

EXECUTIVE SUMMARY

The purpose of the Cuyamaca Equestrian Facilities Project Environmental Impact Report (EIR) is to describe and allow full public review of the proposed project in accordance with the California Environmental Quality Act (CEQA). The California Department of Parks and Recreation (DPR) is the lead agency for the proposed project and prepared this document per CEQA, Public Resources Code §21000 *et seq.*, and the State CEQA Guidelines, California Code of Regulations §15000 *et seq.* Organization of the EIR is addressed in Section 1.1. Additions to the Final EIR are underlined, while deletions are shown in strike-out. These changes represent additional information and clarification and do not constitute a change in the level of significance beyond that identified in the Draft EIR.

The main objective of the Cuyamaca Equestrian Facilities project is to construct amenities that will meet Cuyamaca Rancho State Park's (Park) need for equestrian recreational opportunities. Although the Park supports several horseback riding trails, an equestrian group campground, and two equestrian day use areas, it does not currently have an equestrian family campground. The Park's General Plan (DPR 1986) states that "the most well-defined recreation need [in the Park] is for horse/people camping."

The DPR mission includes the protection of natural and cultural resources, while providing high quality recreation. Therefore, an appropriate combination of resource impact avoidance, minimization, treatment, mitigation, and monitoring will be implemented throughout the project design, construction, operation, and maintenance phases.

The proposed project includes four components: (1) the conversion of the Green Valley Family Campground Loop A (sites 1-22) to an equestrian campground containing 10-15 sites; (2) the construction and operation of a day use staging area at the site known as Paso Picacho East, referred to herein as the Paso Picacho Day Use Area; (3) the construction and operation of an expanded day use staging area within the site known as Merigan Ranch, referred to herein as the Descanso Area Development ~~Interim~~ Day Use Parking Area; and (4) the future construction and operation of a new equestrian campground and associated facilities within the Descanso Area Development site. The construction and operation of the Descanso Area Development will be completed in phases and evaluated in this EIR at the programmatic level, while the remaining three projects will be evaluated at the project specific level. Phase I of the Descanso Area Development is the construction of the day use area, ~~which would be considered an interim facility until funding for the campground can be secured,~~ while Phase II of the Descanso Area Development would be the construction of the equestrian campground, ~~which and expansion of the Interim Day Use Parking Area.~~ Phase II of the Descanso Area Development would require subsequent CEQA review. After further consideration and due to current site conditions and constraints, DPR has adopted the Environmentally Superior Alternative for the Descanso Area Development Phase II project.

The Park is located in a rural and unincorporated portion of east central San Diego County. Much of the Park's boundaries are adjacent to open space including Anza-Borrego Desert State Park and the Cleveland National Forest. The proposed project would occur at three discrete sites within the Park including from north to south (1) an

area east of SR-79 in the vicinity of the Paso Picacho Campground; (2) Loop A of the Green Valley Campground, which is west of SR-79 in the southern third of the Park; and (3) off Viejas Boulevard adjacent to the community of Descanso at the southern boundary of the Park. An equestrian day use facility would be constructed at Sites 1 and 3, while a family equestrian campground and associated amenities would be constructed at Sites 2 and 3.

The Park is approximately 24,623 acres in size and is open for hiking, nature watching, camping, mountain biking, and equestrian camping and trail riding. Since the mid-1940s, it has been a popular equestrian camping and trail riding destination. Equestrian facilities available in the Park include Los Vaqueros Group Horse Camp, Hual-Cu-Cuish Day Use Horse Parking Area, and Sweetwater Parking Area. Prior to 2003, the Park also contained the Los Caballos Equestrian Campground (Los Caballos). The 2003 Cedar Fire burned approximately 280,000 acres of land in San Diego County including a large portion of the Park. The fire destroyed or severely damaged 30 of the Park's facilities including the restrooms, cabin, and storage buildings at Los Caballos. Due to the importance of both cultural and natural resources found at Los Caballos, the equestrian campground was closed. Since the closure of Los Caballos, there has been a need for equestrian camping facilities within the Park.

All of the alternatives, except the No Project Alternative, have the potential to adversely affect aesthetics, air quality, archeological resources, biological resources, geology and soils, hydrology and water quality, and noise in the project area. The Preferred Alternative and the Environmentally Superior Alternative would mitigate all of these impacts, except aesthetics, to a level below significance, thereby preserving the wilderness experience of the Park. Potential adverse impacts to agriculture, hazards and hazardous materials, historical resources, land use and planning, paleontology, public services, recreation, utilities and services, population and housing, traffic, and mineral resources are insignificant but the proposed project has incorporated measures to minimize impacts or to meet established treatment protocols for these categories. Cumulative impacts are not anticipated to cause significant adverse environmental effects except to aesthetics.

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1 PURPOSE & NEED

1.1 INTRODUCTION

The California Environmental Quality Act (CEQA) of 1970 established a requirement for State agencies to analyze and disclose the potential environmental effects of a proposed action. This document is prepared in accordance with CEQA, Public Resources Code §21000 *et seq.*, and the State CEQA Guidelines, California Code of Regulations §15000 *et seq.* CEQA Guidelines §15120 states that an Environmental Impact Report (EIR) shall contain the information required by Sections 15122 through 15131 (Table 1.1).

The Cuyamaca Rancho State Park Equestrian Facilities EIR has been prepared by the California Department of Parks and Recreation (DPR), Acquisition and Development Division, Southern Service Center. This document is both a programmatic and a project-level EIR, and is consistent with the guidelines and designations set forth in the Cuyamaca Rancho State Park (Park) General Plan (DPR 1986). A programmatic EIR documents a series of inter-related actions that can be assessed as an integrated whole for the purpose of CEQA analysis. These actions are either related geographically; as logical parts in the chain of contemplated actions; in connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program; or as individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects, which can be mitigated in similar ways. As a project-level EIR, this document will address three proposed projects and the potential environmental effects that would result during their construction and operation. The document will also describe the environmental setting at each of the three proposed project sites.

An Initial Study was prepared by DPR to determine if the Equestrian Facilities Project would have a significant effect on the environment [CEQA Guidelines §15063(a)]. The Initial Study was circulated for public review with the Notice of Preparation (NOP) to State and Federal agencies, local city and county planning offices, and interested public and private organizations and individuals (Appendix A). There was substantial evidence that the proposed project would have a significant effect on the environment, therefore this EIR was prepared, in accordance with CEQA Guidelines §15064(a). Mitigation measures have also been incorporated into the project to reduce or minimize potentially significant impacts.

Furthermore, because several of the proposed actions may either permanently or temporarily affect water quality, traffic, cultural resources, and/or biological resources, additional permits, reviews, or approvals may be needed from the following agencies:

United States Fish and Wildlife Service (USFWS)
California Department of Fish and Game (CDFG)
California Regional Water Quality Control Board, San Diego Region (RWQCB)
California Department of Transportation (CALTRANS)
California Native American Heritage Commission (CNAHC)

Table 1.1. Location of EIR Required Content

CEQA Guidelines Content	Location in Cuyamaca Equestrian Facilities Project DEIR
15122 Table of Contents	Follows the <i>Executive Summary</i>
15123 Executive Summary	Precedes the <i>Table of Contents</i>
15124 Project Description	Section 2 <i>Project Description</i>
15125 Environmental Setting	Section 4 <i>Environmental Setting.</i>
15126 Consideration and Discussion of Environmental Impacts	Section 5 <i>Environmental Analysis</i>
(a) Significant Environmental Effects of the Proposed Project	Section 5.1 <i>Potentially Significant Effects & Proposed Mitigation</i>
(b) Significant Environmental Effects Which Cannot be Avoided if the Proposed Project is Implemented	Section 6.1 <i>Significant Irreversible Environmental Changes Which Cannot Be Avoided</i>
(c) Significant Irreversible Environmental Changes	Section 6.1 <i>Significant Irreversible Environmental Changes Which Cannot Be Avoided</i>
(d) Growth-Inducing Impact of the Proposed Project	Section 6.3 <i>Growth Inducing Impacts</i>
(e) The Mitigation Measures Proposed to Minimize the Significant Effects	Section 2 <i>Table 2.1</i> Sections 5.1 <i>Potentially Significant Impacts and Proposed Mitigation</i> Section 5.2 <i>Less than Significant Impacts & Avoidance of Significance</i>
(f) Alternatives to the Proposed Project	Section 2 <i>Project Description</i>
15127 Limitations on Discussion of Environmental Impact	Section 5 <i>Environmental Effects and Mitigation</i>
15128 Effects Not Found to be Significant	Section 5.2 <i>Less than Significant Impacts</i> Section 5.3 <i>Effects with Little or no Impacts</i> Appendix A <i>Initial Study</i>
15129 Organizations and Persons Consulted	Section 7 <i>Literature Referenced & List of Preparers</i>
15130 Discussion of Cumulative Impacts	Section 6.4 <i>Cumulative Impacts</i>
15131 Economic and Social Effects (optional topic)	Section 3 <i>Known Controversies</i>

1.2 PROJECT LOCATION

The Park is located in a rural and unincorporated portion of east central San Diego County (Figure 1.1). Anza-Borrego Desert State Park is located east of the Park; the town of Julian is approximately six miles to the north, and the community of Descanso borders the Park to the south. Much of the Park's southern, eastern, and western boundaries are adjacent to the Cleveland National Forest, specifically the Descanso and Palomar Ranger Districts (Figure 1.2). The Park is bisected by State Route 79 (SR-79), which runs north/south through its center. The proposed project would occur at three discrete sites within the Park including from north to south (1) an area east of SR-79 in the vicinity of the Paso Picacho Campground; (2) Loop A of the Green Valley Campground, which is west of SR-79 in the southern third of the Park; and (3) off Viejas Boulevard near the community of Descanso at the southern boundary of the Park (Figure 1.3). Equestrian day use facilities would be constructed at Sites 1 and 3, while an equestrian family campground and associated amenities would be constructed at Sites 2 and 3.

