



2014
CERRILLOS HILLS STATE PARK
MANAGEMENT PLAN

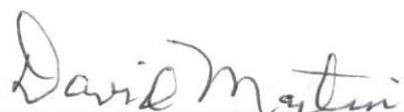
Energy, Minerals, and Natural Resources Department – State Parks Division



CERRILLOS HILLS STATE PARK

PARK MANAGEMENT PLAN

2014

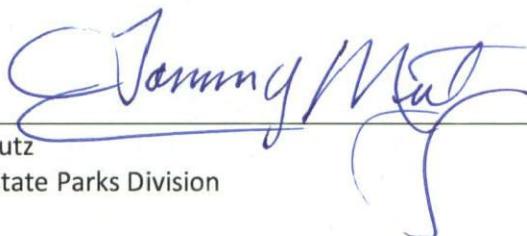


David Martin

Cabinet Secretary, Energy, Minerals and Natural Resources Department

10-9-14

Date



Tommy Mutz

Director, State Parks Division

10-08-14

Date

State Parks Division - Energy, Minerals, and Natural Resources Department

1220 South St. Francis Drive, Santa Fe, New Mexico 87505

www.nmparks.com

1-888-NMPARKS

CONTRIBUTORS

The following individuals contributed to the development of this plan:

Cheryl L. Bada, Deputy General Counsel, EMNRD

John Busemeyer, Planner, SPD

Judy Kowalski, Bureau Chief, Design and Development Bureau, SPD

Rob Love, Architect, SPD

Doug McKim, Regional Manager, Northwest Region 1

Christy Tafoya, Bureau Chief, Field Support Bureau, SPD

Steve Tafoya, Bureau Chief, Field Operations Bureau, SPD

Sarah Wood, Park Manager, Cerrillos Hills State Park

ABBREVIATIONS

ADA	Americans with Disabilities Act
BLM	U.S. Department of the Interior, Bureau of Land Management
CR	County Road
EMNRD	New Mexico Energy, Minerals and Natural Resources Department
FY	Fiscal Year
NM	New Mexico
SPD	Energy, Minerals and Natural Resources Department – State Parks Division

TABLE OF CONTENTS

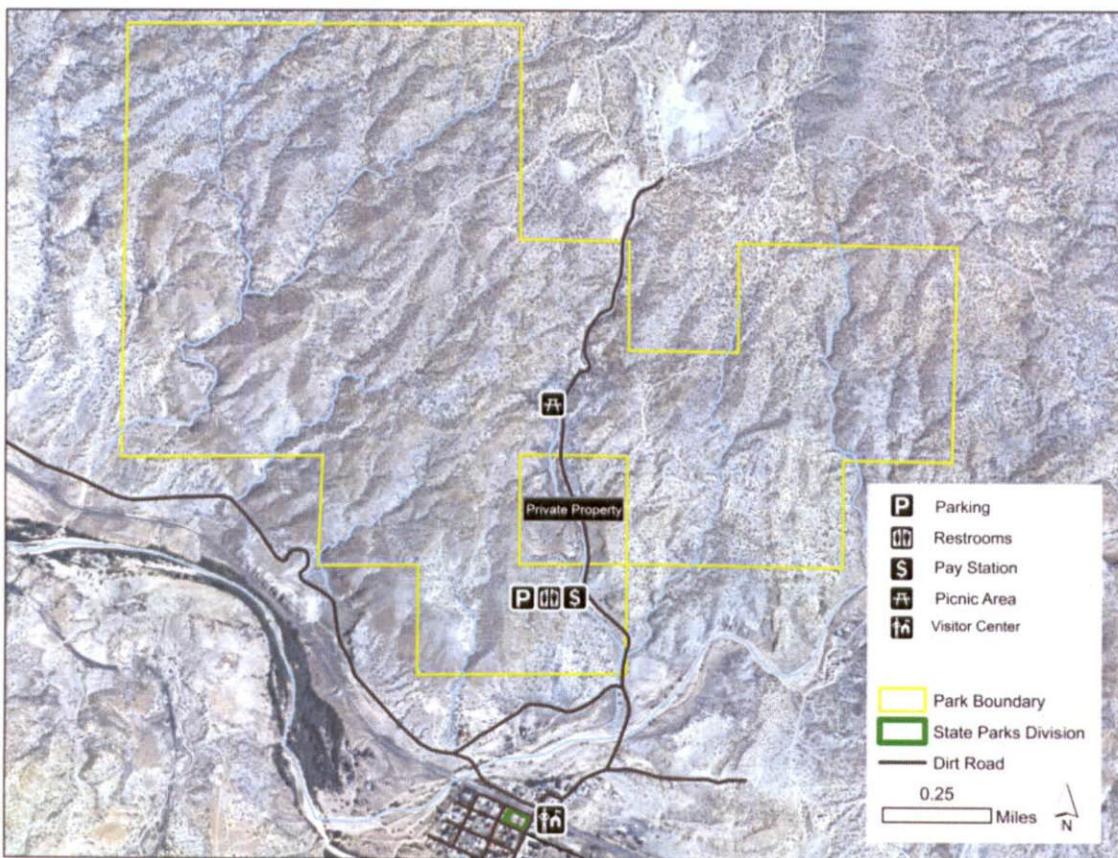
<i>Contributors</i>	3
<i>Abbreviations</i>	3
<i>Table of Contents</i>	4
Key Facts	5
INTRODUCTION	5
PARK DESCRIPTION AND HISTORY	5
PARK ASSESSMENT	7
PARK RESOURCES	7
<i>Land</i>	7
Regional Setting	7
<i>Natural Resources</i>	7
Geology	7
Water Resources	9
Vegetation	10
Wildlife	11
<i>Cultural Resources</i>	12
<i>Recreation</i>	13
Trails	13
Interpretation and Education	15
OPERATIONS	17
<i>Park Facilities</i>	17
Visitor Center	17
Maintenance Shop	17
Access, Roads, Parking	17
Restrooms	17
<i>Utilities and Infrastructure</i>	17
Electricity	17
Wastewater	17
Water	18
Solid Waste	18
<i>Park Management</i>	18
Hours of Operation	18
Fee Collections	18
Public Safety	19
Staffing	19
Volunteer Program	19
Partners	20
Concessions	20
Budget and Expenditures	21
Visitation	22
RECOMMENDATIONS	24
ISSUES AND RECOMMENDATIONS	24
Natural Resource Recommendations	24
Recreation Recommendations	25
Interpretation and Education Recommendations	26
Facilities Recommendations	26
Park Management Recommendations	28
ACTION PLAN	29
REFERENCES	30

CERRILLOS HILLS STATE PARK MANAGEMENT PLAN 2014

Key Facts	
Park Established:	September 2009
Park Management Area:	1,116 leased from Santa Fe County
Division-Owned Land:	0.67 acres in the village
Full-time Employees:	2
Annual Visitation:	6,000-8,000
Campgrounds:	Day use only
Picnic Sites:	1
Park Elevation:	5,900' to 6,300'
County:	Santa Fe

INTRODUCTION

PARK DESCRIPTION AND HISTORY



Cerrillos Hills State Park (Park) is comprised of 1,116 acres on the southeast end of the Cerrillos Hills landform, which is about 20,000 acres in its entirety. The hills are essentially volcanic plugs, remnants of 30-million-year-old volcanoes that have eroded down over time. The predominant vegetation type is

CERRILLOS HILLS STATE PARK MANAGEMENT PLAN 2014

juniper savanna. Until 10 years ago, it was primarily piñon-juniper grassland, but most of the piñon died during the very dry years of 2003-2005. Around 10 small wetlands created by seep springs exist in the drainages of the Park.

In 1998, Santa Fe County and a group of volunteers known as the Cerrillos Historic Park Coalition began to develop the Park. The impetus for setting aside the area as parkland was the desire to preserve the remnants of a tri-cultural mining history that dates to 900 AD. Santa Fe County Open Space purchased the land in 2000 as part of a bond package approved by the voters in Santa Fe County. In 2003 Santa Fe County established the Park as Cerrillos Hills Historic Park, with Stuart Udall delivering the keynote speech at the grand opening.

The Abandoned Mine Land Bureau, part of EMNRD's Mining and Minerals Division, safeguarded the mines in 2002. They "puff-plugged" mines away from the trails with expandable foam so their features were no longer visible. Mines near the trails were either backfilled most of the way and surrounded with an iron picket fence or the shafts were covered with a high tensile strength steel mesh. Interpretive signs are at each of the mines along the trails in the Park. Crews of youth corps and volunteers built the Park's trails with a National Park Service grant. Santa Fe County funded the purchase and installment of a vault toilet, frames for interpretive signage, a decorative group shelter, and two benches.

In 2006, SPD conducted a feasibility study in response to House Joint Memorial 8 (Appendix A) regarding the creation of a new state park in the Cerrillos Hills Historic Park. The study found that the property met the criteria for a state park, so SPD moved ahead with public meetings, soliciting public input, and an open comment period. Most comments were in favor of creating a State Park, and in 2007, SPD purchased three lots with two structures in the Village of Cerrillos as a visitor center site. In September 2009, SPD entered into a Joint Powers Agreement (Appendix B) with Santa Fe County to manage the Park as New Mexico's 35th state park. The visitor center opened in 2012.

Key Historical Events	
1997-1998	Cerrillos residents build grassroots and political support for a Los Cerrillos Hills Archaeological Park.
1998	Santa Fe County voters approve a bond issue for purchasing park land.
2000	Santa Fe County completes acquisition of the land from private landowners.
2002	Local sculptor Buck Dant completes the analemma, which he donated to the Park; Abandoned Mine Lands Bureau conducts archaeological surveys and safeguards the mines.
2003	On May 24 the Park is opened to the public as Cerrillos Hills Historic Park.
2005	Rep. Rhonda King introduces a memorial to make the County Park a state park.
2006	SPD completes the feasibility study.
2007	The SPD acquires three lots with two structures along Main Street in Cerrillos for the visitor center.
2008	SPD hires a manager for the Park in October.
2009	SPD and Santa Fe County sign the Joint Powers Agreement in September, and SPD officially assumes park management.

