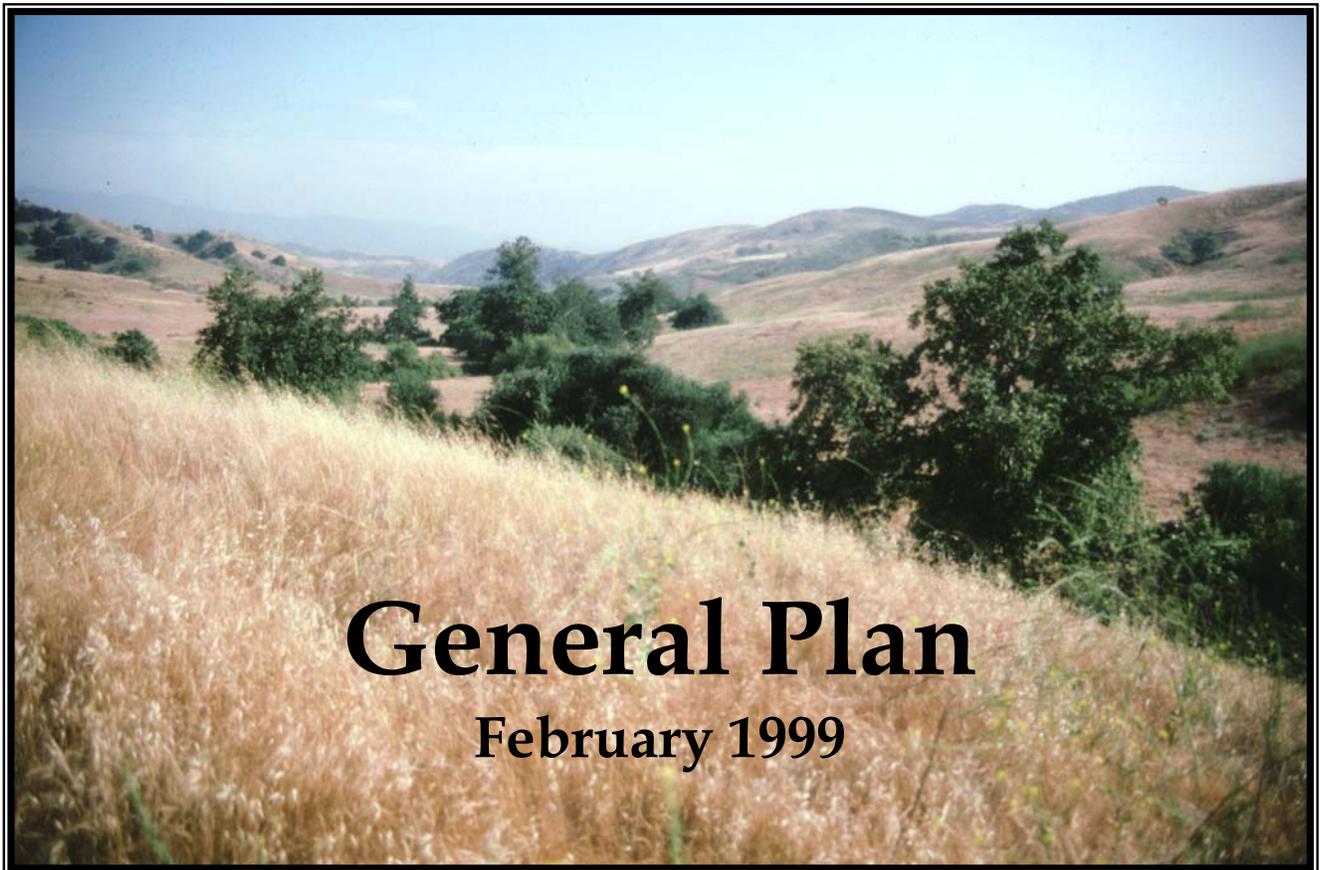
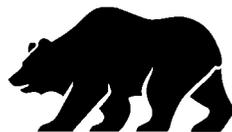


# Chino Hills State Park



## General Plan

February 1999



CALIFORNIA  
STATE PARKS®



**CALIFORNIA  
STATE PARKS®**

GRAY DAVIS  
Governor

MARY D. NICHOLS  
Secretary for Resources

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#### **General Plan Inquiries**

The Chino Hills State Park General Plan was prepared by the California Department of Parks and Recreation Southern Service Center. For general information regarding the document contact the service center at (619) 220-5300, or direct correspondence to:

California Department of Parks and Recreation  
Southern Service Center  
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San Diego, California 92108

#### **Publication Price and Order Information**

Additional Copies of the approved Chino Hills State Park General Plan can be obtained for \$6.00 each, plus \$5.00 per copy for postage and handling. California residents must add 7.75% sales tax. Make checks payable to California Department of Parks and Recreation, and send your order to:

California State Parks Store  
P.O. Box 942896  
Sacramento, California 94296-0001

DEPARTMENT OF PARKS AND RECREATION

**STATE PARK AND RECREATION COMMISSION**

P.O. BOX 942896, SACRAMENTO, CA 94296-0001  
(916) 653-0524



Resolution 13-99  
adopted by the  
CALIFORNIA STATE PARK RECREATION COMMISSION  
at its regular meeting in Brea on  
February 23, 1999

WHEREAS, the Director of the Department of Parks and Recreation has presented to this Commission for approval the proposed General Plan for Chino Hills State Park; and

WHEREAS, this document reflects long-range development plans to provide for optimum use and enjoyment of the unit as well as the protection of its quality, resources, and diversity;

NOW, THEREFORE, BE IT RESOLVED that the California State Park and Recreation Commission hereby approves the Department of Park and Recreation's Chino Hills State Park Preliminary General Plan, dated October 1998, subject to such environmental changes as the Director of Parks and Recreation shall determine advisable and necessary to implement the provisions of said plan.

DEPARTMENT OF PARKS AND RECREATION

**STATE PARK AND RECREATION COMMISSION**

P.O. BOX 942896, SACRAMENTO, CA 94296-0001  
(916) 653-0524



Resolution 14-99  
adopted by the  
CALIFORNIA STATE PARK RECREATION COMMISSION  
at its regular meeting in Brea on  
February 23, 1999

WHEREAS, the Director of the Department of Parks and Recreation has proposed a 1425-acre Natural Preserve be established within Chino Hills State Park to provide for the recognition and protection of the important natural resources of the unit; and

WHEREAS, the proposed Natural Preserve is located in the hills and wooded canyons that encompass the Water Canyon and Brush Canyon watersheds; and

WHEREAS, the proposed Natural Preserve consists of rare plant communities, including coastal sage scrub, southern California black walnut woodland, and coast live oak woodland that support a wide variety of sensitive wildlife; and

WHEREAS, the proposed Natural Preserve is the northern extension of the Coal Canyon Biocorridor—a vital linkage between the wildlife habitats of the Puente-Chino Hills and the Santa Ana Mountains; and

WHEREAS, the proposed Natural Preserve offers an opportunity for the scientific study of wildlife movement in a rare regional biocorridor;

NOW, THEREFORE, BE IT RESOLVED pursuant to Section 5019.50 of the Public Resources Code, and after proceedings in accordance with the Administrative Procedures Act, that the California State Park and Recreation Commission hereby classifies 1425 acres in Chino Hills State Park as a Natural Preserve and names the unit Water Canyon Natural Preserve.

# CHINO HILLS STATE PARK

## GENERAL PLAN

FEBRUARY 1999



State of California.....Gray Davis, Governor  
The Resources Agency.....Mary D. Nichols, Secretary  
California Department of Parks and Recreation.....Rusty Areias,  
Director

## *Mission Statement*

*The Mission of the California Department of Parks and Recreation is to provide for the health, inspiration, and education of the people of California by helping to preserve the state's extraordinary biological diversity, protecting its most valued natural and cultural resources, and creating opportunities for high quality outdoor recreation.*

# Chino Hills State Park General Plan

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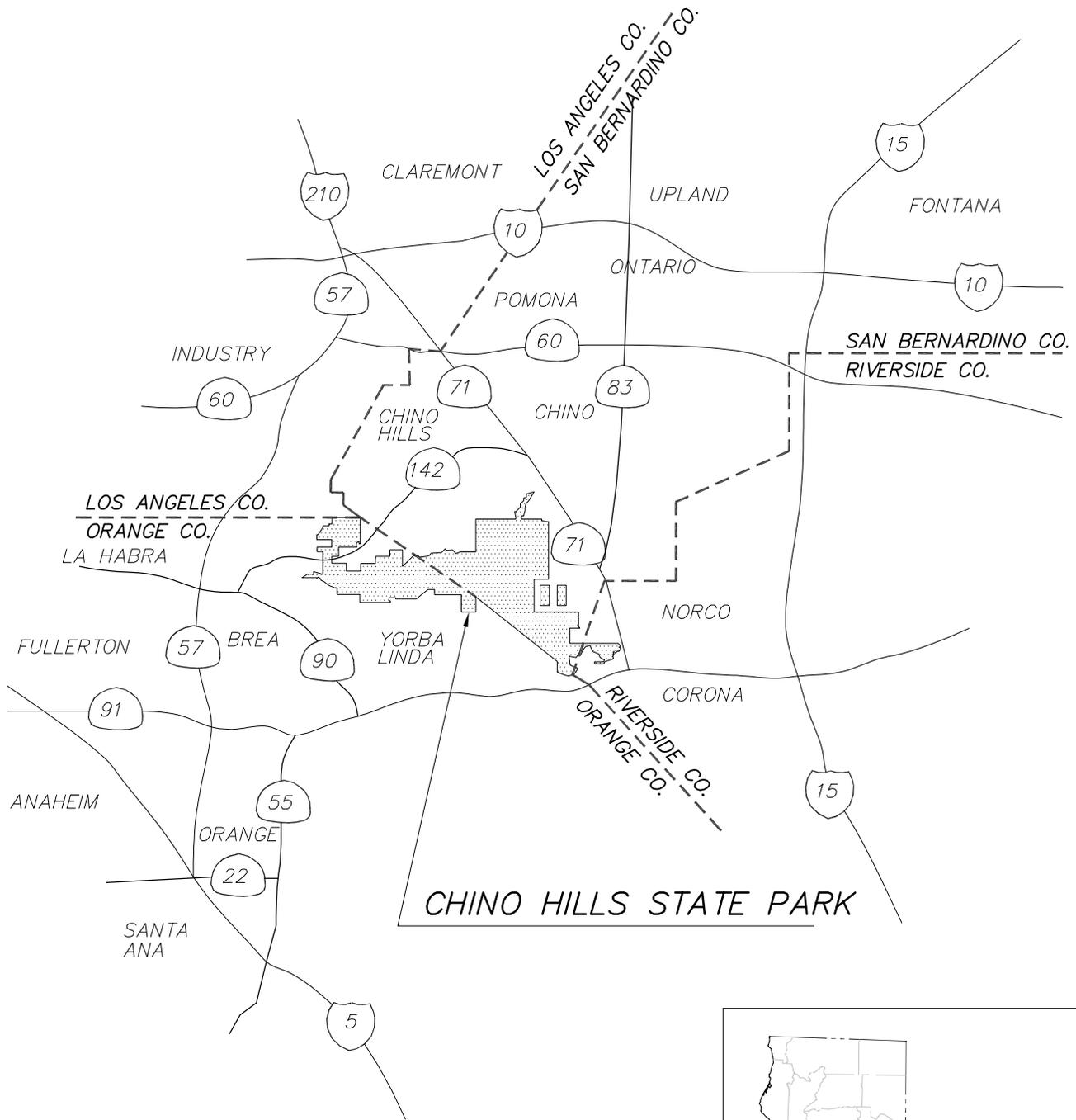


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CHINO HILLS STATE PARK  
**VICINITY MAP**

NO SCALE



FIGURE 1



**REGIONAL MAP**

NO SCALE



## Chino Hills State Park General Plan

# INTRODUCTION



Sycamore trees in Lower Aliso Canyon

*Chino Hills State Park General Plan*

## **INTRODUCTION TO THE PARK**

### **LOCATION**

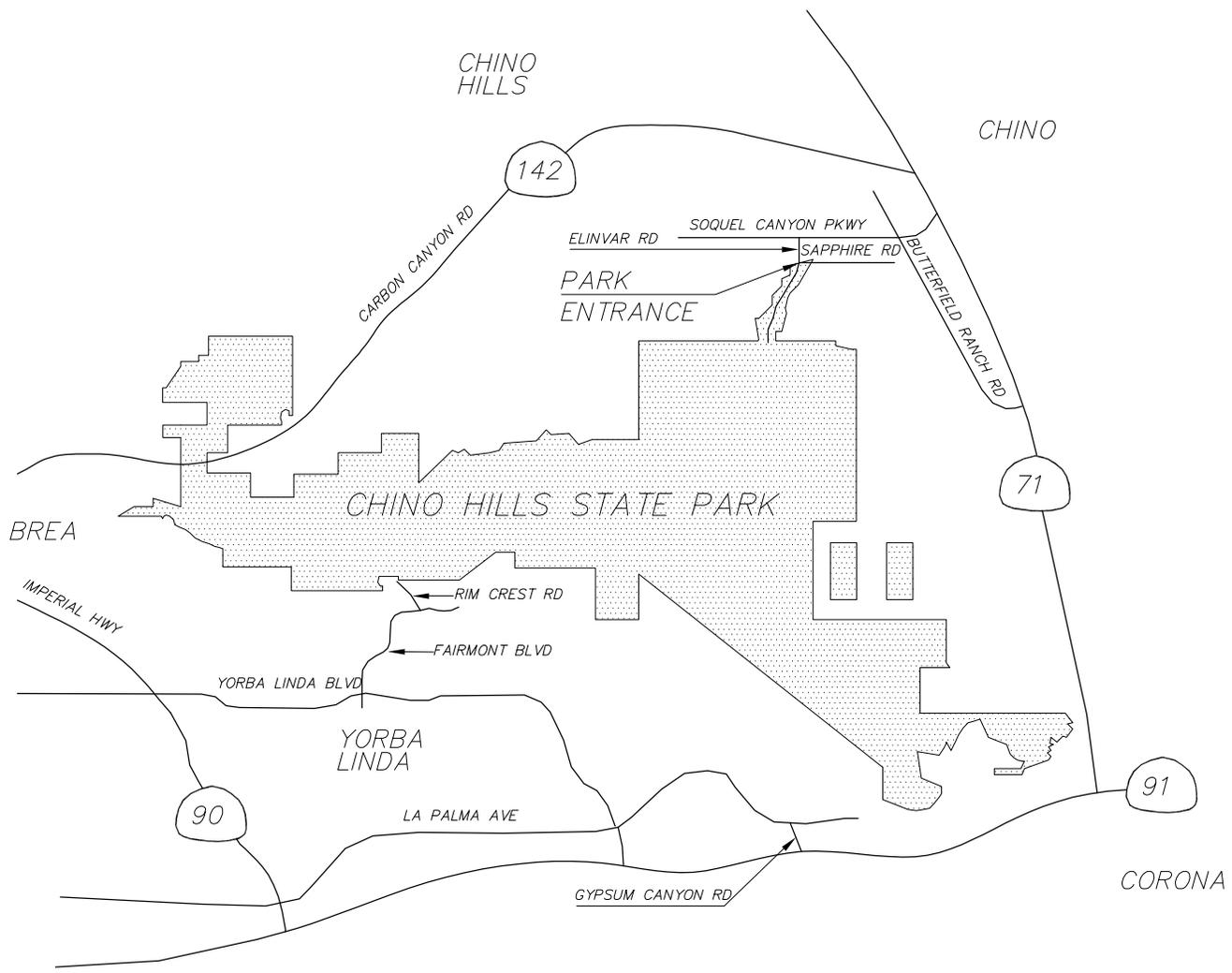
Chino Hills State Park is situated in the counties of Orange, Riverside, and San Bernardino (see Figures 1 and 2). Nearby transportation corridors include the Riverside Freeway (State Highway 91) to the south, State Highway 71 to the east, and Carbon Canyon Road (State Highway 142) to the north and west. The Sonome Canyon Area is just north of Carbon Canyon Road and is adjacent to Los Angeles County. The park is bordered on the north by the City of Chino Hills, on the south by the City of Yorba Linda, on the west by the City of Brea, and is close to the communities of Chino, Olinda Village, Sleepy Hollow, and Corona. Riverside is approximately 16 miles to the east of the park along Highway 91.

Chino Hills State Park lies within the densely populated urban communities of the southern California metropolitan complex. Approximately 15 million people live within a one-hour drive of the park. This number will escalate, as rural communities in the vicinity of the park are rapidly transformed into subdivisions.

Chino Hills State Park is within the Puente-Chino Hills, which are at the northern end of the Peninsular Ranges Geomorphic Province. The Cleveland National Forest in the Santa Ana Mountains is just 2 miles south of the park boundary on the opposite side of Highway 91. It is biologically connected to Chino Hills State Park via the Coal Canyon biocorridor, which is the only remaining viable link between them. Other parks in the vicinity include Carbon Canyon Regional Park to the west, Prado Regional Park to the east, Featherly Regional Park to the south, and Yorba Regional Park to the southwest.

The nearest State Park System units are California Citrus State Historic Park, 13 miles to the east; Pio Pico State Historic Park, 18 miles to the northwest; Bolsa Chica and Huntington State Beaches and Crystal Cove State Park, all 24 miles to the southwest; and Lake Perris State Recreation Area, 29 miles to the east.

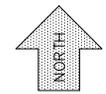
As of November 1998 the park encompassed approximately 11,770 acres, most of which is made up of rolling hills. The dominant vegetation type in the park is non-native annual grassland. However, walnut woodlands, coastal sage scrub, coast live oak woodland, sycamore woodland, chaparral, and riparian scrub are also important components. In addition, a one-mile-long section of the Santa Ana River and its associated Fremont cottonwood riparian woodland are within park boundaries. This is the only remaining natural stretch of the Santa Ana River in Orange County.



*CHINO HILLS STATE PARK*

*LOCATION MAP*

*NO SCALE*



*FIGURE 2*

## PURPOSE ACQUIRED

Chino Hills State Park was acquired primarily for the purpose of preserving its natural landscape features, its biological diversity, and the opportunities for solitude and recreation that open space provides for people in densely populated areas. In June 1977, the California Legislature passed Concurrent Resolution No. 17 directing the California Department of Parks and Recreation (the Department) to undertake a study of the feasibility of acquiring land in the Chino Hills for State Park System purposes:

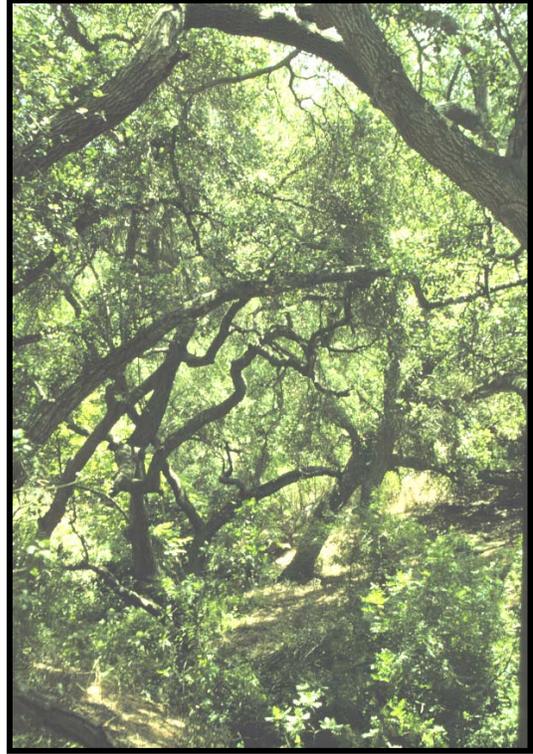
*WHEREAS, The Chino Hills is an almost undeveloped island of unspoiled land surrounded by the urban sprawl and freeways of the Counties of Los Angeles, San Bernardino, Riverside, and Orange and is presently threatened with major development that is incompatible with its wildlife, aesthetic and recreational values; and WHEREAS, Securing the Chino Hills for park purposes would assure the preservation of those values to the benefit of residents of the state; now, therefore, be it resolved by the Assembly of the State of California, the Senate thereof concurring, That the Department of Parks and Recreation is requested to undertake, in cooperation with the Counties of Los Angeles, San Bernardino, Riverside, and Orange on a shared cost basis, a study of the feasibility of acquiring lands in the Chino Hills for park purposes and to report thereon to the Legislature on or before March 1, 1978...*

In April 1979, the Department issued the Chino Hills Feasibility Study that identified 30,000 acres of the Chino Hills as suitable for inclusion into the State Park System. The acquisition of 2,237 acres in November 1981 initiated the project.

A local conservation organization called Hills For Everyone initiated the Chino Hills Project and worked closely with the Legislature and the Department to make Chino Hills State Park a reality. In 1982, Hills For Everyone entered into a lease agreement with the Department of General Services to manage the land involved in the early acquisitions until the Department of Parks and Recreation was ready to assume management responsibility. Hills For Everyone opened the area to the public on a limited basis in the spring of 1983 and managed the property until 1984, at which time the Department of Parks and Recreation took over its management.

## SPIRIT OF PLACE

Chino Hills State Park gives those who visit it a sense of being transported back in time to an earlier and more undeveloped California. Upon entering the park, the transition from the human-made environment to the natural environment is abrupt; housing tracts quickly give way to open hills, and once inside, the sights and sounds of modern intrusions are minimal and one feels many miles away from cities and freeways. The park interior is enveloped by its ridgelines, and one perceives the land as being secluded, protected, and still. Without city noises and visual obtrusions, visitors become aware of the park's subtle movements, natural smells, and variations in microclimate, vegetation, and topography. Many endearing values of the park are intangible. The qualities of open space, natural sounds, and fresh air cannot be quantified like physical resources can, but they allow visitors to be aware of and reconnected with the natural world.



Coast live oak forest in Telegraph Canyon

The forces of nature that have shaped the land are evident by the steeply cut valleys, landslides, and rolling hills of the park. These places mark the passage of time through their variation of seasonal colors. The park's landscape changes over the course of a year from one that is dry and dusty to one that is moist and lush. These variations can also be discovered while moving from the exposed ridgetops to the dense shade under riparian tree canopies.

The park is one of few in the Los Angeles Basin that offers opportunities for tranquility, solitude, and relief from the hectic urban life that surrounds it. It gives visitors a place to explore and recreate at their leisure. As the pace of life in this area quickens and the size of the population adjacent to the park grows, these values will become increasingly precious to many park visitors.

One comes away from Chino Hills State Park feeling refreshed. But the effect of one's experience at the park is most apparent when one returns to the urban environment. The park leaves visitors with a feeling of compassion for the disappearing values of California's past landscapes and a sincere appreciation for the remaining open space that is available for today's enjoyment.



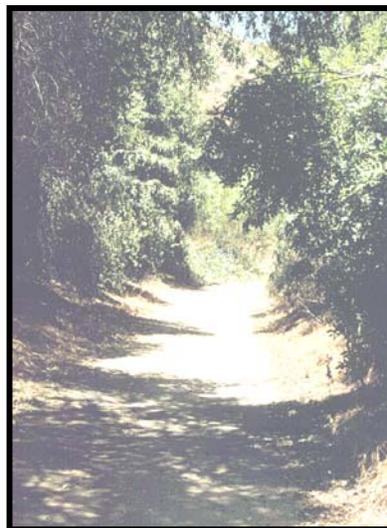
## **PURPOSE OF THIS GENERAL PLAN**

This general plan provides guidelines for long-term management, development, and operation of Chino Hills State Park. It replaces the original Chino Hills State Park General Plan approved in August 1986. After a review by the Department, it was determined that an amendment to the 1986 general plan should be developed. However, due to the extensive nature of the amendment, the planning team decided to completely revise and replace the original document.

This document is prepared by the California Department of Parks and Recreation to satisfy the requirements of Public Resources Code (PRC) Section 5002.2. The PRC specifies that a general plan be prepared prior to development of any new facilities and will consist of elements that will evaluate and define the proposed management of resources, land uses, facilities, concessions, and operation of the park. In addition, the plan serves as a first-tier environmental impact report (as defined in Section 15166 of the California Environmental Quality Act [CEQA] Guidelines). The Chino Hills State Park General Plan must be submitted to, and approved by, the State Park and Recreation Commission.