1.3 PROJECT BACKGROUND

The Park is operated by DPR and is part of the Colorado Desert District. In February 1933, the State Parks System acquired the 20,735-acre Cuyamaca Rancho property for a unit of the recently created Divisions of Beaches and Parks. On June 21, 1962 the unit was classified as a State Park and in 1982, two state wilderness areas were established in conformance with the Wilderness Act of 1974. The following year, four cultural preserves and one natural preserve were created by the California State Park and Recreation Commission. Since 1933, DPR has added an additional 3,888 acres to the Park.

The Park is open for hiking, nature watching, camping, mountain biking, and equestrian camping and trail riding. Since the mid-1940s, it has been a popular equestrian camping and trail riding destination. Equestrian facilities available in the Park include Los Vaqueros Group Horse Camp, Hual-Cu-Cuish Interim Day Use Horse Parking Area, and Sweetwater Parking Area (Figure 1.3). Prior to 2003, the Park also contained the Los Caballos Equestrian Campground (Los Caballos). The 2003 Cedar Fire burned approximately 280,000 acres of land in San Diego County including a large majority of the Park. The fire destroyed or severely damaged 30 of the Park's facilities including the restrooms, cabin, and storage buildings at Los Caballos. Initially, DPR intended to restore the facilities at Los Caballos with funding provided by the Federal Emergency Management Agency (FEMA). During reconstruction activities, however, the California Native American Heritage Commission (CNAHC) requested both FEMA and DPR postpone the reconstruction until an assessment of the environmental impacts to known and listed cultural and archaeological resources could be evaluated. The CNAHC is the State entity charged with facilitating protection of California's Native American cultural resources in accordance with State and Federal laws. The CNAHC had concerns regarding the reconstruction activities and the overall campground location in relation to the significant recognized cultural resources in the area. In response to this request and new resource information, DPR evaluated possible campground reconfigurations.

A number of constraints (e.g., cultural, natural, and topographical) exist at the Los Caballos site that limited redesign options. In September and October of 2005, several conceptual reconfigurations of the campground were developed and then presented to stakeholder groups during focus meetings. Stakeholder groups consisted of equestrians, cultural resource professionals, Native Americans, natural resource professionals, and local business professionals.

An NOP (SCH 2005101045) for reconfiguration of the campground was prepared in October of 2005. Based on responses received during the focus meetings and during the NOP comment period, it was apparent that none of the preliminary concepts were acceptable to the majority of the stakeholders. The campground could not be redesigned to substantially avoid resources of concern without losing the rustic character of Los Caballos.

Furthermore, the Ah-ha'-Kwe-ah'-mac' village site, which overlaps the Los Caballos campground, was and has been recognized as especially significant by cultural resource professionals and local and statewide Native American entities for several decades. The village site and associated area was registered as a Sacred Site by the CNAHC in 1994 and was formally listed on the National Register of Historic Places in April 2008. Ah-ha'-Kwe-ah'-mac' is the namesake (translated to Cuyamaca) for the Park and surrounding mountain region. The village's Sacred Site designation bestows protection to the area that includes Los Caballos. Relevant laws include: Public Resources Code (PRC) Section 5097.9-.99; the Native American Grave Protection and Repatriation Act of 1990; and The American Indian Religious Freedom Act of 1978. The national Registrar listing directs protection via PRC 5024 et al. and CEQA. Given the above constraints, restoring the Los Caballos area to equestrian camping and day use parking was determined to be infeasible and is not associated with this project.

Beginning in late 2005, DPR started to look for alternative locations to the Los Caballos site that would accommodate an equestrian family campground. DPR used known resource data, design requirement and operational constraints as well as Geographic Information Systems (GIS) mapping to determine areas that were potentially suitable for an equestrian campground within the Park. Land areas considered best for development of public facilities were those that had a mix of flat and low topographic relief, were readily accessible from SR-79 or Sunrise Highway, and were within proximity to multiple riding trails. The Park has several additional land-use designations contained within its boundaries. For example, approximately 13,100 acres of the Park are designated as State Wilderness, within which development is prohibited. Another 3,200 acres are designated as Natural or Cultural Preserves, restricting development to that which is compatible with the intent of the Preserve. This left approximately 795 acres of relatively flat land that had no special designations. About half of this acreage was wetland meadow, unsuitable for use due to soggy conditions and the resource values of the wetlands. Within the other half, four possible project locations were identified. DPR circulated a revised NOP (SCH 2005101045) including these four sites for public review in May 2006. It was noted during this review that development of any of these four sites would require a General Plan Amendment. Therefore, their consideration as possible project locations would be delayed until the Park's General Plan could be revised.

Subsequent to the May 2006 NOP, with input from both equestrian advisory groups and recognized Native American representatives, DPR investigated additional alternative locations. Using the input from these groups, DPR was able to determine two sites in the Park that had the potential to support equestrian facilities: Merigan Ranch (Descanso Area Development site), at the southern end of the Park and an area east of the Paso Picacho Campground (Figure 1.3). In June 2009, Loop A of the existing Green Valley Campground was also identified as a possible equestrian campground site and subsequently discussed with select stakeholders during Autumn 2009.

1.4 PROJECT NEED

The mission of DPR 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.” According to *The Seventh Generation; The Strategic Vision of California State Parks* (DPR 2001), “facilities are a key element in the realization of the Department’s mission. Campsites, trails...roads, water systems, and restrooms are all essential in meeting the demands of protecting resources, educating the public, and enabling recreation. It is through the use of facilities that the public is able to maximize their experience in park units throughout the state.” The Cuyamaca Equestrian Facilities Project aims to meet the DPR mission by creating equestrian facilities that will strengthen the recreational experience for equestrian groups, while protecting the Park’s valuable resources.

The Park’s location and unique character make it a popular destination for many visitors each year. Although the Park is in close proximity to densely populated cities within Southern California, it still retains a wilderness feel making it a popular destination for hikers, bikers and equestrians. The Park is located within a three-hour drive of Los Angeles, San Bernardino, Riverside, Orange, and San Diego counties, making it a practical outdoor recreation destination. According to *Public Opinions and Attitudes on Outdoor Recreation in California* (DPR 2003), “park or recreation areas in or near urban areas are the most frequently used and the developed nature-oriented areas are the favorite type of park and recreation area for the largest percentage of Californians”. This desire for open space and adequate recreation facilities will only increase as neighboring metropolitan populations continue to grow. In *The Seventh Generation*, DPR (2001) identified expanding recreational opportunities as a strategic initiative, stating it would provide additional outdoor recreation opportunities to keep pace with the needs of California’s growing, diverse population and changing lifestyles. This is especially important for equestrian recreation, as California was estimated to have the second highest number of horses (698,345) in all 50 states (American Horse Council 2005). The existing and ever-increasing amount of equestrian use by Park visitors creates a need for additional equestrian facilities within the Park.

Horseback riding has been a popular activity at the Park since the mid-1940s. Equestrians from all over southern California use the Park’s trails and facilities. In 1945, the State Legislature adopted the California Riding and Hiking Trails Act identifying a state-long trail that was to extend from Mexico to Oregon. The California Riding and Hiking Trail (CRHT) was to be routed through National Forest land, State Parks land,

private property, and scenic and historical areas. Although never fully completed statewide, approximately 10 miles of the CRHT is located within the Park (Figure 1.3). The trail is used by both hikers and horse back riders and runs from U. S. Forest Service land adjacent to the southwestern portion of the Park, through the Park's interior on the west side of SR-79, crosses east to the south shore of Cuyamaca Lake, then northeast where it leaves the Park and enters Anza-Borrego Desert State Park.

The Park's General Plan (DPR 1986) states that "the most well-defined recreation need [in the Park] is for horse/people camping." Since the closure of Los Caballos in 2003, there has been an even greater need for equestrian facilities than identified in 1986. Due to public concerns, budgetary constraints, the environmental and cultural constraints at Los Caballos, and on the remaining undeveloped land throughout the Park, an ideal location for an equestrian campground has been difficult to identify. In 2009, DPR concluded that conversion of Loop A of the Green Valley Campground would be a good solution to the some of the issues cited above. Due to the existing infrastructure at Green Valley, conversion to equestrian campsites would require less time and cost than constructing a new campground on an undeveloped site. Also, since no expansion of Loop A is proposed, impacts to any sensitive environmental and cultural resources would be minimized.

The General Plan also identified two areas at the southern end of the Park that could support equestrian facilities: the Descanso Area (Descanso Area Development site) and South End Area. The General Plan envisioned that the Descanso Area Development site would serve equestrian campers but include trailhead parking that could accommodate horseback riders, mountain bike riders and hikers. The camp was recommended to accommodate 15-25 people and horses. The General Plan also allowed for expansion of the Descanso Area Development beyond the initial recommended size of 1-2 acres, contingent on the purchase of the property adjacent to the site that supports the elementary school.

Besides an equestrian campground, the proposed project includes the construction of equestrian day use parking at two locations in the Park: The Paso Picacho Day Use Area would provide access to popular trails and trail connections in the northern and central portions of the Park. With the closure of the Los Caballos day use parking lot, there is a need for adequate equestrian trail-head parking in the northern part of the Park. The Descanso Area Development ~~Interim~~ Day Use Parking Area would accommodate both equestrians and hikers and provide for easier access to trails in the southern portion of the Park. Construction of this day use area would be Phase I of the Descanso Area Development.

1.5 PROJECT OBJECTIVES

The main objective of the proposed project is to construct facilities that will meet the Park's current need for equestrian recreational opportunities. Although the Park supports several horseback riding trails, a group equestrian campground and two day use areas, it does not currently provide equestrian family camping-a previously popular recreational activity. Other objectives of the proposed project include:

- provide additional access to popular trails and trail connections in the northern portion of the Park;
- provide equestrian facilities, which can be easily accessed and utilized by riders of all skill levels, including those with special needs or disabilities;
- create equestrian facilities at the southern end of the Park that could be accessible year round;
- design and implement a project with minimal impacts to sensitive biological and significant and eligible cultural resources;
- use landscaping and design to integrate the project into the surrounding environment; and
- develop a campground with long-distance riders in mind, allowing destination rides and primitive equestrian camping.

