I. INTRODUCTION

A. Purpose

This Resource Management Plan (RMP) for Carlito Springs Open Space identifies specific objectives and strategies that will help preserve its unique historic and cultural character, protect the abundant natural resources while offering 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 throughout the planning process. The objectives and strategies contained herein were developed by the East Mountain Open Space Steering Committee 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 based on a number of regional, higher-ranking plans.

B. Property Information

Bernalillo County purchased Carlito Springs Open Space (Carlito Springs) in December of 2000 with mill levy funds from a 2000 referendum that approved ¼ mill for open space purchases. Community residents encouraged the County to purchase the property to prevent further residential development. As a result, the Bernalillo County Parks and Recreation Department oversees and manages the property.

Carlito Springs is located on the southeastern face of the Sandia Mountain Range, north of Interstate 40, two miles west of the Village of Tijeras and approximately 14 miles east of Albuquerque. The Cibola National Forest on the west and north borders the property; the southern and eastern boundary is private residential development. It comprises 177 acres and ranges in elevation from 6,300 to 7,000 ft. above sea level.

Carlito Springs takes its name from two permanent springs that are located on the property. The springs feed several ponds, and have created a lush riparian environment that nourish ornamental gardens and orchards planted by previous owners. For years this water source has provided critical habitat for many species of birds and animals, including black bear, mountain lion, badger, and mule deer.

Onsite buildings include a historic house made of travertine—a light-colored limestone found onsite—three wood cabins, one stone cabin (1894), several outbuildings, and numerous other antiquated structures with varying historical significance. The property has a long history of

habitation with diverse uses over the years. [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 J-27, J-28, K-27 and K-28. The property is zoned A-2, rural residential and is currently occupied by a caretaker. The property includes five different parcels, as follows: Parcel 1: SE¼ SE¼ Sec 15 T10N R5E (AKA "ALTA/ACSM Land Title for" Carlito Springs) 34.93 ac.; Parcel 2: T10N R5E Sec 15A Tract of Land NW¼ SW¼ SW¼ cont 2 ac.; Parcel 3: SW¼ SW¼ Sec 15 T10N R5E (AKA "ALTA/ACSM Land Title for" Carlito Springs) cont 35 ac.; Parcel 4: SE¼ SW¼ Sec 15 T10N R5E AKA "ALTA/ACSM Land Title for" Carlito Springs cont 37.060 ac.; Parcel 5: Tract of Land in Sec 22 T10N R5 in the NW¼ NW¼ & Tract A plat for Lands of Willingham T.

A vicinity map showing Carlito Spring's location in context to the other East Mountain Open Space properties is included on the following page.

D. East Mountain Open Space 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 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.

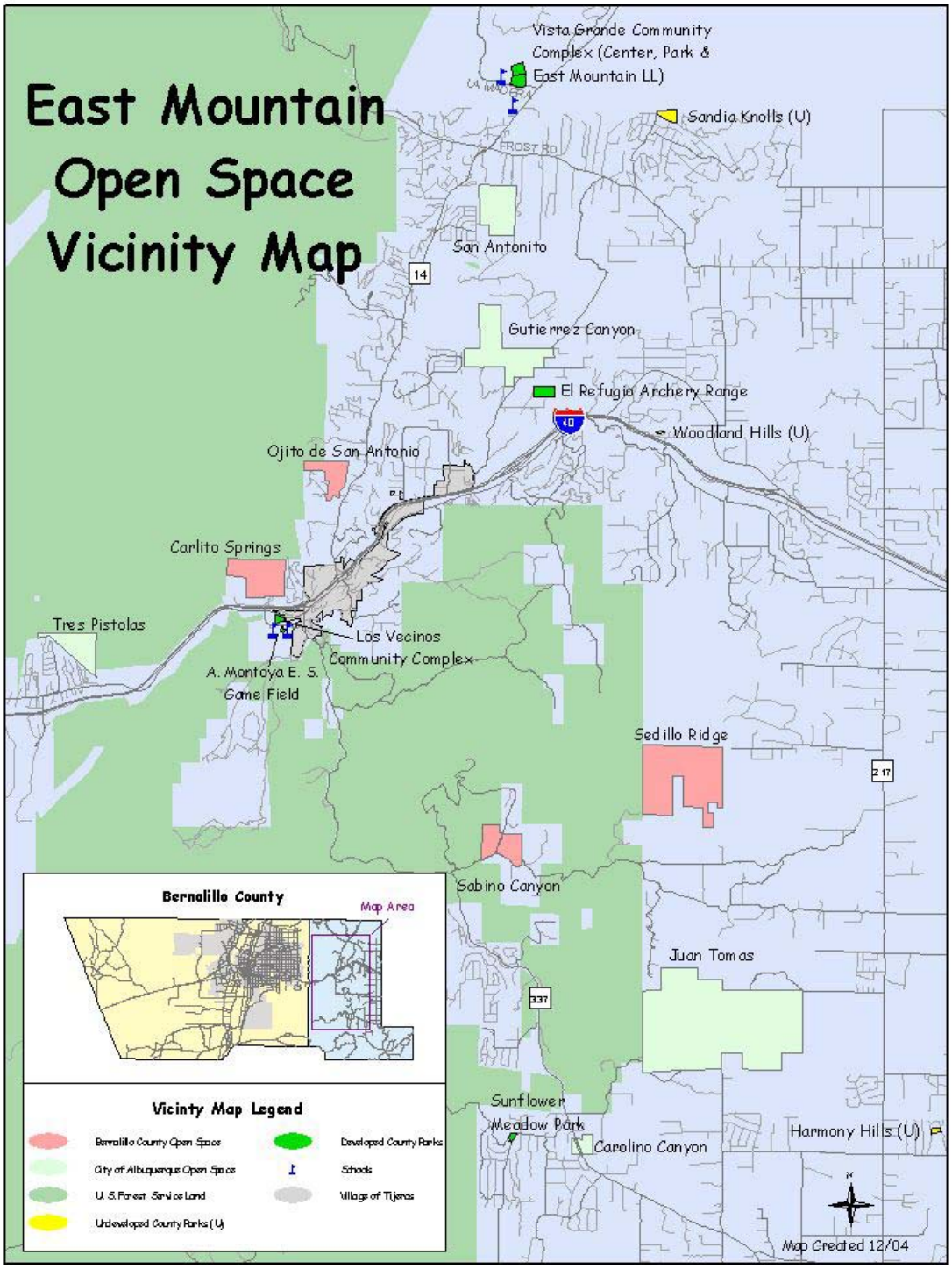
The National Park Service facilitated a community-based planning process that made concerted efforts to involve all East Mountain residents in open space management discussions. Key planning steps included:

- Forming 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.