The proposals in this general plan are conceptual in nature. They are intended to provide vision for the park rather than make detailed recommendations. Separate management and project plans will be developed that will provide the necessary details for specific actions. These plans are required to assess the potential environmental impacts of specific proposals made.

This general plan also discusses the potential for future acquisitions. Areas of interest extend beyond present Department of Parks and Recreation ownership for the purposes of long range planning. This does not constitute a commitment for acquisition nor portray an ultimate park boundary.



Telegraph Canyon Trail



Chino Hills State Park General Plan

# EXISTING CONDITIONS AND ISSUES



Eastern view from Telegraph Canyon Trail



## PARK SUMMARY

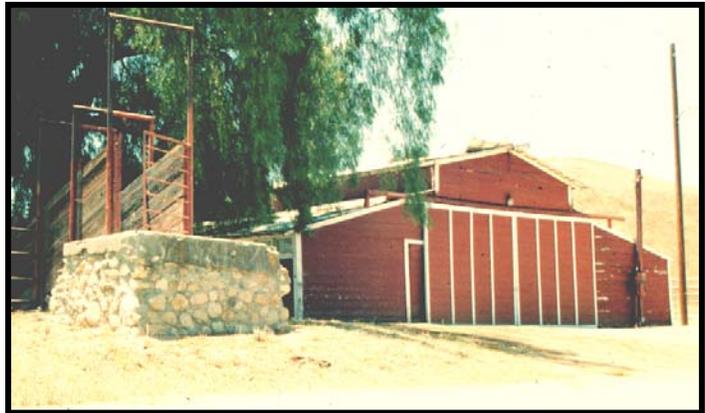
The Park Summary highlights and summarizes the existing land use, facilities, and significant resource values at Chino Hills State Park necessary to understand the goals and guidelines noted in the Plan Section of this document.

### EXISTING LAND USE

Chino Hills State Park is a large area of relatively undeveloped land. One of the principal appeals for visitors is the natural character of the landscape. Most of the land is natural open space, cut occasionally by roads, trails, pipelines, and power lines. In a few locations, this land use changes to accommodate recreational and operational needs.

### ROLLING M RANCH

For visitors, park staff, and volunteers, the Rolling M Ranch is the most actively used area of the park (Figure 3). It is at the end of the entrance road and offers a place for visitors to park their vehicles and access the trail network. Here, visitors can picnic, use the restroom, get water, and find park information. Park volunteers often use this area to meet and conduct business. The Rolling M Ranch is also a hub for park operations. It is a residential area for park staff as well as the operations center. The area is used for equipment and supply storage as well as a workspace for maintenance and ranger staff.



Cattle chute and barn – Rolling M Ranch

### OTHER VISITOR-USE AREAS

There are additional visitor-use areas near the Rolling M Ranch that offer structured-type recreation. The equestrian staging area is used for large groups and special events. The campground area allows for night use of the park. Picnic areas and scenic overlooks are nearby. Panorama Point near the Rolling M Ranch offers a scenic viewpoint, parking, and interpretive information. There are no formal group-use areas in the park; however, the campgrounds can accommodate small groups as needed. Other visitor-use areas include pedestrian access points along the park boundary. Some visitors access the trail network via these access points after parking offsite on residential streets.

## **LEMON GROVE AREA**

The Lemon Grove Area is located in Carbon Canyon on the far-western end of the park (see Figure 3). This trailhead area can be reached from Carbon Canyon Road by entering through Carbon Canyon Regional Park (County of Orange) and provides the only access from the western side of the park. Visitors can reach the park's interior by traveling through Telegraph Canyon from this area. The Lemon Grove Area contains significant riparian habitat as well as approximately 40 acres of trees that represent the only extant remnant of the historically significant citrus industry that once surrounded the park.

## **SONOME CANYON AREA**

In November 1996, The Department of Parks and Recreation purchased the Sonome Canyon Area from Shell Western E&P Inc. This 965-acre property is north of Carbon Canyon Road (State Route 142) (see Figure 3). A Habitat Conservation Plan (HCP) was developed and funded by Shell Western E&P Inc. as part of mitigation for nearby Shell Western E&P Inc. developments. Also in 1997 an additional 19 acres was added to the Park as part of an HCP mitigation obligation for Metropolitan Water District of Southern California (MWD). The intent of the HCP is to protect and enhance habitat on a 2,600-acre Study Management Area that includes the Sonome Canyon Area as well as other areas in the western portion of the park. As of 1998, the property had no developed facilities and was accessed by trail from the south.

## **SUB-CLASSIFICATIONS**

There are currently no sub-classifications or formal land-use designations within Chino Hills State Park. Three land-use zones, however, were identified in the original (1986) general plan. These are Primitive, Park Land, and Developed Park Zones. All uses in these zones fall within the State Park classification of the Public Resources Code (Section 5019.53). The land use for the Primitive Zones is limited to trails and trail camping. The Park Land Zones include trails and trail camping as well as walk-in camping, family picnicking, and vehicle access limited to park personnel. The Developed Park Zones, in addition to the above, offer parking, day use, overnight use, administrative and operational use, and public vehicle access. The management zones described in this Chino Hills State Park General Plan supersede the land-use zones identified in the original general plan.

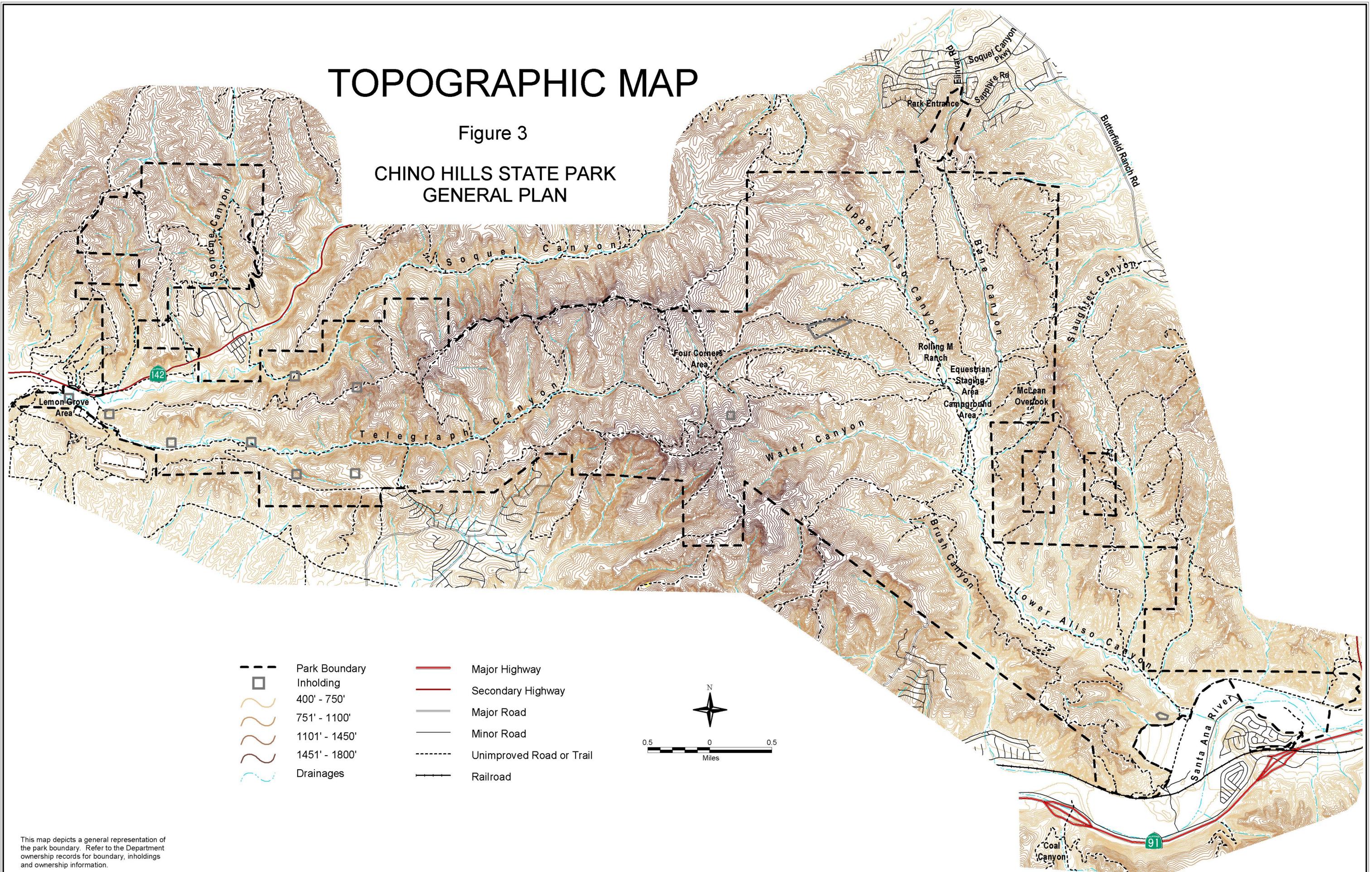
## **INHOLDINGS**

Several property inholdings occur at Chino Hills State Park (see Figure 3). These inholdings are, in general, owned in fee by public agencies and privately held companies such as Metropolitan Water District of Southern California, Shell Western E&P Inc, and Southern California Edison. The Department of Parks and Recreation cannot make substantial improvements in these areas. Refer to the Department Land Ownership Record for complete information about these inholdings.

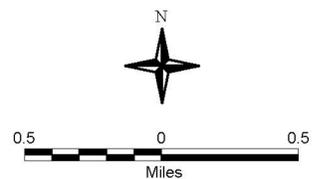
# TOPOGRAPHIC MAP

Figure 3

## CHINO HILLS STATE PARK GENERAL PLAN



- |   |               |  |                          |
|---|---------------|--|--------------------------|
|  | Park Boundary |  | Major Highway            |
|  | Inholding     |  | Secondary Highway        |
|  | 400' - 750'   |  | Major Road               |
|  | 751' - 1100'  |  | Minor Road               |
|  | 1101' - 1450' |  | Unimproved Road or Trail |
|  | 1451' - 1800' |  | Railroad                 |
|  | Drainages     |  |                          |



This map depicts a general representation of the park boundary. Refer to the Department ownership records for boundary, inholdings and ownership information.





## EXISTING FACILITIES

Chino Hills State Park has few facilities (see Figure 4). In general, existing facilities in the park were constructed during three different periods: the historic ranching period, the Hills For Everyone management of the park, and the initial development by the California Department of Parks and Recreation.

Most of the existing structures at the Rolling M Ranch were constructed prior to ownership by the California Department of Parks and Recreation. These include two residences, a barn, and a shed. As of 1998, the smaller of the two residences was condemned due to structural damage. Some of these structures are over 50 years old, and are considered historic resources. Also, many of the existing park roads were built during this ranching period.

Hills For Everyone established some of the existing facilities during its management of the parkland from 1983 to 1984. These include a trailhead and trail, a viewpoint, an equestrian camping area, family camping and picnicking sites, parking areas, and signs. These facilities were established with volunteered labor and materials.

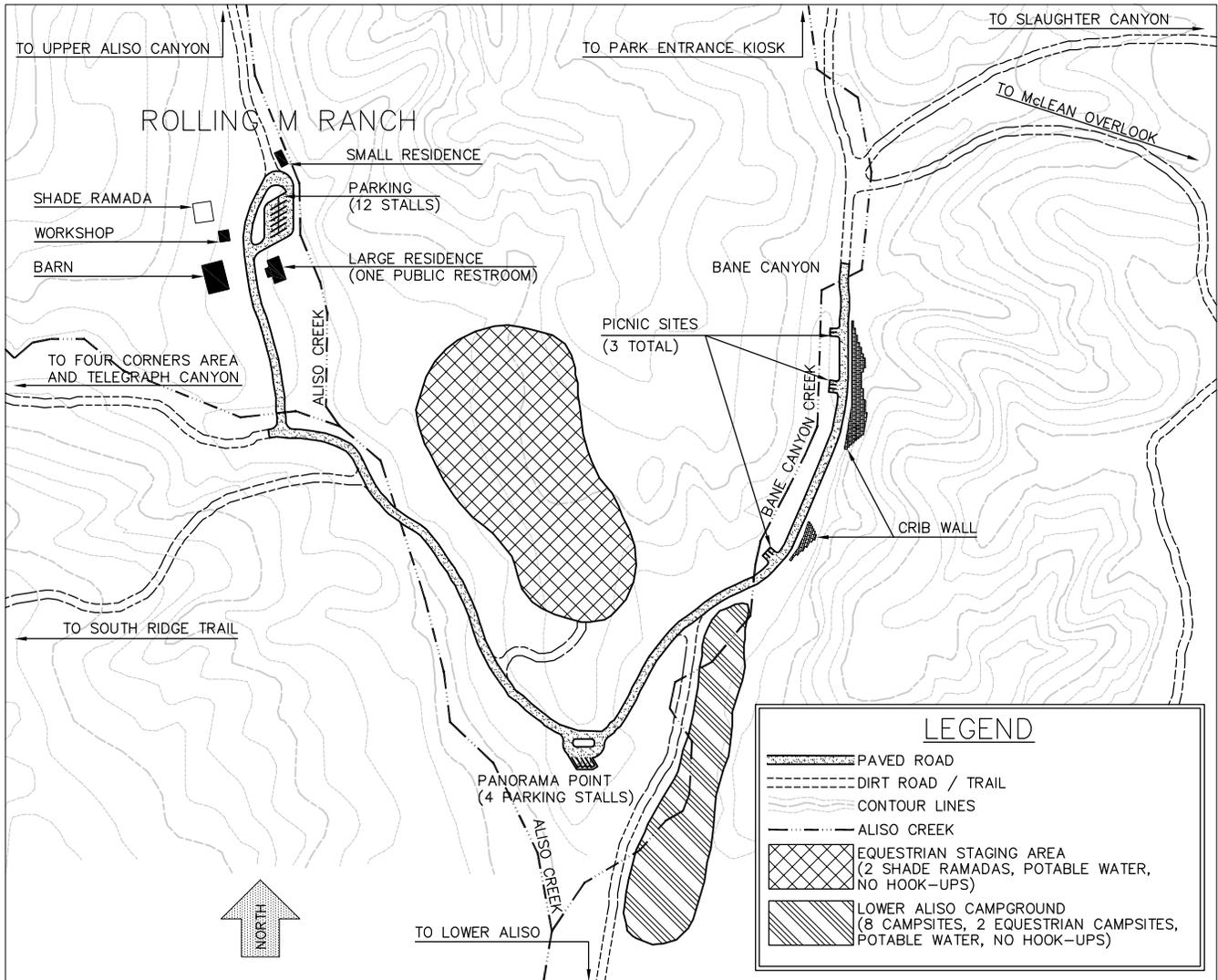
Initial development of the park by the Department consisted of building an entry station; paving portions of the entrance road; constructing retaining walls, family picnic sites with parking, a scenic overlook, and paved parking at the Rolling M Ranch; and installing water and underground electric utilities. The residences at the Rolling M Ranch use propane gas from tanks. Water is supplied by the City of Chino Hills and power is supplied to the Rolling M Ranch by Southern California Gas and Electric. No telephone service is available at the park.



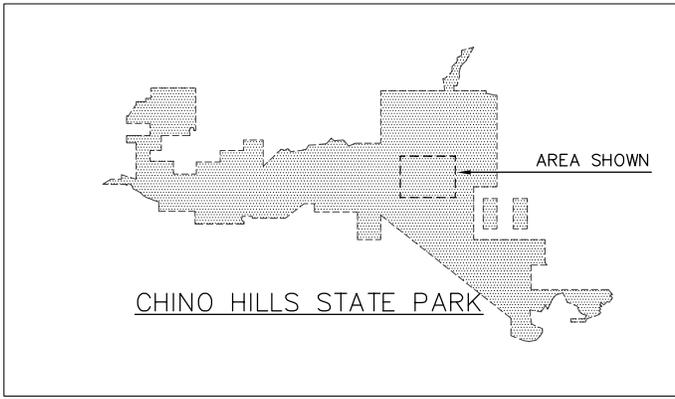
Panorama Point looking south down Aliso Canyon

The park contains approximately 50 miles of roads and trails (see Figure 3), including single and double track trails, and dirt roads. The three-mile long entrance road is mostly unpaved, except for a three-quarter-mile paved section between the Rolling M Ranch and the road to McLean Overlook.

As of 1998, no concessions existed within the park.



LEGEND	
	PAVED ROAD
	DIRT ROAD / TRAIL
	CONTOUR LINES
	ALISO CREEK
	EQUESTRIAN STAGING AREA (2 SHADE RAMADAS, POTABLE WATER, NO HOOK-UPS)
	LOWER ALISO CAMPGROUND (8 CAMPSITES, 2 EQUESTRIAN CAMPSITES, POTABLE WATER, NO HOOK-UPS)



# CHINO HILLS STATE PARK EXISTING FACILITIES MAP



NO SCALE

## PARK SUPPORT

### VOLUNTEERS

Three groups of organized park volunteers are involved in recreation, land use, resource management, and interpretation issues and play an important role in the operation of the park. The volunteer groups include a Natural History Unit, Mounted Assistance Unit, and a Bicycle Assistance Unit. In 1997, these volunteer groups logged 3,980 hours of service. Typical volunteer activities include trail patrols and maintenance, interpretive programs, facility maintenance and construction, and habitat restoration projects.

### COOPERATING ASSOCIATION

The Chino Hills State Park Interpretive Association, a non-profit, cooperating association operating under a contract with California State Parks, provides funds to the park to assist with interpretive and educational activities. This association raises funds through membership fees, donations, and fundraising efforts.

### HILLS FOR EVERYONE

Hills For Everyone is a citizen advocacy group dedicated to the preservation of the local hills for people and wildlife. Hills For Everyone was instrumental in preserving land in the Chino Hills for park purposes and they work closely with Department staff on planning and conservation issues.



Interpretive panel – Hills For Everyone Trail

## **SIGNIFICANT RESOURCE VALUES**

### **PHYSICAL RESOURCES**

#### **Topography**

The Chino Hills are part of a group of hills that also includes the Puente Hills to the northwest. The Chino Hills and the Puente Hills form a roughly triangular area of approximately 35 square miles of valleys, canyons, hills, and steep slopes. The hills are bounded on the northwest by the San Gabriel Valley, on the northeast by the San Bernardino Valley, and on the south by the Santa Ana River Canyon and the Los Angeles Basin.

Telegraph Canyon running east to west and Aliso Canyon running north to south are the principal stream drainage areas in the park. Slopes are generally steeper in the Telegraph drainage than the Aliso drainage. The most level areas in the park are near Aliso Creek, adjacent to the Santa Ana River, and at the mouth of Telegraph Canyon. The highest elevations in the park are San Juan Hill (1,781 feet) and Gilman Peak (1,865 feet). The lowest elevations occur along the Santa Ana River (430 feet).

#### **Meteorology**

The climate at Chino Hills State Park is typically Mediterranean with cool, moist winters and warm, dry summers. Local weather conditions are greatly influenced by wind patterns. Westerly breezes bring in moist marine air, which moderates temperatures and frequently brings in low clouds or fog. Easterly breezes bring in dry desert air, which accentuates temperature extremes (raising maximums and lowering minimums). Occasionally, strong (35 to 50 miles per hour) easterly winds may blow for several days, sometimes raising temperatures over 100 degrees Fahrenheit. These Santa Ana winds produce low humidity and reduce fuel moisture, which, with the high wind speeds, create extreme fire hazard conditions.

Average annual precipitation in the Chino Hills area ranges from 15 to 18 inches. Typically, the summer months are dry. Late winter and early spring rains (December through March) usually produce 75 percent of the annual precipitation. These rains produce high runoff, which initiates the period of stream flow. The dry summer period typically leads to depletion of soil moisture, cessation of vegetative growth, and termination of stream flow in the creeks.

Air pollution is a significant environmental problem that restricts visibility and poses health hazards in the Chino Hills area.

## Hydrology

The Chino Hills are part of the divide between the Los Angeles and Santa Ana Hydrologic Basins. Most of Chino Hills State Park is in the Carbon Canyon and Aliso Canyon watersheds. Bane Canyon and Water Canyon are part of the Aliso Canyon watershed and are completely within the park, as is 87 percent of Aliso Canyon. The Carbon Canyon Watershed includes Carbon Canyon, Soquel Canyon, Sonome Canyon, and Telegraph Canyon. The first three canyons are in private ownership outside the park, however, 96 percent of Telegraph Canyon is located within park boundaries. A majority of the headwaters is currently used for grazing, but significant upstream portions of the Carbon Canyon, Soquel Canyon, and Sonome Canyon watersheds are residential.

Several roads that cross streams exist in Bane, Aliso, Telegraph, and Soquel Canyons. In some areas, increased soil erosion, turbidity, and damage to aquatic habitat has occurred because of road use through stream channels.

## Geology

The Chino Hills are made up of a thick sequence of middle to upper Miocene marine sedimentary rocks of the Puente Formation, deposited from five to fifteen million years ago. The Puente Formation has been divided into four members from oldest to most recent: the La Vida, Soquel, Yorba, and Sycamore Canyon members.

Petroleum and associated gas have been extracted from oil fields in the region since the late 1800s. In 1885 the first commercial production of oil in the Los Angeles Basin was at the old Puente oil field west of the park. Although numerous oil wells have been drilled in the Chino Hills, there is no record of commercial production in the park.

The hills are a result of uplift and folding along the Whittier fault zone and the Chino fault. Both the Whittier fault zone and the Chino fault may be branches of the Elsinore fault, which is a major structural feature of the Peninsular Ranges Geomorphic Province to the south. The state geologist classifies the Whittier fault zone as active. A branch of the Whittier fault cuts through the park in the vicinity of Telegraph and Carbon Canyons. Damage to structures or facilities could result from seismic shaking. Landslides could also be generated, especially if the slopes are saturated.

Chino Hills State Park has major geologic hazards and sensitivities. The Chino Hills are prone to frequent landslides. In fact, the area around and including the park has been identified as the most landslide-prone area in southwestern San Bernardino County. Even though many of the landslides occurred long ago by human standards, they must still be considered as areas of instability, because the landslide deposits are generally perched precariously on hillslopes, awaiting only the proper climatic, hydrologic, and perhaps seismic conditions to become activated.

## Soils

Chino Hills State Park is located in Soil Region VII – Southern California. In this region, upland soils have clay or clay-loam surfaces, neutral to basic reacting, and often-calcareous subsoil. Alluvial soils are mostly sandy loam, light brown in color, and have neutral reactions. The Chino Hills area soils are primarily upland soils, formed in place with only minor occurrences of alluvial soils.

In Chino Hills State Park, the Soil Conservation Service has mapped 39 soil units representing 20 soil series. These soils vary widely in depth, fertility, permeability, and other important characteristics. Two important characteristics of the soils in the park, which may affect potential land uses, are erosion hazard and shrink-swell potential.

The steepness of watershed lands, past land-use practices, and the rapid surface runoff create a high potential for erosion throughout Chino Hills State Park. The park is riddled with a network of roads, fences, transmission easements, power lines, and gas lines. In some places livestock have created linear paths along steep fence lines, leading to development of gullies, loss of soil and vegetative resources, and potentially contributing to development of new landslides. The roads promote gullying, mass wasting, and loss of vegetative resources. Increased water runoff results from water concentration through culverts, removal of vegetation, and diversion from natural watercourses. Ditches, berms, and improperly constructed water bars also lead to erosion of the roads and adjacent lands in the park.

## NATURAL RESOURCES

### Connectivity

The Southwest Ecoregion, of which Chino Hills State Park is a part, is recognized worldwide as a significant area of biodiversity. Biodiversity refers to the variety of species occurring within a given area. The Southwest Ecoregion extends roughly from San Diego to Santa Barbara, as far east as the crest of the Transverse Ranges and west to the coast. This area contains a greater number of biological resources than any other area of comparable size in the United States (E.O. Wilson, *Biodiversity*, National Academy Press, Washington D.C., 1988). As land in southern California becomes more developed and open space dwindles, the importance of Chino Hills State Park to the preservation of biodiversity in the Southwest Ecoregion will greatly increase.

