two-year, comprehensive planning effort.

Bernalillo County Parks & Recreation and its Open Space staff would like to offer a sincere and well-deserved *thank you* to all of the concerned citizens who have generously participated throughout this process. In addition, it wishes to extend an open invitation to all Bernalillo County residents—especially those living in the East Mountains—to actively engage in the implementation of this RMP. The County, along with the local community, can now move forward to the next phase of planning and implementation at Sabino with renewed commitment and a common vision.

Dated: \_\_\_\_\_

\_\_\_\_\_  
Carl "Chip" Berglund, Park Administrator  
Bernalillo County Parks & Recreation  
111 Union Square  
Albuquerque, New Mexico 87102  
Telephone: (505) 314-0401

**REFERENCES**

- Cordell, Linda S., Editor. 1980. Tijeras Canyon: Analyses of the Past. (Albuquerque, New Mexico, The University of New Mexico Press).
- Kelley, V. C., and S. A. Northrop. 1975, reprinted 1982, 1995. *Geology of Sandia Mountains and vicinity, New Mexico*. (Socorro, New Mexico, New Mexico Bureau of Geology and Mineral Resources).
- Rich, Susan, Editor. 2000. Soils of the Greater Albuquerque Metropolitan Area. (Albuquerque, New Mexico, Ciudad Soil and Water Conservation District).
- Lee, Richard. 1999. *New Mexico's Invasive Weeds*. (Las Cruces, New Mexico, New Mexico State University Cooperative Extension Service).
- Shelby, Bo, and Thomas A. Heberlein. 1986. *Carrying Capacity in Recreation Settings*. (Corvallis, Oregon, Oregon State University).
- McCool, Stephen F. 1996. *Limits of Acceptable Change: A Framework for Managing National Protected Areas: Experiences from the United States*. (Paper presented at Workshop on Impact Management in Marine Parks, sponsored by Maritime Institute of Malaysia, August 13-14, 1996, Kuala Lumpur, Malaysia).
- Cole, David N. and McCool, Stephen F. 1998. *Limits of Acceptable Change and Natural Resources Planning: When is LAC Useful, When is it Not?* (Proceedings—Limits of Acceptable Change and related planning processes: progress and future directions, May 20-22, 1997, Missoula, Montana).