Map 1. East Mountain Open Space Vicinity Map



(Map by Adrienne Candelaria)

- Understanding of critical issues and concerns related to natural, historical, and cultural resource protection, public use, and adjacent lands.
- 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 research.
- Conducting community outreach with neighborhood meetings, additional site visits, and newspaper feature articles.
- Developing RMP with the assistance and support of East Mountain residents.

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)

i. East Mountain Open Space Steering Committee (Steering Committee)

Early in the process, citizens endorsed the idea of establishing a project steering committee. Individuals volunteered to serve on the Steering Committee to help 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. The key roles and responsibilities of the Steering Committee included:

- Understanding the concerns and desires of the local community concerning 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 in organizing meetings, site visits, events and other community involvement activities.
- Reviewing, developing, and commenting on planning documents.

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

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 Carlito Springs and participated in East Mountain area events. These meetings and events are listed in Table 1:

Table 1. Public Outreach.

Meeting Type/ Location	Property	Date	Attendance
East Mountain Pride Day/Vista Grande Community Center	All Properties	April 29, 2003	Event Booth set up to receive comments
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
Design Charette/ Tijeras Ranger District	All properties	Nov. 19, 2003	50
East Mountain Pride Day/Los Vecinos Community Center	All Properties	April 25, 2004	Event Booth
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

B. Relevant Plans

General goals and policies for County Open Space have been identified in four higher-ranking plans: Albuquerque/Bernalillo Comprehensive Plan (1988), Major Public Open Space Facility Plan (1999), East Mountain Area Plan (1992), Bernalillo County Parks, Open Space, Trails Master Plan (2003). Additional related land management strategies may be found in the Forest Service's Cibola National Forest Land and Resource Management Plan (as amended 1990 & 1996).

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

The Comprehensive Plan gives broad direction for open space acquisition and purposes. Carlito Springs 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 different categories. **Carlito Springs is defined as an *Open Space Facility* because it contains existing structures, limited parking, and because restricted 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 from the MPOS, for additional information regarding the 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 Bernalillo County to work with the United States Forest Service and the City of Albuquerque 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. The EMAP is currently being updated by County Planning staff and East Mountain residents.

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

The POST is the most recent plan (2003) and it articulates Bernalillo County's goals and objectives for the open space program. The POST establishes a Vision and Mission statement for the Bernalillo County Open Space Program. The POST also delineates action items for Bernalillo County Open Space properties, including Carlito Springs. 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.*

"The house and cabins are reasons why Carlito Springs has been designated an Open Space Facility." (Photo by Jay Morrow)

BERNALILLO COUNTY OPEN SPACE PROGRAM, 2003

VISION
Bernalillo County Open Space is 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 Carlito Springs:

- Develop management plans for BCOS properties that conserve and enhance natural and cultural resources while providing opportunities for public education and recreation.
- Preserve and enhance water resources on BCOS properties.
- Develop best management practices for all properties.
- 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)

Carlito Springs abuts the Sandia Mountain Wilderness along its northern and western boundaries. Because of this proximity, the United States Forest Service's Cibola National Forest Land and Forest Resources Management Plan is a document that may have beneficial resource management strategies applicable to Carlito Springs. It is mentioned here as a reference and guide for future decision-making at Carlito Springs. The shared boundary presents numerous challenges and opportunities for future use and management.

D. Guiding Principles for all East Mountain Open Space (EMOS) Properties

The EMOSSC has developed the following guiding principles for all nine County and City East Mountain open space properties. The purpose of these guiding principles is 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 by providing boundary protection, trails and other limited improvements that will support a quality visitor experience while largely maintaining the undeveloped character of the Open Space.

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, re-vegetate 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 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 adverse impacts and promote opportunities for interagency collaboration.

vi. Long-term Stewardship

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

II. EXISTING CONDITIONS

A. Climate

Temperatures within the region range from an average low of 10 degrees Fahrenheit (F) in January to 90 degrees (F) in July and August. Temperature extremes vary between –27 to 99 degrees (F).

B. Geology

The bedrock types within the area include limestone, sandstone, claystone, and shale. The New Mexico Bureau of Mines and Mineral Resources Memoir 29 notes that the site sits near the Tijeras Fault. Onsite geology is typical of the East Mountain area, except where the springs are, which has created a large amount of travertine. The house and cabins are built on terraces created from travertine that was quarried onsite (Kelley 1975).

C. Topography

Elevation onsite ranges from 6,300 to 7,000 feet above sea level. The house, cabins, and fish ponds are terraced, preserving the natural topography. There are widely varying slope conditions at Carlito Springs.

D. Soil Conditions

The soil is intermittently moist from December through March and July through September, and driest during the months of May and June with an average soil temperature of 56-59 degrees (F). The site's soil types include Rock outcrop-Orthids complex, the Carlito Springs complex and the Tesajo-Millett Stony Sandy Loam. Terraced conditions at Carlito Springs provide a cross-section of varying soil types (Rich 2000).

i. ROF: Rock Outcrop-Orthids Complex

These soils occur where bedrock materials such as limestone, schist, gneiss, or granite have been exposed at the surface. 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. This soil complex is best used for watershed, recreation, and wildlife habitat (Rich 2000).

Southern View from Carlito Springs Open Space (photo by Jay Morrow)

ii. CAF: The Carlito Complex

These soils occur along canyon walls where runoff is rapid and the potential for erosion is severe. They are found mainly in areas with 50 to 80 percent slope. These soils are typically very thin and are comprised primarily of clay and silt sized particles. They are conducive to range, wildlife habitat, recreation, and watershed uses (Rich 2000).

iii. Te: Tesajo-Millett Stony Loam

These soils occur upon alluvial floodplain surfaces. Runoff is medium and the potential for erosion is moderate. These soils are comprised mainly of sandy and silty gravels, with some intervals of silty sand. They are best used for watershed, wildlife habitat, community development, and range (Rich 2000).