Even with continued protection, the biodiversity of the park is at risk. The Puente-Chino Hills, including the park, have become increasingly isolated by the conversion of the surrounding landscape to urban uses. Scientific studies have shown that the isolation of habitat can lead to ecosystem collapse. Small, isolated areas of habitat simply cannot support as many species as larger areas. In order for the biodiversity of

the park to be maintained at or near current levels it must remain connected to other protected open space in the region.

Without the ability to protect the entire landscape, biocorridors are the best known way to counteract the effects of the isolation of parks and their habitat areas. Biocorridors, like hallways between rooms, are extensions of habitat that connect one core habitat area to another. A core habitat is an area of high resource sensitivity because it supports habitat that is crucial for a majority of wildlife species in the park. Biocorridors provide for plant and animal movement between core habitat areas. The exchange of plants and animals between habitat areas is critical to the maintenance of healthy ecosystems for several reasons. These include the maintenance of genetic variation, the ability of species to shift their ranges over time in response to environmental change, and as a source of repopulating after a natural catastrophe. Without plant and animal exchange with other protected areas, many species populations within Chino Hills State Park will not be able to perpetuate and will eventually die off.

The habitat linkages important to the biological survival of Chino Hills State Park are: 1) Coal Canyon which links the park to the Cleveland National Forest and the Santa Ana Mountains; 2) the Sonome Canyon Area which links Chino Hills State Park to Tonner Canyon and other open space to the northwest; and 3) the Prado Basin area that links the park to the Prado Basin, and thereby to the Dairy Preserve, the Santa Ana River watershed, and open space east of State Route 71. Roads with heavy traffic bisect these linkages and are barriers to wildlife attempting to cross them. When future improvements to these roads are undertaken, including capacity increases planned for the regional transportation system, the construction or enhancement of suitable bridges, culverts or other acceptable structures are necessary to maintain corridor function and biological viability.



Mountain lion tracks (photo by Connie Spenger)

## Biocorridor Areas

### *Coal Canyon*

The most important biological linkage between Chino Hills State Park and adjacent, protected open space is the Coal Canyon biocorridor which connects the park and surrounding Puente-Chino Hills on the north to the Cleveland National Forest and the Santa Ana Mountains on the south. The biocorridor provides for the dispersal of plants and the movement of animals between the two areas. The much larger Santa Ana Mountains support the diversity of the Puente-Chino Hills by allowing animals to disperse into the area thereby bolstering populations, providing new genetic material, and helping to prevent local extinctions.

The Coal Canyon biocorridor extends within park boundaries through Brush and Water Canyons to the interior of the park. These two canyons constitute an important natural resource area that supports high quality examples of California walnut woodland, oak woodland, and riparian habitat. The area provides for the movement of special status species such as the mountain lion, as well as habitat that is crucial to the California gnatcatcher and the nesting success of a pair of resident golden eagles. All of Water Canyon and a large portion of upper Brush Canyon are within the park's boundary.

The Riverside Freeway (State Route 91) bisects the Coal Canyon biocorridor outside of park boundaries. Terrestrial animals attempting to cross the freeway are forced to either cross under it via a relatively small double box culvert or over it across multiple lanes and a freeway divider. Because the culvert crossing is small relative to its length, many animals do not use it. Deer, for example, typically will not use the 91 Freeway culvert crossing because they require a view of the opposite end of the crossing and the culvert does not provide this need. A freeway underpass at this location, which is currently fenced off from the wildland area, holds the potential to allow for the movement of many animals that cannot currently overcome the impediment of the freeway.

As of 1998, portions of the Coal Canyon biocorridor remained in private ownership and may be developed. If development occurs, the Puente-Chino Hills, including Chino Hills State Park will be biologically isolated. Eventually, this will result in local species extinction on a large scale and may result in the biological decline of the park and the Puente-Chino Hills because this area is too small to support many of the existing plant and animal populations.

### *Sonome and Tonner Canyons*

The Sonome Canyon biocorridor lies within the Sonome Canyon Area. It links Chino Hills State Park with two adjacent open space areas in the Puente and Whittier Hills via the Tonner Canyon biocorridor on the north and west. This important connection



ties three significant core habitat areas together and allows for the passage of species between them.

The Sonome and Tonner Canyon biocorridor is bisected by Carbon Canyon Road (State Route 142). There are several culverts that pass under the road but they are very small and are, therefore, of limited value for wildlife passage. Larger mammals such as deer and mountain lions are unable to pass through and must cross the road in order to enter and leave Chino Hills State Park through this corridor. If Carbon Canyon Road is widened to accommodate greater vehicle usage, wildlife losses will increase unless adequate mitigation measures are enacted.

#### *Prado Basin*

The Prado Basin biocorridor links Chino Hills State Park with the high quality habitat within the basin and with the upper reaches of the Santa Ana River to the east. The State Endangered western yellow-billed cuckoo and the State and Federally Endangered least Bell's vireo have been documented within the Prado Basin. This corridor offers an important opportunity for exchange of these species between the park's Fremont Cottonwood habitat along the Santa Ana River and that of the Prado Basin. As with the other corridors connecting Chino Hills State Park to adjacent open space areas, this one is bisected by a major highway. As mitigation for the widening of State Highway 71, the California Department of Transportation installed fences in an attempt to direct wildlife into culverts and away from at-road crossings of the freeway.

## Plant Life

### **Vegetation Types**

At first look, Chino Hills State Park may appear to be simply composed of rolling hills covered with non-native grassland. Although these grasslands are truly the dominant vegetation type in the park, a closer look reveals a significant diversity of plant community types. In fact, Chino Hills State Park supports 14 different vegetation series as defined in the California Native Plant Society's (CNPS) classification, *A Manual of California Vegetation* by John O. Sawyer and Todd Keeler-Wolf (1995). A Draft Vegetation Map has been delineated for the park following this classification scheme (see Figure 5). The vegetation type series mapped for Chino Hills State Park are listed in the following table:

<u>Series</u>	
California Grassland Series	California Walnut Series
Purple Sage Series	California Sagebrush Series
Sumac Series	California Buckwheat Series
Coast Prickly Pear Series	Coast Live Oak Series
California Sycamore Series	Arroyo Willow Series
Fremont Cottonwood Series	Mulefat Series
Purple Needlegrass Series	Cattail Series

Of these 14 vegetation types, 9 are considered unique or significant in southern California because their acreage is rapidly dwindling and because of their importance as habitat to both sensitive and common wildlife species. These 9 are the California Walnut Series, California Buckwheat Series, California Sagebrush Series, Purple Sage Series, Coast Prickly Pear Series, Sumac Series, Arroyo Willow Series, Fremont Cottonwood Series, and California Sycamore Series.

#### *California Walnut Series*

The southern California black walnut (*Juglans californica* var. *californica*) has a range limited to the Los Angeles Basin and surrounding foothills. Some of the largest remaining woodlands in southern California can be found in Chino Hills State Park, particularly throughout Water Canyon, on the south side of Telegraph Canyon, and in the Sonome Canyon Area. Walnut trees are found typically on north-facing slopes and in canyon bottoms and are often in association with coast live oak (*Quercus agrifolia*).



Southern California black walnut woodland – Water Canyon

#### *Coastal Sage Scrub Habitats: California Buckwheat Series, California Sagebrush Series, Purple Sage Series, and Coast Prickly Pear Series*

The coastal sage scrub habitats have declined rapidly in southern California due to increased open space development. Remaining patches of habitat in the state have become crucial to the survival of many animal species, including the California gnatcatcher (*Polioptila californica*), a Federally Threatened bird species. Even the coastal sage scrub habitat types that are not ideal for California gnatcatcher nesting sites are important for the species dispersal into nearby habitats that are more suitable.

California Buckwheat Series is a type of coastal sage scrub habitat that is dominated by California buckwheat (*Eriogonum fasciculatum*) in association with California sagebrush (*Artemisia californica*), white sage (*Salvia apiana*), purple sage (*Salvia leucophylla*), and black sage (*Salvia mellifera*). This habitat type is important to California gnatcatcher survival. The California Buckwheat Series is well represented in various parts of Chino Hills State Park, with excellent examples in Telegraph Canyon.

California Sagebrush Series is another type of coastal sage scrub habitat. This vegetation series differs from the California Buckwheat Series in that it is dominated, sometimes entirely, by California sagebrush (*Artemisia californica*) and may also include California buckwheat (*Eriogonum fasciculatum*), black sage (*Salvia mellifera*), bush monkeyflower (*Mimulus aurantiacus*), purple sage (*Salvia leucophylla*), white sage (*Salvia apiana*), or lemonade berry (*Rhus integrifolia*). This habitat type is as important to California gnatcatcher survival as the California Buckwheat Series. As of 1998, the California gnatcatcher had been documented as nesting within park boundaries only in the California Sagebrush Series habitat along the park's southern boundary.

Purple Sage Series, another type of coastal sage scrub habitat, is different from the others in that it is dominated by purple sage (*Salvia leucophylla*). Purple sage may be the sole component in this series, but typically California sagebrush (*Artemisia californica*) occurs in the canopy as well. Examples of this series can be found in the Sonome Canyon Area.

Coast Prickly Pear Series is dominated by the coast prickly pear (*Opuntia littoralis*). This habitat is found as small patches in various locations within the park. Some good examples can be found on the south-facing slope in Telegraph Canyon and in Upper Aliso Canyon. The cactus wren (*Campylorhynchus brunneicapillus*), a California Species of Concern, is dependent upon this habitat and is found in many of the park's cactus patches.



Coast Prickly Pear – Upper Aliso Canyon

#### *Sumac Series*

Sumac Series is dominated by relatively tall shrubs such as laurel sumac (*Malosma laurina*), toyon (*Heteromeles arbutifolia*), and lemonade berry (*Rhus integrifolia*). This series is well represented in Chino Hills State Park particularly along the north ridge of Telegraph Canyon. Because the understory is composed of several coastal sage scrub species such as California buckwheat and California sagebrush, this series could provide habitat for the California gnatcatcher.

*Riparian Habitats: Arroyo Willow Series, Fremont Cottonwood Series, and California Sycamore Series*

Riparian habitat in general is uncommon in southern California. It is important habitat for many wildlife species that use it for nesting, foraging, perching, and cover from the hot sun. It has decreased dramatically over the years and continues to decline due to development and habitat degradation.

Arroyo Willow Series is a type of riparian habitat that is represented in several of the canyons in the park by thickets dominated by the arroyo willow (*Salix lasiolepis*). Some examples of this habitat are found in Upper and Lower Aliso Canyon and Telegraph Canyon. It is excellent habitat for wildlife such as herpetofauna (reptiles and amphibians), birds, and mammals. Within the park, this habitat supports the existence of the State Endangered willow flycatcher (*Empidonax trailii*) and least Bell's vireo (*Vireo bellii pusillus*).

Fremont Cottonwood Series is another type of riparian habitat that is found in the park only within a small area along the Santa Ana River. This type of habitat is extremely limited in southern California and is of crucial importance for two bird species. These species are the State Endangered western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), which has been documented in adjacent habitat within the Prado Basin, and the State and Federal Endangered least Bell's vireo (*Vireo bellii pusillus*), which has been documented within this habitat at Chino Hills State Park.

California Sycamore Series is a type of riparian woodland dominated by the California sycamore (*Platanus racemosa*). This habitat within Chino Hills State Park is well represented in Aliso Canyon. Dominated by mature sycamore trees, the woodland is valuable for various bird- perching and nesting sites and is habitat for various arboreal wildlife species. Sycamore tree seedlings are uncommon in the park, as well as elsewhere. This is due, in part, to competition with non-native annual grasses and forbs.



California sycamore – Bane Canyon

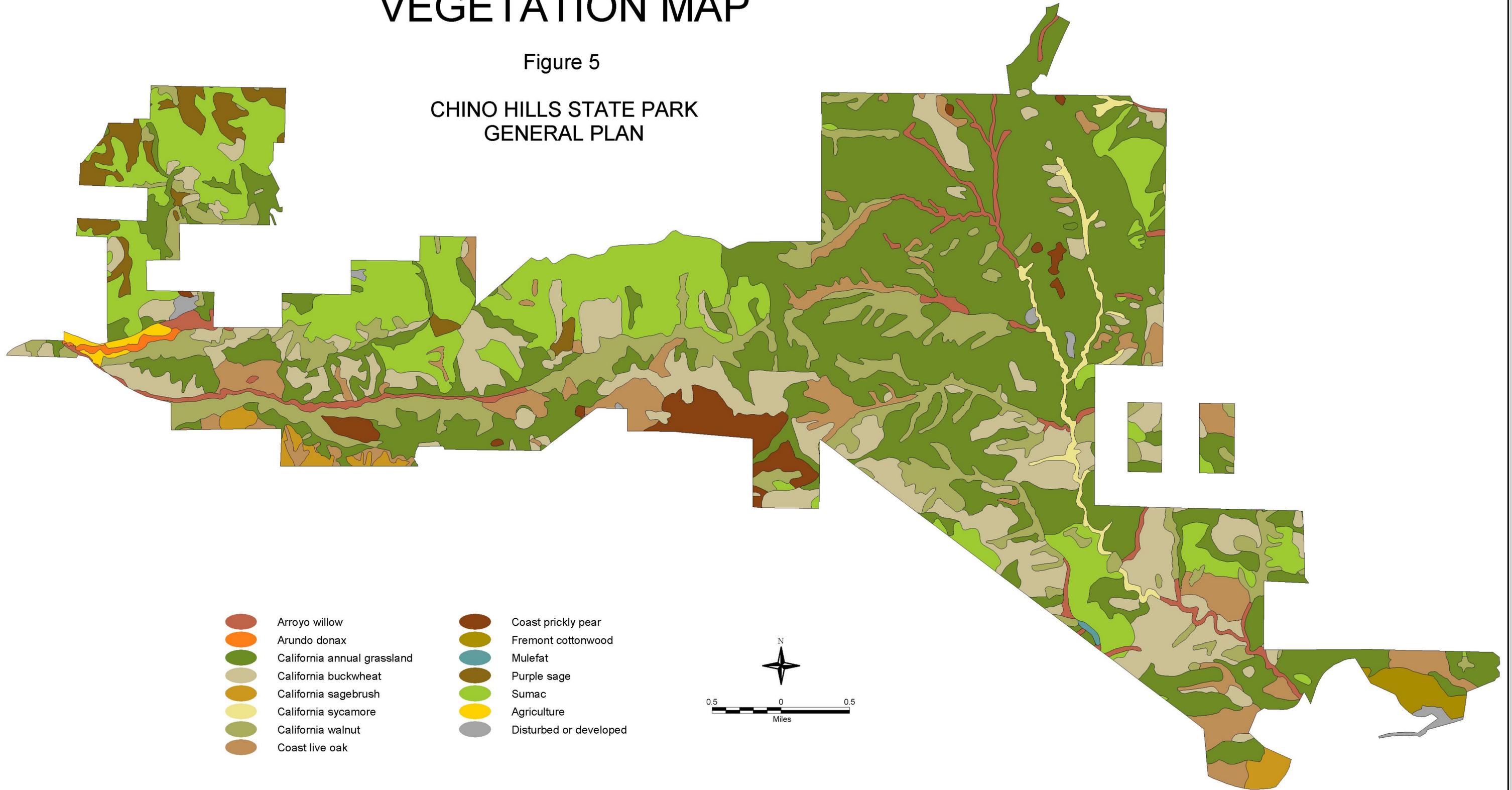
*Cattail Series*

Three livestock ponds, McDermott Spring, Windmill, and Panorama Ponds were constructed by previous land owners and offer year-round water for wildlife as well as suitable conditions for the establishment of aquatic plants and emergent wetland vegetation.

# VEGETATION MAP

Figure 5

## CHINO HILLS STATE PARK GENERAL PLAN





*Purple Needlegrass Series*

Small stands of the native bunchgrass called purple needlegrass (*Nasella pulchra*) are recovering in some areas within Chino Hills State Park. Prior to heavy grazing and other disturbances in the Chino Hills, purple needlegrass and other native perennial bunchgrasses dominated the grasslands. Currently, the extent of native bunchgrass patches in the park is minimal compared to the coverage of non-native annual grassland.

**Sensitive Plant Populations**

There are three sensitive plant taxa known to occur within the boundaries of Chino Hills State Park (see below). One is a Federal Species of Concern, but all three are listed in the California Native Plant Society - Inventory of Rare and Endangered Vascular Plants of California.

There are several other sensitive taxa that have a potential to occur within the park (see below). One of these, Braunton’s milk-vetch (*Astragalus brauntonii*) is documented as occurring on property adjacent to the park and is likely to occur within park boundaries, as well. This species is currently listed as Federal Endangered. Seven other listed sensitive plant taxa have the potential to occur within park boundaries.



Catalina Mariposa Lily

1998 Sensitive Plant Taxa Known To Occur Within Chino Hills State Park

<u>Taxon</u>	<u>Common name</u>	<u>CNPS List*</u>	<u>State/Federal List*</u>
<i>Dudleya multicaulis</i>	many-stemmed dudleya	1B	FSC
<i>Calochortus catalinae</i>	Catalina mariposa lily	4	
<i>Romneya coulteri</i>	Coulter’s matilija poppy	4	

1998 Sensitive Plant Taxa For Which Potential Habitat Exists Within Chino Hills State Park

<u>Taxon</u>	<u>Common name</u>	<u>CNPS List*</u>	<u>State/Federal List*</u>
<i>Astragalus brauntonii</i>	Braunton’s milk-vetch	1B	FE
<i>Calochortus weedii</i> var. <i>intermedius</i>	intermediate mariposa lily	1B	
<i>Atriplex coulteri</i>	Coulter’s saltbush	1B	
<i>Brodiaea filifolia</i>	thread-leaved brodiaea	1B	CE/FSC

<i>Hemizonia pungens</i> <i>ssp. laevis</i>	smooth tarplant	1B	
<i>Chorizanthe parryi</i> <i>var. fernandina</i>	San Fernando Valley spineflower	1A	
<i>Dodecahema leptocera</i>	slender-horned spineflower	1B	CE/FE
<i>Eriastrum densifolium</i> <i>ssp. sanctorum</i>	Santa Ana River woollystar	1B	CE/FE

\*Listing status codes: CNPS 1A = Presumed extinct in California; CNPS 1B = Rare and Endangered in California and elsewhere; CNPS 4 = Plants of limited distribution; FSC = Federal Species of Concern (formerly candidate species); CE = State of California Endangered; FE = Federally Endangered

### Exotic Plant Populations

For over 100 years, livestock grazing occurred within the boundaries of what is now Chino Hills State Park. This grazing, along with fire suppression, disrupted natural ecological processes and allowed the introduction and rapid expansion of many non-native plant pest species to occur. The most noticeable disturbance has occurred in the many acres of open grassland which are now heavily dominated by non-native annual grasses and mustards. However, riparian areas have been adversely affected as well. Heavy grazing in riparian areas has disturbed habitat and degraded water quality thus paving the way for the proliferation of such exotic plant pests as the tree-of-heaven (*Ailanthus altissima*).

The giant cane (*Arundo donax*) is an invasive, exotic plant that is found in the Santa Ana River and Carbon Canyon Creek. Giant cane is currently manageable in the portion of the Santa Ana River within park boundaries, but has overrun Carbon Canyon Creek. Efforts will be necessary to further control and eradicate this species from park property.

## Animal Life

The great diversity of vegetation types and habitat supports the existence of a wide variety of animal species. Some of the taxa occurring in the park are considered threatened, endangered, or species of special concern by the U.S. Fish and Wildlife Service and/or the California Department of Fish and Game.

### Sensitive Animal Populations

#### *Mammals*

Two California Mammal Species of Special Concern are known to occur within Chino Hills State Park. These are the western mastiff bat and the mountain lion (also a California Fully Protected Species). In addition to these, 22 special status mammal species have been recorded with the California Natural Diversity Database (CNDDB) of the California Department of Fish and Game as occurring in the vicinity of the park. Although they have not been documented within the park as of 1998, suitable habitat exists within the park to support their existence (see Appendix A).



### *Birds*

Chino Hills State Park provides suitable habitat for numerous bird species. Of the 15 sensitive bird species documented using the park, one is on the Federal Threatened list, two are listed as Federal Endangered, two as California Fully Protected, two as California Endangered, eight are California Species of Special Concern, and three are of local or regional concern even though they don't appear on current sensitivity lists (see Appendix A). Several of these taxa occur on more than one sensitivity list. Suitable habitat exists within the park for an additional 28 bird species that have special status although they had not been documented there as of 1998 (see Appendix A).



Golden Eagle - Brush Canyon (photo by Rick Jackson)

### *Reptiles*

Six sensitive reptile species occur within the boundaries of Chino Hills State Park: the southwestern pond turtle, San Bernardino ringneck snake, San Diego (coast) horned lizard, northern red-diamond rattlesnake, coast patch-nosed snake, and coastal western whiptail. All of these are considered California Species of Special Concern, but the pond turtle and the horned lizard are also listed as California Fully Protected. Suitable habitat for eleven other sensitive reptile species occurs within the park boundaries (see Appendix A).

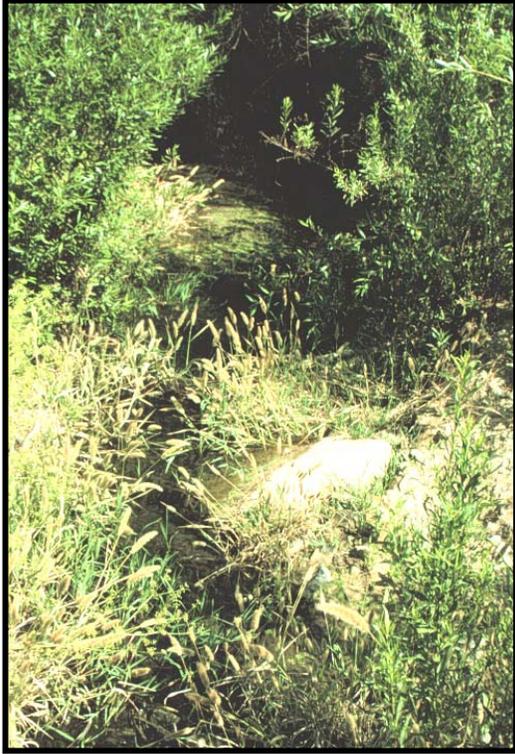
### *Amphibians*

There are nine special status amphibian taxa that could occur in the park (see Appendix A). Three of these, the arboreal salamander (a species of local concern), the western spadefoot (California Fully Protected, California Species of Special Concern), and the Monterey salamander have been documented as occurring within park boundaries.

In all, 23 wildlife taxa with some level of sensitivity have been documented utilizing the habitats and resources of Chino Hills State Park. Also, suitable habitat exists to support 65 additional sensitive animal taxa. These numbers are very large for a park the size of Chino Hills State Park.

## Aquatic Life

Fish habitat in the Santa Ana River and in most of its tributaries has been significantly reduced from its original extent. Stream channelization, dams, and other projects related to urbanization of the Los Angeles plain have contributed to this habitat loss.



Lower Aliso Creek

As a result, steelhead and Pacific lamprey, two anadromous fish species that once inhabited the river, are no longer present. Of the native freshwater fish species, only the arroyo chub still can be found in the Santa Ana River. The Santa Ana sucker, Santa Ana speckled dace, and unarmored three-spine stickleback no longer exist in this river system. Currently, the unarmored three-spine stickleback is listed as both State and Federal Endangered and a recovery team is inspecting the possibility of appropriate sites for reintroduction within the park (see Appendix A).

Chino Hills State Park includes a one-mile-long unchanneled section of the Santa Ana River. Also within park boundaries, Aliso Creek, which provides suitable habitat for the four freshwater fish native to the area, is the only unchanneled tributary with access to the river downstream of the Prado Dam. It also contains a perennial reach that supports populations of the arroyo

chub. Aquatic habitat in Aliso Creek has become increasingly important to the regional conservation of the arroyo chub. The introduction of pollutants and exotic animal species has reduced habitat quality in the Santa Ana River. Introduced crayfish, two species of non-native fish, and African clawed frogs are present in Aliso Creek. They are both a competitive and predatory threat to the arroyo chub.