CERRILLOS HILLS STATE PARK MANAGEMENT PLAN 2014

2011	Harrison Schmitt, EMNRD Cabinet Secretary, approves construction of the Park's visitor center in January.
2012	SPD and the Amigos de Cerrillos Hills State Park support group sign a cooperative agreement in March.
2012	SPD holds the visitor center grand opening May 19.

PARK ASSESSMENT

PARK RESOURCES

LAND

Regional Setting

The Park is west of State Road 14, known as "the Turquoise Trail," about 16 miles south of Santa Fe and 45 miles north of Albuquerque. Santa Fe County owns the 1,116 acres that comprise the Park. The county provided SPD with copies of deeds of conveyance through which it acquired title to the land, as well as a survey-quality map delineating the entire property. The visitor center sits on approximately one acre of SPD-owned land in the Village of Cerrillos.

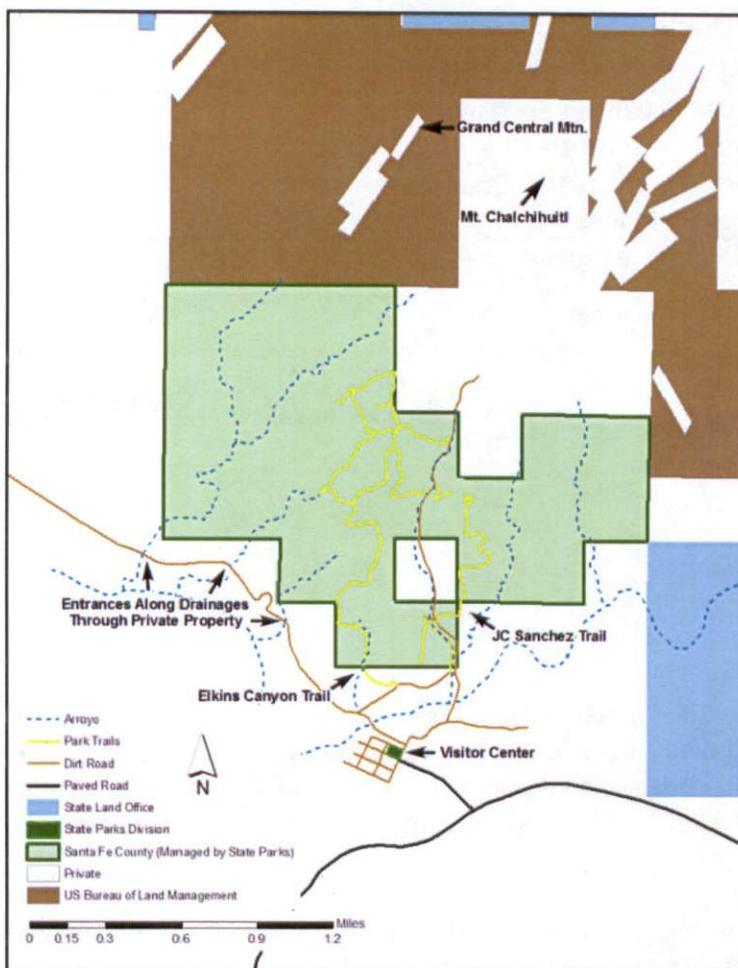
Surrounding land includes private parcels to the south, east, and north. Neither SPD nor the County currently have easements to cross the private land on the west side of the Park, although the public has used access points on the property since at least 2003. The southern end of the Elkins trail is covered by a right-of-way easement that the County holds. There is a private parcel through which the Jane Calvin Sanchez Trail crosses on the southern end of the trail, and two more parcels of private land on an unofficial portion of JC Sanchez Trail.

NATURAL RESOURCES

An important component of SPD's mission is to protect and enhance the Park's natural resources. The value of these resources can be better understood by describing them and their relation to the Park's historic and cultural aspects.

Geology

The Cerrillos Hills are part of a series of a volcanic chain of mountains that includes the Ortiz Mountains to the south and the San Pedro Mountains to the southeast. Each of these mountain chains has eroded perhaps 5,000 vertical feet over the last 30 million years.



Understanding the Park's geology contributes greatly to understanding the human history in the area. Therefore, a brief geological timeline follows. The timeline includes only those events that are readily visible in the Park.

75 MYA (million years ago) to 50 MYA. New Mexico, the Rocky Mountains to the west of the Park, and the high plains were covered by a shallow inland sea. The sedimentary shale deposits left by the sea are evident throughout the Park. Stacked layers, notably along the Jane Calvin Sanchez Trail, contain fossils, such as small mollusks and marine worms. In other areas, most visibly along County Road 59, the shale has eroded and looks black and crumbly like coal. This indicates areas where heat from the magma contacted the shale and cooked it.

50 MYA. The sea recedes from New Mexico. The Farallon plate (off the coast of present-day California) crashes into

and then slides under the North American plate. This action is known as subduction. As a result, North America begins a long period of compression during which the Rocky Mountains rise about one mile in elevation.

30 MYA. The Farallon plate is completely subducted by the North American plate, and North America starts to relax and pull apart. This relaxation is evident in two ways.

- The formation of the Rio Grande Rift, a virtual crack in the earth. Most river basins are carved by the water erosion of rivers, but the Rio Grande simply falls into the crack formed by the rift. The Cerrillos Hills are on the eastern edge of the rift.
- Magma starts to make its way to the surface in New Mexico, starting with the Cerrillos Hills, Ortiz Mountains, San Juans, Latirs, Gila, and other places in the western United States.
 - Magma squirts up between the layers of shale and over it, forming a "Christmas tree" laccolith. The cooled magma is the gray andesite and monzonite rock seen throughout the hills now.
 - There were four pulses of magma invading the sedimentary rock.
 - As the magma moves through the rock, it picks up elements from surrounding rock and changes composition. Minerals precipitate out of the magma as it cools. Highly acidic ground water essentially cooks the cooling andesite. The acidic nature of the water comes from elements in the magma such as chlorine, fluorine, and sulfur. The water leaches clay and other minerals out of the andesite and what remains is the orangey-

CERRILLOS HILLS STATE PARK MANAGEMENT PLAN 2014

white rock that is visible near the mines in the hills. Miners noticed this different looking rock and realized they would find mineral veins when they dug under it.

- Magma also comes in contact with the shale and cooks it into metamorphic black hornfels which are present on the Jane Calvin Sanchez trail between the "Al Horn" bench and the next bench going north.

30 MYA to 700 AD. The volcanic rock erodes, perhaps as much as 5,000 feet, leaving the volcanic plugs that make up the small hills in the area today. Exposure oxidizes minerals, altering their nature. Copper and zinc leach downward and, combined with the oxidized sulfates, form concentrations of copper-rich minerals such as chrysocolla, azurite, malachite, and turquoise.

700 AD to present. Native Americans, Spanish colonists, and territorial-era settlers mine the area for semi-precious and precious gems and metals.

Minerals and Ores

Several minerals relate to the cultural history of the Park. A list follows, with brief descriptions of chemical composition and historical significance.

- *Galena* is a lead sulfide, often containing silver. Native Americans mined galena for their pottery. Spanish mined it for their musket balls and silver, and territorial miners extracted it, too. A mere three ounces of silver per ton of galena is all that is required to make it a silver ore.
- *Sphalerite* is a zinc sulfide sometimes containing iron and manganese. It is the principal ore of zinc.
- *Azurite* is a deep blue copper carbonate, which is considered a gemstone.
- *Barite* (also known as barium sulfate) is used commercially as filler for paper and cloth, an industrial pigment, and a weighting agent in oil wells.
- *Chrysocolla* is a blue-green copper silicate sometimes used for gems.
- *Manganese* prevents rust and corrosion in steel.
- *Turquoise* is a hydrous aluminum phosphate with copper (blue turquoise) or iron (greenish turquoise). The Cerrillos area has both colors, which was what attracted miners from two eras and two cultures.
 - People associated with the Chacoans mined the greenish-colored turquoise starting in 900 AD and then Keres speaking people from San Marcos Pueblo mined it from 1300-1500 AD. The greenish turquoise of Cerrillos possibly reminded the Keres of the jade from Mexico, with which they shared a strong cultural identification.
 - Tiffany & Co. of New York made "Tiffany Blue" turquoise famous and expensive. It has more copper in it, which makes its color the distinct robin's egg blue featured on the jeweler's boxes.
- *Pyrite* is an iron sulfide also known as "Fools Gold." Pyrite has lots of sulfur, which contributed to the acidity of the hydrothermic ground water that leached clays and minerals out of the magma.

Water Resources

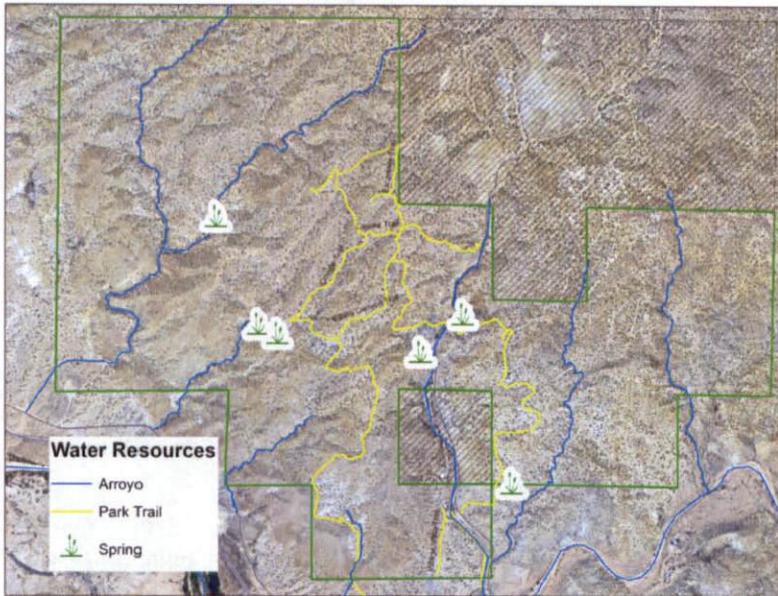
Within the drainages of the Cerrillos Hills are some perennial seeps. The presence of species not commonly found in the uplands such as New Mexico olive (*Forestiera pubescens*), Russian olive (*Elaeagnus angustifolia*), narrowleaf cottonwood (*Populus angustifolia*), cattail (*Typha latifolia*), or alkali muhly (*Muhlenbergia asperifolia*) is often the only indication of a high water table produced by the seeps. The seeps do not produce enough water to be of significant recreational value but they are an

CERRILLOS HILLS STATE PARK MANAGEMENT PLAN 2014

important habitat component for wildlife. Some seeps support true wetlands and are therefore protected under the law.