E. Hydrology and Water Quality

Groundwater depth varies from 50-200 feet deep throughout the property. Annual precipitation at the Sandia Ranger Station—the nearest gauging station—is 13.9 inches. Two springs are located on the property and they have been named for convenience and are described as follows:

i. Whitcomb Spring (small)

This spring begins on the property and flows a short distance before returning to the soil. It flows under the Grace Bridge near the old, terraced vegetable and flower gardens. In April 2002, the spring was producing approximately 1.5 gallons per minute (gpm). The riparian area is in good condition with little erosion and adequate vegetative cover and diversity. Water quality is better than the state standard of 10 at 1.6 for nitrates in milligrams per liter (mg/l) and lower than the state standard of .1 at .9 mg/l of phosphorus. Total dissolved substances measured at 283 mg/l. Benthic insects found include caddisflies, midgeflies and craneflies (BCEH,2003).

ii. Carlito Spring (large)

This spring also begins on the property and flows toward Tijeras Canyon. The spring water is piped from its source to a holding tank. It then continues down slope to several constructed ponds. The ponds range in size from 6 to 10 feet in diameter with depths ranging from 2 to 4 feet. In summer 2003, Bernalillo County partnered with Talking Talons Youth Conservation Corps to clean and repair the ponds.

This spring produced 52.9 gpm in April 2002. Nitrates were measured at 2.8 mg/l, far below the state standard and phosphorus was measured at .14 mg/l. Total dissolved substances were measured at 284 mg/l. Benthic insects found include caddisflies, riffle beetles and damselflies. Water quantities have decreased since 1963. A flow rate of 300 gpm (or 1.11 cubic feet per second [cfs]) was documented in 1963, whereas in 2002 the flow rate was measured at 50-60 gpm (.118 cfs) (BCEH 2003).

Carlito ponds in fall (top) and winter (bottom). [Photos by Chip Berglund (t) and Jay Morrow.]

F. Plant Communities

Because of the springs and human influence, Carlito Springs is a unique combination of several plant communities. These plant typologies can be grouped into four plant communities*: piñon-juniper woodland, riparian, orchard area, and non-native ornamental landscape plantings.* The diversity of plants is part of what makes Carlito Springs unique. Bears feed on orchard fruit and nuts during the summer and fall, while water seeps and streams have created dense vegetative corridors and habitat for many other animals. In the spring, daffodils, iris, and tulips welcome site visitors and later, colorful displays of peony flowers add color during the early days of summer. Although these non-native landscape plantings are a small portion of the 177-acre property, they form a large part of the site's identity and contribute greatly to habitat diversity and visitor enjoyment.

i. Piñon-Juniper Woodland Community

Approximately 80 percent of the site is comprised of piñon-juniper woodland. This plant community surrounds the spring, riparian, orchard and ornamental areas with native vegetation typical of the Sandia Mountain Wilderness. This association of plants is found outside of spring reaches.

There are two rare and sensitive plant species that may be found in this area. First is Gypsum Sand Verbena, *Abronia bigelovii*. This is found in both grasslands and piñon-juniper woodlands. Second is the Santa Fe Milkvetch, *Astragalus feensis*.. These species have not been located at Carlito Springs, but the property will continue to be monitored for their presence. [See Appendix B for photos of above-referenced plants.]

ii. Riparian Community

The riparian plant type can be characterized as *water influenced* vegetation and includes a wide variety of species. The two springs have created a ribbon of riparian vegetation that winds through the property. The riparian forest type is comprised of both native and non-native vegetation and provides habitat for many wildlife species.

There is one endangered plant species that may be found in this plant type—the Great Plains Lady Tresses Orchid, *Spiranthes magnicamporum*, primarily found in riparian areas less than 7500 feet in elevation. The Lady Tresses Orchid has not been found onsite but it could be

introduced here to expand their populations. [See Appendix B for photos of above-referenced plant.]

iii. Orchard Community

The fruit and nut orchards have been included in this section and can be dated back to the early 1900's. English walnut, New Mexican black walnut, nectarines, cherries, wild plums, apples, almonds, apricot, and fig trees were planted. Many of these trees still produce fruit on the property.

iv. Non-native Ornamental Landscape Plantings

The homesite, cabins, and surrounding areas are planted with a variety of non-native species. Previous owners, Tony and Gertrude Grenko were enthusiastic gardeners. According to Junile Willingham, daughter of the Grenkos, her father planted 250,000 bulbs around the property's paths and added several fruit and nut trees to the orchards in the late 1940's. The Grenko's greenhouse-grown flowers were award winners. Today, springtime bulbs still greet visitors with colorful blossoms.

G. Forest Health and Fuel Load Reduction

Because the piñon-juniper, riparian, and orchard areas grew unmanaged prior to County purchase, a fuel-loading hazard developed that threatens the forest as well as the built environment. Forest cover needs to be thinned to allow a protective buffer zone around the structures as well as prevent catastrophic fire loss of the riparian area. Some fuel-load reduction work was completed by Youth Conservation Corps crews in 2003.

According to a Bernalillo County Fire threat assessment of wildland/urban interface areas (Gober, et al., 2002), this area north of I/40 on the southeastern side of the Sandias has a *high* fire hazard rating (e.g. Casa Loma, Cañoncito, and Cedro Peak). The total number of lots, acreage, and density percentage were the primary factors considered. Prevailing drought conditions during the past six years also contributed to this determination. A Carlito Springs Forest Health Restoration Plan (CSFHRP) has been developed for Carlito Springs with the assistance of the New Mexico State Forestry Division (NMSF). As a result, fuel load reduction measures have been initiated by the County at Carlito Springs (Berglund and Haines 2002).