## Paleontology

Chino Hills State Park has not been systematically surveyed for paleontological resources. However, many fossils have been found in the Chino Hills area. The Puente Formation, present throughout the park, is well documented to contain abundant fossil deposits. Fossil specimens known to be present in that geologic formation include whales, porpoises, fish, shark teeth, leaves, marine invertebrates, and others. The Puente Formation is particularly well recognized for its fossil fish remains, especially near-shore species. Unique Pliocene-age fossil deposits may also be present in the southeastern portion of the park. Microscopic foraminifera are also contained in the marine sandstone members. A thorough paleontological survey may reveal that important fossil deposits exist within the park.

## **CULTURAL RESOURCES**

### **Native American Ethnographic Overview**

Chino Hills State Park is located in the inland southern portion of the traditional Gabrielino territory in close proximity to the Juaneño, Luiseño, Serrano, and Cahuilla Indian groups. The Gabrielino were occupying lands in and around the park at the time the Spaniards arrived in southern California.

The Gabrielino are reported to have been the wealthiest, most populous, and most powerful ethnic nationality in aboriginal southern California, other than the Chumash. The Gabrielino possessed a material culture reflecting sophisticated knowledge of the working qualities of natural materials and elaborate artisanship. They were particularly known for their tool, utensils, and ritual objects. The Gabrielino traded their creations, food products, and animal skins over a broad region in present-day southern California.

San Gabriel Mission baptism records list village names and an occasional note concerning village locations. These location notes and the number of individuals baptized suggest that four large villages were situated in the Santa Ana River Basin near Chino Hills State Park. The Indians of these villages are hypothesized to have regularly exploited the natural resources of the Chino Hills.

### **Historic Overview**

The historic period of the Park dates from the first recorded Euroamerican explorations along the Santa Ana River in the late-eighteenth century and continues through ranching endeavors of the mid-twentieth century.

This area was originally part of the extensive grazing lands granted to the San Gabriel Mission, which was established in 1771. During the Mexican Republic era, the area served as spillover grazing land for Rancho Santa Ana del Chino to the north, Rancho La Brea to the west, and Ranchos Cañon de Santa Ana and La Sierra Yorba to the south. In 1848, when Mexico ceded California to the United States, it became part of the United States public domain lands. Documented legal acquisition of public land in the park began during the last three decades of the nineteenth century.

Throughout its recorded history, the area served primarily as grazing land, although some late-nineteenth and early-twentieth century agriculture, horticulture, oil exploration, and mining activities occurred in parts of the park. Historic activity left only one complex of historic buildings (Rolling M Ranch) and scattered historic features. However, stock grazing had a significant effect on the park. Cattle and sheep grazing eliminated native grasses and grains once used by Native Americans as food sources, and ranchers introduced non-native grasses to feed stock herds.

### **Hispanic Period (1771-1848)**

Although exploration occurred both north and south of the park, there is no documented evidence indicating the park was formally surveyed by Euroamericans during the eighteenth or early-nineteenth century, nor legally acquired prior to the 1830s. Mission San Gabriel was established just 20 miles northwest of the park, so stock grazing may have occurred on park land as early as the 1770s.

### **Early American Period (1848-1920)**

In contrast to the surrounding region, there is no evidence of permanent activity other than grazing in the present-day park prior to the U.S. Surveyor General's public domain surveys. These surveys began in 1853 and were not completed until 1894. The deputy surveyor's field notes do not note any structures, fences, or wagon roads in the park, although much of the land was obtained and used for grazing during this period.

Legal acquisition of public domain land within Chino Hills State Park by private individuals did not begin until the early 1870s. Many of those filing were associated with the small ranching community of Rincon just east of the park boundary along the Prado Basin. Local ranchers such as Fenton Slaughter, who had purchased Raymundo Yorba's home and property in 1868, established successful sheep and cattle ranching operations that extended into the eastern limits of Chino Hills State Park. Activity and ownership increased during the Great Land Boom of the mid-1880s. Those who purchased Chino Hills land for ranching use included the founder of the town of Chino, Richard Gird. By 1895 much of the future park property was under absentee ownership, such as that of the San Francisco based Chino Land and Water Company.

Although most of the Chino Hills land was in ownership by 1900, the first published USGS quadrangle map of 1902 indicates only three miscellaneous structures and a wagon road running within current park boundaries. These structures were likely associated with various ranching and mineral extraction activities. Although no large deposits were located or exploited within the park, several oil wells and mines have been documented from this period.

### **Twentieth Century Development Period (1920s-1980)**

During the inter-war years of the 1920s to the 1940s, the ranching industry reached its most active period at Chino Hills. In 1921, local dairy rancher Frank Pellissier purchased most of the Chino Land and Water Company holdings for his dairy herds, including the area of the future Rolling M Ranch. The first aerial photographs of the region in the late 1930s indicate numerous cleared areas that had obviously received regular grazing activity along almost all the watershed canyons of the park, including near the Santa Ana River and Carbon Canyon.

The 1940s would also see the increased development of the Rolling M Ranch complex. Aerial photographs show several structures and cleared areas on the site by 1940. In

1948, the Mollin Investment Company acquired 1,720 acres, subsequently giving the area the name of the Rolling M Ranch. The company enlarged and improved the corral system and rehabilitated and enlarged the main house. Mollin owned the property until the establishment of the State Park in the 1980s.

## Cultural Resources Within The Park

### **Archaeological Resources**

Archaeological resources within Chino Hills State Park include those from both the prehistoric and historic periods. Some areas of the park have not been surveyed for archaeological resources, so, the full extent of archaeological resources occurring in the park is not known. Descriptions and locations of recorded sites are found in the park Resource Inventory, as well as in other Department files.

#### *Prehistorical Archaeology*

The Native American sites located in Chino Hills State Park indicate that the Indians of the Santa Ana River Basin used the area for hunting and gathering. To date, two Native American camp sites and many isolated artifacts have been identified and recorded in the park. The range of site types recorded within the park includes one site with occupational debris and appreciable depth, one with sparse occupational remains, an outcrop with one cupule petroglyph, numerous isolated metates and manos, and two isolated projectile points. Archaeological surveys of limited scope within the Sonome Canyon Area have yielded no archaeological sites to date.

The most recent dates for sites in the Prado Basin and Chino Hills are not well defined, but fall around 1,000 years before present (BP). Mission baptismal records indicate the former presence of aboriginal villages near Chino Hills State Park, however, archeological data on these villages is lacking. One site within Chino Hills State Park yielded dates between 1,070 and 2,380 years BP.

### **Historical Resources**

The park's historic period resources include various structures, features, and cultural landscapes. Most are associated with ranching, the dominant historical land use. Other historic resources are associated with mineral and oil extraction, transportation and other public utilities, and varied agricultural and horticultural uses.

Only some of these resources are inventoried and identified. Most of these were evaluated as individual features. Those sites identified as locally or regionally significant include the Rolling M Ranch complex (seven structures) and four windmills, circa 1900-1930. Twenty other historic-period sites have been recorded. Most of these lack individual significance, but when evaluated collectively as features of the larger landscape, their historical significance is apparent. Such features include corrals, stock ponds, water troughs, water tanks, cross fencing, structure and equipment remains, and small, miscellaneous structures.

### Cultural Landscapes

The most significant historic resource at Chino Hills State Park is the historic ranch landscape, a vernacular landscape that reflects the lives and activities of those occupying the land in the late-nineteenth and early-twentieth centuries. This remnant, rural landscape provides a rich contrast to the dense urban development fast enveloping the park. The historic character is defined by patterned relationships of cultural features to the land – its inherent topography, soils, vegetation, and water sources – and also to climate patterns. Landscape components (old trails, ranch roads, fields, orchards); water system features (windmills, stock ponds, water troughs, tanks, pipes); and individual elements, such as the barn, sheds, stock fences, chute, scale, and other ranching equipment, remind us of this historic “working landscape”.



Cattle chute at Rolling M Ranch

The park contains several sites associated with the history of the local oil industry and small-scale mining efforts. Research available at this time does not indicate that any of these sites is individually significant. However, they do represent locally recognized historic land uses within Chino Hills State Park.

Of six livestock ponds that were constructed in the park during the ranching era, four are still present. Three of these, McDermott Spring, and Windmill and Panorama ponds, have stable earthen dams, are not interfering with fish migration routes, and are deep enough to provide positive wildlife habitat values. These ponds represent a significant example of the historic ranching landscape.

Approximately 40 acres of lemon trees in the Lemon Grove Area represent the only extant remnant of the historically significant citrus industry that once surrounded the park. This area is located off Carbon Canyon Road at the far-western end of the park. It offers trailhead parking and access to Telegraph Canyon.

### Collections

The most notable collection currently housed at the park is a collection of historic ranching artifacts once used at the Rolling M Ranch and surrounding ranchlands. These artifacts represent a prime resource for interpreting the events of the historic ranching era.

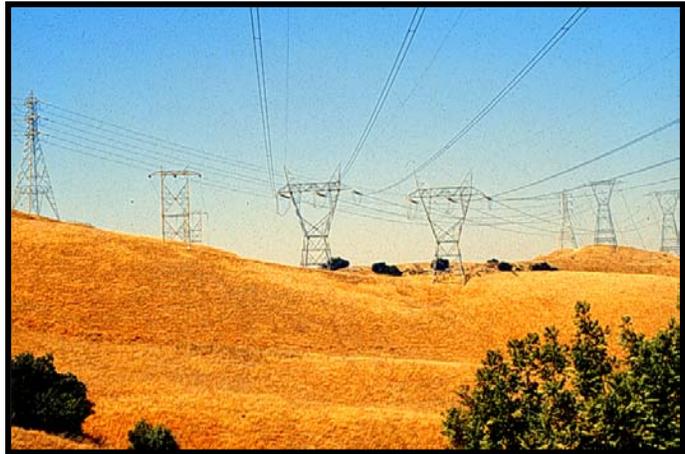
## AESTHETIC RESOURCES

Aesthetic value is attributed by park visitors to experiences, features, and qualities in harmony with natural, unmanipulated conditions and is perceived through the senses; by seeing, hearing, touching, smelling, and tasting. In addition to the tangible natural and cultural features such as plants, animals, waters, geologic features, buildings, and archaeological sites, Chino Hills State Park also offers many intangible qualities. These include natural quiet, solitude, space, scenery, a sense of history, sounds of nature, and clear night skies that are important components of people's enjoyment of the park.

The appearance of the landscape in Chino Hills State Park is relatively unaltered by the works of humans, especially when compared to the surrounding urban landscape. Long distance views of natural terrain and vegetation are available from selected locations. The acquisition plans for this park have emphasized the value of acquiring ridgetops to protect the viewsheds within the park. As a result, the relative pristine views of the hills from Telegraph and Aliso Canyons and from selected panorama points have been mostly protected from urban encroachments. Viewpoints of particular interest are San Juan Hill, Gilman Peak, and McLean Overlook.

A wide variety of more intimate natural scenes are available throughout the park. Densely wooded canyon bottoms offer dark shade, lush vegetation, and running water. Many species of wildflowers provide scenes of great beauty during the spring. The grassy hills are brilliant green during the spring and golden brown in the summer.

Due to the proximity to urban environments, the hills are interlaced with utility easements, roads, and other human-made works that are significant negative visual features in the park. By far the most prominent negative visual features are the many high-voltage electrical transmission lines that traverse the park. Other negative visual features include partially buried natural gas pipelines and the many unsurfaced roads. Also, some modern facilities such as a large cribbed retaining wall along the entrance road and modern site amenities at the overlook area near the Rolling M Ranch are not compatible with the rural scenery and detract from the visitor's experience of the natural landscape.



Electrical transmission lines - Telegraph Canyon

## RECREATIONAL RESOURCES

The proximity of its natural open space to urban populations and extensive trail network make Chino Hills State Park a popular and valuable recreational resource. Visitors enjoy both active and passive forms of recreation that focus primarily on trail use. People frequently visit the park from adjacent communities to walk, jog, bike, or ride horses. The park is also a popular spot for family and equestrian campers, as well as picnickers.

### Trail Use

Trails are used by a majority of visitors for their recreational pursuits (see Figure 3). The trail network gives access to many of the park's special places, including wooded riparian areas, open grasslands, and scenic viewpoints. The variety of trails available at the park offers a wide range of difficulty and recreational experience. Many visitors use the trails for active-types of recreation such as jogging, hiking, mountain biking, and horseback riding. Other visitors use the trails for passive-type activities such as bird watching, photography, and nature study. Some hiking-only trails occur in the park to accommodate these activities.



Hiking trail in Water Canyon

Conflicts between trail users have occurred on multi-use trails in the park. These conflicts have resulted when trail users perceive their trail experience to be negatively affected by the behavior or activity of another. Trail users with different activity styles, modes of travel, or expectations sometimes perceive other trail uses to be incompatible with their use.

### Camping and Picnicking

The shaded campground area near Aliso Creek offers a comfortable and appealing camping location. The site is suitable for families, small groups, and equestrians. The equestrian staging area is a large, flat area with scenic vistas of the park. This area is suitable for large equestrian groups as well as individuals and families with horses. Both sites are along the interior of the park, offering a quiet location and dark nighttime skies suitable for stargazing (see Figure 4).

Several family picnic sites occur along the interior of the park (see Figure 4). The most popular of these is at a shade ramada located at the Rolling M Ranch.



## **PLANNING INFLUENCES**

The goals and guidelines established in the *Plan Section* of this document are the result of many factors. The existing conditions of the park; the natural, cultural, and aesthetic resources; and the public use of the park all shape general planning. In addition, there are other factors that influence long-range planning. The influences of system-wide planning, regional planning, and public concerns are summarized in this section.

### **SYSTEM-WIDE PLANNING**

Some regulations, policies, and plans address issues that cross park and regional boundaries. Appendix B (Page 96) shows system-wide planning influences that may affect planning decisions at Chino Hills State Park. Any system-wide plans developed in the future that contain specific recommendations pertaining to the use, operation, or management of the State Park may also effect future planning decisions at Chino Hills State Park.

### **REGIONAL PLANNING**

Certain plans and programs address regional issues and events. The following regional influences may affect planning decisions at Chino Hills State Park.

### **NATURAL COMMUNITIES CONSERVATION PROGRAM (NCCP)**

The Department of Parks and Recreation has signed a Memorandum of Agreement (MOA) with the California Department of Fish and Game (DFG) outlining each agency's responsibilities in the implementation of the Coastal Sage Scrub Natural Communities Conservation Program (NCCP).

In cooperation with the U.S. Fish and Wildlife Service (USFWS), the NCCP is designed to provide for regional protection and conservation of sensitive species habitat at the natural community level and at the same time to allow for compatible development and urban growth. The program is attempting to do this by acquiring and protecting large parcels of adjoining quality habitat and by restoring adjacent habitat of lower quality within an interconnected core habitat system. California State Parks, as a leader in the conservation and management of the natural habitats, is playing an important role in the formulation of regional preserves for the NCCP.

Southern California, with its fast urban growth rate and urgent need to preserve rapidly declining natural habitats, is the first area of the state to implement the NCCP. The focus is on coastal sage scrub habitat, crucial to the survival of the Federal Threatened California gnatcatcher and an important habitat for species of concern such as the coastal cactus wren and the orange-throated whiptail.

Chino Hills State Park has a considerable amount of high quality coastal sage scrub habitat within its boundaries. Its lands have been enrolled as a reserve in the NCCP program, and its contribution to a regional NCCP Habitat Conservation Plan (HCP) is imminent. The park's inclusion in the NCCP program necessitates that management of the park should be consistent with NCCP long-term plans and management goals.

## **BIOCORRIDORS**

Biocorridors, or habitat linkages, are imperative to the biological survival of Chino Hills State Park and the Puente-Chino and Whittier Hills. These biocorridors cross several jurisdictional and private property boundaries. To effectively manage them for the facilitation of wildlife movement requires cooperation and a regional perspective.

The Wildlife Corridor Conservation Authority (WCCA) is a local joint powers authority (JPA) represented by city and state agencies, as well as members of the public. California State Parks is currently represented as a Governing Board member of the JPA. The mission of WCCA is to provide for the proper planning, conservation, environmental protection, and maintenance of the habitat and wildlife corridor between the Puente Hills in the west and the Chino Hills in the east, which connects to the Cleveland National Forest to the south. WCCA encourages the Department to pay special attention to the areas that are ecologically sensitive such as the north-south connection between the park and the Cleveland National Forest, and the east-west connection between the park and the Prado Basin. It is the responsibility of Chino Hills State Park to manage identified wildlife movement corridors within the park's boundaries in a manner consistent with the conservation and perpetuation of the species that use them and to facilitate their movement.

The results of resource studies undertaken by WCCA are available to Department managers for use at Chino Hills State Park.

## **SANTA ANA RIVER**

A small area of Chino Hills State Park is in the Santa Ana Canyon and Santa Ana River Flood Plain. This area between the Green River Golf Course and State Route 71 is subject to the *Lower Santa Ana River Canyon Resource, Floodplain, and Habitat Management Plan*. The Department was a part of the Study Group that developed the plan. Flowage easement rights are also required in this portion of the park for the Santa Ana River Mainstem Project, per an agreement between the Riverside County Flood Control and Water Conservation District (RCFC&WCD) and the Department.

## **TRAILS**

Many regional riding and hiking trails and bikeways exist in the vicinity of Chino Hills State Park. Because the park borders four counties and three cities, there are numerous opportunities to link regional trails with those at the park. The cities of

Anaheim, Brea, Chino Hills, and Yorba Linda, as well as the County of Orange, for example, currently show trail linkages to the State Park in their general plans. The following agencies have regional trail plans: City of Chino Hills, City of Anaheim, Orange County Transportation Agency, County of Orange, and City of Yorba Linda.

## **PARK ACCESS**

The cities adjacent to the park, Yorba Linda, Brea, and Chino Hills, have expressed concerns about providing adequate park access and trailhead parking. This is a result of problems associated with visitors parking on residential streets to access the trail network.

## **WILDFIRE MANAGEMENT**

The City of Brea is concerned about park activities that may affect adjoining wildlands in the jurisdiction of the City of Brea. In addition, the Metropolitan Water District of Southern California (MWD), because of their operation of a water filtration plant adjacent to the park, as well as water feeder lines and easements within the park, is concerned about any wildfire management planning occurring at the park. Parties to the Habitat Conservation Plan (HCP) also are concerned about wildfire management planning at the park.

## **HABITAT CONSERVATION**

The Metropolitan Water District of Southern California (MWD) and Shell Western E&P Inc., adjacent property owners to the park with planned future activities that will have impacts on habitat, have developed a Habitat Conservation Plan (HCP) with the Department and other agencies (U.S. Fish and Wildlife Service, California Department of Fish and Game, the County of Orange, the Cities of Yorba Linda and Brea, and Hills for Everyone) in accordance with Section 10(a)(1)(B) of the Federal Endangered Species Act. The HCP is a plan to protect and restore coastal sage scrub habitat and the species that utilize it. The HCP was required as mitigation for the development by Metropolitan and Shell Western E&P Inc. of coastal sage scrub habitat used by the Federally listed California gnatcatcher. The HCP covers a 2,600-acre Study/Management Area in the western portion of Chino Hills State Park and results in the preservation of more than 1,200 acres, including the Sonome Canyon Area.

The HCP is a major component of the Natural Communities Conservation Program (NCCP) because it provides crucial habitat protection and enhancement for some of the last remaining coastal sage scrub habitat in the region. The HCP includes resource management objectives for the area that are consistent with Department goals and also provides for a resource ecologist to implement and monitor results of the program for a period of fifteen years.

## UTILITY EASEMENTS AND ROADS

### Metropolitan Water District of Southern California (MWD)

The Metropolitan Water District of Southern California (MWD) operates the Robert B. Diemer Water Filtration Plant at its 200-acre facility adjacent to the southern boundary of the park in Orange County. MWD's Yorba Linda Feeder tunnel and pipeline system traverses the park in a north-south direction to connect with the Diemer plant. In addition, MWD's Lower Feeder pipeline traverses the park in San Bernardino County in an east-west direction.

MWD's *Guidelines for Development in the Area of Facilities, Fee Properties, and/or Easements of the Metropolitan Water District of Southern California* was developed to assist other agencies, including the Department of Parks and Recreation, in preparing plans that are compatible with MWD's facilities and easements.

In addition, MWD Operations personnel use several dirt roads, including those along the Lower Feeder and Yorba Linda Feeder rights-of-way and to miscellaneous substructure facilities associated with pipelines. Any of the Department's maintenance activities, land uses, or planning efforts that affect MWD's access is a concern of MWD.

MWD has an Emergency Response Plan. This plan addresses public safety issues associated with nearby storage areas of hazardous chemicals. These chemicals are currently used in the water treatment process and stored in bulk at the Diemer plant. Any public uses planned for park areas adjacent to the plant are a concern of MWD.

Heavy trucks must routinely travel through the park to access the solids drying ponds near Telegraph Creek. Any activities or planning that affect this access is a concern of MWD.

### Southern California Edison

Southern California Edison (SCE) Operations personnel use several dirt roads in the park to access gas pipelines and electric transmission lines. Any of the Department's maintenance activities, land uses, or planning efforts that affect safe access to SCE facilities is a concern of SCE.

## REGIONAL TRANSPORTATION

The Southern California Association of Governments (SCAG) is the authority for the Regional Transportation Plan (RTP) that incorporates Chino Hills State Park and communities in the region. The 1998 RTP is known as *CommunityLink 21*, which covers the period from 1998 to 2020. This plan addresses mobility, economic, social, and environmental goals and objectives for transportation planning for the region.

The Orange County Transportation Agency and the Southern California Association of Governments are lead agencies of the Four Corners Policy Committee. This committee is made up of representatives from county, city, and local government agencies, as well as regional transportation agencies and private organizations in the affected area. The area that surrounds Chino Hills State Park is named for the four corners of the Counties of Los Angeles, San Bernardino, Orange, and Riverside, which come together at this location and includes State Routes 57, 90, 142, 71, 91, 60, 83, and Interstate 15. Knowledge of proposals made in the RTP and by the Four Corners Policy Committee, as well as other potential regional transportation authorities, is crucial to understanding potential impacts to resources and operation of the park.

## **POPULATION TRENDS**

The proximity of Chino Hills State Park to the intensely developed metropolitan areas of Los Angeles, Orange, Riverside and San Bernardino Counties potentially offers an open-space retreat to 15 million people. By the year 2020, the California Department of Finance projects that the resident population of these counties will grow by 32 percent and exceed 22 million people. This means that approximately 45 percent of the state's population will live within 40 miles (a short driving distance) of the park. The estimated resident population of the three bordering communities of Brea, Yorba Linda, and Chino Hills is expected to exceed 225,000 people by the year 2025. These local populations will create the highest demand for park use.

The regional population is unparalleled in its cultural and ethnic diversity and includes a growing number of single-parent households. It is important to note that in the next twenty years there will be a population explosion of senior-aged citizens. To accommodate these citizens, Chino Hills State Park will need to provide for a wider range of recreational interests and abilities than it does now.

Visitor attendance at Chino Hills State Park steadily increased between the opening of the park in 1984 and 1995. There were an estimated 9,845 visitors to the park in 1990. This amount increased to an estimated 193,891 visitors in 1995. Attendance from 1995 through 1997 decreased slightly to an average 171,835 visitors per year.

## **PUBLIC CONCERN**

Public input was solicited at several steps in the general plan process. Several meetings were held to familiarize the public with the planning process and park issues. The first public meeting, held in the City of Brea, was informative and provided an opportunity to describe the significant resources and unique features that make Chino Hills State Park a special place. The meeting was opened to public comments, and all comments were noted. In addition, a questionnaire was distributed to those attending to gauge what issues and concerns were considered most important. Responses from the questionnaires indicated that the primary interest in

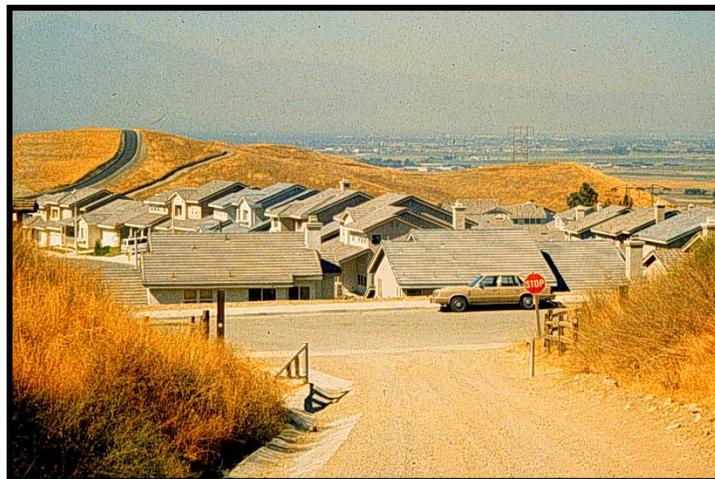
Chino Hills State Park was for natural resource preservation, interpretation, and recreational activities. The majority of respondents thought that the park should be left natural and undeveloped. Trails and public access were important concerns as well.