Vegetation

The Park lies on the eastern edge of the shortgrass prairie in the plains-mesa grassland floristic zone and the juniper savanna ecotone. Grasses are abundant and diverse, with at least 50 native species identified. Small forbs, such as Rocky Mountain zinnia (*Zinnia grandiflora*), rose heath (*Chaetopappa ericoides*), and plains blackfoot (*Melampodium leucanthum*) are common. The primary shrubs at the Park are two different species of rabbitbrush (locally known as chamisa), and one-seed juniper (*Juniperus monosperma*). Piñon once were almost as abundant as the juniper, but drought in the early 2000s and resultant bark-beetle infestation killed about 90% of them.



Elements of two other land cover types are in the Park. The Chihuahuan Desert lies 60 miles to the south of the Park, and one of its floristic elements, black grama (*Bouteloua eriopoda*), is fairly common in the Park. Likewise, there is a disjunct population of bush buckwheat (*Eriogonum corymbosum*), a common Colorado Plateau plant, which is abundant in the Park, but not in the surrounding area. It is possible the volcanic and mineral rich soils of the Park contribute to the vegetative diversity and resilience, despite the rocky shallow soils, dry climate, and long history of human disturbance.

The list of flora in Appendix C is largely the work of retired botanist and volunteer, Wilbur Peterson. He has been collecting voucher specimens and compiling the list since the spring of 2014. The visitor center will house mounted herbarium specimens of this collection.

Non-native and Invasive Species

Russian olive (*Elaeagnus angustifolia*) is the most abundant invasive species in the Park. It occurs in every seep and in many cases is forming thickets, which are crowding out the native grass understory as well as native willows and cottonwoods. Most of these trees became established in the last eight years, when grazing in the Park ceased and cattle no longer ate Russian olive seedlings. Work crews cleared Russian olive in two drainages in 2009 and 2010. However, the trees are now re-sprouting from the stumps. Park staff cut back the sprouts every year.

Salt cedar (*Tamarix ramosissima*) is usually present along with Russian olive, although at a far lower density. In the fall of 2013, the non-native salt cedar beetle (*Diorhabda elongata*), which the United States Department of Agriculture introduced as a biological control agent in other areas of the western

CERRILLOS HILLS STATE PARK MANAGEMENT PLAN 2014

United States, established in Cerrillos. The beetle defoliated the Park's salt cedar trees as well as a significant stand along the Galisteo River in the village. Annual cheat grass (*Bromus tectorum*) is fairly abundant in the seep areas and Park staff pull it by hand when time permits.

Wildlife

The fauna list (Appendix D) comes mostly from the Biota Information System of New Mexico (BISON-M) database with additions or subtractions based on the habitat present at the Park or observations by Park staff and credible visitors. The New Mexico Herpetological Society did a survey of the Park during the very dry spring in 2011 and confirmed nine species, which added one species to this list.

Taxonomically, the most abundant group is birds, with 145 species, followed by mammals (55 species), and reptiles and amphibians (30 species). Because the birds are so abundant, and are often of recreational interest to visitors, they are on a separate list (Appendix E).

The most common large animals in the Park are coyotes and bobcats. Badgers are also present, but secretive. Rock squirrels forage along the trails and road, while gopher presence is evident underneath cactus colonies and grasses. Lizards, such as checkered and New Mexico whiptails, horned lizards, and collared lizards take advantage of the variety of microhabitats on the hills and are a common sight during the warmer months. The Park is home to both prairie and diamondback rattlesnakes, with several sightings of very large specimens of the diamondbacks. Red coachwhips are less common. Both rattlesnakes and bullsnakes use the habitat that the mines provide. Many large animals stick to the drainages where there is some water, cover, and shade. Lizards take advantage of the variety of microhabitats on the hills.

People have occasionally seen mountain lions in the Park, but they are most likely passing through from the nearby Ortiz Mountains, where they reside. Bears may travel through the Park occasionally. People have sighted bears within a few miles of the Park on Gold Mine Road in 2014, and in the Lone Butte area and County Road 55A in 2013.

Species of bat live in mines in and around the Park. The Abandoned Mine Lands Bureau found evidence of Townsend's Big-eared bat in two mine shafts during surveys in 2002. They are planning additional surveys of these shafts in 2015.

Many of the smaller animals in Appendix D, such as rodents, are hard to confirm without an inventory by biologists.

Arthropods (insects, spiders, and mites) are not included in an appendix because of uncertainty as to what might exist in the Park's habitat. Some arthropods, like tarantulas, generate a lot of interest, as does the tarantula's predator and New Mexico's state insect, the tarantula hawk wasp. Scorpions are common in the sandy arroyos near vegetation. Darkling beetles, which eat dead plant material, are common. There is a European honeybee colony in a rock crevice on the west side, and native bees are also present. In 2013, an unusual butterfly, the Rita Blue, was confirmed in the Park feeding on the buckwheat brush. Other common butterflies in the Park are queens, mourning cloaks, and sulfurs.

Birds

The Park has 49 bird species that staff or knowledgeable volunteers have documented; a search of BISON-M database reveals the juniper-savanna habitat type in Santa Fe County supports 141 species of

CERRILLOS HILLS STATE PARK MANAGEMENT PLAN 2014

birds. The two lists combined make up a total of 145 distinct species. Some of the more common species that are typical of the juniper-savanna habitat include the juniper titmouse, black-throated sparrow, and rock wren, which inhabit the Park year-round. Winter species include western bluebirds, northern flickers, and Townsend solitaires, which come to eat the juniper berries. Flocks of piñon jays were once common, but now live to the east in the Galisteo Basin. They may still come to the Park to drink water at the spring. An audio survey confirmed the presence of the uncommon Gray Vireo in June 2011 in the wetland of a western drainage, although a nest was not found.

CULTURAL RESOURCES

Cultural resources within park boundaries are subject to state and federal cultural resource protection laws. Park staff coordinate with SPD's archaeologist to protect or minimize impacts to cultural resources prior to any development that would result in ground disturbance.

The Cerrillos Hills area has an abundance of archaeologically and historically significant sites. The Cerrillos Mining District is on the State Register of Cultural Properties and was nominated to the National Register of Historic Places (Levine, et.al. 2009). Since ca. 700-900 AD, the area has been successively mined by Native Americans, Spanish colonists, and American settlers. The majority of archaeologically significant sites within the Park are related to the most recent mining activity in the late 1800s.

Archeological surveys of the Park were conducted prior to safeguarding the mines (Milford 1995, Deyloff et al., 2001, Bice et. al 2003, Levine et al. 2009). The surveys document most of the sites in the Park and cover much of the archival history. Bill Baxter, who wrote the Park's interpretive signs, also exhaustively researched mining records, newspaper articles, Santa Fe county records, the US census and other sources and compiled them into a document the Park has on a compact disc in the park office. Baxter has also provided the Park with digitally scanned images of mining records, and historical photos owned by former Abandoned Mine Land Bureau's employee Homer Milford.

A brief synopsis of the area's history is below.

Prehistoric Period

People living in many areas of New Mexico including the nearby prehistoric pueblos of San Marcos and San Lazaro mined the area for turquoise. Evidence shows mining at Mount Chalchahuitl to the north of the Park began in about 900 AD. Native Americans may have quarried as much as 30,000-50,000 tons of rock from the pit (Gustafson, 1965, quoted in Levine, 2009). Turquoise is always formed close to the surface, which allowed these early miners to extract it using only stone hammers.

Native Americans from Zuni Pueblo introduced glaze paint for pottery to the middle Rio Grande Basin around 1300 AD. Residents of San Marcos and other pueblos began to mine the galena in the hills to reconstruct this glaze. They extracted the galena crystals from the surrounding ore, ground it into a powder, and mixed it with plants and other minerals to form the glaze paint. Native Americans mined the area until the Spanish arrived in the 1500s.

Spanish Colonial Period

Members of the Rodriguez-Chamuscado expedition of 1581-82 were the first Spaniards to document the mining potential of the Cerrillos Hills. Eighteen years later, Governor Juan de Oñate, who was himself a

CERRILLOS HILLS STATE PARK MANAGEMENT PLAN 2014

miner, appointed his nephew Vicente de Zaldivar to explore and develop the mines in 1600. Spanish colonists were likely most interested in the galena, from which they obtained lead for their musket balls and silver for artistic purposes.

Although the Spanish mined the Cerrillos Hills for nearly 270 years, records are sparse and conflicting. Colonial records were destroyed during the Pueblo Revolt of 1680. Spanish colonists may have encrypted later records in an effort to conceal what they mined to avoid paying taxes to the Spanish Crown.