H. Forest Pests

Forest pests are insects that can degrade the overall plant health of the forest. Signs of slow degradation throughout Carlito Springs and the watershed have been noted and an aggressive effort is being made to curtail the damage caused by these insects. Primary pests are those that attack tree species found at Carlito. Open Space management is particularly concerned about Ips Bark Beetles, Piñon Pitch Nodule Moth, Western Cedar Bore, Twig Beetles, Round headed and Fatheaded Wood Borer (Berglund and Haines 2002).

I. Forest Disease

Forest diseases may affect the health of plants in the forest. Diseases include parasitic plants, fungi, and bacteria. Forest diseases may impact forest systems by degrading productivity of the forest. Open Space management is concerned with the proliferation of Dwarf Mistletoe and True Mistletoe.

J. Noxious Weeds

There are three classes of noxious weeds in New Mexico (class A, B, and C weeds), 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 have limited distribution within the state are placed in this class. Preventing new infestations and eliminating infestations is the highest priority as species in this class are not presently found in the state but are threatening to invade. 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 are likely found at Carlito Springs: (i) Class A: Hoary cress (*Cardaira draba*), Canada thistle (*Cirsium arvense*), and Scotch thistle (*Onopordum acanthium*); (ii) Class B: Russian knapweed (*Acroptilon repens*), and Musk thistle (*Carduus nutans*); and Class C: Field bindweed (*Convolvulus arvensis*), and Jointed goatgrass (*Aegilops cylindrica*) (Lee 1999). Noxious weeds require long-term treatment in order to effectively control their populations. The County is open to using environmentally sensitive control measures to control weed infestations.

K. Wildlife Communities

Many wildlife species use food and water resources at Carlito Springs. In addition, Carlito Springs provides excellent wildlife habitat for travel and shelter. While there are no endemic species of wildlife found at the site, Mountain Short-Horned Lizards and Southern Prairie Lizards are found here as well as porcupines, deer, cougar, and bear. During autumn, an abundance of black bear frequently search the orchard for fruit. Carlito Springs provides crucial habitat for these large animals during times of drought and this minimizes potential conflicts between humans and wildlife. Carlito Springs provides valuable forage for bears when the neighboring native forest habitat is lacking. Bear visitations typically begin in August and can be a daily occurrence during September and October.

Carlito Springs also offers a unique mixture of habitat for birds because of the presence of water. The combination of riparian, piñon-juniper, and ponderosa pine-oak is an exceptional haven for a rich diversity of bird life. Bird species are abundant and observed native bird species include Stellar Jays, Scrub Jays, Golden Eagles, hawks, and owls. The observation of Juniper Titmouse, Hepatic Tanager, Spotted Towhee, Black-throated Warbler, and Warbling Vireo during breeding season surveys done in 2003 is confirmation of favorable and diverse habitat conditions at Carlito Springs. Of the observed breeding species at Carlito Springs, four are considered conservation priority species by Partners in Flight (PIF).

Black bear cub in fruit tree at Carlito Springs.

i. Federal Endangered Species

There are two endangered mammal species found in Bernalillo County—the Spotted Bat and the Meadow Jumping Mouse. Spotted Bat habitat includes all forest types found in the area although it occurs less than regularly in this area. A variety of rangeland management activities contribute to the loss of habitat for these mice. The degradation of habitat in areas where these animals live can be detrimental to their populations.

Only two bird species on the endangered list that may be present from time to time at Carlito Springs—the Peregrine Falcon and the Willow Flycatcher. The habitat for the falcon includes wooded areas on or near cliffs. The Willow Flycatchers' primary habitat is riparian woodland areas. The restoration of riparian areas is the most critical component for the recovery for this species.

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 Carlito Springs. 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 in the resource development of all open space properties.

III. HISTORY AND CULTURE

Because of the incredible water source onsite, the property has a long history of habitation and diverse uses. It has dramatic geographic features—including Ross Canyon—and was a summer campsite for Ancestral Puebloan Indians. Native American archaeological sites have been located but have not been excavated.

Some area residents have said that the lower portion of the property was used as a stagecoach stop to rest and water the horses during the 1800s. Speculation is that the stagecoaches stopped and watered at the bottom of the canyon before proceeding eastward across the plains. The property also has two abandoned gold mines, dug in the early 1900s.

The property's more recent past includes the imprint of a Union Veteran named Whitcomb who homesteaded the area in 1890 and named it Whitcomb Springs. It is said that Mr. Whitcomb built the first cabins and planted an orchard. Remnants of the old cabin are found in the orchard area.

In 1930, Carl Magee, founder and former editor of the Albuquerque Tribune purchased the property. Carl changed the name to Carlito Springs in memory of his son who had died in a plane crash in 1922. He and his wife, Grace Magee, moved to the area because she suffered from tuberculosis (TB) and she needed to be away from the city during the summer months. In 1931 the property was registered as New Mexico Resorts Inc., and rooms were rented in the cabins. Carl also diverted the stream, built the ponds, stocked them with trout, and sold them to local restaurants. During the next 40 years, the ranch was turned into a boys' home, and a TB sanitarium.

After Carl's death in 1946, Gertrude Grenko inherited the land. She and her husband, Tony Grenko, moved to the property that same year. Tony, a scientist at Sandia Laboratories, was responsible for further terracing the land and expanding the orchard to include cherry, apricot, pear, plum, walnut, hickory, currant, and almond trees. During this period, the property was also used as a retreat for scientists at Sandia National Laboratories. Their daughter, Junile Willingham, inherited the property and later sold it to Bernalillo County in 2000. [Berglund and Haines 2002.]

IV. LAND USE

A. Onsite Activities

The County has been working with Talking Talons Youth Leadership Center (Talking Talons), the Youth Conservation Corps, and the New Mexico Forestry Division to clear trails, remove dead and downed wood, clean and reconstruct the water delivery systems and the ponds, and restore the old cabins. There is a caretaker onsite to watch over the premises and assist with maintenance duties. These improvements will help create education and resource-based opportunities and assure visitor safety.

B. Structures

There are several structures onsite that tell the story of the past. The old tuberculosis sanitarium cabins are in varying condition, and a large, more modern house made of travertine sits

House (above) and cabin (below) renovations at Carlito Springs (photos by Jay Morrow).

where the original homesite used to be. The house has been upgraded to meet current code requirements and provides housing for an onsite caretaker.