1.6 IDENTIFIED PUBLIC CONCERNS

In May 2007, an NOP (SCH #2007051074) was distributed to City, County, State and other public agencies, and interested private organizations and individuals stating that an EIR would be prepared for the proposed project (Appendix B). Additionally, a public information workshop was held on June 12, 2007 in the community of Descanso. The purpose of this meeting was to inform interested parties about the proposed project and to solicit input on the scope and content of the draft EIR. A total of 58 people signed in, although several more people were in attendance.

Those who attended the meeting identified a broad range of concerns. For the Descanso Area Development these concerns included: (1) proximity to the Descanso elementary school; (2) potential to negatively impact the view from Viejas Boulevard and neighboring properties; (3) potential for high levels of dust as a result of large vehicles and horses using the area in dry months; (4) an increase in the number of insects; (5) an increase in traffic; (6) the potential for groundwater to become contaminated by manure; (7) the lack of trails and trail connections to the interior of the Park; and (8) the possibility that the site is a sensitive meadow/wetland and important habitat for plant and animal species. For the Paso Picacho Day Use Area, the main concern was the need for a safe SR-79 pedestrian/equestrian crossing.

As stated above, the 2007 NOP was reissued in order to add the Green Valley Campground Loop A as a possible equestrian camping site (Appendix A). Responses to the 2009 NOP were similar to the 2007 NOP regarding the Descanso Area Development, however no opposition to the conversion of Loop A was received.

2 PROJECT DESCRIPTION

The Cuyamaca Equestrian Facilities project includes the following components (1) conversion of the Green Valley Family Campground Loop A (sites 1-22) to an equestrian campground containing 10-15 sites; (2) construction and operation of a day use staging area at the site known as Paso Picacho East, referred to herein as the Paso Picacho Day Use Area; (3) construction and operation of an expanded day use staging area within the site known as Merigan Ranch, referred to herein as the Descanso Area Development ~~Interim~~ Day Use Parking Area; and (4) future construction and operation of a new equestrian campground and associated facilities within the Descanso Area Development (Figures 1.2 and 1.3). The construction and operation of the Descanso Area Development will be completed in phases and evaluated in this EIR at the programmatic level, while the remaining three projects will be evaluated at the project specific level. Phase I of the Descanso Area Development is the construction of the ~~Interim~~ Day Use Parking Area, while Phase II of the Descanso Area Development would be the construction of the equestrian campground, which and expansion of the Interim Day Use Parking Area. ~~Phase II would require additional funding and subsequent CEQA review.~~ After further consideration and due to current site conditions and constraints, DPR has adopted the Environmentally Superior Alternative for the Descanso Area Development Phase II project.

Implementation of the proposed project would provide equestrians and hikers access to various terrains within the Park and use of the Park throughout the year. The proposed project would be consistent with uses and locations identified in the Park's General Plan (DPR 1986) and would not require a General Plan Amendment. The project is being funded through Proposition 84 bonds and the State General Fund.

The DPR is the lead agency for this project and its mission includes the protection of natural and cultural resources, while providing high quality recreation. Therefore, an appropriate combination of resource impact avoidance, minimization, treatment, mitigation, and monitoring will be implemented throughout the project design, construction, operation, and maintenance phases.

CEQA Guidelines §15126.6(a) requires an evaluation of "... a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives." Alternatives are used to determine whether or not a variation of the project would reduce, or eliminate, significant environmental impacts, while retaining the basic framework of the objectives. CEQA Guidelines §15126.6(f) specifies that a range of alternatives is governed by the "rule of reason," requiring evaluation of only those alternatives "necessary to permit a reasoned choice."

Resource data, operational support needs, and public desires voiced during the planning, alternatives analysis, scoping meetings, and project design were incorporated to develop the proposed project's preferred alternative. Additionally, the project description for the preferred alternative includes design detail for project implementation. DPR natural and cultural resource specialists will review all final plans prior to construction. Descriptions

of the project alternatives are provided below. These alternatives were identified based on their ability to reduce the project’s significant and potentially significant impacts.

2.1 PROJECT REQUIREMENTS

Under CEQA, DPR is considered (1) a lead agency, a public agency that has the primary responsibility for carrying out or approving a project and for implementing CEQA; (2) a responsible agency, a public agency other than the lead agency that has responsibility for carrying out or approving a project and for complying with CEQA; and (3) a trustee agency, a state agency having jurisdiction by law over natural resources affected by a project that are held in trust for the people of the State of California. With these roles comes the responsibility to ensure that measures to protect both cultural and natural resources are incorporated into all projects. Therefore, DPR has created a list of Project Requirements that are included in project design to reduce impacts to resources (Table 2.1). ~~DPR has two types of Project Requirements: standard and specific. Standard project requirements are assigned to all projects Statewide, while specific project requirements are assigned based on the specific actions required to complete the project. For example, Fire Safety practices are included in all DPR projects; however, inadvertent discovery of archaeological artifacts would only be assigned to projects that include ground disturbing work. The Cuyamaca Equestrian Facilities Project includes both standard and specific project requirements (Table 2.1).~~ In addition to the project requirements listed below, all of the best management practices and avoidance and minimization measures provided in Section 6.0 of the Natural Resources Report (Appendix C) will be implemented in order to avoid or minimize impacts to sensitive biological resources. Lastly, mitigation measures will be implemented to reduce certain environmental impacts to less than significant (Table 2.2).

Table 2.1. Standard Project Requirements Incorporated into the Cuyamaca Equestrian Facilities Project.

ISSUE	PROJECT REQUIREMENT
Air Quality	
<u>AIR-PR1:</u> FUGITIVE DUST AND OZONE	<ul style="list-style-type: none"> • All construction areas (dirt/gravel roads and surrounding dirt/gravel areas) will be watered sufficiently to reduce airborne dust during dry, dusty conditions. • All trucks hauling soil, sand, or other loose materials on public roads will be covered or required to maintain at least two feet of freeboard. • Excavation and grading activities will be suspended if sustained winds exceed 25 mph, instantaneous gusts exceed 35 mph, or dust from construction might obscure driver visibility on public roads. • The area disturbed by earthmoving equipment or excavation operations shall be minimized at all times. • Demolition and earth-moving activities shall be limited during high winds. • On-site vehicle speed shall be restricted to a maximum of 15 mph. • Storage piles of material shall be covered to prevent fugitive dust emissions. • All mechanical equipment shall be operated in compliance with appropriate

	air quality controls.
Biological Resources	
<u>BIO-PR1:</u> SENSITIVE PLANT SPECIES AND COMMUNITIES	<ul style="list-style-type: none"> • Where possible, for any remaining trees all trenching will occur outside of the root health zone (5 times DBH) of any native tree \geq 12 inches DBH. If trenching must occur within the root health zone, then no roots \geq 2 inches in diameter will be severed by project activities, unless authorized by a DPR-approved biologist. • A DPR-approved biologist will monitor all trenching operations and any work that requires vegetation removal. • Equipment storage, fueling, and staging areas shall be located to minimize risks of direct drainage into riparian areas or other environmentally sensitive habitats. These designated areas shall be located in such a manner as to prevent runoff from entering sensitive habitats. All necessary precautions shall be taken to prevent the release of cement or other toxic substances into surface waters. All project related spills of hazardous materials shall be reported to appropriate entities including but not limited to CDFG and RWQCB and shall be cleaned up immediately and contaminated soils removed to an approved disposal area. • Natural resources will be protected through biological monitoring, erosion and sediment control, use of fencing or other means to protect sensitive resources adjacent to construction, topsoil salvage, and revegetation. Fencing will be used to mark the limits of allowed construction disturbance and to mark specific high-value vegetation to be salvaged or preserved. Native or weed-free mulch shall be used to minimize surface erosion and introduction of non-native plants. • Buildings, trails, parking, and campsites shall be sited to minimize impacts to vegetation, and avoid large trees to the extent feasible. • Fencing and signs shall be installed to direct visitor use away from sensitive habitats. • Revegetation plans will be developed for any disturbed area, requiring the use of native species from the same gene pool if possible. Soil preparation, native seed/plant mixes, and mulching shall be specified for all areas disturbed by construction activities. A monitoring plan will be developed and implemented to ensure successful revegetation. Native vegetation will be salvaged to the greatest extent possible for use in revegetating disturbed areas. Construction specifications regarding soil salvage and reuse, trenching, plant protection, and finished grading will be enforced.
<u>BIO-PR2:</u> NESTING MIGRATORY BIRDS, RAPTORS, AND SENSITIVE BAT SPECIES	<ul style="list-style-type: none"> • Birds - Should construction activities take place during the breeding season, (March <u>January 1st</u> to Sept <u>September 15th</u>), a qualified biologist will conduct a preconstruction survey no more than one week prior to construction. If it is determined that construction would affect an active nest or disrupt reproductive behavior, then avoidance strategies would be implemented. Construction would not be allowed within 500 feet of the nest until a qualified biologist determines that the subject birds are no longer nesting or until any juvenile birds have fledged. These measures should apply to all species of birds that are afforded protection from take, as defined by the federal Migratory Bird Treaty Act. • Birds – Trees, structures, and understory that contain unoccupied nests shall be removed prior to February 5th <u>January 1st</u> or after Sept <u>September 15th</u>.