Territorial Period

In 1871, Stephen B. Elkins, a businessman and politician, purchased 606 acres of the present town site of Cerrillos in anticipation of the railroad's arrival. During this time, many people in the Cerrillos Hills did not tolerate trespassers. At about this time, two Colorado miners, Robert Hart and Frank Dimmick, persuaded Colorado miners from Leadville to come down to Cerrillos on the promise of easy riches. In 1879, miners arrived in the hundreds and essentially overwhelmed the local residents. A short-lived mining boom started and miners dug thousands of holes in the hills, but only about a dozen made a profit. People mostly made money off of rampant speculation, as they did elsewhere in the western United States. In 1883, the Territorial Legislature passed a bill requiring all mining claims be excavated 10 feet in the first 90 days. This effectively put an end to the mining boom, although some mines stayed active into the 1960s.

During the 1890s, J.P. McNulty, an agent of the American Turquoise Company of New York, worked and managed the Castillan mine north of the Park near present-day County Road 45. He shipped the turquoise to New York for sale at Tiffany Jewelers. For a time, turquoise was so fashionable it was worth more than gold (McCraw, 2006). Small business miners and jewelers still work mines north of the Park on BLM and State Trust Land today. Restricted access to these areas is on County Road 59 through the Park.

Village

The Village of Cerrillos was founded in 1880 when the railroad arrived, serving as a supply station for the surrounding mines and mining camps. The village was a typical western "boom town" with dozens of saloons, a fancy hotel (the Palace), a smithy, bakery, barbershop, and hardware and grocery stores (Lawson, 1989). The town survived to become a bedroom community of Santa Fe.

The Park's visitor center is in the Village of Cerrillos in Block 9, which burned completely to the ground in 1890. Some saloon steps are still visible on the northeast corner of the property. Marron and Associates performed an archaeological data recovery excavation on the lots in the summer of 2009 before construction. Artifacts are in the Museum of New Mexico archives. Detailed archival and cultural resource reports are at the Park office and the Santa Fe office (Marron & Associates, 2008 and 2009).

RECREATION

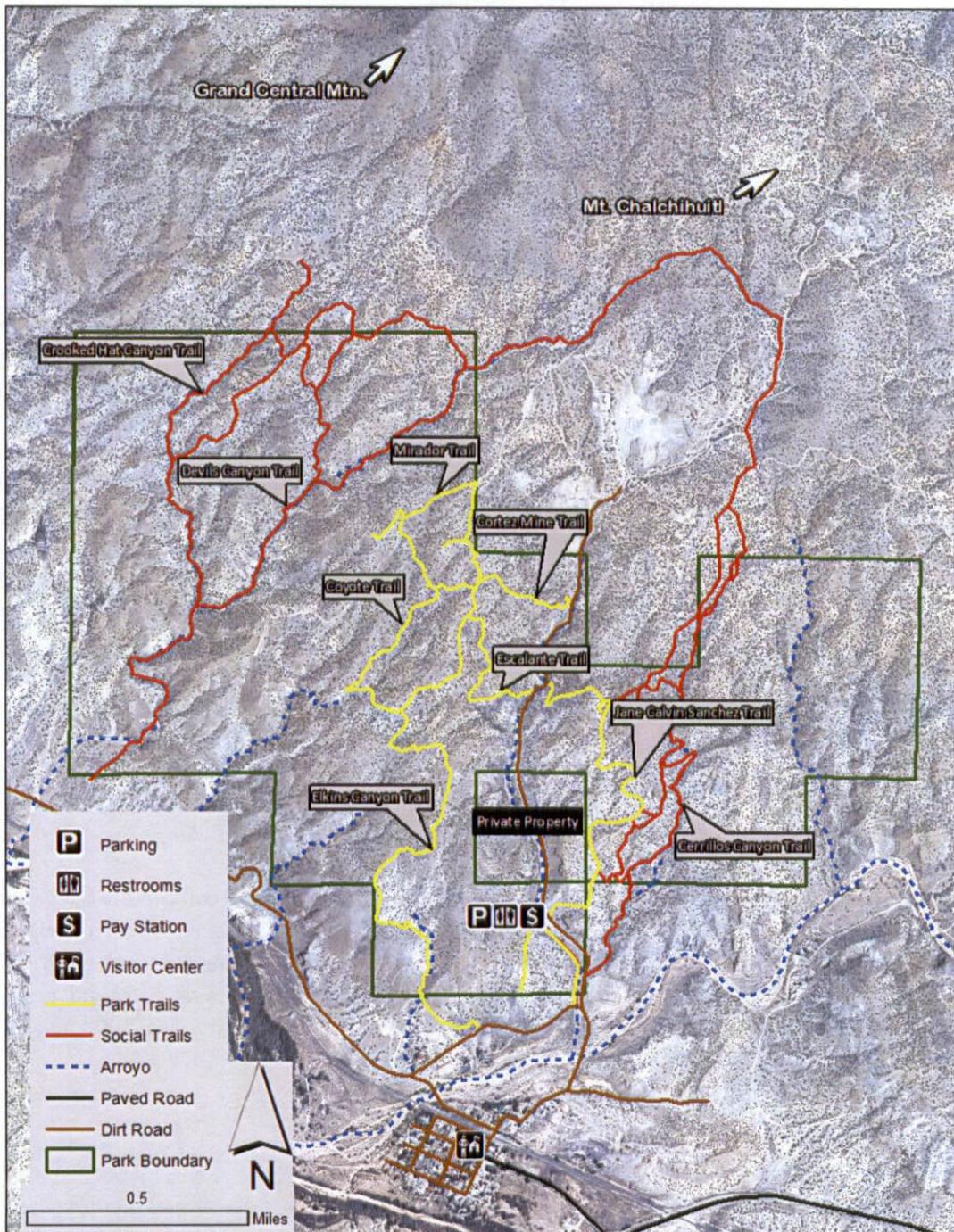
Trails

Most visitors come to Cerrillos Hills to use the trails. The trails are best suited for hiking although horseback riders and mountain bikers use the trails, too, particularly in the winter months when other areas are muddy. The National Park Service helped lay out five miles of official trails (those that have signs and are included in the park trails brochure) in 2001. On the east side of the Park, Broken Saddle

CERRILLOS HILLS STATE PARK MANAGEMENT PLAN 2014

Horseback Riding concession and some hikers use 1.8 miles of unofficial, unsigned trails. Hikers created an additional 3.6 miles of unofficial trails on the west side.

The trails have excellent views of the Sangre de Cristos, Jemez, Ortiz, San Pedro, and Sandia mountain ranges as well as the Galisteo Basin, La Bajada Mesa, Grand Central Mountain and, on a clear day, Mount Taylor. Even though there are 110 miles of free trails in Santa Fe County, people are willing to pay a day use fee to hike in Cerrillos Hills because of the spectacular views and the feeling of security in a patrolled park.



CERRILLOS HILLS STATE PARK MANAGEMENT PLAN 2014

Interpretation and Education

The Park is, at its core, an interpretive park. Interpretation is the art and skill of connecting visitors to the meaning of the cultural or natural features of an area. Interpretive methods vary from traditional lectures to interactive tours, demonstrations, or activities. Interpreters strive to understand their audiences so they can choose the appropriate technique for leading their audiences to understand a place within the context of their individual life experiences.

In park settings, the goals of interpretation are to increase voluntary compliance with rules, augment the visitor's recreational experience, and build community and political support through a thorough understanding of the Park.

The Park's history is intertwined with its geology and areas outside park limits. Therefore, interpretation at the Park is not limited to its boundaries. The Park has prehistoric and historic features and a well-documented 1,100+ year mining history. Between June 2009 and December 2013, 5,414 people came to 217 interpretive programs. Many people traveled from Santa Fe and Albuquerque just to attend these events.

Park staff have presented interpretive programs regularly since the Park opened in 2009. Since 2010, there have been weekly programs. The programs that are not scheduled on a regular basis are scheduled according to guest speaker availability and interest. The regional interpreter does the bulk of the scheduling with input from the park manager. The interpreter makes an effort to have at least one guest speaker per month. The Santa Fe area has an abundance of people who have specific expertise and are often willing to speak on a volunteer basis. As the only public land presence in the central part of the Turquoise Trail, there is an opportunity to include a wide variety of subject material in interpretive efforts.

Programs in the Park itself generally take the form of guided hikes on the trails. Programs in the visitor center are mostly talks held in the multi-use room. The most popular programs are those given by experts in specific areas including geology, history, natural history, and astronomy. Park staff primarily use the Park's interpretive themes and SPD's mission as a guide when deciding what programs to present.

A brief synopsis of the Park's areas of interpretation is below.

Geology

The central interpretive theme of Cerrillos Hills is how the geological processes of the last 70 million years created the conditions that led to the mining activities of the last 1,100 years. The Jane Calvin Sanchez trail is an excellent place for basic introduction to park and school programs because people can see evidence of the geological processes and mining activity. Scott Renbarger, a local geologist, leads popular geology hikes one or two times a year. Recently, Dave Ennis of the Mining and Minerals Division also presented a very successful geology talk.

History

The Cerrillos Hills area has a history that has a significant place in the history of the American Southwest starting in 900 AD. It was one of the oldest mining districts in North America and its history encompasses all three major cultures in New Mexico. Most of the mining activity was on the east side of the hills, where lava erupted to the surface. To the north of the Park are Spanish mines, and further to the north

CERRILLOS HILLS STATE PARK MANAGEMENT PLAN 2014

is the ancient turquoise mine known as Chalchahuitl. Several ancient pueblos representing different tribal associations (Kewa, Keres, and Tano) lived east of the Park in the Galisteo Basin. San Marcos, in particular, plays a large role in the history of the region, as its residents mined Chalchahuitl for turquoise starting 700-900 AD.

Along the five miles of official trails in the Park are several mines dating to the late 1800s. Ten of these mines have interpretive signs. Bill Baxter, a local volunteer historian, offers history hikes or talks, and his programs are always very popular. His topics include turquoise mining, how mining played a role in the settlement of New Mexico, the late 1800s mining boom, black history, and mining methods and tools. Other topics have included the Spanish entradas, horses in the west, environmental villains and heroes, the place names of New Mexico, the life of a Spanish peasant in New Mexico, and the traditional uses of New Mexico plants.