The cabins require significant repairs to be useable but present many opportunities for adaptive reuse. Bernalillo County has accomplished cleanup of the structures and is now in the stabilization phase. Restoration and cabin improvements will require additional staff and financial resources.

C. Resource-based Recreation

Primary recreational opportunities will be enjoying spectacular views of the Manzano Mountains and the Torrance County horizon, enjoying the stream, ponds, and riparian areas, and picnicking. Wildlife is prominent in the area including black bear and mule deer. Bird species are abundant which makes this area ideal for wildlife viewing. The riparian area also attracts numerous raptor species as well as songbirds. Encounters with rattlesnakes are common and must be considered when visiting the site.

Existing trails are a result of informal use over the years and typically wind throughout the site to access viewpoints. The access road traverses the property and ends at the main house. Secondary roads provide access to the orchard, or end at the spring source. Onsite single-track trails are used more often as wildlife paths.

Older area residents recall hiking to Sandia's South Peak from a trail that originates just below the Grace Bridge at Carlito Springs. This trail has not been formally mapped or listed by the United States Forest Service. An informal trail also exists between Forest Service lands and the trailhead in Canyon Estates. The South Peak Trail travels to the popular Travertine Falls, a seasonal waterfall that varies with annual precipitation rates. Trail construction was conducted onsite during Summer 2003 and 2004 with support from Talking Talons and the Youth Conservation Corps. Trail design and construction techniques were demonstrated by the National Park Service's Rivers, Trails and Conservation Assistance Program. A draft site plan is included on the following page to illustrate planned trail corridors and parking areas.

C. 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 Carlito Springs:

i. The Whitcomb Living History Museum

Restore one cabin to structural integrity, retaining the existing rustic feel. This cabin, along with kiosks (somewhat in the spirit of the local *Tinkertown Museum*), could display historic artifacts found onsite that speak to its history.

ii. Carlito's Curiosity Camp

This immersion-with-nature experience could include elements of adventure and orienteering, ropes courses, conservation practices, cultural history, creative writing, science projects, and astronomy.

iii. Carlito Springs Fall Harvest Festival

Area residents and visitors would be invited to this seasonal event inspired by the Carlito Springs orchards. The festival will recruit garden clubs, arborists, winemakers, bakers and more to demonstrate and teach their domestic skills through onsite workshops. Canning, fermenting, cooking, weaving, and preparing for winter are just some of the *down home* pleasures to be featured with local folk music playing in the background. Parking at A. Montoya Elementary School—at the bottom of the mountain—could easily be arranged with tractor shuttles or donkey cart rides to the house and cabins. The whole event could culminate in a pie baking and eating contest that could raise funds for museum and site maintenance or summer camp scholarships for low-income families.

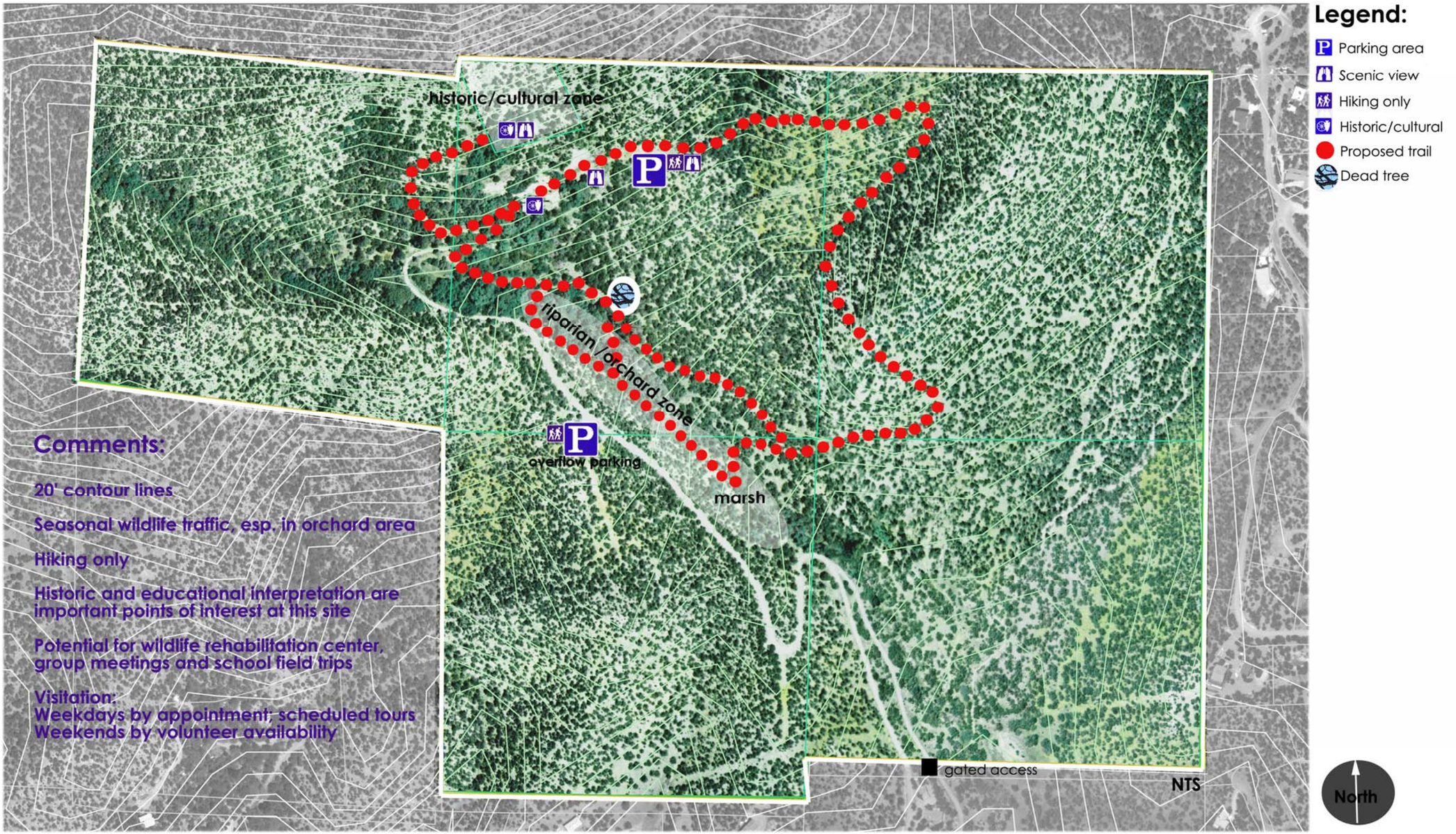
iv. Sandia Mountain Bear Watch

Bear Watch is a small yet consistent effort to protect the area's ursine residents through education. Volunteers are willing to provide bear education workshops at Carlito Springs.

v. Talking Talons Wildlife Rehabilitation Center

Because of its quiet and remote location, Carlito Springs could serve as an excellent location to facilitate a wildlife rescue and rehabilitation operation.