	<ul style="list-style-type: none"> Bats - A qualified biologist shall perform a bat survey 3 days prior to construction to determine whether affected structures or trees provide hibernacula, nursery colony, or roosting habitat. If bats are not detected during preconstruction surveys, work must be initiated within 3 days of the survey. Work is not to occur within 50 feet of an active roost. No clearing and grubbing is to occur adjacent to any roost structure. Combustion equipment, such as generators, pumps, and vehicles are not to be parked nor operated under or adjacent to any roost structure.
Cultural Resources / Archeological	
<u>ARCH-PR1:</u> RESOUCE PROTECTION	<ul style="list-style-type: none"> A DPR cultural resource specialist will review and authorize all vehicle and equipment staging and material storage sites that are located off paved surfaces. A DPR-approved cultural resources specialist will implement archaeological monitoring during ground disturbing construction activities at the project sites at his/her discretion and will be notified by the site manager a minimum of 5 days prior to any ground disturbing work in these areas. <u>Temporary fencing will be used, where appropriate, during construction activities to delineate and protect known sensitive cultural sites and resources.</u>
<u>ARCH-PR2:</u> HUMAN REMAINS	<ul style="list-style-type: none"> In the event that human remains are discovered, work will cease immediately in the area of the find and the project manager/site supervisor will notify the appropriate DPR personnel. Any human remains and/or funerary objects will be left in place or returned to the point of discovery and covered with soil. The DPR sector Superintendent (or authorized representative) will notify the County Coroner/County Medical Examiner, in accordance with §7050.5 of the California Health and Safety Code and California Code of Regulations (Title 14, Division 6, Chapter 3, §15064.5). and the NAHC or Tribal Representative. If a Native American monitor is on site at the time of discovery, the monitor will be responsible for notifying the appropriate Native American authorities. The Local Coroner will make the determination of whether the human bone is of Native American origin. If the coroner determines the remains are determined to represent <u>be of Native American interment origin</u>, the Coroner will be responsible for notifying the CNAHC in Sacramento and/or tribe will be consulted to, and the CNAHC will be responsible for identifying the most likely descendants, <u>who will determine</u> and appropriate disposition of the remains. Work will not resume in the area of the find until proper disposition is completed (PRC §5097.98). No human remains or funerary objects will be cleaned, photographed, analyzed, or removed from the site prior to determination. <u>Known burial grounds, religious, and ceremonial sites will be avoided by the project work, and all other archaeological sites will be avoided to the maximum extent practicable. If the find is identified as a sacred or religious site, the site will be avoided to the maximum extent practicable.</u> Formal consultation with the State Historic Preservation Office and review by the CNAHC and Tribal Cultural representatives will occur as necessary to define additional site mitigation or future restrictions.
<u>ARCH-PR3:</u> NATIVE AMERICAN /	<ul style="list-style-type: none"> <u>Qualified Native American monitors will be present during all earthmoving activities within Descanso Area Development. Additional consultation will determine if Native American monitors are appropriate at other project</u>

<p><u>TRIBAL CONCERNS</u></p>	<p><u>locations.</u></p> <ul style="list-style-type: none"> • <u>In the event of discovery during construction activities of Tribal cultural resources, human remains, grave goods, or ceremonial items, the Native American Monitor and/or the Archaeological monitor will have the ability to stop work in that area in order to evaluate the find.</u> • <u>The County Coroner/Medical Examiner will be notified in the event of discovery of human remains. The process followed shall be in accordance with §7050.5 of the California Health and Safety Code, California Code of Regulations (Title 14, Division 6, Chapter 3, §15064.5), and Public Resources Code §5097.98.</u> • <u>Preconstruction Cultural Sensitivity Training for all construction personnel will occur in coordination with the Native American Monitor.</u> • <u>Native American Monitor will be consulted in regards to placement of signs and fencing within and around known archaeological sites.</u> • <u>Native American consultants will be contacted in regards to development of interpretive/educational materials relating to Native American culture and resources.</u>
<p>Geology and Soils</p>	
<p><u>GEO-PR1:</u> SOIL</p>	<ul style="list-style-type: none"> • The project facilities shall be designed according to accepted and recommended engineering and geotechnical specifications. • Loose, compressible soils, including alluvium, colluvium, and topsoil shall be excavated and replaced as compacted fill in areas that shall be subjected to fill or structural loads, and in pavement areas. • Reinforced mat foundations and compacted soil pads may be used to reduce the adverse effects of seismically induced settlements. • Site-specific geologic and geotechnical investigations of proposed buildings, facilities, and infrastructure requiring foundation design criteria shall be performed to assess local liquefaction and cyclic densification potential, surficial expansive soil, and strength of soil. Consideration of these issues in the final design shall be documented and addressed, as appropriate, in the construction documents. • Appropriate landscape design shall be incorporated for areas with the potential for erosion. Appropriate engineering design shall be incorporated for areas comprised of liquefiable soils, weak or expansive soils, or soils above the base of frost zone. • If on-site soil meets the criteria for engineered fill, soil from foundation excavations (drilled pier and/or shallow spread footing) shall be used to reduce the need to transport material off site or import material for fill. Any imported fill material is required to be free of exotic and noxious weed species. Verification of compliance with this requirement will be accomplished as directed by the Contracting Officer in accordance with Division 1 Specifications. This requirement is not intended to apply to fill to be placed 12 inches or more below grade or beneath an impermeable surface. Semi-permeable materials shall be used as much as possible to allow for water infiltration through the soil column and aeration of any compacted soils at the completion of construction.

Table 2.2. Mitigation measures incorporated into the Cuyamaca Equestrian Facilities Project.

<u>ISSUE</u>	<u>MITIGATION MEASURE</u>
<p>AES-MM1: <u>VISUAL AND LIGHTING</u></p>	<ul style="list-style-type: none"> • <u>The project shall incorporate a visual buffer around the Descanso Area Development campground, which would include native trees and shrubs, earthen berms, boulders, and rustic style ranch fencing.</u> • <u>DPR would voluntarily comply with San Diego County’s Light Pollution Code Sections 59.105 and 59.106. This includes installation of fully shielded low pressure sodium lights per the Class II requirements.</u>
<p>BIO-MM1</p>	<ul style="list-style-type: none"> • <u>Noise: At all project locations, DPR shall control noise sources during construction and through installation of noise barriers, if deemed necessary by the bio-monitor.</u> • <u>Wildlife: Routes of escape from excavated pits and trenches shall be maintained for animals that might get trapped in these areas. Post holes and other narrow pits and trenches shall be covered with boards. During construction, these areas will be checked daily by the bio-monitor to ensure that trapped animals are released unharmed.</u> • <u>Migratory Birds and Raptors: Trees or structures containing unoccupied nests (stick nests or tree cavities) shall be removed prior to 15 February 1 January or after 15 September. Also, unoccupied nests shall be removed where they occur in trees that are not to be removed, but that are within areas expected to be subjected to disturbance during the breeding season. Should construction activities take place during the breeding season (1 January 15 February to 15 September); a qualified biologist shall conduct a preconstruction survey no more than one week prior to construction. If it is determined that construction would affect an active nest or disrupt reproductive behavior, then avoidance strategies shall be implemented. No construction could occur within 500 feet of an active nest, until a qualified biologist determines that the subject birds are no longer nesting or until any juvenile birds are no longer using the nest as their primary day and night roost. These measures should apply to all species of birds that are afforded protection from take, as defined by the federal Migratory Bird Treaty Act.</u>
<p>BIO-MM2 <u>ARROYO TOAD</u></p>	<ul style="list-style-type: none"> • <u>Grading and other ground disturbance activities in the Descanso Area Development shall be timed to avoid the overwintering season of the arroyo toad (generally September through March).</u> • <u>A qualified biologist will be available to inspect all excavations before refilling occurs, ensuring that any trapped special-status species are passively relocated to avoid incidental take.</u> • <u>Off-trail horse riding, biking, and hiking will continue to be discouraged; public access to the Sweetwater River reaches and associated uplands identified as suitable arroyo toad breeding habitat will be restricted. Unobtrusive informational signs will be installed to make the public aware of the restrictions and justifications. The signs, shall be designed so that they do not provide perches from which corvids search out and prey on arroyo toads. These displays shall provide information regarding the ramifications of disturbing, collecting, or killing protected species. Outreach</u>

	<p><u>shall also involve working with Park Rangers that patrol areas with known arroyo toad populations.</u></p> <ul style="list-style-type: none"> • <u>A protocol will be developed that includes maps delineating safe zones (outside of arroyo toad breeding and upland habitat) within which heavy machinery can be brought on site and operated when fire conditions or post-fire management actions (e.g., creation of roads for firefighting, dead tree removal) require them. Arroyo toads would be at greatest risk of being crushed in the riparian zone between the start of the first warm rains of winter through late summer (roughly January through September), and in upland habitat during the fall and early winter (September through December).</u> • <u>A barrier (large logs) shall be placed along the southern and western edge of the Descanso Area Development to direct arroyo toad around the new campground.</u>
BIO-MM3	<ul style="list-style-type: none"> • <u>All permanent impacts to sensitive vegetation communities will be mitigated using the accepted replacement-to-impact ratios: montane-hardwood conifer forest (2:1) and nonnative grassland (0.5:1).</u> • <u>The replacement ratios (using rooted plants in liners or direct planting of acorns) for oak trees that are removed will be as follows:</u> <ul style="list-style-type: none"> <u>trees less than 5 inches diameter at breast height (DBH) should be replaced at 3:1;</u> <u>trees between 5 and 12 inches DBH should be replaced at 5:1;</u> <u>trees between 12 and 36 inches DBH should be replaced at 10:1;</u> <u>trees greater than 36 inches DBH should be replaced at 20:1.</u> <p><u>The replacement ratio for damaged oak trees less than 12 inches DBH will be 2:1, and greater than 12 inches DBH will be 5:1. All other oaks will be fenced off and tagged to prevent equipment from operating in their drip line. Oak replanting efforts will utilize locally collected acorns or saplings grown from collected acorns. When possible, appropriate understory species will also be included to enhance structural diversity of the mitigation site. The site will be monitored and managed for a minimum of 10 years to ensure success of the restoration effort.</u></p>
Cultural Resources / Historical	
HIST-MM1:	<ul style="list-style-type: none"> • <u>The proposed landscape elements at the Descanso Area Development will complement the site and blend in with the surrounding area.</u>
HIST-MM2:	<ul style="list-style-type: none"> • <u>A qualified DPR- cultural resources monitor shall be on site during all other ground-disturbance activities.</u>
ARCH-MM1: RESOURCE PROTECTION	<ul style="list-style-type: none"> • <u>During previous consultation with Native American representatives, Native American monitoring was requested within the Descanso Area Development site. A DPR-approved cultural resource specialist will coordinate with a Native American monitor for work within the Descanso Area Development site. For other locations, additional consultation will determine if Native American monitoring is needed.</u> • <u>To protect cultural resources in the vicinity of the Descanso Area</u>