The second public meeting, held in the City of Chino Hills, was a workshop where participants noted specific concerns and commented on proposed general plan guidelines. A similar workshop was held in the City of Yorba Linda to expand opportunities for public involvement to surrounding communities. After each workshop proposed guidelines were reevaluated and, where appropriate, rewritten to incorporate these comments and suggestions. The overriding concerns were public use of the proposed Core Habitat Zone, the need for improved public access points into the park, and the desire to restrict future developments and concessions within park boundaries.

A final public meeting, describing plan alternatives and the preferred plan, was held in the City of Corona. At the end of the meeting, the public was invited to ask questions. These were again noted and reviewed after the meeting.

Throughout the course of public involvement in the general plan process for Chino Hills State Park, it was clear that the primary issues of concern for park users are those related to park access, trail use, and maintaining the wildness of the park by restricting further developments and concessions.

In addition to the meetings held for the general public, the Chino Hills State Park General Plan team held a meeting with public agency representatives. Concerns were voiced about public access points and parking, continued access to utility company structures and maintenance of utility roads, and the need for more interpretive programs, including campfire programs, designed to increase public awareness of the park's resources.



Residential subdivision adjacent to park entrance at Bane Canyon

## ISSUES

The *Issues Section* highlights the important issues derived from the *Park Summary* (beginning on Page 9) and from the *Planning Influences* (beginning on Page 37). The goals and guidelines of the *Plan Section* address these issues.

### RESOURCE MANAGEMENT AND PROTECTION

#### BIOCORRIDORS AND CORE HABITAT AREAS

Urbanization within and surrounding the Puente-Chino Hills has resulted in the near biological separation of Chino Hills State Park from adjacent open-space areas. The remaining biological connections to these adjacent areas are tenuous. They are bisected by roads and reduced in size by the conversion of surrounding open space urban uses. In some cases, portions of remaining, viable habitat linkages are privately owned and unprotected. Development of these private parcels will jeopardize the diversity and integrity of the park's biological resources by eliminating or reducing wildlife movement through these corridors. The identification and management of areas containing representative, sensitive, or otherwise important habitats within the park and the biocorridors that link these habitats to those outside of the park, are essential to the maintenance of the park and regional ecosystems.

#### NATURAL RESOURCES

Increased awareness of the diversity and fragility of sensitive plant and animal species, as well as their supporting habitats has created greater need to protect and interpret these resources. Further guidance to direct resource management and conservation efforts at the park is needed to ensure the perpetuation of these values for future generations.

#### HISTORIC RESOURCES

Information acquired since the original general plan places new emphasis on the park's historic resources, particularly the historic ranching landscape and features associated with the Rolling M Ranch. Greater protection and interpretation of these historic resources is needed in order to preserve California's heritage and for the education and enjoyment of park visitors.

#### AESTHETIC RESOURCES

Aesthetic qualities of the park can be adversely impacted by man-made intrusions such as developments, activities, or land uses that are incompatible with the park's natural character. Increasing development and more intensive land uses surrounding the park place increased emphasis on protecting scenic features and preserving the visitor's experience of the park's aesthetic qualities.

## **INTERPRETATION**

Current knowledge of natural and cultural resources at Chino Hills State Park places new emphasis on habitat connections, native plant and animal diversity and fragility, Native American involvement in the area, and historic ranching. Interpretive topics need to reflect this current knowledge and emphasis.

## **VISITOR USE AND DEVELOPMENT**

### **VISITOR-USE FACILITIES**

The original (1986) general plan proposed the development of a large number of campgrounds, picnic areas, and trailhead parking areas in the park, specifically within Lower Aliso Canyon and the Santa Ana River floodplain. Continuing resource inventory work within the park has increased the Department's understanding of the sensitivity of the resources located at these proposed campground sites. Also, the current demand for camping at the park places question on the need for many large, developed campgrounds. The placement of facilities at these sites is no longer considered appropriate, yet additional facilities to enhance the visitor's park experience may still be needed. Guidance for the development of both visitor-use and operations facilities is needed to accommodate new recreational opportunities and at the same time protect park resources.

### **PARK ACCESS**

Public vehicle access into the park is limited to the Bane Canyon entrance. This entrance is accessed through a residential area. The location makes it difficult to access the park and causes off-site parking conflicts. Furthermore, the access into the park from this point is on a one-lane, steep, dirt road. This road cannot be upgraded to an acceptable condition because of the steepness of the grade and adjacent slopes.

The emergency vehicle access at Rim Crest Road (see Figure 2) is being used as a pedestrian access point and certain problems have developed because of it. There are no developed parking, restroom, or trash facilities at this location, and visitors are parking on residential streets. This situation points to the need for coordination with local jurisdictions in addressing access. Also, information on sensitive park resources indicates that some of the park's access points proposed in the original general plan may be inappropriate.

### **ACQUISITIONS**

Acquisition plans for the park have, among other things, emphasized the value of acquiring ridgelines to protect the viewsheds within the park. However, additional guidelines are needed to help Department staff evaluate the desirability of proposed land acquisitions at Chino Hills State Park.



Chino Hills State Park General Plan

**PLAN SECTION**



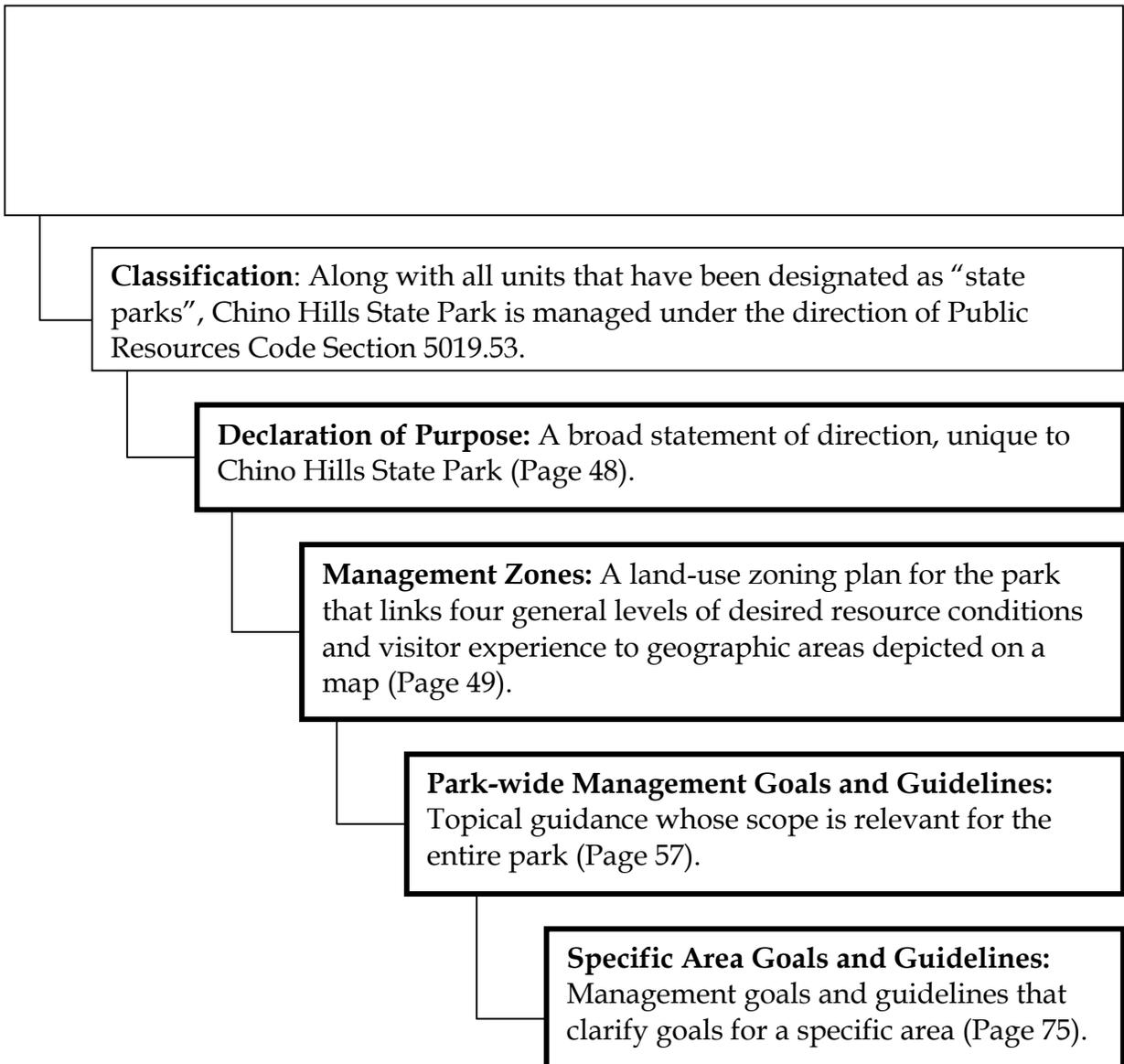
Riparian vegetation - Lower Aliso Canyon



## INTRODUCTION TO THE PLAN SECTION

The long-range vision for Chino Hills State Park is depicted in the *Plan Section*. The purpose here is to portray both the desired resource condition and visitor experience of the park and to provide goals and guidelines that will direct future management efforts toward achieving those desires. The *Plan Section* does not designate detailed facility improvements with specific sizes and capacities. Over the next 5, 15, or 30 years there will be different technologies, different recreational needs, and new opportunities that can not be foreseen with the writing of this document. In short, there will be many ways to achieve the desired conditions within the parameters provided by the *Plan Section's* goals and guidelines.

The following planning hierarchy provides direction for the future of Chino Hills State Park. Items in bold boxes were created as part of this general plan effort.



## DECLARATION OF PURPOSE

The Declaration of Purpose defines the purpose of the park and is the broadest statement of management goals. A declaration of purpose is required by the Public Resources Code, Section 5002.2 (b), “setting forth specific long-range management objectives for the park consistent with the park’s classification...” The Declaration of Purpose for Chino Hills State Park will be as follows:

### **Purpose**

The purpose of Chino Hills State Park is to preserve the natural, cultural, and scenic resources of the rolling hills, wooded canyons, and riparian forests that are representative of the early California landscape, and make them available for public enjoyment and education.

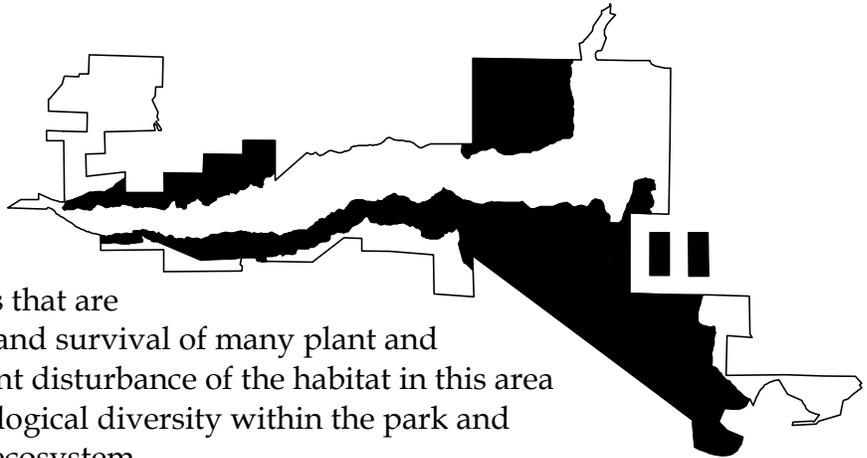
California State Parks will endeavor to preserve and restore native habitats in the park for their intrinsic natural values, to promote biological diversity, and to support the integrity of regional ecosystems. California State Parks will endeavor to protect the cultural and scenic resources, promote an understanding of the park’s unique features, and provide recreation opportunities in a manner consistent with the protection of natural and cultural values.

## MANAGEMENT ZONES

Management zones spatially define the management scheme for the unit (see Management Zones Map – Figure 6). The management zones for Chino Hills State Park are based primarily on the degree of natural, cultural, and aesthetic resource value and sensitivity. Secondly, they are based on recreational, visitor service, and management needs, and ecological and geographical parameters. Four management zones for Chino Hills State Park are presented below, along with goals and guidelines for visitor activities, resource management, and facility development within the management zones. The management zones are the Core Habitat Zone, Natural Open Space Zone, Historic Zone, and Recreation and Operations Zone. The Management Zone Matrix on Page 55 further defines the vision for these four management zones.

### CORE HABITAT ZONE

The Core Habitat Zone is the area of highest biological resource sensitivity in the park. The area includes very sensitive wildlife habitats that are crucial to the movement and survival of many plant and animal species. Significant disturbance of the habitat in this area could seriously affect biological diversity within the park and throughout the regional ecosystem.



### WATER CANYON NATURAL PRESERVE

Statutes for classification of units of the State Park System are contained in Article 1.7 of the Public Resources Code. Based on these statutes and an evaluation of the park's resources it is proposed that a portion of the Core Habitat Zone be sub-classified as the **Water Canyon Natural Preserve**, as described in Public Resources Code Section 5019.71. The natural preserve will incorporate the entire Water Canyon watershed as well as the entire upper Brush Canyon watershed. The boundary of the natural preserve is generally delineated by the watershed boundaries of Water and Brush Canyons up to the southern park boundary and existing park trails in Lower Aliso Canyon (see Figure 6).

The Water Canyon Natural Preserve contains the northern extension of the Coal Canyon biocorridor, thereby preserving habitat crucial to the movement of sensitive wildlife and providing an important connection to the park's interior. The natural preserve also contains large stands of coastal sage scrub habitat which is necessary for the success of the California gnatcatcher, as well as fine examples of California Walnut Woodland and Coast Live Oak Woodland.

The creation of the Water Canyon Natural Preserve within Chino Hills State Park will provide the highest level of protection for the sensitive resources found in the preserve and will protect wildlife movement within the park and throughout the region. This sub-classification is necessary to ensure that development, inappropriate land use, or improper management decisions do not adversely affect the resources contained within the natural preserve boundary.

The sub-classification of the area to a natural preserve will require some adaptation from current land uses and management for this area. Currently, this area is governed by the state park classification as stated in Public Resources Code, Section 5019.53. The change to a natural preserve status will amend the primary goal for the area from balancing resource protection with recreational opportunities, to resource protection taking precedence over recreational opportunities. The Public Resources Code, Section 5019.71 governs the intent, management, and use of natural preserves:

*PRC Section 5019.71: Natural Preserves consist of distinct areas of outstanding natural or scientific significance established within the boundaries of other state park system units. The purpose of natural preserves shall be to preserve such features as rare or endangered plant and animal species and their supporting ecosystems, representative examples of plant or animal communities existing in California prior to the impact of civilization, geological features illustrative of geological processes, significant fossil occurrences or geological features of cultural or economic interest, or topographic features illustrative of representative or unique biogeographical patterns. Areas set aside as natural preserves shall be of sufficient size to allow, where possible, the natural dynamics of ecological interaction to continue without interference, and to provide, in all cases, a practicable management unit. Habitat manipulation shall be permitted only in those areas found by scientific analysis to require manipulation to preserve the species or associations which constitute the basis for the establishment of the natural preserve.*

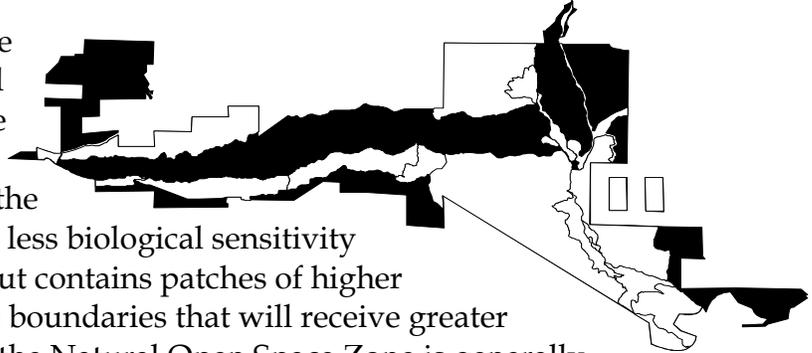
The Water Canyon Natural Preserve will be managed according to PRC, Section 5019.71, the *Management Zones Section* of this general plan, and applicable Departmental policies as outlined in *System-wide Planning* of this general plan. Furthermore, the natural preserve will be managed according to the *Resource Management Directives for the California Department of Parks and Recreation*, Section 1812.2, which states that:

*Boundaries of wildernesses and natural preserves will be established to give full protection to environmental and ecological integrity, from the standpoints of watershed influences, scenic and visual unity, cultural values, and other appropriate environmental factors.*

*Developments in natural preserves are limited to trails and interpretive facilities required to make possible the visual and sensory enjoyment of the resources by visitors. Vehicle access and parking are not appropriate; visitor centers, restrooms, structures, and facilities other than signs shall be placed outside natural preserves.*

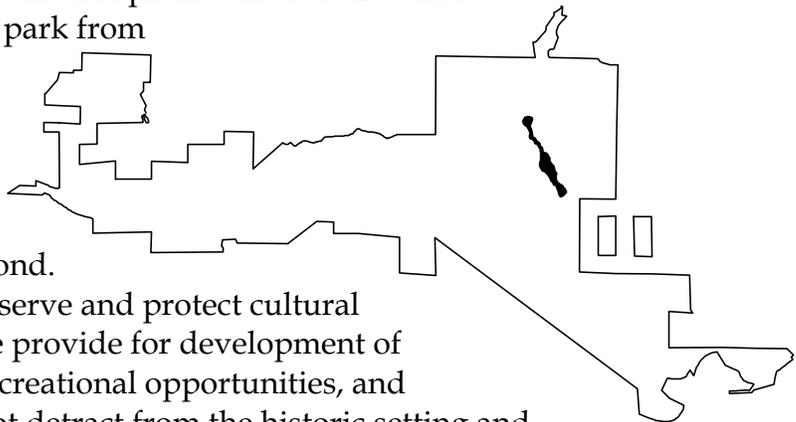
## NATURAL OPEN SPACE ZONE

The Natural Open Space Zone protects natural, cultural, and aesthetic resources, and at the same time allows for recreational opportunities at the park. The zone generally has less biological sensitivity than the Core Habitat Zone but contains patches of higher resource sensitivity within its boundaries that will receive greater protection. The boundary of the Natural Open Space Zone is generally delineated by roads and trails, the park boundary, and other management zone boundaries.



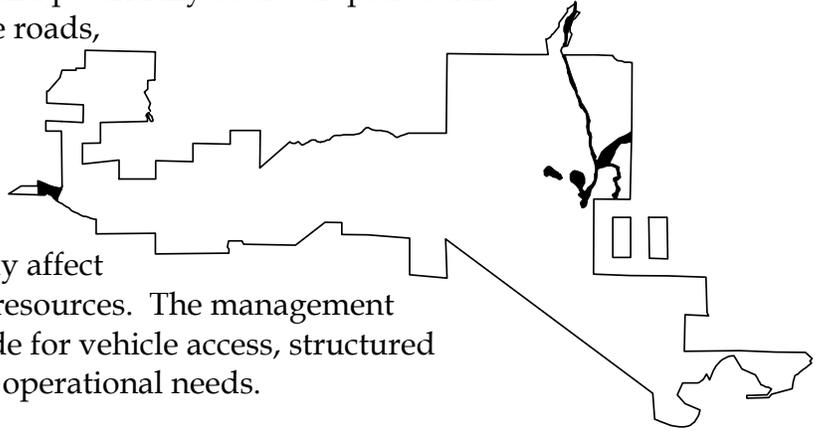
## HISTORIC ZONE

The Historic Zone protects historic and prehistoric features and cultural landscapes within the park from impacts that may compromise their integrity. The zone incorporates the Rolling M Ranch complex, the windmill area west of the campground, and Windmill Pond. The intent of the zone is to preserve and protect cultural resources and at the same time provide for development of appropriate visitor services, recreational opportunities, and operational facilities that do not detract from the historic setting and experience. The Historic Zone allows visitors to experience a landscape from a past era. Management efforts and land use decisions will be based on the preservation of this value. The Historic Zone boundary includes significant historic landscape features, important views from the Rolling M Ranch, and other cultural resources.



## RECREATION AND OPERATIONS ZONE

The Recreation and Operations Zone is designated where visitor services and operations facilities exist or could potentially be developed. Such facilities include public vehicle roads, maintenance structures, a visitor center, campgrounds, a campfire area, and employee housing. This zone is already developed or future development will not adversely affect significant natural or cultural resources. The management intent for this zone is to provide for vehicle access, structured recreation, visitor service, and operational needs.



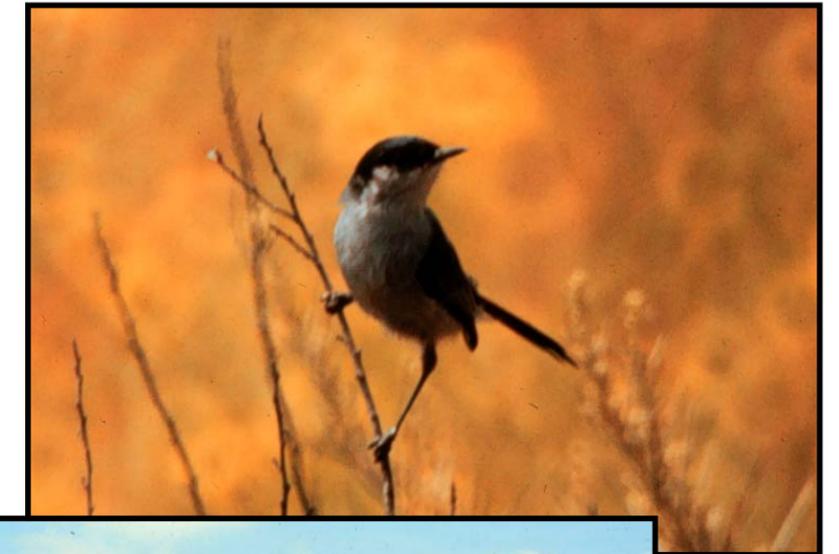
The boundary of the Recreation and Operations Zone is generally delineated by existing roads, and campground and staging areas. The zone incorporates the current entrance road up to the Historic Zone, a proposed entrance road through Slaughter Canyon, the road leading to and including the McLean Overlook, the area currently used for equestrian staging, an area west of the Rolling M Ranch, and the Lemon Grove Area. In the event of a developed park entrance road through Slaughter Canyon, the Bane Canyon entrance road will be included in the Natural Open Space Zone.