Map 2. Carlito Springs Draft Site Plan



vi. Interpretive Viewing Tubes and Frames

At key lookout points along the trail system, welded steel or recycled timber frames will frame a portion of the vista or landscape that may hold particular geologic or cultural interest.

E. Access & Parking

Carlito Springs road enters the property from Route 66 and Old Schoolhouse Road and provides good access to the site. The lower portion of the road is not currently owned by Bernalillo County; however, the property upon which Carlito Springs Road is built has been nominated to the Bernalillo County Open Space Advisory Committee for purchase consideration. The winding dirt road can be difficult to travel in the winter when it snows. Bernalillo County Public Works has improved the road and a small parking area has been widened on one of the terraced areas east of the main house. This area can provide parking for several vehicles but capacity is limited due to the lack of flat land onsite. Vehicle circulation is a challenge and must be addressed as plans for the site develop.

F. Fencing and Signage

Fencing and signage are minimal at Carlito Springs. Some of the fencing near the orchard area appears to be the remnants of an old containment area for cattle.

G. Adjacent Land Use

Carlito Springs is bordered by single-family residential development to the east (Canyon Estates subdivision) and by single-family residential development to the south. The Cibola National Forest borders the property on the north and west. This portion of the Cibola National Forest was designated as the Sandia Mountain Wilderness area in 1978, and predominant uses are hiking and nature observing, with biking opportunities outside of wilderness boundaries. Recreational activities permitted within Sandia Mountain Wilderness include non-motorized and non-mechanized uses.

V. COMMUNITY FEEDBACK

The Steering Committee played an important role in planning efforts by participating in dialogue about management goals for Carlito. Their responses to key questions regarding values,

issues and concerns, and opportunities reflect current and future management goals at Carlito. Their responses are summarized below.

What do you think are the most important **values** at Carlito Springs?

- Delicate riparian environment
- Historical structures and significance
- Four known archeological sites (Indian and Hispanic)
- Excellent water quality and quantity
- Abundance of water for wildlife
- Plant diversity/ Bio-diversity of species
- Good infrastructure (buildings, roads, trails)
- Orchards, ornamental plantings
- Balance
- Wildlife and habitat preservation
- "Important Bird Area" designation

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

- Potential liability to County if site is available to public in its current condition
- Secluded location presents vandalism opportunities to structures and natural resources
- All of the built environment may not be salvageable. Evaluate structures accordingly.
- Fire risk
- Trash, historic or otherwise has accumulated on the site. Certain arroyos and hillsides were used as landfills and dump sites
- Non-native species
- How to manage the orchards
- Access road maintenance (level depends on public use)
- Poison Ivy
- Potential conflicts between bears and public
- Liability of human/wildlife interface due to high concentration of predators
- Seasonal closure may be necessary
- Not an appropriate area for biking

What **opportunities** are there at the site?

- Arboretum
- Environmental educational and conservation
- Preserve for wildlife
- Adaptive re-use of structures for youth and community programs
- Adaptive re-use for Talking Talons wildlife rehabilitation center
- Adaptive re-use for East Mountain Historical Society
- Use as a resource oriented research facility
- Link Carlito Springs to Ojito de San Antonio with trails
- Interpretation on Tuberculosis

- Summer Camp for kids
- Retreat facility/special events
- Wildlife Rehabilitation
- Establish area as Important Birding Area (IBA).

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

- East Mountain Historical Society has information on deeds, site history, and families that resided on site.
- Talking Talons bird survey
- A book on Tijeras Canyon has information on water
- Lab of Anthropology should have relevant data
- Need a plant inventory (UNM Biology student)
- Need water quality studies

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 Carlito Springs. It is not meant to limit future site opportunities or decisions. This statement was developed with community involvement and input during the two-year planning process.

"Carlito Springs will be a sanctuary for wildlife and a place for rejuvenation and environmental education. The land will provide water, fruit, nuts, and native habitat for bears, mountain lions and other species. People will come to the site to learn about these animals, habitat conservation, the site's remarkable human history, and to relax. The house will be used for special functions and will have a live-in caretaker. The cabins could be used for educational programming. Recreational 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 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

Management objectives are identified for resource based zones, visitor use, and long-term site stewardship. Because conditions may vary significantly, management objectives may vary from one zone to the next. A description of each of the management zones follows:

i. Historic/Cultural Zone

This area includes the structures and built environment. The main house, cabins, the pond areas, the spring source, and its outflow from the cistern are all contained within this management zone.

ii. Forest Zone

The majority of the property falls within this management zone. Much of the property is steeply sloped and contains typical flora found on the rest of the south-facing slopes of the Sandia Mountains.

iii. Riparian/Orchard Zone

With the abundance of water onsite, this management zone has developed over time. Some of what is found in this area has been the result of human influence and some is more typical of what is found in other riparian environments in the state. The ribbon of deciduous vegetation that bisects the property, as well as the orchard and terraces found in the bottom of the canyon property, are included in this management zone. The riparian zone is also part of a larger watershed system. Contributing to the overall health and functioning capacity of the watershed is an integral component of all responsible resource-based development plans for the site. Watershed protection provisions could include improving existing forest conditions, continuing fuel load reduction measures, controlling invasive plant species in favor of native species, remediating substandard soil, slope, and erosive conditions, enhancing grassland capacity where

appropriate, and evaluating potential land use effects—on and offsite—for subwatershed and riparian zone impacts.

iv. Archaeological Zone

This zone is very site specific and will not be shown on any maps. It 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.