	<p><u>Development, fencing shall be placed along the campground’s perimeter trail. Signage shall also be placed to dissuade visitors from going off-trail into those areas with the most sensitive resources.</u></p> <ul style="list-style-type: none"> • <u>Rangers and other Park personnel shall be informed of the presence and extent of the archaeological sites and features within this portion of the Park.</u> • <u>Site CA-SDI-8855 shall be included within Colorado Desert District’s site stewardship program, so that it is visited and evaluated for archaeological resources and condition on a regular basis. An archaeological site condition assessment record or other such condition report shall be filled out for the site, and updated every few years, or as the level or threat of impact or damage warrants.</u>
<p><u>ARCH-MM2: DISCOVERY OF PREVIOUSLY UNDOCUMENTED RESOURCES</u></p>	<ul style="list-style-type: none"> • <u>In the event that previously unknown cultural resources (including but not limited to dark soil containing shellfish, bone, flaked stone, groundstone, or deposits of historic trash) are encountered during construction related activities by anyone, the site manager will put work on hold at that specific location and personnel will be redirected to other tasks. A DPR-approved cultural resources specialist will record and evaluate the finds and work with site manager to implement avoidance, preservation, or recovery measures as appropriate prior to any work resuming at that specific location.</u>
<p><u>HIST-MM1: RESOURCE PROTECTION</u></p>	<ul style="list-style-type: none"> • <u>The proposed landscape elements shall complement the site and blend in with the surrounding area.</u> • <u>DPR will: 1) preserve identified historic-era buildings, structures, and landscape improvements in place; 2) design new improvements that complement but not mimic these features in scale and materials; 3) have a qualified archaeological monitor will be on site during any excavation work.</u>
<p><u>HYDRO-MM1-4, MM6-7: WATER QUALITY</u></p>	<ul style="list-style-type: none"> • <u>Paso Picacho Day Use Area: The 10-year storm design will segregate the clean mountainside stormwater runoff from the parking lot runoff.</u> • <u>Descanso Area Development: Any structure that cannot withstand flooding will be built with a pad elevation higher than 3,404 feet or be elevated such that the sheet flow from runoff will not impact the area.</u> • <u>Descanso Area Development: A detention basin will provide treatment for stormwater runoff coming from parking lots, streets and roads, and horse facilities. A portion of the stormwater will be treated by roadside vegetated swales and vegetated buffer strips.</u> • <u>Green Valley Campground Loop A and Descanso Area Development: Campers will be informed that they must clean the corrals daily and place the horse manure in one of the on-site manure trailers. Corrals will be designed to slope away from any adjacent waterway and both the corrals and the trailer(s) will be located away from any waterways to prevent manure entering these areas. Trailer(s) will be emptied 2-3 times each week, depending on visitor use. No horse waste shall be dumped on the edge of, or directly into waterways. The wash area shall be elevated above the surrounding ground. All wash water shall be drained away from the wash area to a filter strip or other vegetated area. Water from horse wash areas shall not be allowed to flow into storm drains, creeks, ponds or seasonal drainages. A shut-off nozzle or low-flow nozzle shall be used at the end of all hoses. Signage shall be placed encouraging the proper use of horse grooming and health products, recommending using plain water to rinse</u>

	<p><u>horses and to avoid using soap as much as possible. Horse access and human activities around the horse facilities shall be prohibited in drainages, swales, creeks, creek banks, meadows, and steep hillsides.</u></p> <ul style="list-style-type: none"> • <u>Paso Picacho Day Use Area: A Storm Water Pollution Prevention Plan (SWPPP) shall be developed prior to construction. It will incorporate details of pre-construction BMPs and construction BMPs. Site Design BMPs, Source Control BMPs, and Treatment Control BMPs will also be implemented to the maximum extent practicable based on the pollutants of concern, receiving water bodies, and proposed development.</u> • <u>Roof runoff shall be directed away from high-use, bare, un-vegetated areas and manure storage areas. New buildings and confinement areas shall be located away from drainages. Wash stations and manure storage areas shall be separated from any waterways with buffer strips of vegetation to filter sediments and absorb nutrients in runoff. Potential runoff from water troughs shall be controlled with automatic waterers or other means. Clean water shall be diverted around areas with pollutants by building berms, ditches, underground pipelines or other methods.</u> • <u>Construction activities, particularly those resulting in substantial soil disturbance, shall be scheduled during periods of low precipitation and low groundwater, when feasible, to reduce the risk of accidental hydrocarbon leaks or spills reaching surface and/or groundwater, to reduce the potential for soil contamination, and to minimize erosion of loose materials in construction areas. Volatile wastes and oils shall be disposed of in approved containers for removal from construction sites to avoid contamination of soils, drainages, and watercourses. Equipment shall be inspected for hydraulic and oil leaks prior to use on construction sites, and inspection schedules shall be implemented to prevent contamination of soil and water. When using heavy equipment, absorbent pads, booms, and other materials shall be kept on site, so as to contain oil, hydraulic fluid, and solvents.</u>
<p><u>HYDRO-MM5:</u> <u>EROSION</u></p>	<ul style="list-style-type: none"> • <u>Disturbed areas shall be revegetated as appropriate to minimize erosion. Native shrubs, grasses, and other groundcover shall also be planted along and within the drainages to reduce erosion. To the extent feasible, bridges shall be constructed and/or culverts installed when there is no water in the watercourses. Ditches shall be kept vegetated with native grass to help maintain stability and shall be cleared of sediments. Vegetated ditches with a gentle slope of 2 to 6 percent will slow the velocity of the stormwater and allow sediment to drop-out of the system. For chronic sediment problems, the erosion source shall be addressed.</u>
<p><u>NOISE-MM1:</u> <u>CONSTRUCTION</u></p>	<ul style="list-style-type: none"> • <u>Work hours within 0.25 mile of sensitive noise receptors (i.e., residential neighborhood, school) shall not begin before 7 AM and shall cease by 7 PM, Monday through Friday; there shall be no work on Saturdays, Sundays or State holidays. Access by large, noisy equipment to the work site shall also be limited to the above hours.</u> • <u>All equipment shall have sound-control devices that are no less effective than those provided on the original equipment including a muffled exhaust. As directed by DPR, the contractor shall implement standard noise abatement measures, such as developing a construction schedule that</u>

	<p><u>minimizes impacts to adjacent noise-sensitive receptors; using best-available noise control techniques wherever feasible; using hydraulically or electrically powered impact tools when feasible; locating stationary noise sources as far from sensitive uses as possible; erecting temporary noise barriers; turning off idling equipment; rescheduling construction activity; and notifying adjacent residents in advance of construction work.</u></p>
<p><u>NOISE-MM1:</u> <u>OPERATION</u></p>	<ul style="list-style-type: none"> • <u>Both campgrounds will have posted “Quiet Hours”, which is usually from 10 pm to 7am to ensure that noise levels are kept to a minimum at night.</u>

2.2 GREEN VALLEY CAMPGROUND LOOP A CONVERSION

2.2.1 Preferred Alternative

The proposed Green Valley Campground Loop A Conversion (Loop A) would be located in the southern third of the Park on the west side of SR-79 within the Green Valley Campground (Figures 1.2 and 1.3). The project would convert an already existing family tent campground containing 22 sites to an equestrian family campground containing 10-15 sites. An approximate 5-foot high fence would be constructed between the equestrian campground and SR-79 to deter horses from running across the highway. The fence would be constructed with natural materials in a post or split rail design consistent with the Park's historic character. Other project components include upgrading the existing restroom to comply with the American with Disabilities Act (ADA), improving two of the campsites to be ADA compliant, and upgrades to campsite utilities and furnishings. This conversion may either be temporary or permanent depending on future funding and facility placement in an updated Cuyamaca Rancho State Park General Plan. The project would impact approximately 0.5 acre of coast live oak woodland including mostly nonnative grassland and wild rose (*Rosa* sp.).

Access: Access to the project site would not change from its current design, which is directly from SR-79. The campground entrance road would be improved by installing one-way directional arrows to show the flow of traffic in and out of the loop.

Campsites: At this time, it is anticipated that 10-15 equestrian campsites would replace the existing 22 tent campsites (Figures 2.1 and 2.2). The conversion would require some of the sites be graded and widened to accommodate horse trailer parking. The road running through the loop would also need to be widened in some areas to allow the passage of larger vehicles. Asphalt concrete will be removed in some locations and decomposed granite (DG), fill dirt, or base rock would be used to level and widen the road and some of the campsites. Dumpsters and manure trailers will be placed in the smaller campsites, which cannot accommodate equestrian camping. Other required maintenance activities include rock wall repairs; vegetation trimming and/or removal, including some oak trees that have been damaged/killed by the gold-spotted oak borer (*Agrilus coxalis*); stump removal; removal of camp stoves and picnic tables from retired campsites; and relocation/installation of water lines, valves and hose bibs. Corrals would be constructed in the middle of the campground for use by campers in sites too small to accommodate a separate corral.

Restroom: Currently, there is one restroom in the middle of Loop A. The restroom would be left in its current location but upgraded to comply with ADA standards.