Cattails - lower Aliso Creek



California gnatcatcher (photo by D. Rossack)



Coastal sage scrub vegetation - Telegraph



Fence lizard

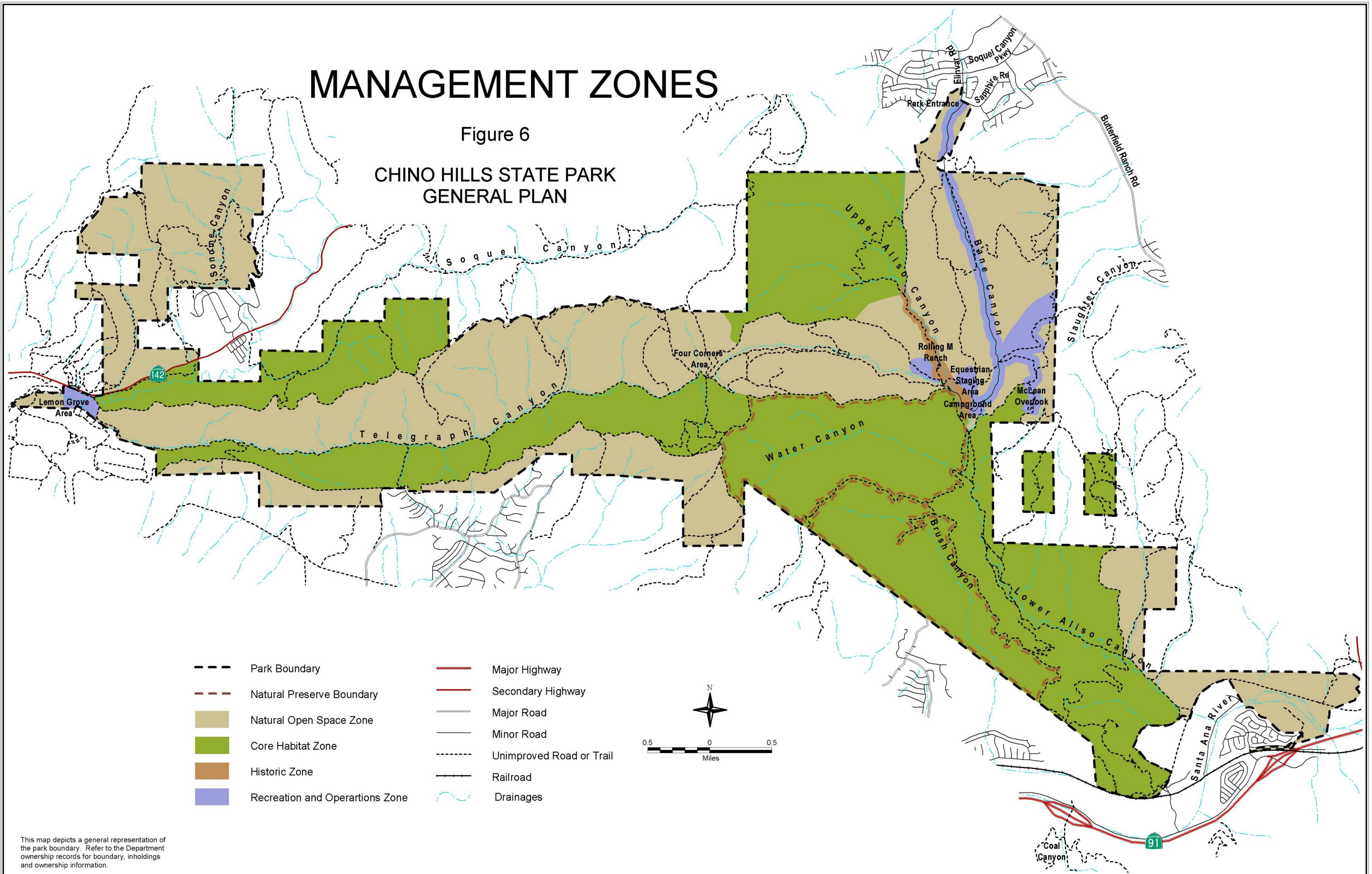


Birdwatching - upper Telegraph Canyon

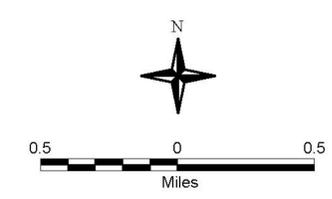
# MANAGEMENT ZONES

Figure 6

## CHINO HILLS STATE PARK GENERAL PLAN



- |   |                                |   |                          |
|---|--------------------------------|---|--------------------------|
|  | Park Boundary                  |  | Major Highway            |
|  | Natural Preserve Boundary      |  | Secondary Highway        |
|  | Natural Open Space Zone        |  | Major Road               |
|  | Core Habitat Zone              |  | Minor Road               |
|  | Historic Zone                  |  | Unimproved Road or Trail |
|  | Recreation and Operations Zone |  | Railroad                 |
|   |                                |  | Drainages                |



This map depicts a general representation of the park boundary. Refer to the Department ownership records for boundary, inholdings and ownership information.

Figure 7

# Management Zone Matrix

Figure 7

	<i>Core Habitat Zone</i>	<i>Natural Open Space Zone</i>	<i>Historic Zone</i>	<i>Recreation and Operations Zone</i>
<b>PRIMARY GOAL</b>	The primary goal of the Core Habitat Zone is to preserve and protect sensitive plant and animal species and their supporting habitats, as well as to protect the movement of plants and animals within the park and throughout the region. Resource protection will be the foremost consideration for all land use and management decisions.	The primary goal for the Natural Open Space Zone is to preserve and protect the resources and at the same time to provide for quality recreational opportunities.	The primary goal of the Historic Zone is to protect the cultural resources and at the same time to provide for quality recreational and educational experiences.	The primary goal of the Recreation and Operations Zone is to provide for vehicle access, structured recreation, visitor service, and operational needs.
<b>RESOURCE MANAGEMENT</b>	Visitor and management activities within the zone will have no significant adverse impact on resources. Patrol and utility company vehicles and motorized equipment use is permitted on designated park roads and trails.	Visitor use and management activities will not have more than minimal impacts on resources. Patrol and utility company vehicles and motorized equipment use is permitted on designated park roads and trails.	Visitor use and management activities will not have more than minimal impacts to natural and aesthetic resources, and will include only those that do not detract from the historical setting and experiences. Vehicles and motorized equipment will be allowed on designated park roads and trails and will be managed to minimize impacts. Protection of cultural sites will include preservation of the surrounding cultural and natural landscapes by the elimination and exclusion of modern intrusions that adversely affect the cultural landscapes.	Visitor use and management activities will be mitigated to reduce significant impacts to resources. Activities may include the movement of vehicles, and intense visitor use. Vehicles and motorized equipment will be allowed on designated park roads and trails.
<b>CARRYING CAPACITY</b>	Visitors will experience a sense of remoteness and calm. The sights and sounds of nature will be more prevalent than those of human use. The chance of encountering other people will be low, and there will be extensive opportunities to experience natural quiet and solitude. Encounters with others should be less than 2/hour during peak use periods. Human uses will not disrupt or compromise sensitive resources.	The social environment will be leisurely and uncrowded with occasional sights and sounds of people. During some seasons, days, and times of day, there will be a good chance of encountering other people or groups of people. Opportunities for natural quiet and solitude will be variable depending upon the park location and season, day, and time of day. Encounters with others should be less than 6/hour during peak-use periods.	The social environment will be active and communal. At times, the sights and sounds of human use and activities will be more prevalent than those of nature. There will be frequent encounters with vehicles, other people, and groups of people. The chance of interacting with others will be high.	The social environment is active and communal. At times, the sights and sounds of human use and activities are more prevalent than those of nature. There are frequent encounters with vehicles, other people, and groups of people. The chance of interacting with others will be high.
<b>TYPICAL VISITOR ACTIVITIES</b>	Acceptable uses of the Core Habitat Zone include approved scientific research that increases our knowledge of the resources and improves management strategies. Conducted and self-guided interpretive programs are acceptable in the Core Habitat Zone. Visitor activities will be confined to daylight hours only.	Conducted and self-guided interpretive programs are acceptable in the Natural Open Space Zone. Visitor activities will be confined to daylight hours only.	Acceptable activities include interpretational and educational programs, exhibits, and historic structure museums. Opportunities for other interpretive programs and appropriate visitor services also exist. Overnight use is limited to educational and environmental living programs.	Acceptable activities include vehicle circulation, interpretation, camping, picnicking, and other forms of recreation suitable in the park. Overnight uses will be permitted only in specific areas designated for such use.
<b>PUBLIC ACCESS</b>	Public access through the zone includes hiking, biking, and horseback riding. Bikers and horseback riders are restricted to designated trails only.	Public access through the zone includes hiking, biking, and horseback riding. Bikers and horseback riders are restricted to designated trails only.	Public access through the zone includes hiking, biking, horseback riding, and driving (highway legal vehicles). Bikers and horseback riders are restricted to roads and designated trails only.	Public access through the zone includes hiking, biking, and horseback riding on designated trails and driving (highway legal vehicles). Bikers and horseback riders are restricted to roads and designated trails only.
<b>RANGE OF APPROPRIATE FACILITIES</b>	Multiple-use trails, trailhead features, and trailside rest stops are appropriate.	Multiple-use trails, trailhead features, trailside rest stops, and day-use parking along boundary (see <i>Park Access Points</i> , Page 70) are appropriate.	Only those facilities that support the visitor's use, understanding, and appreciation of the historical landscape and that are visually compatible with the historical scenery are appropriate.	Any visitor service and support facilities that are consistent with Parkwide and Specific Area Goals and Guidelines are appropriate. These could include but are not limited to: <ul style="list-style-type: none"> <li>- Overnight Accommodations (camping, lodging)</li> <li>- Concession Facilities</li> <li>- Park Operations Buildings</li> <li>- Restrooms</li> <li>- Roads and Trails</li> </ul>



## PARKWIDE MANAGEMENT GOALS AND GUIDELINES

This section presents the broad goals and guidelines developed for managing park-wide resources, interpretation, visitor uses, and development. It addresses related planning issues that are not tied to a specific geographic area of the park.

### RESOURCE MANAGEMENT AND PROTECTION

#### NATURAL RESOURCES

##### Biocorridors

Protecting biocorridors and facilitating the movement of animals and dispersal of plant seed within Chino Hills State Park, and between the park and other wildland areas, is imperative to maintain ecosystem health and support regional conservation.

**Goal:** Maintain and enhance the movement of native animals through the park and regional ecosystem. Visitors will gain an understanding of the importance of biocorridors and management efforts at the park aimed at supporting wildlife movement in the region.



Mountain Lion  
(Photo by Mountain Lion Foundation)

##### Guidelines:

- Biocorridors within Chino Hills State Park that interconnect the park and its core habitat areas to other protected lands are of the highest priority for protection.
- The collection of baseline information and the monitoring of the health and function of core areas and biocorridors are high management priorities for the park. An emphasis should be placed on measuring the effects of human uses on the integrity of the system.
- Biocorridors will be recognized when there is enough information to indicate the necessity or importance of these connections to the movement of wildlife between Chino Hills State Park and other wildland areas. The adequacy and effectiveness of these habitat linkages will be monitored by tracking and documenting the presence, distribution, movement, and habitat associations of the representative species using them.

- The Department will actively work with local jurisdictions, transportation agencies, and regulatory agencies in the planning of future transportation projects. The Department will discourage the fragmentation and isolation of habitat by such projects and ensure that adequate mitigation measures are incorporated into all road improvement and construction projects. The Department will advocate measures that consider known information on wildlife use of biocorridors, principles of conservation biology, and other professionally accepted design criteria. An emphasis should be placed on the maintenance of habitat linkages and construction of under-crossings and bridges that allow full wildlife movement between the affected areas.
- The Department will support and work towards the preservation, protection, and enhancement of the lands that make up the Coal Canyon, Sonome and Tonner Canyons, and Prado Basin biocorridors. Efforts will be directed towards enhancing wildlife habitat linkages so as to accommodate as many different native species as possible. Enhancement tools may include:
  - restoring or expanding native habitat to facilitate wildlife movement.
  - installing fencing to direct wildlife into underpasses or culverts and away from roads and freeways;
  - limiting vehicular use of underpasses to daytime use by land management agencies and emergency vehicles only;
  - widening of underpasses;
  - removing lighting in underpasses to make crossing more conducive to wildlife;
  - removing all or some of the pavement in underpasses;
  - reducing noise impacts by erecting structures to block freeway noise

## Buffers

Land uses outside park boundaries can cause significant impacts on parklands. Possible impacts include exotic plant infestations, chemical pollution, predation and competition from domestic pets, wildfire, artificial light and noise, and loss of foraging or nesting habitat. Buffers, such as dedicated open space and agricultural lands, are low-intensive-use areas between the park's boundary and adjacent developments that help to separate conflicting land uses and protect natural habitats from destructive impacts.

**Goal:** Establish, maintain, and protect buffers adjacent to Chino Hills State Park.

Guidelines:

- The Department will work with adjacent landowners, neighbors, and local jurisdictions to provide for necessary buffers adjacent to park boundaries.
- The Department will assist local jurisdictions in the development of plant palettes for proposed projects in the vicinity of the park.

## Vegetation Management

Past management practices, including livestock grazing and fire suppression, changed the ecological conditions under which native plant communities flourished at Chino Hills State Park. Current conditions favor the existence and continued domination of non-native annual grasses and forbs over much of the park, effectively eliminating native perennial bunch grasses. Changes such as these alter the ecological dynamics of the system and reduce wildlife values.

**Goal:** Restore and protect the native vegetation within Chino Hills State Park through active resource management programs. Planning and conservation efforts will address unique or important plant and wildlife resources at the community level and provide for their continued health and protection.

### Guidelines:

- Vegetation management will be directed toward reestablishing the natural ecological processes that are essential for the development of native plant communities, expansion of these native communities, and the removal or reduction of exotic plant taxa. These objectives will be met through various studies, updates to the park's Unit Data File, and the preparation of comprehensive management plans.
- Management actions will minimize and, where possible, prohibit activities that further the spread of non-native plants.

### Native Plant Communities

Chino Hills State Park supports a number of important native plant communities such as the California Walnut Series, California Buckwheat Series, Coast Prickly Pear Series, Arroyo Willow Series, Fremont Cottonwood Series, California Sycamore Series, and the Purple Needlegrass Series. These plant communities are essential habitat for both rare and locally important wildlife species and communities.

### Guidelines:

- The Department will actively work to restore native plant communities and the natural processes that ensure their perpetuation.
- All seedlings and saplings used in habitat restoration projects will originate from seed collected from native plant taxa within park boundaries or from a

nearby area, with the exception of plants used for historic restoration within the Historic Zone. Only non-native plant taxa that are considered to be non-invasive are allowed within the Historic Zone.

### **Sensitive Plant Populations**

The park offers open space that is vitally important to the continuation of several sensitive plant taxa occurring within or adjacent to Chino Hills State Park.

#### Guideline:

- All current, professionally recognized lists will be used to determine sensitivity. Current lists include state taxa of special concern; the California Native Plant Society's (CNPS) Lists 1A, 1B, 3, and 4; taxa of local concern (including endemic species); and taxa that are State or Federally listed or are candidates for listing. The Department will protect all sensitive plant taxa to the degree necessary to maintain or increase populations.

### **Wildlife Management**

The protection and perpetuation of native wildlife populations will be accomplished, in part, through restoration and enhancement of native plant communities, removal of exotic plant taxa, and perpetuation of aquatic habitats.

**Goal:** Protect, perpetuate, and restore native wildlife populations and native aquatic species at Chino Hills State Park.

#### Guidelines:

- All sensitive wildlife species and their habitats will be protected. Include all taxa that are locally important (including endemic species), whether or not they appear on any endangerment list, as well as those protected by Federal and/or State law. Management and protection of sensitive species is dependent upon adequate maps and other data regarding species presence within, movement through, and uses of the park.
- Avoid ecological imbalances resulting from human-caused activities. If it is necessary to regulate animal populations, use methods based on sound principles of ecosystem management and consistent with Department Resource Management Directives. Avoid disturbance to other natural values of the park.
- The Department will work with surrounding property owners and jurisdictions to reduce numbers of non-native animals such as feral cats, starlings, and cowbirds that enter the park. This can be most effectively accomplished by developing a program to monitor and control non-native pests.



- Regular monitoring of medium and large mammals is necessary to gauge the effectiveness of biocorridors and to identify declines or increases in wildlife populations.
- Re-introduction of extirpated species will be appropriate only if historical documentation exists to confirm the presence of the species of interest within the Chino Hills at some time in the past and if suitable habitat exists to support its survival. Re-introduction of a species will be conducted using sound ecological methods and will not negatively affect populations of other native species. Animals to be re-introduced will come from a nearby area.
- Specific management programs using sound ecological principles and professionally accepted methods are necessary to protect and restore sensitive animal populations and their habitats.

## Wildfire Management

Wildfire is a threat to structures and human safety in the dry hills of southern California. The prescribed use of fire can simulate a more natural fire regime for the Chino Hills and reduce the risk of catastrophic fires. In addition, controlled fires provide the added benefit of enhancing conditions for the expansion of native plant communities. However, extremely dry and windy conditions along with a high incidence of human-caused ignition dictates that wildfires will continue to occur in these hills. It is, therefore, prudent to plan for such an emergency.

Planning for wildland fires can considerably reduce damage to natural and cultural resources, particularly that caused by the activities of fire suppression. For example, adverse impacts can be caused by the hasty bulldozer construction of fire-control lines. These lines have the potential to remove roots and upper organic soil horizons, thereby increasing erosion and slowing the re-establishment of vegetation. Damage to resources can also occur from improper applications of chemical fire retardant that affect aquatic systems.

**Goal:** Plan for the occurrence of wildfires in order to preserve sensitive park resources and protect human lives and structures.

### Guideline:

- The Department will work with appropriate agencies such as the California Department of Forestry and Fire Protection, county and city fire Departments, and Metropolitan Water District of Southern California to develop and implement a wildfire management plan for Chino Hills State Park. This plan will address all aspects of wildfire planning, including prevention, pre-suppression, and suppression. The plan will identify modified fire suppression methods and ways to protect sensitive park resources.

## Prescribed Fires

Since the early 1900s, fire suppression practices have effectively reduced the occurrence of wildfires in southern California. Over time, fire plays an important role in the development of native plant communities. The near-elimination of wildfires has stressed the ecological balance, thereby allowing non-native plant pest species to establish and, in some cases, dominate the landscape. Fire suppression also results in the increased build-up of dry fuels, which can then lead to large-scale, catastrophic fires.

**Goal:** Restore the role of fire in the natural ecological processes of Chino Hills State Park.

## PALEONTOLOGICAL RESOURCES

The presence of a Miocene-age marine geologic formation within Chino Hills State Park, which is known to yield abundant fossils in adjacent land, suggests that important fossil resources may exist within park boundaries.

**Goal:** Document and protect paleontological resources that are found within the park.

### Guideline:

- As fossil remains are discovered during the course of a survey or if new resources are uncovered, professional measures will be taken to protect the resources found at the site.

## CULTURAL RESOURCES

### Archaeological Sites (Prehistoric and Historic)

Chino Hills State Park includes significant archaeological resources. Prehistoric sites located in Chino Hills State Park indicate that the area was used for hunting and gathering by Indians of the Santa Ana River Basin. Several historic archaeological sites are also found within the park and reflect examples of historic land use of the area.

**Goal:** Protect the archaeological resources at Chino Hills State Park.

### Guidelines:

Management guidelines for protecting archaeological resources can be found in the *Visitor Use and Development Section* (see Page 68).

## Historic Resources (Structures, Sites, and Landscapes)

Chino Hills State Park includes a number of locally significant historic resources, including buildings and structures, features, and cultural landscapes. Windmills, water troughs, tanks, and water piping are scattered throughout the park. These features are visible reminders of the ranching landscape and reflect historic land uses over the past two hundred years. The semi-rural landscape, a remnant of nineteenth and early twentieth century southern California, is rapidly being eliminated by urbanization. The non-renewable historic resources of Chino Hills State Park, in juxtaposition with its significant natural resources, offers a revealing view of past cultural patterns to future generations.

**Goal:** Protect the significant historic sites at Chino Hills State Park.

**Guidelines:**

- All historic resources identified within the Historic Zone (i.e. structures, sites, and landscapes) will be preserved and protected through implementation of applicable Department policies and the application of professional standards.
- Recognized historic resources or sites outside of the Historic Zone should be removed based on the determination that they create physical or visual impacts to natural resources. Of those chosen for removal, the ones with historic integrity and interpretive value should be considered for relocation to the Historic Zone or another interpretive facility.



Windmill near Rolling M Ranch

**Historic Ranching Landscape**

The most historically significant land use associated with the lands of Chino Hills State Park is that of cattle ranching. From the early days of the Spanish missionaries and their Native American neophyte workforce, through Mexican Californio vaqueros and American ranchers and settlers, the grazing of stock represents one of the most profound human impacts upon the land.

**Goal:** Preserve and interpret the historic ranching landscape within the Historic Zone for the education and enjoyment of park visitors.

**Guidelines:**

- Preservation treatments will be based on primary research to identify historic fabric of features.
- Ranch buildings and structures can be utilized for appropriate operational and interpretive functions.

### **Oil Industry and Mining Sites**

The park contains several sites associated with the history of the local oil industry and small-scale mining efforts.

**Goal:** Allow oil and mining sites to remain in place.

Guideline:

- Oil and mining sites will be passively managed with onsite interpretation, restoration, or reconstruction discouraged.

### **Historic Roads and Trails**

Portions of several historic roads and trails, some dating to the nineteenth century, are located within the boundaries of the park. Many are currently in use as transportation and circulation routes for park visitors, utility companies, and staff.

**Goal:** Preserve historic roads and trails and at the same time provide for visitor, Department, and utility company use.

### **Historic Electrical Towers and Utility Lines**

The first electrical towers to be erected on the parkland were completed in the late 1930s. A few of these historic towers still exist within the park. Additionally, many more modern towers and utility lines also exist within the park. Efforts are being made to remove the modern towers because they adversely affect both the natural and cultural landscapes of the park. Historic towers are not considered to be individually eligible historic resources, however, they may be compatible with the historic ranching landscape of the park.

**Goal:** Preserve the historic electrical towers within the Historic Zone that are considered to be contributing elements of the historic landscape.

Guideline:

- Placing electrical lines underground is preferred. However, historic towers may be considered for use within the Historic Zone when evaluating options for powering park facilities.

## AESTHETIC RESOURCES

Visitors to Chino Hills State Park enjoy many aesthetic qualities inherent to the park's natural conditions. Some of these include open space, sounds of nature, and scenic views. Impacts to aesthetic qualities are, at times, created by developments, activities, or land uses, within or outside the park, that are incompatible with these qualities.

**Goal:** Protect scenic features from man-made intrusions and preserve the visitor's experience of the natural landscape by minimizing adverse impacts to aesthetic resources.

### Guidelines:

- Unnecessary structures such as interior fences and signs will be removed. The Department will work with utility companies to remove electric lines that are no longer used and are not considered historic resources.
- The Department will work to reduce the negative impacts of utility easements in the park. All utility companies will be encouraged to reduce the impacts by consolidating easements into fewer or smaller corridors, or by placing the equipment underground. The Department will work with utility companies to remove unnecessary utility roads and reduce road widths, and will discourage any new easements within the park unless mitigated to benefit park resources.
- Ridgeline and knoll developments outside the park that adversely affect significant views will be discouraged. The Department will work with park neighbors and local government to review and plan adjacent developments in a manner that protects views.
- Tranquility and the sounds associated with the park's natural resources will be preserved. Unnatural sounds that adversely affect park resources, values, or visitors' enjoyment will be prevented or minimized.
- The Department will cooperate with park neighbors and local government agencies to minimize the intrusion of artificial light into the night scene, recognizing that darkness and the night sky play significant roles in the overall visitor experience. Artificial outdoor lighting within the park will be limited to basic safety requirements and shielded when and where possible.

## INTERPRETATION

Interpretation is based on the premise that knowledge deepens the park experience and provides lasting benefits not only to individuals but also to society in general. Interpretive themes define the point of view given to the park's natural, cultural, aesthetic, and recreational resources.

**Goal:** Expand the visitor's awareness, understanding, and appreciation of the park's resources. The unifying theme explores how Chino Hills State Park is part of southern California's natural and cultural heritage.

The following primary and secondary themes will support the unifying theme:

Primary Theme: Chino Hills State Park is a remnant of California's past natural and cultural landscapes.

Secondary Theme: Native plants and animals find refuge in the fragile natural environment of Chino Hills State Park.

Secondary Theme: The connection of Chino Hills State Park to other wildland areas is crucial to the survival of plants and animals throughout the region.

Secondary Theme: Chino Hills State Park is a landscape reflective of its prehistoric and historic inhabitants and their cultures.

Secondary Theme: Fossil remains and petroleum deposits in Chino Hills State Park tell the secret of how natural forces shaped the land.

Secondary Theme: Showing respect for the environment and other visitors while recreating at Chino Hills State Park will ensure safety for the park and people.