Natural History

The Park's natural environment is interesting because of its seep-spring microhabitats, relatively lush grassland, and influence on cultural history. The natural history programs aim to increase awareness that there is a diversity of fascinating flora and fauna in the seemingly deserted and rocky Cerrillos Hills.

Several recurring natural history programs coincide with natural ecological events or holidays. The "First Day Hike," held on January 1 of each year, is a free and fun guided hike and part of a nationwide effort. The Park also hosts wildflower hikes on Memorial Day and Labor Day; a grass class in the fall; a tarantula hike that tries to coincide with the tarantula breeding season; the "Stuffing Strut" hike that occurs the day after Thanksgiving; and a Hibernation Hike, which focuses on winter animals. All of these programs are popular with the public. Natural history topics in the Park have also included cougars; bears; pronghorn; coyotes; bats; raptors and other birds; snakes and other reptiles; butterflies; bees, and other insects; the piñon-juniper ecosystem; tracking; orienteering; and animal calls. All of the flora and fauna that the programs cover are found within the Park or close by. There is no lack of experts willing to give programs, as well as audiences eager to find out about all creatures great and small.

Astronomy

The skies of New Mexico are frequently featured during twilight and moon hikes, solar observing programs, and star parties. These programs are usually hosted by staff member Peter Lipscomb, but the Park has both solar and star telescopes for other people to do these programs as well.

Below is a summary of interpretive program attendance for programs in the Park from 2009 to 2013. In 2009, programs were only offered from May until December. The slowest time of the year is the last half of December, due to the holidays, so no programs are scheduled after mid-month. However, the Park gets busy again on New Year's Day with the free "First Day Hike". The addition of the visitor center in 2012 improved programming by allowing the flexibility to offer programs in a comfortable setting when conditions outside are poor.

Year	Total # programs	Median # people per program	Total # attendees/year
2009	13	11	158
2010	38	10	696
2011	52	10	827
2012	40	20	1092

CERRILLOS HILLS STATE PARK MANAGEMENT PLAN 2014

2013	50	17	1186
------	----	----	------

OPERATIONS

PARK FACILITIES

Visitor Center

SPD finished construction of the visitor center in 2012 at a cost of approximately \$1.2 million. It opened on a regular, but limited, basis on May 19, 2012. It is approximately 2,800 square feet of adobe and frame construction. It features a reception area, a 378-square-foot exhibit room, two offices, public restrooms, and a 750 square-foot meeting room that the Park uses for programs and is available to rent to the public. The exhibit room has three display cases and some banner signs. Two of the display cases have minerals with interpretation. Another has interpreted artifacts from the archaeological excavation done prior to visitor center construction.

Maintenance Shop

SPD constructed the maintenance shop at the same time as the visitor center. Its pre-fab walls are made of insulation surrounded by panels. It is approximately 750 square feet and has a bathroom.

Access, Roads, Parking

Santa Fe County Road 59 provides access to the Park. It is not paved and ends at a gate that marks the beginning of private land approximately $\frac{1}{4}$ mile into the Park. Visitors park in four formal, signed parking areas near the pay station, and several wide spots in the road. Since at least 2000, people have entered the Park through drainages on the west side by crossing un-posted private land.

Restrooms

The Park has one single-seat vault toilet with a hand-sanitizer dispenser. Sewage is pumped once a year. The visitor center also has a restroom facility available to the public when the building is open.

UTILITIES AND INFRASTRUCTURE

Electricity

The roof of the shop has 18 solar panels that collect an average of 542 kWh per month and powers both the shop and the visitor center. In the first full year of use (2013), the panels generated just under 7,200 Kwh and the buildings used 2,800 Kwh, a net surplus of 4,400 Kwh. Both the visitor center and the shop have electrical units connected to outside compressors that provide heat and cooling.

Wastewater

The visitor center has one dual septic tank, with each compartment holding 1,500 gallons. The tank is 15 feet from the visitor center's east entrance. The leach field is north of the septic tank, and is an infiltrator chamber system. An inspection by plumbers in January 2013 indicated it was in good condition.

CERRILLOS HILLS STATE PARK MANAGEMENT PLAN 2014

Water

The visitor center is hooked up to Cerrillos municipal water, which is administered by El Vadito de los Cerrillos. The storage tank for the village is buried in San Marcos arroyo just north of a 100-year-old dam. The water is tested regularly by the New Mexico Environment Department, and is treated. No potable water is available in the Park.

Rain gutters harvest precipitation from the visitor center roof and underground pipes deliver the water to three 2,000 gallon cisterns buried underground. The cisterns have a float that automatically turns on city water if storage levels drop below a certain point. The cisterns are hooked up to an automatic drip irrigation system, which waters the apple trees, box elders, New Mexico olives, and cherry trees on the property.

Solid Waste

With just one trash can by the vault toilet, the Park essentially is a “pack it in/pack it out” site, and will remain so, since littering is infrequent and trash disposal is costly. There have been few complaints about this arrangement. The visitor center generates the most trash. Park staff take trash to the San Marcos Transfer Station, operated by Santa Fe County, about eight miles to the northeast. A Small Commercial Transfer Station Permit worth 10 visits cost \$140 in FY2014 is sufficient for the entire year.

Utility Providers	
Water	El Vadito de los Cerrillos
Electricity	Solar panels supplemented by PNM
Solid Waste Management	Santa Fe County Transfer Station permit
Telephone	CenturyLink

PARK MANAGEMENT

Hours of Operation

The Park is open 365 days a year, 24 hours a day. There is no legal or physical way to close the Park as it lies along a county road (CR 59). The visitor center is open from 2–4 pm daily, and is closed Thanksgiving, Christmas Eve, Christmas Day, New Year's Eve, and New Year's Day. The visitor center is occasionally closed due to staff unavailability. Park staff sometimes expanded hours on weekends when volunteers are present.

Fee Collections

One self-pay station is just beyond the Park's entrance on CR 59, $\frac{1}{2}$ mile north of the Village of Cerrillos. This location also has an information kiosk with park maps, brochures, event flyers, emergency numbers, and any other information that visitors should know. Only a fraction of visitors expressed discontent when the fee system started late 2009. As of 2013, voluntary compliance is about 90%.

CERRILLOS HILLS STATE PARK MANAGEMENT PLAN 2014

Public Safety

There is no certified law enforcement on staff. Staff are trained in first aid and CPR. Radios do not work between the Park and the visitor center. Should an emergency occur the Turquoise Trail Volunteer Fire Department is likely to be the first to respond. The nearby town of Madrid also maintains a volunteer fire department. The Santa Fe County Sheriff's Office is just 10 miles north on State Road 14, but Sheriff's Office staff rarely patrol the village. The Emergency Action Plan, updated in February 2014, is in the Safety Binder in the VC reception area.

Staffing

The Park has two full-time employees, the park manager, and the regional interpreter, who is stationed at the Park and is supervised by the park manager. This arrangement works because the Park has a greater need than the regional office for interpretive services and personnel. A part-time laborer works at the Park during part of the year to help with operations and maintenance. SPD's regional office in Aztec provides staff support, as well as operational support, for all nine of the state parks in the northwestern region. The regional manager supervises the park manager.

The following is a description of each full-time position:

- Park manager: Responsible for all aspects of park administration, management, and day-to-day operations.
- Regional interpretive ranger: Coordinates educational and interpretive events throughout Region 1. This individual travels extensively to other parks in the region between April and October.

Volunteer Program

Volunteers are vital to the Park. Since 2009, the Park has had many volunteer interpretive speakers, three projects completed by the New Mexico Volunteers for the Outdoors, and volunteers who have helped with trail maintenance, visitor center reception, visitor management, and marketing. In September 2013, the regional interpreter took over volunteer coordinator duties from the park manager. The Park has hosted four volunteer trainings to date for receptionist and park greeter positions.

Park staff have identified the following volunteer positions:

- Visitor Center Reception – Greet visitors, orient them to the village and the area, point them towards the Park and promote it and its events, show them the restrooms, etc.
- Park Greeter – This position is stationed in the Park at the pay station/information kiosk. Greet visitors, answer questions, promote the area, and give tourists New Mexico state maps. If a Friends group member staffs this, he or she can solicit Friends' membership and have a donation box on-site.
- Trails and Maintenance – Help to patrol and maintain trails; control vegetation; maintain landscaping around the visitor center as needed.
- Friends' Recruiter – Set up a table and refreshments before or after a park program. Refreshments would be in return for donations and would go to the Friends group; Friends' applications and passes would also be available.
- Special Events – Work with park staff to implement one or two special events per year.

CERRILLOS HILLS STATE PARK MANAGEMENT PLAN 2014

Partners

The Park has a joint powers agreement with the County signed in September 2009 that expires July 1, 2032. Either party can cancel the agreement with a year's notice without cause. Although SPD determines the management approach for the Park, it consults regularly with the County regarding projects. SPD is also required to hold a joint public meeting annually to review the Park's management and operations.

In 2013 and 2014, Santa Fe County made in-kind contributions to the Park. The County's volunteer coordinator helped to start the volunteer program and helped run three trainings. County Planning and Public Works Departments provided personnel and equipment to help clear out Russian olive from Mineral Springs.

The Park temporarily partners with several organizations and agencies for special events or projects. These include EMNRD's Mining and Minerals and Forestry Divisions as well as the New Mexico Environment Department. Other partners include the Public Lands Information Center, the BLM, and private entities such as the Randall Davey Audubon Center and the New Mexico Humanities Council. The Park has two agreements with Santa Fe County and its Friends group, the Amigos de Cerrillos Hills State Park.