Trails: As part of the conversion project, a new trail would be constructed in the southern portion of Loop A. The trail would begin at campsite #1 and intersect with the campground entrance road. The rider/hiker could then access the Arroyo Seco Fire Road and eventually the West Side Trail. The Monument Trail begins at the northern end of the Green Valley Picnic Area. Currently this segment of the Monument Trail is for hikers only. In the future, this "hikers only" portion could be improved to accommodate horseback riding. Lastly, when funding becomes available, a trail leading out of the

northern portion of the campground (campsite #19) may be constructed. The trail would cross the Sweetwater River and connect to the West Side Trail. Trail construction would include a bridge crossing over the Sweetwater River and installation of a short connector trail. Construction of this trail and the associated bridge would require subsequent CEQA review.

Operations: Campground maintenance and operation would include trash removal, restroom cleaning and maintenance, ranger patrol and general campground/campsite maintenance (i.e., kiosks, signs, fencing). Based on seasonal demands, manure trailers would be emptied daily. Check-in and check-out times would be the same as those at other campgrounds within the Park. Reservations could be made through the current online system *Reserve America*.

Construction Management: The most effective and appropriate combination of resource avoidance and monitoring will be employed by DPR during all phases of project construction. Construction timeframe windows would be placed on the project to prevent disturbance of sensitive species and reduce potential impacts to Park visitors. During Park closure periods (such as the most recent closure from November 30, 2009-March 26, 2010), work hours would be between 7:00 AM and 7:00 PM, Monday through Sunday. When the Park is open for visitor use, no work would occur on Saturdays, Sundays or State holidays. Primary staging for project equipment and supplies will be on site. Best Management Practices (BMPs) will be used to protect the resources on and off site for all phases of work activity. Environmentally Sensitive Areas (ESAs) will be fenced so that construction personnel know to avoid them. Sediment control during construction will be implemented through a variety of erosion control features or construction BMPs, which will prevent or minimize the potential of sediment leaving the construction site. Erosion control BMPs include: 1) minimizing the extent of disturbed areas and duration of exposure, 2) stabilizing and protecting disturbed areas, 3) keeping runoff velocities low, 4) protecting disturbed areas from contact with runoff, and 5) retaining sediment within the construction area. The construction BMPs that will be applied to the project may include: 1) temporary sedimentation/detention basins, 2) silt fences, 3) gravel bag barriers, 4) temporary soil stabilization through mattress or mulching, 5) temporary drainage inlet protection, and 6) diversion dikes and interceptor swales. The stormwater and pollutants will be contained on site and/or evacuated off site to an appropriate, approved facility. No pollutants or sediment will be allowed to enter the Sweetwater River or any other seasonal stream. Disposal of potential pollutants will be conducted according to accepted protocols. Due to the sensitive nature of the nearby riparian areas and drainages and other natural resources, construction will be coordinated to reduce impacts, whenever possible.

2.2.2 Alternative 2 / Environmentally Superior Alternative

This Alternative is similar to Alternative 1 with the following exclusions: (1) the trail spur crossing the Sweetwater River and connecting to the West Side Trail would be eliminated and (2) the central portion of the loop would remain undisturbed; no corrals or other equestrian amenities such as an arena would be constructed. This alternative would impact approximately 0.05 acre of coast live oak woodland and would be considered the Environmentally Superior Alternative because it would result in the fewest resource impacts required to meet the goal of the project.

2.2.3 No Project Alternative

Implementation of the No Project Alternative would result in Loop A remaining a “tent camping” area. This alternative was determined to be infeasible because it does not meet the core objective of the project: increasing the amount of equestrian use areas within the Park. As stated in the Project Needs Section, the Park has limited equestrian facilities. Given the predicted population increase within Southern California and the increased demand for recreational resources near urban areas, it is anticipated that the proposed campground will be in even higher demand in the future, especially with San Diego County having such a large equestrian contingent.

2.3 PASO PICACHO DAY USE AREA

2.3.1 Preferred Alternative / Environmentally Superior Alternative

The proposed Paso Picacho Day Use Area would be located in the northern portion of the Park on the east side of SR-79 (Figures 1.2 and 1.3). The existing Paso Picacho family campground and day use picnic area lies on the west side of SR-79, just across from the proposed project site. The project would impact up to 1.12 acres and provide a day use parking lot, restroom, picnic area, trailhead, and associated facilities for equestrian visitors. This alternative is also the Environmentally Superior Alternative because it would result in the fewest resource impacts required to meet the goal of the project. This alternative impacts the least amount of acreage and results in the removal of the fewest trees.

Parking Lot: The equestrian day use parking lot would accommodate up to eight rigs. Each rig could be no larger than a 40-foot trailer and tow vehicle. An ADA accessible parking space and path of travel would be established. The lot is designed to be one-way, with vehicles entering from the site’s southern end and exiting at the northern end (Figures 2.3 and 2.4). There would be one gate at the entry point and one at the exit point, which could be locked or left opened at Park staff’s discretion. Additionally, a self-pay station would be installed to allow visitors to pay day use fees by self-registration. Hose bibs would be provided for use by equestrians and Park maintenance staff. One manure bin would be located near the northern end of the parking lot. The bin would be approximately 8 feet by 10 feet and require a 10-foot by 20-foot cleared area. The entrance and exit driveways would be composed of Portland Cement Concrete and be approximately 200 and 100 feet long, respectively. A 6-inch curb and gutter would run along the south side of the entrance driveway and along the north side of the exit. The approximately 0.64-acre parking lot would consist of DG and be approximately 360 feet in length. It would be sloped 5 percent in a westerly direction and the driveways would be sloped 8-10 percent toward the highway. The turning radii of the entrance and exit are designed to allow adequate safe turning for vehicles with horse trailers.

A tree survey was conducted at the site. The locations of the trees were surveyed and the approximate locations of the drip lines were drawn into the plans. Grading was designed to avoid as many trees and their respective drip lines as possible, however, it was estimated that up to 16 Jeffery pine (*Pinus jeffreyi*) and 5 oak trees (*Quercus* spp.) would be removed.

Access: Access to the project site would be directly from SR-79. The entrance driveway would be across the highway from the Paso Picacho campground entrance driveway. The sight distance of the project's exit driveway was analyzed and it was determined that there is adequate sight distance, as required by the Caltrans Highway Design Manual (HDM). The HDM specifies a driver's eye height of 3.5 feet and the minimum height of the object in the road as 4.25 feet. At a distance of 770 feet, using the contour lines found by the survey, the line of sight from the entrance driveway looking north at oncoming traffic was found to be higher than the road surface elevation at the point of the crest.

Retaining Wall and Boundary Fence: The day use parking facility was designed to minimize impacts to the immediate surroundings (reduce grading on the eastern boundary of the parking lot) by inclusion of an approximately 460-foot long retaining wall. The proposed height of the retaining wall will vary between 2 and 7 feet. The retaining wall will be vegetated with native species. A split-rail fence, approximately 500 feet long, is proposed along the western side of the parking lot to prevent a loose horse from inadvertently entering the highway.

Drainage: A vegetated swale on the eastern side of the project would convey stormwater to the entrance and exit driveways for any storm less than a 10-year event. This would prevent stormwater upstream of the site from picking up pollutants of concern within the site, thus requiring it to be treated by post construction stormwater BMPs. The swale would be designed to minimize impacts to existing runoff patterns. Water leaving the swale would discharge into the curb and gutters of the driveways, which in turn would drain into the existing roadway swales. The area between the roadway and the parking lot would be used as a natural biofilter to treat pollutants of concern from the parking lot before these pollutants enter the existing roadway swale.

Restroom: There would be one restroom on the east side of the parking lot. The restroom would operate with double vault waste collection, which requires no water or sewer connections. The restroom would have a 5-foot setback from the retaining wall, be ADA compliant, and have two unisex stalls.

Picnic Area: An ADA compliant picnic area, with one picnic table, would be placed on the southwestern end of the project site.

Trails: The existing Cold Stream Trail, which runs along the eastern side of the project site, would be realigned to accommodate the proposed project. The new Cold Stream trail connection would be located in the southeastern corner of the parking lot. Signs would be installed to instruct equestrians to ride north along Cold Stream Trail to the Azalea Glen Trail, where there is an existing SR-79 crossing. This would allow equestrians to access trails on the other side of the highway. A "no horse crossing" sign would be placed near the day use parking entrance to dissuade equestrians from crossing SR-79 at this location. However, pedestrians from the Paso Picacho Campground currently cross SR-79 at this location to access the Cold Stream Trail.

Accessibility: There would be a delineated path of travel between the ADA parking space, the picnic table, and the restroom. Pathways would consist of stabilized DG or compacted native material and be no less than 4 feet wide. The restroom would be ADA compliant based on regulatory guidelines.

A mounting ramp for use by disabled equestrian riders would be placed near the ADA parking spot on the western side of the parking lot (Figure 2.5). Due to site constraints, it has been determined that an alternative to the more traditional style mounting ramp should be used. Ramp dimensions and specifications were determined after consultation with the local North American Riding for the Handicapped Association in August of 2008, as well as with the DPR Accessibility Unit. To use the mounting ramp, the horse would be lead down a ramp that measures 46 feet long and 8 feet wide to a level 8-foot by 8-foot landing at the base of a 24-inch-high retaining wall (Figure 2.5). The rider will mount the horse from a 5-foot by 5-foot upper landing located at the top of the retaining wall. The approach to this mounting area would be no less than 4 feet wide with a slope no greater than 5 percent from the designated ADA parking space. The edge of the mounting area at the retaining wall would have a raised lip, no greater than 2 inches high, to act as a 'stop' for wheelchairs. In addition to the mounting area at the top of the wall, there would be a mounting block on the lower landing. This block would have an approximately 4-foot by 4-foot top surface and stand 16 inches tall with two 8-inch steps leading up to the surface. The block will be transportable, allowing it to be placed as needed for mounting a horse from the lower level or for assisting a disabled rider mounting from the upper landing. Informational signs will be placed near the mounting ramp to explain that the mounting ramp may create a confined and stressful situation for the horse and that it is recommended that riders do a walk-through with their horse prior to using the ramp. Project design would be reviewed by the Accessibility Section of the Acquisition and Development Division of DPR to ensure ADA compliance prior to project implementation.