## COLLECTIONS

The Department acquires and maintains collections for several reasons. First, to preserve elements of the natural and cultural environment original to the park; second, to document the people, events, and cultural or natural features that are central to the park's purpose; and third, to support the interpretation of themes that are important to the park.

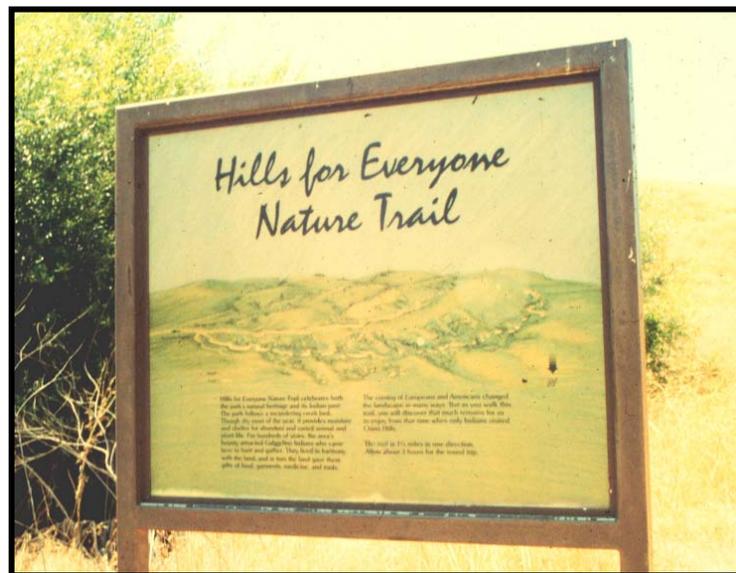
**Goal:** Provide for the collection of natural and cultural artifacts original to Chino Hills State Park which support the Declaration of Purpose and Department mission.

The following Scope of Collections Statement for Chino Hills State Park states the management objectives and provides guidance for the type of park collections.

### Scope of Collections Statement

Natural and cultural material and object collections at Chino Hills State Park will have a specific connection to the natural and cultural history of the park, or provide support for interpretive themes and programs. Archaeological and paleontological materials, natural history specimens of park flora and fauna, and objects like historic furnishings, equipment, or personal items associated with the park are all potential collection items at Chino Hills State Park. Historic object collections will include those of the ranching period up to the year 1950.

- Acquisitions of ranching era artifacts and props will have a local historical association to the Rolling M Ranch, or other ranching activities within or near Chino Hills State Park.
- Natural history specimens of rare species will not be collected. Only lawfully salvaged specimens will be maintained in collections.
- The Department will establish safe and secure spaces for storage and display of park collections, and systems for inventory and management. Policies as outlined in the Department Operations Manual (DOM) Chapter 20 will be followed.



Hills For Everyone Nature Trail interpretive sign

## VISITOR USE AND DEVELOPMENT

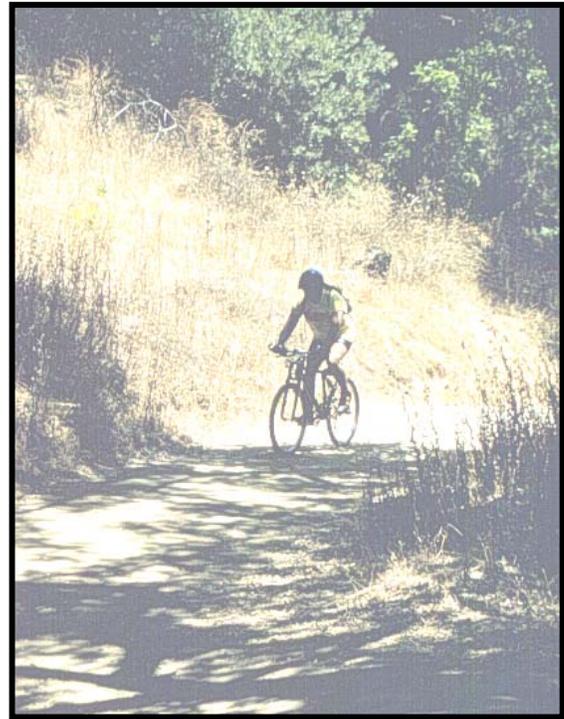
### RECREATIONAL USES

Chino Hills State Park is a place where visitors can appreciate undeveloped scenic open spaces; enjoy diverse, abundant wildlife and vegetation; and recreate on a regionally significant trail system.

**Goal:** Provide for appropriate visitor uses of the park and at the same time protect resources.

**Guideline:**

- Recreational uses will satisfy both user needs and resource protection requirements, and for the most part be compatible with other visitor experiences. Recreational uses will generally occur where manageable with existing park staff or volunteers and where there is adequate, safe access to the recreation activity areas.



Mountain biker in Telegraph Canyon

### DEVELOPMENT

Chino Hills State Park offers public facilities for visitor use and education, as well as maintenance and operational facilities for park management.

**Goal:** Provide essential visitor services and operations facilities to enhance the visitor's experience and at the same time maintain the park's natural, cultural, and aesthetic values.

The following guidelines for development pertain to all built and maintained facilities for public and park use, including such facilities as roads, trails, campgrounds, picnic areas, utilities, and buildings.

### Natural Resources

- Resource protection and management will take priority in decisions regarding development and use. Development will not adversely affect park resources, including natural, cultural, and scenic resources. Development will be located a sufficient distance away from sensitive habitat areas, such as riparian zones,



wildlife corridors, or where sensitive species are known to occur. Design of public-use facilities will protect resources by preventing inadvertent damage by users. The location and type of facilities and visitor uses will be consistent with the protection of biological exchange (biocorridors) and the maintenance of core habitat areas.

- Programs, projects, and developments within the park will be designed so that sensitive animal populations, aquatic systems, and native plant communities are protected. When disturbance is unavoidable, efforts will be made to minimize and mitigate disturbance.

## Cultural Resources

- Cultural resource surveys will be completed at proposed development sites prior to any facility development. Additional archaeological investigations, such as archival research, detailed site mapping, and subsurface testing will occur at any project or undertaking that would disturb a known or potential cultural site. Project design modifications and/or monitoring can further serve to minimize or prevent disturbance of significant archaeological resources.

## Aesthetics

- The design and placement of facilities will be aesthetically pleasing and blend with the natural environment. Development will not compete with nor dominate park features. Visitor services will be provided, however, the number of buildings will be minimized and their visual impacts reduced.
- Structures will be placed away from prominent locations, such as ridgelines, and screened and blended into the natural terrain with native vegetation, strategic siting, appropriate grading, and natural-appearing materials. The general appearance and design details of new structures will be compatible with a ranch style.
- Manufactured slopes will be graded and planted so as to blend into natural, adjoining slopes. Utilities will be placed underground where feasible, and erosion control will be used for all projects that involve grading.

## Roads and Trails

- The Department will study the feasibility of realigning existing roads to avoid sensitive habitat when and where possible, with an emphasis on riparian areas. The benefits of reducing the current adverse effects on sensitive habitat by realigning roads will be balanced against the possible adverse effects of new road construction on alternative alignments.

- Road maintenance standards will be developed and implemented in cooperation with utility companies. These standards will be designed to maintain natural drainage patterns, reduce erosion and stream siltation, and minimize road widths and impacts to aquatic habitats.
- When road or trail conditions are such that further use is either unsafe or would result in significant impacts to natural or cultural resources, the affected routes will be closed until appropriate repairs are made or conditions change.
- The Department will seek the input and cooperation of local jurisdictions, park neighbors, and significant user groups to develop and implement a trails management plan. This plan will address pedestrian access points, trailhead parking facilities, the trail system and connections to regional trails, trail maintenance, and appropriate recreational uses of trails.

## PARK ACCESS POINTS

Access points that are properly placed enable visitors to reach all primary-use areas of the park and access facilities such as trails, campgrounds, and visitor centers with minimal impacts on park resources.

### Vehicle Access

A vehicle access point currently exists at the Bane Canyon entrance. Using this road, park visitors can reach the Rolling M Ranch, a focal point of the park that provides structured recreation and houses park operations. A better and more reliable vehicle access point in Slaughter Canyon may be considered in the future. A second access point identified at Carbon Canyon could be improved for trailhead parking.

**Goal:** Provide safe, reliable vehicle access points for park visitors to enter the park and travel to the primary park destinations.

#### Guidelines:

- The main park access road will clearly orient and safely guide the visitor from the park entry to the primary park destinations. The road design will reduce vehicle speed and minimize impacts on park resources. The road alignment should allow, if possible, a scenic and panoramic view of the park, complement the land's natural contours, and minimize any visual impacts. Park access roads will fall within the Recreation and Operations Zone (see Figure 6).
- If additional accessibility is needed, trailhead parking will be developed adjacent to the park boundary within the zone designated as Natural Open Space as long as such development is consistent with the protection of park resources.

## Pedestrian Access

Trailhead parking should be developed in appropriate locations to provide access to park facilities. On the other hand, when development occurs adjacent to the park, coordination and advance planning should avoid the creation of de facto trailheads that cause damage to park resources.

**Goal:** Create appropriate pedestrian access points to meet the needs of both the park and the local jurisdictions that are contiguous to the park boundary.

### Guidelines:

- The Department will seek the input and cooperation of local jurisdictions to develop appropriate pedestrian access points and trailhead parking facilities, and in developing solutions to localized parking concerns.

The following criteria will be used to determine appropriate pedestrian access point locations. Designated access points should generally:

- Provide access to trails that offer scenic and panoramic views of the park
- Accommodate multiple trail uses (hikers, bikers, equestrians)
- Avoid adverse impacts to sensitive resources and important resource values (gnatcatchers, coastal sage scrub, raptor nests, archaeological sites, etc.)
- Be manageable with available park staff and reasonably accessible to park patrol and emergency vehicles
- Require minimum grading
- Have minimal affect on significant viewsheds and aesthetic resources
- Be in close proximity to trail loops and connectors
- Include parking that is limited in size to ensure that visitor use is within the park's carrying capacities (see Management Zone Matrix, Figure 7)
- Be spaced so that resources and visitor experiences are not adversely affected by overuse of an area
- Provide a connection to local or regional trail systems outside the park boundary to the extent feasible and appropriate. Efforts will be made to integrate the park's trail system with regional and local trail systems where feasible. These pedestrian access point criteria, where applicable, will be used in determining linkages to other trail systems.

## ACQUISITIONS

Past land acquisitions have emphasized the inclusion of ridgelines, watersheds, and buffer areas. This practice helped to maintain views and protect resources as the park was formed and as new parcels were added.

**Goal:** Protect and enhance park resources and improve visitor's enjoyment and education in the park through appropriate land acquisitions.

When evaluating the desirability of proposed land acquisitions at the park, the Department will consider the following guidelines:

- The Department will evaluate each proposal of land dedication and accept only those dedications that are in keeping with the purposes of Chino Hills State Park. Land acquisitions will support the park's resource management goals by enhancing watershed protection and adding significant or unique resources, habitats, or features to the park. They will create buffer areas (areas between developments and park resources) and include ridgelines whenever possible, increase the size and improve the effectiveness of biocorridors, and establish park facilities outside of sensitive resource areas. Land acquisitions may also add to the park's recreational opportunities and establish links to regional trail systems.
- The Department must exercise caution when considering land adjacent to developed areas. Difficulties arise from illegal-refuse dumping, illegal off-highway vehicle activity, the spread of exotic plant species onto parkland, and wildlife predation and harassment by domestic animals.
- The Department will actively work towards acquisition of properties that contribute to biocorridors ensuring that key linkages will be preserved.
- In order to accomplish mutual goals such as resource protection, biocorridor enhancement, and providing recreational opportunities, partnerships with local and regional jurisdictions as well as state and federal agencies will be encouraged.

## CONCESSIONS

Concession operations in Chino Hills State Park are governed in part by Public Resources Code, Section 5080.02, by State Park and Recreation Commission policies, and the Department Operations Manual (DOM).

**Goal:** Concession operations will provide visitor services that enhance recreational and educational experiences at the park and at the same time will protect natural, cultural, and aesthetic resources.

Guideline:

- Concession operations will be consistent with the park's purpose and classification, and in conformance with the park's general plan. No concessions will be permitted in the Core Habitat Zone. Concessions will be compatible

with the historic settings and the visitors' experiences of the Historic Zone. Concessions will not typically compete against similar private concessions that are within a reasonable distance to the park. Examples of possible concessions may include, but are not limited to, an equestrian center, bicycle rentals, and camp store.



Corrals in campground area



## SPECIFIC-AREA GOALS AND GUIDELINES

This section defines the management goals and guidelines that are more specific to individual areas in Chino Hills State Park and will clarify the application of broader park-wide goals and guidelines.

### LEMON GROVE AREA

The Lemon Grove Area is a part of the Recreation and Operations Zone, and is located in Carbon Canyon on the far-western end of the park (see Figure 6). This trailhead area can be reached from Carbon Canyon Road by entering through Carbon Canyon Regional Park (County of Orange) and provides the only access from the western side of the park. Visitors can reach the park's interior by traveling through Telegraph Canyon. The area contains significant riparian habitat as well as approximately 40 acres of trees that represent the only extant remnant of the historically significant citrus industry that once surrounded the park.

**Goal:** Management efforts will support the use of the Lemon Grove Area for park access, habitat restoration, and interpretation of the historic citrus industry that once surrounded the park.

### LIVESTOCK PONDS

Of the six livestock ponds that were constructed in the park during the ranching era, four are still present. Three of these ponds offer year-round water for wildlife and suitable conditions for the establishment of aquatic plants including emergent wetland vegetation. The increase in wildlife habitat and diversity that the McDermott Spring, Windmill, and Panorama ponds provide justifies maintaining them. In addition to its wildlife value, Windmill Pond is located within the Historic Zone and is a contributing element to the historic ranching landscape.

**Goal:** Preserve the Windmill Pond for both its natural and cultural value. Preserve McDermott Spring and Panorama Ponds for their natural habitat values. Visitors will learn about historic uses of the ponds as well as present-day management activities associated with the preservation of sensitive plants and animals.

**Guideline:**

- Appropriate efforts will be made to maintain the earthen dams and to conserve and enhance native vegetation around the ponds. Other ponds in the park will be evaluated for their contribution to habitat enhancement and historic significance. If it is determined that they will be removed, the streambed will be restored to natural contours and native vegetation will be re-established.

## SANTA ANA RIVER

The Santa Ana River passes through the park in the southeast corner. It drains a large watershed area of southern California and passes through the cities of San Bernardino, Riverside, Corona, and other communities before entering Chino Hills State Park. Treated sewage effluent as well as non-point source pollution is discharged into the river by many of these communities, resulting in river pollution. Poor water quality seriously threatens aquatic resources, including the native fishes and the wildlife species that feed upon them.

As of 1998, the invasive, non-native plant giant cane (*Arundo donax*) in the Santa Ana River portion of the park was manageable. However, efforts will be necessary to limit and eradicate this invasive species from park property.

**Goal:** Protect and enhance natural resources in the Santa Ana River and adjacent habitat.

### Guidelines:

- The Department will work with state and regional water quality control entities and other appropriate agencies to seek solutions to the water quality problems in the section of Santa Ana River that passes through Chino Hills State Park.
- The Department will work with local jurisdictions regarding land use and resource management decisions that may affect the Santa Ana River. (See *Planning Influences*, Page 37)
- The Department will work to eradicate invasive species such as the giant cane (*Arundo donax*) from its property along the Santa Ana River.



## ISSUE RESOLUTION

There are a number of issues and planning efforts that require attention beyond the scope of this general plan. Funding and staffing limitations restrict what issues and studies the Department is able to immediately address and require that the Department set priorities. Many goals and guidelines of the *Plan Section* (Page 47) provide direction for each issue. Some of these goals and guidelines recommend future planning efforts such as management plans and studies. The following lists are not intended to be a restriction to working on other issues or lower priority issues or planning efforts.

The general plan recommends that the following issues be resolved:

- **Biocorridors and Core Habitat Areas** – Protect and enhance the park’s wildlife habitat linkages with nearby wildlife habitat areas through coordination with local, state, and federal agencies, and acquisition and restoration projects.
- **Park Access Points** – Resolve main park road and boundary access problems through detailed site planning, coordination with local agencies, and facility implementation. Solutions to access problems may require additional property acquisitions.
- **Appropriate Recreational Uses** – Provide quality recreational activities and public-use facilities without compromising resource integrity.

**Note:** Interpretation plays a significant role in the resolution of these general plan issues. The general plan recommends that educational programs, interpretive planning, design, and facility implementation be accomplished with the resolution of the above issues.

The general plan recommends that the following planning efforts and studies be undertaken. See the referenced page number for a complete description of the guideline:

- Collection of information and monitoring of the health and function of core areas and biocorridors (Page 57)
- Management plans, studies, and updates to the park’s Unit Data File as necessary to meet vegetation management guidelines (Page 59)
- Collection of information regarding sensitive species presence within, movement through, and uses of the park (Page 60)
- Management programs to monitor and control non-native pests (Page 60)

- Regular monitoring of medium and large mammals necessary to gauge the effectiveness of biocorridors and to identify declines or increases in wildlife populations (Page 61)
- Management programs to protect and restore sensitive animal populations and their habitats (Page 61)
- Wildfire management plan (Page 61)
- Trail management plan (Page 70)



Looking southwest toward lower Aliso Canyon

Chino Hills State Park General Plan

# ENVIRONMENTAL ANALYSIS SECTION



Coast Horned Lizard (photo by Gordon Ruser)



## INTRODUCTION

The California Department of Parks and Recreation is the lead agency responsible for the preparation of environmental review documentation for the proposed Chino Hills State Park General Plan, in compliance with the California Environmental Quality Act (CEQA) (PRC §§21000 et. seq.) and the CEQA Guidelines (CCR §§15000 et. seq.). This Environmental Analysis Section and other sections of this document, incorporated by reference, constitute the Environmental Impact Report (EIR) in fulfillment of CEQA requirements (CCR §§15166, 15120[b]), and reflect the independent judgement of the Department. It should be recognized that the level of detail addressed by this EIR is commensurate with the level of detail provided in the land-use proposals of the general plan. As subsequent management plans and site-specific projects are proposed they will be subject to further environmental review, and appropriate environmental documents will be prepared with specific mitigation measures, as necessary.

The proposed Chino Hills State Park General Plan intends to reduce the potential for significant environmental impacts allowed in the original general plan (approved in 1986). It also includes modifications to the declaration of purpose for the park, changes in land-use designations and management goals to reflect the new statement of purpose, and the incorporation of new guidelines for the protection of resources, future acquisitions, and the development of recreational, interpretive, and operational facilities.

## PROJECT DESCRIPTION

See the *Introduction* (Page 1) and *Plan Section* (Page 47).

## ENVIRONMENTAL SETTING

See the *Existing Conditions and Issues* (Page 7), *Significant Resource Values* (Page 16), and *Planning Influences* (Page 37).

## ANALYSIS OF ENVIRONMENTAL EFFECTS

The Initial Study for the Chino Hills State Park General Plan EIR identified potential impacts related to soil erosion, drainage, water quality, flooding, air quality, plants, animals, noise, light and glare, transportation/circulation, fire protection, utilities, recreation, and cultural resources. A Notice of Preparation was circulated through the State Clearinghouse, to local city and county planning offices, as well as to affected utility companies and special interest groups. A total of twelve comment letters were received representing the following agencies and groups:

California Department of Transportation, Districts 8 and 12  
County of Orange, Planning and Development Services

City of Anaheim  
City of Brea  
City of Chino Hills  
City of Yorba Linda  
Metropolitan Water District of Southern California  
Hills for Everyone  
Friends of Tecate Cypress  
Wildlife Corridor Conservation Authority

In general, the environmental issues raised for consideration in the draft plan were in regards to potential impacts to transportation/circulation (roads and trails), plants and animals (acquisition of biocorridors), public services/hazards (existing water utility right-of-ways, proximity of a landfill and fire suppression), noise, and aesthetics/viewshed.

A high number of significant resource values are recognized within Chino Hills State Park. These include sensitive plants and animals, plant communities, natural open space connectivity, solitude, scenic vistas, and cultural landscapes (See *Significant Resource Values*, Page 16). Due to the location of the park within a highly urbanized area and its tenuous connection to other open space areas in the region, the significance of these values is amplified. Therefore, any proposals that affect these values have the potential to result in significant environmental impacts. In addition, any proposals for the development and management of the park have the potential to cause impacts to the surrounding communities and associated public services, due to their proximity to the park.

## UNAVOIDABLE SIGNIFICANT ENVIRONMENTAL EFFECTS

The land-use designations and the management goals and guidelines presented in the general plan are intended to avoid or mitigate all significant environmental effects of facility development, maintenance, operations, and visitor use. If a specific project is proposed that does not conform to all of the guidelines contained in the plan, it will not be implemented. Therefore, there are no unavoidable significant environmental effects.

## MITIGABLE SIGNIFICANT ENVIRONMENTAL EFFECTS

**Impact:** Even though the majority of development will occur within a limited portion of the park (Recreation and Operations Zone), development and maintenance of facilities such as roads, trails, parking lots, camp sites, picnic areas, utilities, septic systems, and buildings have the potential for significant short- and long-term impacts to the environment. These impacts could include soil disturbance, dust, increased erosion, altered drainage patterns, lowered water quality, degradation of cultural resources, and degradation of sensitive plant or animal populations or their habitat.

**Mitigation:** Site-specific searches for sensitive species of plants and animals will be conducted in areas proposed for development or for other activities. The proposed project will be modified to avoid significant adverse impacts to any detected sensitive populations. Impacts to rare plant communities will be avoided to the maximum extent possible. Where unavoidable, the loss of a rare vegetation type will be compensated for through restoration of the same vegetation type at an appropriate location within the park at a replacement ratio of at least one to one.

**Mitigation:** Site-specific cultural resource surveys will be conducted in areas proposed for development or for other ground disturbing activities. The proposed project will be modified to avoid significant adverse impacts to any archaeological or historical resources, in accordance with the Department's resource management directives and professional standards for the treatment of historic properties.

**Mitigation:** Facilities will be designed and constructed to minimize the footprint of impact and will generally be located in relatively flat areas to minimize the potential for soil disruption. Any bare disturbed surfaces resulting from construction, which is not part of a trail or parking area, will be revegetated with appropriate native plant species for the site. See *Vegetation Management Guidelines*, Page 59.

**Mitigation:** Design, construction, and maintenance of facilities will follow the best management practices for the elimination or reduction of adverse effects to air quality, water quality, and drainage patterns. No activities or developments that significantly affect the park's aquatic systems will be allowed.

**Impact:** The soils of the Chino Hills are such that they become very slippery when wet and are prone to landslides and other forms of erosion. Use of roads and trails within the park may, under certain conditions, be unsafe for the public or increase the potential for soil movement and erosion.

**Mitigation:** When trail or road conditions are such that further use is either unsafe or would result in significant impacts to natural or cultural resources, the affected routes will be closed until appropriate repairs are made or conditions change.

**Impact:** The locations of trailhead parking sites on the boundaries of the park have the potential to create impacts to adjacent residential areas, in terms of an increase in traffic, noise, and litter. They also have the potential to concentrate public use in sensitive resource areas.

**Mitigation:** The Department will coordinate trail access points with appropriate local planning agencies and avoid significant environmental impacts by following a set of criteria contained in the general plan (See *Park Access Points*, Page 70). Appropriate mitigation is also discussed in the plan and made a part of specific site plans, where necessary.

## **NONSIGNIFICANT ENVIRONMENTAL EFFECTS**

The following potential impacts have been determined to be less than significant:

**Impact:** Construction of facilities and their recreational use may increase noise, dust, and traffic levels either temporarily or periodically.

**Discussion:** Most of the development activities and higher intensity recreational uses are located within the Recreation and Operations Zone, which is primarily located within the interior portion of the park, or adjacent to State Route 142 and Carbon Canyon Regional Park. As such, the potential for significant noise, dust, and traffic impacts to residential or commercial areas is limited to temporary construction impacts of the main park entrance (east end of Slaughter Canyon) and boundary trailhead parking. Development within these areas is not anticipated to be substantial and will utilize standard construction noise and dust reduction measures.