The Amigos de Cerrillos Hills State Park was formed in 2012 as a support group for the Park. As a new group they held three membership drives to build up membership and the treasury. By the end of 2013 the group had raised about \$4,200 and spent about \$1,700. The proceeds were from memberships, donations, and a yard sale. The Amigos de Cerrillos Hills State Park then used proceeds from the yard sale to apply for tax exempt status, which was granted in November 2013. The Amigos de Cerrillos Hills State Park (Amigos) hold fundraising events such as a dinner, a Labor Day barbecue, and the Annual Yard Sale in August. These festive events offer free food and attract many community members who live in the immediate area. Support from this sector is crucial to maintaining good relations with neighbors.

The Amigos also help recruit volunteers, sponsor music and lectures on history, provide honoraria and travel expenses to speakers, provide refreshments during events, and put out small items, such as minerals, hats, walking sticks, and guide books in the reception area to solicit donations. The Amigos fund a school bus transportation grant for educational trips to the Park. With its tax exempt status, the Amigos also plan to seek out and apply for grants that will help the Park.

New Mexico Army National Guard personnel from the nearby unit helped clear Russian olive from Mineral Springs on Earth Day, 2014. The National Guard is interested in "adopting" the Park and is discussing the idea with SPD.

Concessions

Some private companies (concessionaires) have agreements with SPD to conduct business operations on park land throughout the state in exchange for a portion of their proceeds. These businesses are meant to enhance the visitor experience while also conserving, managing, and responsibly using the Park's natural resources.

Broken Saddle Horseback Riding stable has been the sole concession of the Park since April 2011. The company offers rides year-round in the Park and the surrounding area. The contract expires in April

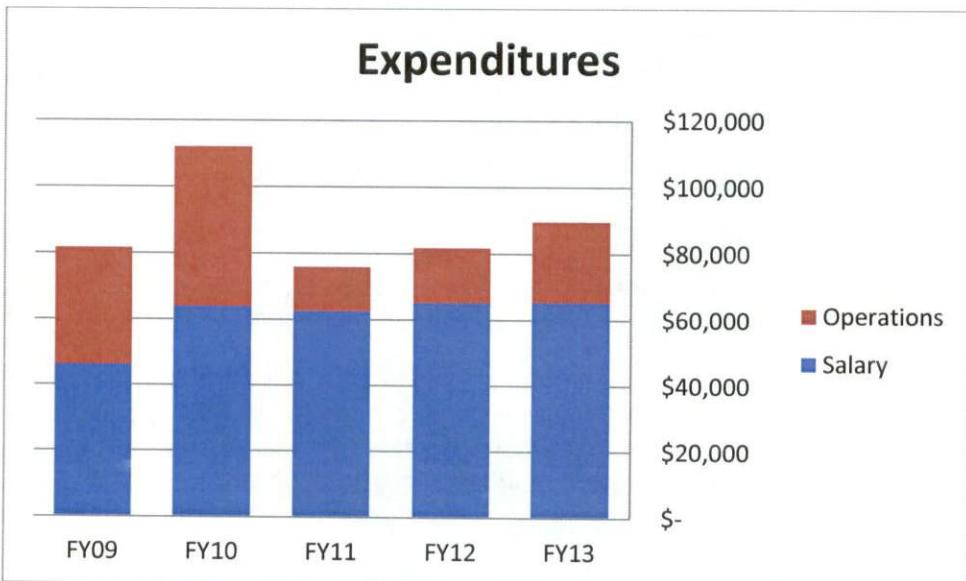
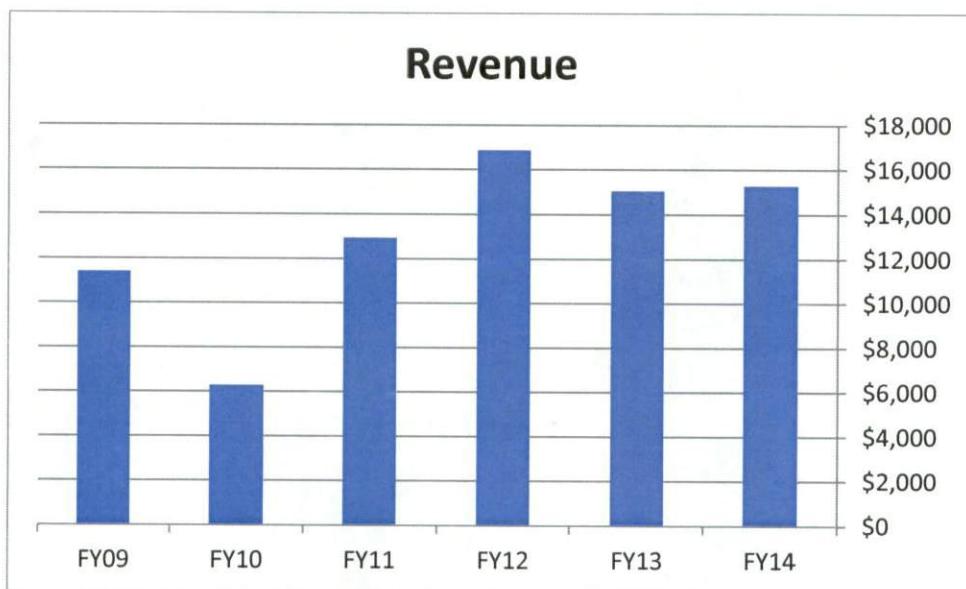
CERRILLOS HILLS STATE PARK MANAGEMENT PLAN 2014

2016 at which point SPD can renew the contract for an additional five years, initiate a request for proposals, or determine that no concession is needed.

Like the visitor center, the Broken Saddle stable is outside park boundaries. However, riders take a route through the Park and SPD receives 7% of the concessions' net revenue each month. In FY2013, Broken Saddle visitation was 2,146 and the Park received \$3,957.62 from concessions. Visitation in previous years is unknown, but was probably around 2,000 – 3,000 people.

Budget and Expenditures

The chart below shows revenue and expenditures for every fiscal year the Park has been in operation. Revenue is primarily generated from day use fees, which are \$5 per vehicle. Other revenue sources are the sale of annual day use passes (\$40 each), donations, and multi-use room rental in the visitor center (\$30/day plus a \$15 special use permit fee).



Visitation

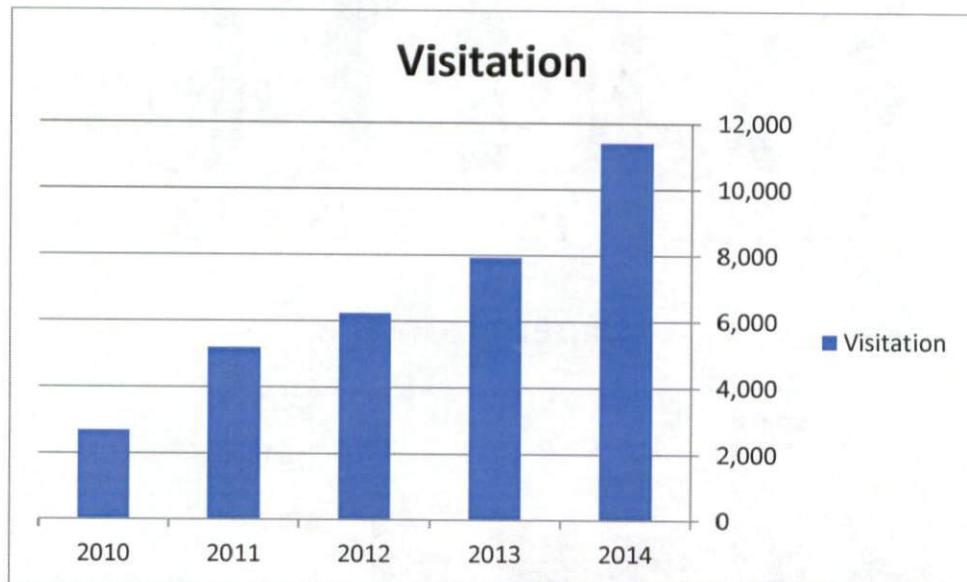
Demographics

Visitors generally come to use the trails or attend interpretive programs and other events. Some regular visitors do both. Based on staff observation and visitor surveys (Appendix F), most visitors are between 35 and 75 years old. According to the survey, 35% were 60 years or older and only 10% were younger than 18. The majority of visitors live within a 40-mile radius of the Park, most from Santa Fe. Nine percent of people who took the visitor survey were from out of state.

Most survey respondents either come to the Park several times a year (49%) or were visiting for the first time (35%). Most are traveling in pairs (44%) or are alone (28%). People came to the Park for hiking (63%), viewing nature (48%), viewing the historic mines (26%), attending guided hikes (22%), bird watching (17%), and horseback riding (16%). Visitors generally do not want to see the Park get crowded and change too much. To 49% of visitors, the most important item in the survey was to limit further development in the Park. Overall satisfaction with the Park was 95%.