Operations: Maintenance and operation of the Paso Picacho Day Use Area would be similar to what is required for other day use areas in the Park including trash removal, restroom cleaning and maintenance, ranger patrol and parking lot maintenance (i.e., signs, fencing).

Construction Management: The most effective and appropriate combination of resource avoidance and monitoring will be employed by DPR during all phases of project construction. Construction timeframe windows will be placed on the project to prevent disturbance of sensitive species and reduce potential impacts to Park visitors. Work hours shall not begin before 7 AM and shall cease by 7 PM, Monday through Friday and there shall be no work on Saturdays, Sundays or State holidays. Access by large, noisy equipment to the work site shall also be limited to the above hours. Primary staging of project equipment and supplies will occur on site and if necessary across SR-79 in a disturbed area near the Visitor Center. BMPs will be used to protect the resources on and off site for all phases of work activity. ESAs will be fenced so that construction personnel know to avoid them. Sediment control during construction will be implemented through a variety of erosion control features or construction BMPs identified as part of the comprehensive *Storm Water Pollution Prevention Plan (SWPPP)*, which will prevent or minimize the potential of sediment leaving the construction site. Erosion control BMPs include: 1) minimizing the extent of disturbed areas and duration of exposure, 2) stabilizing and protecting disturbed areas, 3) keeping runoff velocities low, 4) protecting disturbed areas from contact with runoff, and 5) retaining sediment within the construction area. The construction BMPs that will be applied to the project may include: 1) temporary sedimentation/detention basins, 2) silt fences, 3) gravel bag

barriers, 4) temporary soil stabilization through mattress or mulching, 5) temporary drainage inlet protection, and 6) diversion dikes and interceptor swales. The stormwater and pollutants will be contained on site and/or evacuated offsite to an appropriate, approved facility. No pollutants or sediment will be allowed to enter any seasonal stream. Disposal of potential pollutants will be conducted according to accepted protocols. Due to the sensitive nature of the nearby drainage and other natural resources, construction will be coordinated to reduce impacts, whenever possible. Additionally, the final site grading and construction plan must be approved by a qualified State Environmental Scientist and State Parks Archaeologist prior to implementation of the project.

2.3.2 Alternative 2

Alternative 2 would impact 1.12 acres and require the removal of 21 trees: 16 Jeffrey pine and 5 oaks (Figure 2.6). As with the preferred alternative, this alternative would also accommodate up to eight rigs. The restroom would be located in the southwestern corner of the parking lot in the vicinity of the picnic area and mounting ramp. This would allow only enough space for one picnic table, which would be ADA compliant, and a smaller buffer around the accessible mounting ramp. The ADA accessible parking space would be closest to these amenities and an accessible path of travel would be established between them. The size and shape of the parking lot would essentially be the same as the preferred alternative; however, the restroom's placement would allow for the retaining wall along the eastern edge of the parking lot to remain approximately the same height along its length (3 feet), as it does not have to compensate for the restroom being placed along the lot's edge.

2.3.3 Alternative 3

Alternative 3 would impact approximately 1.68 acres and involve the removal of at least 18 trees: 14 Jeffrey pines and 4 oaks (Figure 2.7). The tree survey conducted for this alternative did not cover the entire limit of work; therefore it can be assumed that additional trees may need to be removed. Additionally, the acreage calculated for this alternative does not include the drainage swale east of the parking lot, as it has not yet been designed. This alternative, like the others, would accommodate up to eight rigs, however the parking lot would be considerably wider. This design would place the restroom in the southwestern corner of the parking lot in the vicinity of both the picnic area and mounting ramp. This would allow enough space for only one picnic table, which would be ADA compliant, and leave a smaller buffer around the accessible mounting ramp. The ADA accessible parking space would be closest to these amenities and an accessible path of travel would be established between them. The size of the parking lot is approximately twice as wide as the preferred alternative with an island in the middle that consists of existing trees. The restroom, picnic area, mounting ramp, and accessible parking spot would be in the southwestern corner, as proposed in Alternative 2. The parking lot would be graded such that sheet flow would be directed to the area between the parking lot and SR-79. This vegetated area would act as a natural biofilter for sheet flow during storm events.

2.3.4 No Project Alternative

Implementation of the No Project Alternative would result in the proposed project site remaining undeveloped, open space. This alternative was determined to be infeasible because it does not meet the core objective of the project: increasing the amount of equestrian use areas within the Park. As stated in the Project Needs Section, the Park has limited equestrian facilities. Given the predicted population increase within Southern California and the increased demand for recreational resources near urban areas it can be anticipated that the proposed parking area will be in even higher demand in the future, especially with San Diego County having such a large equestrian contingent.

2.4 DESCANSO AREA DEVELOPMENT – ~~INTERIM~~ DAY USE PARKING AREA (PHASE I)

2.4.1 Preferred Alternative / Environmentally Superior Alternative

The proposed Descanso Area Development ~~Interim~~ Day Use Parking Area would be located in the southern portion of the Park near the community of Descanso (Figures 1.2 and 1.3). The existing day use area would be expanded and upgraded, impacting 0.93 acres of nonnative grassland and 5 nonnative elm trees (*Elmus* sp.). The project would provide day use parking for equestrians and hikers, an ADA compliant restroom, picnic area, trailhead, and associated amenities for horse-back riders. This alternative is also the Environmentally Superior Alternative because it would result in the fewest resource impacts required to meet the goal of the project. This alternative impacts the least amount of sensitive habitat and results in the removal of the fewest trees.

Parking Lot: The parking lot would be separated into two areas, one for equestrian vehicles and the other for smaller vehicles belonging to hikers and bike riders (Figures 2.8 and 2.9). The smaller vehicular parking area would be placed in the location of the existing parking lot, while the equestrian parking portion would be an expansion into the northwestern corner of the project site. A self-pay station would also be placed within the parking area.

The equestrian parking area would consist of DG or gravel. Parking spots would not be delineated in order to accommodate the maximum number of rigs. Hitching rails and an ADA compliant mounting platform would be provided separate from the parking area. A trail connection would be created to join the equestrian parking portion of this day use area with the existing Merigan Fire Road. The boundaries of the parking area would be delineated by a new split rail fence and screened with native vegetation. The vehicular parking portion would be surfaced with DG or gravel. Parking spots would not be delineated.

Access: Access to the project site would be provided directly off of Viejas Boulevard. This entrance would be gated.

Restroom: A restroom would be centrally placed between the equestrian and vehicular parking on the northern side of the site. There would be an accessible path of travel to the restroom from the mounting platform and other ADA compliant amenities. The restroom will have two unisex stalls and be on a vault system.

Operations: Maintenance and operation of the Interim Day Use Parking Area would be similar to what is required for the other day use areas in the Park including trash removal, restroom cleaning and maintenance, ranger patrol and parking lot maintenance (i.e., signs, fencing).

Construction Management: The most effective and appropriate combination of resource avoidance and monitoring will be employed by DPR during all phases of project construction. Construction timeframe windows will be placed on the project to prevent disturbance of sensitive species, reduce potential impacts to the adjacent neighborhood, and to Park visitors. Work hours would be between 7:00 AM and 7:00 PM, Monday through Friday; no work would be conducted on Saturdays, Sundays or State Holidays. Access by large, noisy equipment to the work site shall also be limited to the above hours. Primary staging for the project will be on-site. BMPs will be used to protect the resources on and off site for all phases of construction. ESAs will be fenced so that construction personnel know to avoid them. Sediment control during construction will be implemented through a variety of erosion control features or construction BMPs, which will prevent or minimize the potential of sediment leaving the construction site. Erosion control BMPs include: 1) minimizing the extent of disturbed areas and duration of exposure, 2) stabilizing and protecting disturbed area, 3) keeping runoff velocities low, 4) protecting disturbed areas from contact with runoff, and 5) retaining sediment within the construction area. The construction BMPs that will be applied to the project may include: 1) temporary sedimentation/detention basins, 2) silt fences, 3) gravel bag barriers, 4) temporary soil stabilization through mattress or mulching, 5) temporary drainage inlet protection, and 6) diversion dikes and interceptor swales. The stormwater and pollutants will be contained on-site and/or evacuated off-site to an appropriate, approved facility. No pollutant or sediment will be allowed to enter the Sweetwater River, Descanso Creek, or any other seasonal stream. Disposal of potential pollutants will be conducted according to accepted protocols. Due to the sensitive nature of the nearby riparian areas and drainages and other natural resources, construction will be coordinated to reduce impacts, whenever possible. Additionally, the final site grading and construction plan must be approved by a qualified State Environmental Scientist and Archaeologist prior to implementation of the project.

2.4.2 Alternative 2

As in the Preferred Alternative, the existing day use area would be expanded and upgraded, impacting approximately 0.99 acres of nonnative grassland, 6 nonnative elm trees and 2 native live oak trees (Figure 2.10). The parking area would be separated into two portions, one for equestrian parking and the other for small vehicles belonging to hikers and bike riders (Figure 2.10). The vehicular parking would be placed in the location of the existing parking lot, while the equestrian parking portion would be an expansion in the northwestern corner of the project site. The equestrian parking area would be surfaced with DG or gravel. Parking spots would not be delineated in order to accommodate the maximum number of rigs. An accessible mounting platform would be provided. The boundaries of the parking area would be delineated by a new split rail fence. The vehicular parking portion would be surfaced with DG or gravel and parking spots would not be delineated. A restroom would be placed near the vehicular parking area, adjacent to the Merigan Fire Road trailhead. There would be an accessible path of travel to the restroom from the mounting platform and other ADA compliant amenities.