**Impact:** Potential development may produce associated increases in light or glare.

**Discussion:** The general plan states that materials for facilities will be chosen to preserve the rural qualities of the park and lighting of use areas will be limited to the minimum necessary to provide for public safety and shielded where feasible. Therefore there should be no significant impacts from light or glare.

**Impact:** Use of camping facilities within wildland areas has the potential to place the public at risk due to wildfires caused by inadvertent ignition from within, as well as from outside the park.

**Discussion:** No campfires or nighttime activity will be allowed outside designated areas within the Recreation and Operations Zone or Historic Zones. Following Department standards, these designated areas will be designed to reduce the chance of accidental escape of fire to surrounding vegetation. A wildfire management plan will be developed, as appropriate, to ensure protection of human lives and property, and will emphasize control of fires along predetermined suppression lines, which divide the park into control compartments, and will include evacuation procedures.



**Impact:** The use of prescribed fire as a vegetation management tool has the potential for significant impacts to regional air quality and may, in the event of an escape, place the public in danger.

**Discussion:** The restoration of the role of fire in natural ecological processes will include a prescribed fire management plan. This plan will include provisions for coordinating with regional air quality control boards to avoid significant emissions of smoke during sensitive time periods. It will also provide for public notification and exclusion areas prior to and during prescribed burning operations. In the event of an escape, the wildfire management plan is invoked, which provides for public evacuation and appropriate suppression activities.

**Impact:** The proposed Chino Hills State Park General Plan calls for an overall reduction in the number of vehicles trips to and from the park relative to the original general plan. Even so, an increase and change to the current traffic pattern as a result of potential future development allowed in the proposed general plan is anticipated (See Appendix C - *Comparison of Public Use Under Plan Alternatives*, Page 97).

**Discussion:** The majority of the maximum vehicle trips estimated to be generated would result from recreational development in the main use area located in Upper Aliso Canyon (See Appendix D - *A Public-Use Scenario*, Page 98). This area is currently accessed through the Bane Canyon park entrance located on Sapphire Road (15,000 Average Daily Traffic [ADT] capacity) and accessed via Soquel Canyon Parkway (56,300 ADT capacity) and Elinvar Road (15,000 ADT capacity) in the City of Chino Hills. The general plan calls for relocating this park entrance to Slaughter Canyon off Butterfield Ranch Road (56,300 ADT capacity) also within the City of Chino Hills, when and if associated acquisitions or rights-of-way can be obtained. Recent (November 1997, January 1998) traffic estimates indicate that current use of these roads is well below their capacity (5-9% of rated capacity). The projected increase in traffic potentially generated as a result of the proposed Chino Hills State Park General Plan (estimated 945 maximum trips per day) is not anticipated to add significantly to the volume of traffic on these routes. Furthermore, if at the time park developments are proposed, it is determined that the development would produce an increase in vehicle trips in excess of the capacity of the access roads, the proposed facilities will be downscaled to avoid significant impacts.

**Impact:** According to the Metropolitan Water District, the Robert B. Diemer Water Filtration Plant, located adjacent to the southwest boundary of the park, uses and stores various hazardous chemicals. Accidental release of these chemicals may affect park users in the immediate vicinity. In addition, abandoned oil wells in the park may present a potential hazard.

**Discussion:** Park facilities adjacent to or within the drainage from the Robert B. Diemer Plant are limited to existing roads and trails. No new facilities are planned for that area. Any abandoned oil wells in the vicinity of planned development will be re-abandoned in accordance with PRC 3208.1 to assure public safety. There are no significant public health risks anticipated as a result of the general plan.

**Impact:** Development of visitor use and operational facilities within a rural park has the potential to adversely affect aesthetics and viewsheds.

**Discussion:** The proposed general plan calls for facilities to be located off of ridgelines and to be sited, designed, and constructed to blend into the natural (or historic, where appropriate) terrain and setting, thereby avoiding significant impacts to aesthetics.

## **BENEFICIAL ENVIRONMENTAL EFFECTS**

Many of the proposed management practices will protect or enhance park resources, such as plants, wildlife, viewsheds, and cultural resources, above and beyond that required for mitigation of impacts resulting from development and use of the park. The following sets of management guidelines provide for beneficial environmental effects:

Biocorridors	Resource Management and Protection
Water Canyon Natural Preserve	Core Habitat Zone
Historic Zone	

## **GROWTH-INDUCING IMPACTS**

Implementation of the general plan will result in an increase in the number of day-use and overnight visitors in Chino Hills State Park. Based on *Appendix D - A Public-Use Scenario* (Page 98), an estimated peak total of 1,310 people and 395 vehicles may be present within the unit at a moment in time, if full development of the park is achieved. These levels of visitor use are not expected to contribute to an increase in need for local services. The developing cities adjacent to the unit provide services adequate to meet the needs of the local residents and visitors to the local parks, including Chino Hills State Park. The projected peak number of vehicle trips per day has been estimated to be 945, but at no time will parking facilities be developed that cause an increase in vehicle trips in excess of the capacity of the affected roads. Therefore, there will be no significant growth-inducing impacts.

## **CUMULATIVE IMPACTS**

None of the proposals contained in the plan will contribute significantly to the cumulative impacts of past, ongoing, or future projects, which include primarily residential, highway, and public service developments within the region. In fact, this plan recognizes and attempts to provide for the increasing rarity of natural open space

and rural landscapes within the region, by setting guidelines for the preservation of natural and cultural resources within the park and of biological corridors that link the park to similar wildland areas. These guidelines reduce some types of recreation proposed in the original general plan (such as camping and picnicking). However, several regional parks in the vicinity of Chino Hills State Park, including Carbon Canyon Regional Park in Carbon Canyon, Featherly Regional Park on the Santa Ana River, Prado Regional Park, and Yorba Regional Park provide for structured daytime recreation (picnic facilities). Camping facilities in the Chino and Puente Hills area are not now, nor are they anticipated to be, in high demand.

## **PLAN ALTERNATIVES**

Based on the accumulation of information from biological studies, local planners, park managers, and the general public (at four public meetings), three plan alternatives were considered during formulation of the proposed general plan.

Alternative 1: the Existing General Plan Alternative (representing the “no project” alternative required by CEQA) which allows for more intensive recreational use and development of the park unit relative to the other two alternatives;

Alternative 2: the Core Habitat Zone Without Trail Corridors Alternative, which provides for an increase in protection of natural resource values at the expense of some recreational opportunities; and

Alternative 3: the Core Habitat Zone With Trail Corridors Alternative or the “preferred” alternative, which (like Alternative 2) provides for an increase in natural resource protection, but allows for the maintenance of existing recreational opportunities (see Figure 7 – Management Zone Matrix, Page 55).

### **ALTERNATIVE 1: EXISTING GENERAL PLAN - “NO PROJECT”**

Under this alternative, the park unit would continue to be managed in accordance with the existing general plan (approved in 1986). The land-use section of the original general plan provides equivalents to three of the four management zones found in the proposed general plan, but in differing relative proportions. The “primitive zone” of the original 1986 plan, described as a precursor to natural preserve designation, encompasses portions of Upper Aliso Canyon, Water Canyon, and Brush Canyon for a total of approximately 2,825 acres. The “developed park zone” provides for public vehicle access, parking, day use, camping, administrative facilities, and operational facilities development, and includes portions of Upper (Rolling M Ranch) and Lower Aliso Canyon, Slaughter Canyon, Santa Ana River floodplain, and the mouth of Telegraph Canyon adjacent to State Route 142 (640 acres). The remainder of the park is designated as “park land zone” with land use limited to trails, picnicking, and

primitive trailside camping. Access to the main use area of the park would eventually be limited to the entrance through Slaughter Canyon.

Given the current knowledge and understanding of sensitive resources within the park, this alternative would likely cause significant impacts to riparian habitat, rare birds, rare aquatic animals, animal movement, and water quality due to the extent of park development proposed in the original general plan for Lower Aliso Canyon and the Santa Ana River floodplain. In addition, campground and picnic facilities proposed for the Santa Ana River floodplain would cause an increase in noise, light and glare, impacts to local air quality (smoke from campfires and barbecues) and traffic, immediately adjacent to private residences and a major freeway (State Route 91). Also under the original general plan the significance of historical resources within the park is not recognized nor defined, possibly leading to significant impacts to recently recognized important cultural resources, such as ranching-era features and landscapes.

## **ALTERNATIVE 2: CORE HABITAT ZONE WITHOUT TRAILS**

This alternative, like the preferred alternative, would designate four types of management zones: Core Habitat, Historic, Natural Open Space, and Recreation and Operations. The Core Habitat Zone would encompass about half of the unit (approximately 6,000 acres) and provide increased protection for large portions of the Aliso Creek drainage, Water Canyon, Brush Canyon, and the north-facing side of Telegraph Canyon. No mechanized vehicles or bicycles would be allowed within this zone. The Historic Zone (approximately 70 acres) is a new designation that would recognize and provide guidance for the protection of ranching-era features and landscapes associated with the Rolling M Ranch. The Recreation and Operations Zone (approximately 370 acres) would no longer include the Santa Ana River floodplain or sensitive reaches of Lower Aliso Canyon as in Alternative 1, but would include a portion of Bane Canyon to allow for the existing entrance road and picnic areas.

This alternative would reduce short- and long-term impacts associated with park facility development, such as loss of vegetation, increased erosion, reduced water quality, and impacts to sensitive fish, animals, and riparian habitat. It would also eliminate impacts to adjacent residents in the Santa Ana River floodplain area, including noise, light and glare, local air quality, and traffic. The Core Habitat Zone designation would, however, reduce recreational opportunities by causing closure of some trails to bicycles, and reduce accessibility of utility and emergency response vehicles to portions of the park, thereby potentially affecting public services. Facilities proposed for Lower Aliso and the Santa Ana River floodplain in the original (1986) general plan have not yet been developed; nevertheless, elimination of these areas for consideration of such development represent a reduction in future recreational opportunities within the park. This reduction in recreational opportunities would not be expected to be significant in a regional context.

### **ALTERNATIVE 3: CORE HABITAT ZONE WITH TRAILS - "PREFERRED"**

This preferred alternative is essentially the same as Alternative 2, with two exceptions. First, the Core Habitat Zone boundaries would include currently recognized established roads and trails that traverse this zone, thereby eliminating the impacts to recreation and public services associated with the Core Habitat Zone in Alternative 2. Second, a portion of the Core Habitat Zone (Water Canyon and Brush Canyon) would be designated as a natural preserve. Within the preserve area, resources would receive the highest level of protection. Impacts associated with the Alternative 3 are discussed under *Analysis of Environmental Effects* above.



Chino Hills State Park General Plan

**APPENDICES**



Purple sage





## APPENDIX A

### List of Sensitive Wildlife Species (January 1998) That Occur, or For Which Potential Habitat Exists Within Chino Hills State Park

TYPE	SPECIES	COMMON NAME	STATUS*	PROBABILITY IN CHINO HILLS S.P.
AMPHIBIANS	<i>Taricha torosa torosa</i>	Coast Range newt	CSC	not likely
	<i>Ensatina eschscholtzi eschscholtzi</i>	Monterey salamander	CSC	<b>present</b>
	<i>Batrachoseps nigriventris</i>	black-bellied salamander	local concern	<b>present</b>
	<i>Batrachoseps pacificus</i>	pacific slender salamander	CSC	probable
	<i>Aneides lugubris</i>	arboreal salamander	local concern	<b>present</b>
	<i>Scaphiopus hammondi</i>	western spadefoot	CFP, CSC	<b>present</b>
	<i>Bufo microscaphus californicus</i>	arroyo southwestern toad	FE, CFP, CSC	not likely
	<i>Rana aurora</i>	red-legged frog	FT, CFP, CSC	not likely
	<i>Rana muscosa</i>	mountain yellow-legged frog	CFP, CSC	not likely
BIRDS	<i>Phalacrocorax auritus</i>	double-crested cormorant	CSC	not likely
	<i>Ixobrychus exilis hesperis</i>	western least bittern	CSC	not likely
	<i>Plegadis chihi</i>	white-faced ibis	CSC	not likely
	<i>Pandion haliaetus</i>	osprey	CSC	not likely
	<i>Elanus leucurus</i>	white-tailed kite	CFP	<b>present</b>
	<i>Haliaeetus leucocephalus leucocephalus</i>	bald eagle	FT, CE, CFP	not likely
	<i>Circus cyaneus</i>	northern harrier	CSC	<b>present</b>
	<i>Accipiter striatus</i>	sharp-shinned hawk	CSC	<b>present</b>
	<i>Accipiter cooperii</i>	Cooper's hawk	CSC	<b>present</b>
	<i>Buteo swainsoni</i>	Swainson's hawk	CT	<b>present</b>
	<i>Buteo regalis</i>	ferruginous hawk	CSC	<b>present</b>
	<i>Aquila chrysaetos</i>	golden eagle	CFP, CSC	<b>present</b>
	<i>Falco columbarius</i>	merlin	CSC	<b>present</b>
	<i>Falco peregrinus anatum</i>	peregrine falcon	FE, CE, CFP	possible
	<i>Falco mexicanus</i>	prairie falcon	CSC	<b>present</b>
	<i>Charadrius montanus</i>	mountain plover	CSC	possible
	<i>Numenius americanus</i>	long-billed curlew	CSC	possible
	<i>Larus californicus</i>	California gull	CSC	not likely
	<i>Coccyzus americanus</i>	western yellow-billed cuckoo	CE	possible
	<i>Athene cunicularia</i>	burrowing owl	CSC	possible
	<i>Strix occidentalis</i>	spotted owl	FT, CSC	not likely
	<i>Asio otus</i>	long-eared owl	CSC	not likely
	<i>Asio flammeus</i>	short-eared owl	CSC	not likely
	<i>Cypseloides niger</i>	black swift	CSC	not likely
	<i>Chaetura vauxi</i>	Vaux's swift	CSC	<b>present</b>
	<i>Empidonax trailii</i>	willow flycatcher	FE, CE	<b>present</b>
	<i>Eremophila alpestris actia</i>	horned lark	CSC	<b>present</b>

## APPENDIX A (continued)

TYPE	SPECIES	COMMON NAME	STATUS*	PROBABILITY IN CHINO HILLS S.P.
	<i>Progne subis</i>	purple martin	CSC	possible
	<i>Riparia riparia</i>	bank swallow	CT	<b>present</b>
	<i>Polioptila californica</i>	California gnatcatcher	FT	<b>present</b>
	<i>Lanius ludovicianus</i>	loggerhead shrike	CSC	<b>present</b>
	<i>Vireo bellii pusillus</i>	least Bell's vireo	FE, CE	<b>present</b>
	<i>Vireo vicinior</i>	gray vireo	CSC	not likely
	<i>Vireo huttoni</i>	Hutton's vireo	local concern	<b>present</b>
	<i>Campyforhynchus brunneicapillus</i>	cactus wren	CSC	<b>present</b>
	<i>Dendroica petechia</i>	yellow warbler	CSC	probable
	<i>Icteria virens</i>	yellow-breasted chat	CSC	<b>Present</b>
	<i>Piranga rubra</i>	summer tanager	CSC	<b>present</b>
	<i>Parus inornatus</i>	oak titmouse	local concern	<b>present</b>
	<i>Aimophila ruficeps canescens</i>	rufous-crowned sparrow	CSC	<b>present</b>
	<i>Ammodramus savannarum</i>	grasshopper sparrow	local concern	<b>present</b>
	<i>Amphispiza belli belli</i>	sage sparrow	CSC	possible
	<i>Agelaius tricolor</i>	tricolored blackbird	CSC	possible
MAMMALS	<i>Sorex ornatus</i>	ornate shrew	CSC, FC/P	possible
	<i>Scapanus latimanus parvus</i>	broad-footed mole	CSC	<b>present</b>
	<i>Macrotus californicus</i>	California leaf-nosed bat	CSC	not likely
	<i>Euderma maculatum</i>	spotted bat	CSC	not likely
	<i>Plecotus townsendii</i>	Townsend's big-eared bat	CSC	not likely
	<i>Antrozous pallidus</i>	pallid bat	CSC	probable
	<i>Eumops perotis californicus</i>	western mastiff bat	CSC	<b>present</b>
	<i>Lepus californicus benneti</i>	San Diego black-tailed jackrabbit	CSC	not likely
	<i>Perognathus longimembris brevinasus</i>	Los Angeles pocket mouse	CSC	not likely
	<i>Chaetodipus fallax</i>	San Diego pocket mouse	CSC	not likely
	<i>Chaetodipus californicus femoralis</i>	California pocket mouse	CSC	probable
	<i>Dipodomys stephensi</i>	Stephen's kangaroo rat	FE, CT	not likely
	<i>Dipodomys merriami parvus</i>	San Bernardino kangaroo rat	CSC, FC/P	possible
	<i>Onychomys torridus</i>	southern grasshopper mouse	CSC	not likely
	<i>Neotoma lepida intermedia</i>	San Diego desert woodrat	CSC	probable
	<i>Microtus californicus stephensi</i>	Stephen's vole	CSC	??
	<i>Bassariscus astutus</i>	ringtail	CFP	possible
	<i>Taxidea taxus</i>	American badger	local concern	probable
	<i>Felis concolor</i>	mountain lion	CFP, CSC	<b>Present</b>

TYPE	SPECIES	COMMON NAME	STATUS*	PROBABILITY IN CHINO HILLS S.P.
REPTILES	<i>Clemmys marmorata pallida</i>	southwestern pond turtle	CFP, CSC	<b>present</b>
	<i>Coleonyx variegatus abbotti</i>	San Diego banded gecko	local concern	possible
	<i>Phyllodactylus xanti</i>	leaf-toed gecko	CFP	not likely
	<i>Phrynosoma coronatum</i>	coast horned lizard	CFP, CSC	<b>present</b>
	<i>Xantusia henshawi</i>	granite night lizard	CFP, CSC	not likely
	<i>Eumeces skiltonianus interparietalis</i>	Coronado skink	CSC	not likely
	<i>Cnemidophorus hyperythrus</i>	orange-throated whiptail	CFP, CSC	Probable
	<i>Cnemidophorus tigris multiscutatus</i>	coastal western whiptail	local concern	<b>present</b>
	<i>Charina bottae umbricata</i>	southern rubber boa	CT, CFP	not likely
	<i>Lichanura trivirgata</i>	rosy boa	local concern	possible
	<i>Salvadora hexalepis virgulata</i>	coast patch-nosed snake	CSC	<b>present</b>
	<i>Coluber constrictor mormon</i>	western yellow-bellied racer	local concern	<b>present</b>
	<i>Lampropeltis zonata parvirubra</i>	San Bernardino mountain kingsnake	CSC	not likely
	<i>Lampropeltis zonata pulchra</i>	San Diego mountain kingsnake	CFP, CSC	not likely
	<i>Thamnophis sirtalis parietalis</i>	red-sided garter snake	local concern	possible
	<i>Thamnophis hammondi</i>	two-striped garter snake	FT, CT, CFP	possible
	<i>Diadophis punctatus modestus</i>	San Bernardino ringneck snake	local concern	<b>present</b>
<i>Crotalus ruber ruber</i>	northern red diamond rattlesnake	CSC	<b>present</b>	
FISHES	<i>Gila orcutti</i>	arroyo chub	CSC	<b>present</b>
	<i>Gasterosteus aculeatus williamsoni</i>	unarmored three-spine stickleback	CE, FE	possible
	<i>Rhinichthys osculus</i>	Santa Ana speckled dace	CSC	possible
	<i>Catostomus santaanae</i>	Santa Ana sucker	CSC	possible

\*Status Codes: FE = Federal Endangered; FT = Federally Threatened; FC/P = Federal Candidate/Proposal; CE = California Endangered; CT = California Threatened; CFP = California Fully Protected; CSC = California Species of Concern

## APPENDIX B

### System-Wide Planning Influences

Public Resources Code (PRC)

California Code of Regulations (CCR)

Policies, Rules, Regulations, and Orders of the California State Park and Recreation

Commission and California Department of Parks and Recreation

California Department of Parks and Recreation Operation Manual (DOM)

California Department of Parks and Recreation Administration Manual (DAM)

California State Park System Plan

California State Parks *Mission Statement*

California State Parks Access to Parks Guidelines

*Resource Management Directives for the California Department of Parks and Recreation.*

These directives amplify the legal codes contained in the PRC, the CCR, and the California State Park and Recreation Commission's Statements of Policy and Rules of Order. Specific Resource Management Directives that are particularly pertinent to the management of resources at Chino Hills State Park are:

#3 - Inventory of Features Updates

#5 - The Purposes of Developments in State Parks

#7 - Acquisition Boundaries

#9 - Boundaries and Developments in Natural Preserves

#27 - Establishment of Natural Preserves

#28 - Visitor-Use Impacts

#31 - Implementing Resource Elements

#33 - Exotic Plant Introduction

#34 - Exotic Plant Removal

#35 - Wildlife Management

#37 - Controlling Erosion

#43 - Water Diversion

#46 - Protection of Esthetic Quality

#58 - Cultural Resources

#59 - Underground Work

#70 - Archaeological Values

#72 - Archaeological Research

#74 - Recreational Resources

## APPENDIX C

### Comparison of Public Use Under Plan Alternatives

	<b>Alternative 1 Existing Plan</b>	<b>Alternatives 2 and 3 Revised Plan</b>	
	Current Estimate	Projected Plan Scenario for Peak Use	Projected Plan Scenario for Peak Use
Peak Day-Use Vehicles	20-40	366	235
Peak Night-Use Vehicles	10-30	550	160
Walk- or Ride-In	155	205 <sup>(3)</sup>	205
Peak number of People In Park <sup>(1)</sup>	365	2,925	1,310
Peak number of Trips per day <sup>(2)</sup>	165	1,923	945

(1) See calculations used in Appendix D - A Public-Use Scenario.

(2) Does not include use of easements by utility vehicles, which is presumed to remain the same.

(3) Not projected in original (1986) general plan.

## APPENDIX D

### A Public-Use Scenario

The following scenario represents a reasonable estimate of the type and size of public-use facilities that might be fully implemented within the parameters set by the *Plan Section* (Page 47) of this document. It is just one of a range of possibilities of types/sizes of facilities and is provided merely for the purpose of assessing the potential environmental impacts on the park and nearby properties and highways.

	Number of Parking Spaces	Turnover Rate	Peak Trips per Day*	Visitors/ Vehicle	Peak Number of Visitors in Park
<b>Upper Aliso/Bane Canyon</b>					
• Overnight Use (2 vehicles/campsite)	160	28%	240	3	480
• Day-Use Parking (inc. Visitor & Admin. Center)	120	50%	360	3	360
<b>Boundary Trailheads</b>					
• Day-Use Parking (5 locations)	75	50%	225	2.3	173
<b>Lemon Grove</b>					
• Day-Use Parking	40	50%	120	2.3	92
<b>Walk-in</b>					
					205
<b>TOTALS</b>	<b>395</b>		<b>945</b>		<b>1310</b>

\*Trips per day is based on the following:

Day Use: 50% turnover rate = 3 trips x number of spaces

Overnight: 28% leave and return each day = 1.5 trips x number of spaces

A trip is defined as one-way travel over the entry road either entering or leaving

## **APPENDIX E**

### **CEQA Review - Public Comments and DPR Responses**

As a part of the public review process required by the California Environmental Quality Act, the preliminary (draft) of a General Plan document is made available for public review and comment for a minimum of 45 days. For the review process, each plan is assigned a unique number by the State Clearinghouse, located in the Governor's Office of Planning and Research.

The State Clearinghouse number assigned to the preliminary general plan for Chino Hills State Park is No. 98101049.

At the close of the review period, all public comments which are received in writing, comments from individuals, organizations, and other public agencies, are evaluated by the Department's planning staff, which prepares written responses. The California Park and Recreation Commission reviews these materials as part of the process of evaluating and approving a general plan.

These comments and the resultant departmental responses are retained by the Department as part of the public record. Those wishing to examine these materials should contact the Department at its Sacramento headquarters or at the office of the District in which the park unit is located.

The mailing address of the Department's Sacramento Headquarters is:

State of California - The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
P.O. Box 942896  
Sacramento, CA 94296-0001

The address of the Inland Empire District is:

State of California - The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
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# Chino Hills State Park General Plan

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