B. Management Objectives and Strategies

i. Historic/Cultural Zone Management Objectives and Strategies

- Trail standards should accommodate the highest-level public access. Less fuel loading adjacent to such trails is appropriate.

- Determine which structures have adaptive re-use possibilities and pursue restoration
  - Restoration work shall be compatible with existing architecture and materials
  - Recycled materials shall be used when possible to maintain the historic integrity of the structures
  - Stabilize cabin(s) for interpretive opportunities.

- Investigate feasibility for a non-profit group to maintain structures and provide public education on themes such as bear, East Mountain history, wildlife rehabilitation, and Carlito Springs history
  - Conduct needs assessment and feasibility study surrounding implementation of a wildlife rehabilitation facility.

- Maintain ornamental gardens for visitor enjoyment and wildlife habitat
  - Continue spring source irrigation
  - Coordinate activities with on-site caretaker.

- Complete a Cultural Landscape Study of the Carlito Springs property.

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

- Protect the Carlito Springs from contamination
  - Monitor water quality and quantity for adverse changes
  - Maintain water flow to ponds and subsequent delivery to Carnuel Creek
  - Limit direct public access to spring source.

- Preserve ornamental exotic tree species planted throughout historical/cultural zone
  - Control invasive species.

- Create defensible space from wildfire around all structures
  - Existing corridors and the areas surrounding the built environment should act as firebreaks. Any additional construction and/or maintenance of these areas shall include a fire suppression component.

ii. Forest Zone Management Objectives and Strategies

- Vehicular corridors providing access to the site should act as firebreaks. Any maintenance of these areas shall include a fire suppression component.
  - Remove dead wood from watershed.

- Trail design shall follow accepted backcountry trail standards by USFS or IMBA. Less disturbance and more fuel loading adjacent to such trails is appropriate.

- Re-establish healthy forest conditions throughout the property
  - Implement the Forest Health Restoration Plan
  - Heavily wooded areas should be thinned from the current stocking levels of up to 160 square feet (trunk area) per acre to 40–60 square feet (trunk area) per acre. The trees to be selected to keep are as follows (listed in priority):
    - Alligator Juniper
    - Ponderosa Pine
    - Piñon Pine
    - Rocky Mountain Juniper (Local Priority)
    - One Seed Juniper
  - Appropriate thinning will have the greatest impact on ensuring a healthy forest that is aesthetically pleasing and relatively safe from catastrophic fires
  - Re-growth should be allowed to develop over time. Annual removal of deadwood could augment any annual firewood needs over an extended period of habitation
  - Maintain the rural nature of this area with special attention given to ensuring a healthy balance of forest resources coupled with appropriate fire suppression.

- Inform emergency responders
  - Primary emergency fire response provided by East Mountain Volunteer Fire Crew
  - Inform responders as to open space accessibility
  - Inform responders as to general fuel load conditions onsite
  - Organize interagency workshop to coordinate cooperation response in case of a major fire event.

- Enhance and maintain wildlife habitat
  - Designate and separate wildlife habitat corridors from visitor use
  - Designate the site as an Important Bird Area
  - Complete an inventory of wildlife species
  - Monitor wildlife behavior and activity
  - Encourage wildlife access at key water 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
  - Complete inventory of ornamental plant species.

iii. Riparian/Orchard Zone Management Objectives and Strategies

- Existing corridors and access to this area should act as firebreaks. Any maintenance of these areas shall include a fire suppression component.

- Trail design shall not adversely affect water movement or animal migration through the riparian area.

- Rehabilitate historic orchards for wildlife benefit
  - Implement tree pruning to strengthen trees and support bear accessibility
  - Maintain spring irrigation to orchards
  - Propagate additional orchard plantings and consider grafting from existing trees.

- Enhance riparian corridor
  - Maintain water supply to riparian vegetation
  - Enhance riparian vegetation with additional native plantings
  - Monitor and prevent additional site erosion
  - Explore opportunities for growing the Lady Tresses Orchid, an endangered species.

- Develop visitor management programs that protect bird nesting activities and fall wildlife forage activities
  - Some areas shall be closed to the public during certain periods of the year for bird nesting and breeding and during intense bear foraging activity
  - All group activities in this area shall be supervised and monitored to assure that damage to the resources does not occur.

- Invasive species such as sumac and Siberian elm shall be controlled primarily in the riparian and orchard zones.
  - Monitor and prevent over-infestation of invasive species.

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.

- Complete a cultural landscape study of the Carlito Springs 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.]

v. Visitor Management Objectives and Strategies

Carlito Springs is a natural draw for people seeking quiet refuge from the urban environment. Public access to Carlito Springs is important because it fulfills a goal of the *Major Public Open Space Facility Plan (MPOS)*. Carlito Springs' role as critical habitat for bears and other 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 Carlito. Appropriate recreational activities include hiking, picnicking, nature walks, research, and other educational activities. Resource appropriate management objectives and strategies include:

- Balance recreational and educational uses with conservation of wildlife habitat and cultural resources
  - Determine the site's natural resource, ecological, physical, facility, and social carrying capacity
  - Develop baseline standards for monitoring impacts and change at Carlito Springs using LAC models
  - Implement corrective action
  - Minimize human and wildlife conflicts through trail location and design, signage, and education
  - Educate visitors and enforce Bernalillo County Open Space Rules and Regulations
  - Request amendment to Bernalillo County ordinance to strengthen these rules and regulations.

- Provide adequate parking, trails and other facilities as needed for visitor activities
  - Maintain access road as single lane with turn-around on terrace
  - The access road shall serve as a firebreak
  - Post regulations at information kiosk
  - Explore site access and trail development opportunities appropriate for use by disabled visitor.

- Develop an internal trail system that provides recreational and educational opportunities while protecting sensitive site resources
  - Adopt Open Space trail standards for different uses and/or intensities.