Trends

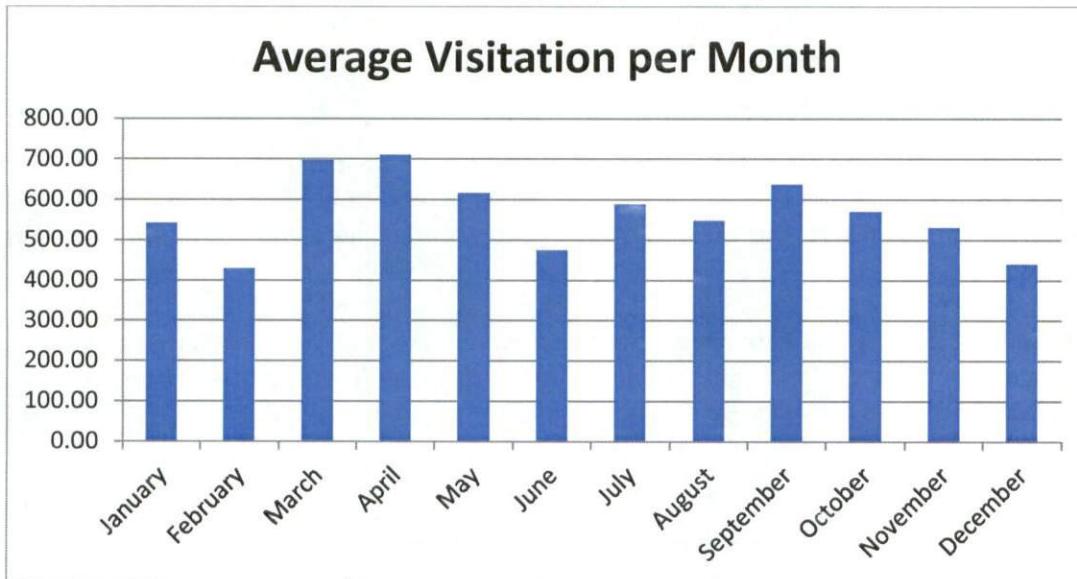
Visitation has risen steadily since the Park was established in 2009. In 2013, numbers of visitors to the Park went down, but visitor center numbers made up for that. In 2013, park staff started counting visitors to the visitor center and adding them to the total count of visitors each week. The visitor center is a half mile from the Park, and many visitors who come to the visitor center on a given day do not visit the Park, although there is some overlap. The visitation total at the center is comprised of the number of drop-in visitors (who sign in or are signed in by staff on the register), people attending a program, plus the number of people who use the multi-use room as a rental.



On a monthly basis, visitation is over 500 visitors in all months but February, June, and December, making the Park a truly year-round attraction. Many people come to use the trails in the winter months when trails in other areas are too muddy or snowy. In two of the four years of operation, July has received a bump due to other public lands being closed because of fire hazard. February, June, and

CERRILLOS HILLS STATE PARK MANAGEMENT PLAN 2014

December have the fewest number of visitors, while March, April, and September have the most visitors.



People who came to the Park for interpretive events are generally 35 to 75, well-educated and tend to like serious, detailed scientific and historic topics. Different programs draw different audiences. When park staff advertises a program specifically as kid or family friendly, many families with kids attend. The Park consistently attracts a mix of people, some of whom have not been to the Park previously and some of whom are regular visitors. The programs are popular year-round.

Outreach and Marketing Strategy

Since its inception, park staff have worked diligently to increase the Park's visitation through marketing and outreach. Outreach to schoolchildren is an ideal way to attract a younger demographic. If the Park is going to remain a destination, it needs to develop a younger cohort of visitors and broaden its appeal to families. Park staff conduct outreach programs to schools and community groups when possible, both in the Park and at the group's venue. SPD regularly participates in the Santa Fe Water Festival, which is aimed at 5th graders.

The Park hosts about three to four school groups per year, most of these courtesy of the "Kids 'n Parks" transportation grant program offered by SPD each fall. In 2014, the Amigos group agreed to fund a transportation grant program just for the Park. Park staff use no formal curriculum, but there is an outline for a program that entails a hike up Jane Calvin Sanchez trail where the geology and mining history is easily seen and interpreted. A wildlife program, using the wildlife trunk, is usually also presented. One goal for park staff is to have an educational curriculum for school and youth programs that incorporates backpacks containing interpretive materials.

To be successful, marketing efforts must occur on a regular basis; therefore Park staff have incorporated marketing activities into regular operations. The interpretive ranger prepares a quarterly flyer, which is distributed at the Park, the visitor center, the Cerrillos post office, the Madrid General Store, and San Marcos Feed Store. Volunteers post event announcements to seven area websites and park staff post event announcements on the nmparks.com calendar. Park staff also send out a weekly e-mail to nearly

CERRILLOS HILLS STATE PARK MANAGEMENT PLAN 2014

800 people using MailChimp, an email software program, which substantially improves the management, distribution, and quality of the emails. People can subscribe and unsubscribe themselves with a link from the SPD or the Amigos websites. MailChimp also provides analytics on how many people open, delete, forward, or click on a link in an e-mail, which also helps marketing efforts.

SPD and EMNRD staff issue press releases and update social media and the SPD website when possible. The *Santa Fe New Mexican* or the *Albuquerque Journal* will often publish an article about an upcoming event at the Park. The coverage will reliably bring about 70 people to a program that would normally get between 25 and 40 people.

Because the Park is trails-based, current brochures with the trail map are critical. SPD's marketing staff developed an attractive brochure and about 5000 copies are printed every year and a half. The brochures are available inside and outside of the visitor center and at the Park. Printing costs about \$500 per year.

The marketing strategy for the Park appears to be working quite well, as attendance has gone up every year since the Park opened. Park staff continually evaluate the efficiency and efficacy of the marketing program and adjust it to try new things or discard actions that are not working.

RECOMMENDATIONS

ISSUES AND RECOMMENDATIONS

Issues are concerns, problems, threats, or opportunities. The issues were raised by individual staff, during the group planning workshops, by stakeholders, or by the public. Not all issues will result in an action. Some issues may be beyond SPD's control, or may not be a priority issue during this planning period.

The proposed actions (shown with ▶) are also listed in the "Action Plan" following this section, along with estimated costs and timeframes. Some actions will require further research, evaluation, planning, or design before they can be implemented. Each action is contingent upon available funding and other resources, and there is no guarantee that it will be feasible or that it can be funded and implemented in the proposed timeframe.

Natural Resource Recommendations

Invasive Species

In several areas Russian olives are invading seep springs and crowding out native vegetation. Olives produce many suckers and shade or crowd out the native vegetation, which includes coyote willow, bluestem willow, planted cottonwoods, and native grasses and sedges. Thirty-seven percent of people who participated in the visitor survey thought that invasive removal was either important or very important. However, the Russian olives also provide forage and shelter to birds and other wildlife, so it is undesirable to remove them all at once. Removal of this much biomass and disposal will also be costly.

Russian olives are re-sprouting in the two drainages where they were cut back. Park staff cut back the re-sprouts seasonally and paint the cuts with Garlon herbicide, which kills the cambium layer of Russian olives. The park manager has a public pesticide applicator license and is authorized to apply this

CERRILLOS HILLS STATE PARK MANAGEMENT PLAN 2014

herbicide. The pesticide should be applied three to four times a year to minimize the amount of biomass. Application would take about one day for each drainage. After three to four years of this treatment the Russian olives should die.

At Mineral Springs, the Russian olives were also very thick. Park staff and volunteers pruned back the branches, which opened up space to clear out small saplings and suckers and plant native species. Staff and volunteers will continue to prune the area as needed and may also girdle some trees so that native species can gradually take over.

- Continue to remove and cut back invasive species and plant with native species.
 - Cut back Russian olive sprouts in Escalante and Shooting Gallery drainages each year. Apply Garlon herbicide to freshly cut sprouts.
 - Continue to prune Russian olive trees at Mineral Springs as needed.
 - Plant native species (poles, whips, or container plants) such as coyote willow, plains cottonwood, New Mexico olive, and three-leaf sumac in the cleared areas as needed.

Conservation Areas

The Park is a wildlife corridor between the Sangre de Cristo Mountains to the north and the Ortiz and Sandias to the south. Many species pass through for food, water and shelter and the Park has its own wildlife residents, too. In keeping with SPD's mission of protecting natural resources, and the public's interest in wildlife, the Park should consider designating some conservation areas. SPD will assess this possibility as it develops a management strategy for the Park's west side.

- Designate conservation areas and incorporate public education into the designation efforts.

BioBlitz Event

Other parks, such as the Rio Grande Nature Center and Mesilla Valley Bosque have successfully held "BioBlitz" days to get a more complete picture of their natural inventory. BioBlitzes invite knowledgeable volunteers and professionals to participate in a day or two of cataloging wildlife species.

- Evaluate wildlife resources by holding a BioBlitz.

Recreation Recommendations

Trail System

Trails are the Park's primary recreational activity, and for many visitors it is the only reason they visit. Forty-two percent of people who responded to the visitor survey believed that expanding the current trail system was either important or very important. Currently, five miles of official trails are identified on the trail map. Expanding the trail system could attract more visitors to the Park and encourage return visits. Mountain bikers generally consider the trail system too short if they are experienced or too difficult if they are beginners. A larger trail system can also disperse people so that the Park will continue to feel uncrowded even if visitation increases.

About 1.8 miles of drainages and old roads and 5.4 miles of unofficial trails are not included on the Park map. The trail system could more than double in size by including existing "unofficial" trails and using old roads and drainages. Some old, unofficial trails lead onto private property, which Broken Saddle has permission to use but individual park visitors do not. Other unofficial trails are redundant, meaning they run parallel to an existing trail or are unsustainable because they are badly placed within the existing topography. SPD and volunteers would need to work to improve and close trails before officially expanding the trail system.

CERRILLOS HILLS STATE PARK MANAGEMENT PLAN 2014

In the fall of 2013, the park manager conducted a thorough assessment of the trails and developed preliminary work plans. Trails that had slopes in excess of 15% were in poor condition; however, in most cases it appears to be possible to build erosion control structures on the trail tread or above the trails. Some unofficial trails are poorly designed and laid out and SPD should either close them or adopt them into the trail system.

- Expand the trail system, rehabilitate some existing trails, and close trails as needed.

Interpretation and Education Recommendations

Interpretive Exhibits

Park staff have a plan to develop the exhibit room in the visitor center in collaboration with a contractor that specializes in exhibits. Bill Baxter, of the Cerrillos Historic Park Coalition, has researched and donated an extensive historical database from the Cerrillos Hills and surrounding area. A goal for the exhibit room is to have a laptop with this database so visitors can search for information themselves.

Bill Baxter also designed and wrote excellent signs for the Park. Eight, large-format color signs and thirteen small, 1' x 2' brown and cream colored signs are mostly found at individual mines. The signs are printed on vinyl that degrades within a few years. Park staff replaced one sign with fused polycarbonate material, which is far more durable and longer lasting than vinyl. All the signs are degraded and need replacement. Baxter has agreed to work with the Park staff to edit the signs with updated information.