- Develop interpretive programs and exhibits that explore the site's unique characteristics, history and culture
  - Offer day camp opportunities
  - Plan bear interpretation events
  - Investigate potential for Fall Harvest Festival
  - Develop public art such as bronze bear sculptures.

- Adopt site-specific rules and regulations for visitor use.

- Add signage that says: "No person shall damage, injure, collect, remove or disturb any object of paleontological, archaeological, or historical interest or value located on these lands."

- Pets shall not be allowed at Carlito Springs due to the sensitive nature of the environment and the concentration of activities.
  No
  - 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 and equestrian uses are not appropriate in this area due 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.

vi. Site Stewardship Management Objectives and Strategies

Volunteers have played an important role at Carlito Springs since its purchase in 2000. Many organizations have donated their time to help inventory resources and begin improvements for natural resource restoration and public safety needs. Site stewardship is critical for the continued success of the County's Open Space program. These following objectives will help to assure the success of 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 Carlito Springs in a timely manner
  - Improve efficiency of Bernalillo County response to volunteer requests
  - Identify primary contacts for Carlito Springs and Bernalillo County
  - Collaboratively develop annual work plans considering staff, equipment, and budget needs.

- Develop stewardship projects that significantly improve Carlito Springs 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 Carlito Springs. [See Appendix C for more LAC information.]

D. Operations and Maintenance

The operation and maintenance of Carlito Springs depends heavily on County staff working with community organizations and residents on stewardship projects. Several organizations have expressed an interest in helping the County manage the property. Effective administration of these partnerships will require County staff time.

Maintenance needs for the site range from staff to coordinate forestry-thinning projects, to cabin restoration, structural improvements, and ornamental garden and orchard maintenance. Recognizing the need for increased funding to support operations and management activities at all County open space properties, the County will request a mill levy renewal and increase during the 2006 election cycle. [Estimates for site maintenance are included in Appendix D Action Work Plan.]

VII. INTERAGENCY COORDINATION

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

A. United States Forest Service/ Cibola National Forest

Carlito Springs is bordered by the Cibola National Forest on the north and west sides. The site has potential to provide connector trails to existing social trails in the Cibola National Forest. Potential trail connections to be evaluated in conjunction with the USFS include:

- Arrowhead Canyon Trailhead to Carlito Springs/ Travertine Falls to Carlito Springs.
- Carlito Springs to old Sandia South Peak trail.
- Connector trails from Carlito Springs to Ojito de San Antonio.
- Carlito Springs to Tres Pistolas (Bernalillo County and City of Albuquerque Open Space property).

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 Carlito Springs 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 Carlito Springs 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 Carlito Springs.

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 Carlito Springs. 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 and Bernalillo County Community Centers

Both 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 Carlito Springs. 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. APS facilities (such as A. Montoya Elementary School) may allow *parking* for large events at Carlito Springs, such as a Harvest Festival. Certain events at Carlito Springs will be dependent on off-site parking due to limited parking capacity onsite and the need to lessen vehicle impacts.

G. Law Enforcement and Emergency Responders

Trespassing, vandalism, and illegal fishing and hunting have been identified as primary law enforcement issues at Carlito Springs. 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 that predict public use at the properties during the next 5 to 10 years. 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 Global Information Systems information into Map Quest for patrol unit referencing.
- Train site stewards (including neighborhood association 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

A guiding principle of this Plan is to develop sustainable stewardship practices for East Mountain Open Space. Bernalillo County Open Space does not have the staff or financial resources to develop all of the recommendations identified in this RMP. A key finding and result 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

stewardship. To successfully administer volunteer activities, the County will need to add an Open Space Coordinator to its staff.

Some community stewardship is already occurring. Examples include 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 committing to environmental education programs, neighbors training as Trail Watch volunteers, the Albuquerque Radio Orienteering Club providing detailed maps, and the *San Antonio Acequia* Association protecting the ditches and historic orchards at Ojito de San Antonio 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 giving them skills to assess and improve Open Space property trails. In December 2003, more than 25 volunteers learned fuel-load reduction techniques and applied that knowledge on land at San Antonio 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. On-going 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. Community Organizations

Several community organizations have been involved with Carlito Springs and they have contributed technical assistance and volunteer labor to accomplish several projects. Continued coordination with the following organizations will be helpful to the County as it develops capacity for providing recreational and educational activities at Carlito Springs. Neighborhood associations that are close to the site are also listed, as they provide local oversight of the property.

i. Canyon Estates Neighborhood Association

Continue to partner with the neighborhood association. Neighbors may be interested in participating in site stewardship projects, such as an *Adopt a Trail* program.

ii. Talking Talons (TT) Youth Leadership Program

Continue to partner with TT Youth Conservation Corps program to accomplish various projects. TT is interested in using site structures for education and wildlife rehabilitation centers. Feasibility of this type of use should be carefully analyzed. The development of a site stewardship program wherein Talking Talons provides organizational leadership and acts a liaison between the community and the County is being considered. Ideally, a minimum of two volunteer oriented stewardship activities should be conducted every year.

iii. East Mountain Historical Society (EMHS)

EMHS has collected oral histories about the property's past. The County should continue to work with EMHS on a variety of projects and possibly establish a permanent display of community history in the main house.

iv. East Mountain Garden Society

Garden Society members have helped identify plants onsite and may be willing to help the County develop a guided interpretive walk that highlights the property's diversity of plants. Other potential projects include orchard care and ornamental landscape restoration and maintenance.

v. Carnuel Land Grant and the Carnuel Acequia Association

Both of these groups have a vested interest in the property because of their past and current relationship to the land. The springs drain to Tijeras Canyon and this feeds the Carnuel *acequia*.

vi. Thursday Birders/ Partners In Flight

This group can provide assistance for conducting bird species inventories and helping to create management decisions that sustain bird habitat.

vii. 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 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 in exchange for access to these sites for Club sponsored events.

IX. CONCLUSION

Bernalillo County purchased Carlito Springs to preserve and protect its natural resources and environmental features as an *Open Space Facility.* In addition, the purchase of the property was intended to preserve archeological resources and to provide outdoor recreation and education 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 Carlito Springs with renewed commitment and a common vision.

Dated: _____

_____

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