- Work with the contractor, stakeholders, and public to develop exhibits for the exhibit room in the visitor center. Add signs, physical artifacts and interactive activities.
- Purchase a laptop for the exhibit room.
- Replace interpretive signs.

Interpretive Facilities

Although visitors can see mines at the Park, it is important to explore further ways of bringing mining history alive. J. Scott Altenbach, a biologist, explosives, and mining expert and other people who support the Park are willing to donate materials and expertise to help construct a large replica head frame over one of the back-filled mines on the Jane Calvin Sanchez Trail. There could also be a trail on which the Park displays and interprets large mine machinery. The Village View Trail is the best location for this, due to its ease of access and unchallenging topography, but SPD would need to integrate any displays into planned picnic areas. The Jane Calvin Sanchez trail is a possible second choice.

- Construct a replica head frame over one of the back-filled mines on the Jane Calvin Sanchez Trail.
- Use one of the Park's trails to display and interpret larger mine machinery.

Facilities Recommendations

Escalante Picnic Area

The picnic area now features two wooden picnic tables under an elm tree. Presenters often use this area as an outdoor classroom. While the tree provides shade, it is unhealthy and needs to be cut down.

- Build a new shade shelter and add a picnic table or benches.

Picnic Sites on Village View Trail

Many visitors want to picnic and have a place for the kids to play. The Park would be a good low-cost alternative for them with the addition of picnic tables and shelters. The Park currently has only two picnic tables, both of which are at the Escalante Picnic Area along CR 59. The area along the Village View

CERRILLOS HILLS STATE PARK MANAGEMENT PLAN 2014

Trail has convenient parking, is near the pay station, has scenic views, and would be a more pleasant place to picnic than along the road. SPD could place three to five picnic tables and shade shelters in this area. The picnic tables would attract more families to the Park, which is a demographic the Park should target.

- Engage the public in the planning process for input on design, materials, and use.
- Add three to five picnic sites with tables and shelters along the Village View Trail.

Group Shelter

Many parks feature a group picnic shelter that visitors can reserve in advance. These are very popular for large groups and special events. Shelters produce revenue from reservations and day use fees for each vehicle associated with the group. This would be a good investment for a park that does not collect fees for camping. Presenters and staff could also use a group shelter as an outdoor classroom and venue for various programs and special events. Due to the need for group parking and a large flat area for the shelter, the best location for a new group shelter is off of the Village View Trail.

- Engage the public in the planning process for input on design, materials, and use.
- Construct a group shelter.

Main Entrance Parking Area

The vault toilet, the Analemma Kiosk, and the Village View Trail, near the main parking area, need to be ADA accessible. SPD originally designed these areas as ADA accessible, but the original surfacing was insufficient for this purpose.

The only restroom outside the visitor center is the single vault toilet at the Village View Trail parking lot. When large groups of people visit, the single restroom is insufficient. Restroom availability will become more of an issue if visitation to the Park increases, and if additional facilities are built in this area. One additional restroom at this location would benefit current and future visitors.

There is a large, half-moon shaped parking lot where the pay station and information kiosk are located. There is room for up to 20 cars at this location and the majority of trail users park here, including those with horse trailers. People tend to park haphazardly because there are no delineated parking spaces.

- Upgrade the main parking area to comply with the ADA, add a new vault toilet, and define parking spaces.

Horse Trailer Parking

When large groups or horse trailers arrive, the parking area quickly fills up. If SPD developed horse trailer parking further up the road (if possible), parking would be much easier for visitors. This area could also be a better place for school buses to park.

- Investigate the possibility of horse trailer parking along the road.

Wi-Fi

Visitors sometimes ask about Wi-Fi availability at the Park since cell-phone service in the area is inconsistent and Wi-Fi is not available anywhere else in town. The park manager has also received requests for Wi-Fi from people who do presentations in the public room. Adding Wi-Fi service to the Park would be a service to visitors, increase the range of possible presentations, be an added-value point for room rental, and reinforce a positive relationship with the community.

- Add Wi-Fi service to the visitor center.

Plaza

CERRILLOS HILLS STATE PARK MANAGEMENT PLAN 2014

People often refer to the area in front of the visitor center as “the plaza”. People can use this open area for gatherings, events, or programs, but it currently lacks a design that is conducive to any single use. The preferred use of the site will determine how SPD improves the area. Any plans must take into account the historic resources that may be buried below the surface, the security and safety of the site and visitors, the impacts to the surrounding neighborhood, and the viewshed. SPD will hold a charrette, which is a collaborative process that includes as many stakeholders as possible, in order to come up with a design for the plaza area.

- Engage the public in the planning process for input on design, materials, and use.
- Improve the plaza area adjacent to the visitor center and install a fence around it.

Park Management Recommendations

Westside Park Access

People can access the Park from Waldo Canyon Road via three drainages on the west side of the Park. The book “60 Hikes within 60 Miles of Albuquerque” promotes these entrances. The location furthest west is most frequently used. Some people come to hike the drainages. Others come up for reasons that do not comply with SPD rules and will often leave behind trash and smoldering campfires.

The Park boundary is a few hundred feet to $\frac{1}{2}$ mile north of Waldo Canyon Road at these locations. The access points cross private land for which SPD does not have easements. Obtaining easements may take a considerable amount of time. Until Santa Fe County can obtain easements, SPD will leave the drainages inaccessible to vehicles and post informative signs to alert visitors to the potential dangers of a flash flood, information about the importance of wetland ecosystems, directions to the Park’s main entrance, and the \$5 day use fee requirement.

- Leave drainages inaccessible to vehicles and add signs alerting visitors to safety issues, the importance of wetlands, directions to official park entrance, and the requirement to pay the \$5 day use fee.

Easements

The majority of the Park is surrounded by private land. Two sections on the Jane Calvin Sanchez trail cross private land and people access the Park through private land at the three west-side drainages. SPD, in conjunction with Santa Fe County, should pursue easements at all of these locations, because without one, neither the public nor staff have legal permission to cross the property. Even if the area is closed to public access, it makes sense to obtain administrative access for employees.

- Obtain easements across private land wherever beneficial and practical.

CERRILLOS HILLS STATE PARK MANAGEMENT PLAN 2014

ACTION PLAN

Below is a table summarizing the action items identified in the previous section. The final plan will include cost estimates and potential funding sources. SPD will prioritize the final action items using the criteria developed in the Strategic Operations and Sustainability Plan (SOS). This prioritization will help determine the order in which the items are implemented. All actions will be preceded by obtaining the necessary environmental and cultural survey clearances. Inclusion of an action item in this list is not a guarantee that SPD will implement the item.

PROGRAM AREA	TASK	COST ESTIMATE	PROJECT LEAD; FUNDING
Natural Resources	Continue to control invasive species with herbicide and plant native species.		
Natural Resources	Designate conservation areas.		
Natural Resources	Hold a bio-blitz to assess the Park's species.		
Recreation	Expand and improve the Park's trail system.		
Interpretation and Education	Develop additional interpretive exhibits at the visitor center.		
Interpretation and Education	Purchase laptop for interpretation room.		
Interpretation and Education	Replace interpretive signs along the trails.		
Interpretation and Education	Construct a replica head frame over one of the mines.		
Interpretation and Education	Display large old mine machinery/equipment along one of the trails.		
Facilities	Build a new shade shelter and add picnic tables or benches to Escalante Picnic Area.		
Facilities	Add picnic sites and tables along the Village View Trail.		
Facilities	Construct a 30'x30' group shelter along the Village View Trail.		
Facilities	Upgrade the main parking area to comply with the ADA, add a new vault toilet, and define parking spaces.		
Facilities	Assess the possibility of adding horse trailer parking along the road.		
Facilities	Add Wi-Fi access to the visitor center.		
Facilities	Improve the plaza area adjacent to the visitor center and install a fence around it.		
Management	Leave drainages inaccessible to vehicles and add signs indicating that the drainages are conservation areas.		
Management	Work with County for the County to obtain easements across private land where appropriate.		

REFERENCES

Bice, Richard A., Phyllis S. Davis and William M. Sundt. 2003. Indian Mining of Lead for Use in Rio Grande Glaze Paint. Report of the AS-5 Bethsheba Project near Cerrillos, NM. Albuquerque Archaeological Society.

Biota Information System of New Mexico website (<http://www.bison-m.org/>). Accessed 3/2013.

Deyloff, Glenda and Cordelia Snow. Oct 4, 2001. A Cultural Resources Survey in a Portion of the Los Cerrillos Mining District, Santa Fe County, NM. Southwest Archaeological Consultants Research Series, #450.

Lawson, Jacqueline E. 1989. Cerrillos, Yesterday, Today and Tomorrow. Sunstone Press, Santa Fe, NM.

Levine, Daisy F. w/ contributions by Dorothy Zamora and Yvonne Oakes. 2009. An Archaeological Survey in the Cerrillos Hills on and Adjacent to the Bonanza Creek Ranch, Santa Fe County, NM. Abandoned Mine Land Program Report No. 2009-1.

McCraw, Patricia. 2006. Tiffany Blue. Lone Butte Press, Santa Fe, NM.

Milford, Homer E. 1995. Cultural Resource Survey for the Real de los Cerrillos Abandoned Mine Lands Project, Santa Fe County, NM. NM Abandoned Mine Land Bureau Report No. 1996-1.

Marron and Associates, Inc. October 10, 2008. Archival Report for Cerrillos Hills State Park, Village of Cerrillos, Santa Fe County, NM.

Marron and Associates. August, 2009. Data Recovery at Cerrillos Hills State Park, Block 9, Village of Cerrillos, Santa Fe County, NM.

Southwest Regional Gap Analysis Project website (<http://swregap.nmsu.edu/>). Access 2/6/2014.

Western US Climate Historical Studies website (<http://www.wrcc.dri.edu/Climsum.html>) Accessed 2/7/2014.