The restroom would have two unisex stalls and be on a vault system. A self-pay station would also be placed within the parking area. A gate would be placed at the entrance to the project site at Viejas Boulevard.

2.4.3 No Project Alternative

Implementation of the No Project Alternative would result in no equestrian staging areas in the southern portion of the Park. This alternative was determined to be infeasible because it does not meet the core objective of the project, increasing the amount of equestrian use areas within the Park.

2.5 DESCANSO AREA DEVELOPMENT – (PROGRAMMATIC)

2.5.1 Preferred Alternative 3

This element of the proposed project would provide an equestrian campground and associated amenities, as well as parking and connections to nearby existing trail systems. The proposed project site is located on the southwestern edge of the Park adjacent to the community of Descanso in eastern San Diego County (Figures 1.2 and 1.3). More specifically, the proposed Descanso Area Development would be located on Viejas Boulevard between River Drive and Mizpah Lane (Figure 2.9). Adjacent to the site are the Descanso Elementary School, ~~San Diego County Parks'~~ land owned by the MEUSD, and several private residences. The site is an open, flat field primarily covered with nonnative annual grasses. There is a drainage that runs north to south through the eastern side of the field. The field was historically used for agriculture and cattle grazing and numerous nonnative species were planted as feed for livestock. Construction of the proposed project would impact approximately 25 acres of annual grassland, but the drainages would be avoided to the maximum extent practicable. A large oak tree and rock outcropping feature on the eastern side of the site would also be avoided.

Access: The site is located approximately 1 mile west of the intersection of SR-79 and Viejas Boulevard. Vehicles would access the site directly from Viejas Boulevard. The Merigan Fire Road is the only trail that leads from the site to the interior of the Park. It is used by hikers, bikers, and equestrians, as well as emergency and service vehicles.

Campsites: The proposed campground would be located in the northeastern end of the site (Figure 2.11). It would consist of two loops containing a maximum of 18 individual campsites including one designated camp host site. Campsites would be large enough to allow room for a buffer between campsites and provide flexibility in the arrangement of the developed components and campsite furniture. The developed components would include the tent pad, facility pad with picnic table and barbeque pit, parking space, pedestrian pathway, and equestrian facilities (corrals and tacking areas). Additional corrals may be located between the campsites to serve overflow use. Horses may be tied to a hitching post or the corral design could accommodate dual use for hitching horses. Therefore, hitching posts may not be included at each campsite. Hitching posts and one accessible mounting station would be located near the restroom.

Each site would be built with environmentally sustainable or native materials and have rustic characteristics and would accommodate up to eight people, two automobiles, and one rig or trailer. ADA compliant pathways would be designed to create routes between ADA campsites and facilities (see Accessibility section below).

Amenities: The northern campground loop would contain a manure bin on its northern end, and a restroom on its southwestern side. An existing monitoring well, used by the County to monitor existing groundwater levels, would be protected in place. In the center of the southern loop there would be a set of corrals and a ramada, both centrally located to allow for communal gatherings. The southern loop would also contain two horse wash areas and two manure bins, one each in the northern portion of and the eastern portion of the loop. There would be hose bibs throughout the campground to be shared among campsites. Electrical hookups would be provided at all campsites. The camp host site would have water, electrical, and telephone hookups. Manure trailers and horse racks would be at a reasonable walking distance from all campsites. A self-pay station would be located at the campground entrance as a means for collecting fees. There would be two entrance gates, which could be left open or closed at Park staff's discretion. One gate would be placed at the main entrance to the Descanso Area Development, at the intersection of Viejas Boulevard and the entrance driveway, and the other would be placed at the entrance to the campground loops.

Restroom: There would be one restroom in the campground located in the northern loop. Due to high groundwater levels, a conventional septic system would not be feasible at this site. Therefore, when the project receives funding, non-traditional methods of sewage disposal will be investigated including composting or vault toilets. Showers may not be installed at this site. There would be low-wattage, photovoltaic lighting and a pay telephone at the restroom. The restroom would be ADA compliant.

Equestrian Parking Lot and Restroom: A parking lot is proposed for the northwestern corner of the project site that could hold up to 15 vehicles with trailers or 15 large rigs. This lot would be in addition to the Descanso Area Development Parking Area described above. One parking space would meet ADA-accessibility requirements. A shade ramada, corrals and two 60-foot diameter round pens would be constructed near the northeastern corner of the parking lot, while an additional ramada and corrals would be located near the southeastern corner. An accessible mounting platform and a manure bin would be in the vicinity of the parking area and accessible parking spot. There would be an ADA-compliant restroom that would vary in size depending on the capacity of the parking area. The restroom would be a vault or composting toilet system. Landscaping would divide the parking lot from the campground area.

Utilities: Water for the campground will come from wells and the Descanso Community Water District. Electricity and phone service will be brought to the campground via overhead transmission lines. Trash receptacles would be emptied by Park employees.

Landscaping Features: The campground would be landscaped with an emphasis on:

- screening the campground from neighboring properties;
- enhancing the campsites with native plant materials and shade structures;
- drainage swales to capture, filter, and redirect stormwater from the site for flood prevention and to protect water quality; and
- fencing to delineate the site boundary and increase site security.

Screening: Vegetated fill berms south of the day use parking lot and the campground area would partially screen the site improvements from public view. The berms would be

a minimum of three feet high and would be vegetated with moderate to fast-growing trees and shrubs that will reach the height and density required to minimize views of the campground and other facilities. Berms and vegetative screening would also be used to separate the campsites and the day use area facilities.

Shading and Enhancement: The campground would be planted with native trees to provide shade to the campsites and other common areas in and around the site. Shrubs, grasses and ground covers will be planted along the perimeter of the campsites, providing privacy for the users. Additional shade would be provided in common areas by ramadas, which would be constructed of natural and/or sustainable materials. The size of the ramadas may vary depending on their location in the campground and the projected need to accommodate the final size of the facility; one ramada would be large enough to support a group event of up to 50 people.

Drainage Swales: Flooding on the site and the surrounding area would be controlled by diverting stormwater into on-site vegetated swales that connect into existing drainages. The vegetation in the swales would consist of native grasses and shrubs that could filter runoff from the campsites to protect water quality down stream.

Additionally, the plants, trees and boulders incorporated into the swales would slow the flow of water off the site and reduce the discharge into existing drainage ways. The boulders, trees, and plantings would also add aesthetic features to the campground.

Fencing: The project boundary would be delineated by a rustic post and rail or split-rail fence. Additional fencing may be required on the southern edge of the site to increase security by controlling access between the ~~County~~ MEUSD Park, school, and the project area. Fences would be constructed of native or sustainable materials.

Trail System: The proposed trail system includes a perimeter trail around the campground, as well as connections to existing trails within the Park. The proposed perimeter trail would run along the outside of the northern side of the site and then southbound along the west side of the day use parking lot, east along the roadway, across the main road to connect with the existing trail (Figure 2.11). The perimeter trail would allow beginning riders, as well as riders with disabilities, to ride safely alone or with a lead while remaining in proximity to the campground.

The perimeter trail would connect to the Merigan Fire Road in the northeastern corner of the project site. This trail is used by hikers, bikers, equestrians, and as an emergency route for service vehicles. The Dead Horse Trail is the first trail that connects to the Merigan Fire Road, approximately 0.7 miles from the proposed campground. Just over a mile from the Dead Horse Trail connection, the road connects to additional trails, including Saddleback, Sweetwater, and Blue Ribbon (Figure 1.3). All of the trails accessible from the Merigan Fire Road lead to equestrian riding trails in the central and northern portions of the Park, including the California Riding and Hiking Trail.

Roadway: Vehicles would access the campground site from Viejas Boulevard, approximately 350 feet east of Descanso Elementary School. All roads at the campground would be paved with asphalt. A 24-foot-wide road would run northbound from the Descanso Area Development Interim Day Use Parking Area and across an existing channel. Three, 36-inch storm drain culverts, capable of handling a 100-year storm event, would be installed in the channel. The road would continue to run north and

then split into two 24-foot wide roads. One road would lead west into the equestrian parking lot and the other road would connect to a roadway that would provide access to the campsites. The campground loop road would be 16 feet wide. It would be bisected by another 16-foot wide road, creating a one-way figure-8 style layout with a northern and southern loop.

Accessibility: In compliance with the Regulatory Negotiation Committee's Accessibility Guidelines for Outdoor Developed Areas, two campsites, in addition to the camp host site, would be ADA compliant. Each site would have a mounting platform and one hitching rail. There would be accessible routes from the campsites to accessible parking, utilities, site furnishings, equestrian facilities, and the restroom. Accessible pathways would be 4 feet wide and the paving would consist of stabilized DG or compacted native material. Restroom and shower facilities would be ADA accessible based on regulatory guidelines. Project design will be reviewed by the Accessibility Section of the Acquisition and Development Division of DPR to ensure ADA compliance prior to project implementation.

Operations: Maintenance and operation of the campground would include trash removal, restroom cleaning and maintenance, ranger patrol and general campground/campsites maintenance (i.e., kiosks, signs, fencing). Based on seasonal demands, manure trailers would be emptied daily. Check-in and check-out times would be the same as those at other campgrounds within the Park.

Construction Management: The most effective and appropriate combination of resource avoidance and monitoring will be employed by DPR during all phases of project construction. Construction timeframe windows will be placed on the project to prevent disturbance of sensitive species and reduce potential impacts to the adjacent neighborhood, and the Park visitors. Work hours within 0.25 mile of the residential neighborhood shall not begin before 7:00 AM and shall cease by 7:00 PM, Monday through Friday; no work shall occur on Saturdays or Sundays. Access by large, noisy equipment to the work site shall also be limited to the above hours. Primary staging for the project will be located on-site. BMPs will be used to protect the resources on- and off-site for all phases of work activity. ESAs will be fenced so that construction personnel will know to avoid them. Sediment control during construction will be implemented through a variety of erosion control features or construction BMPs identified as part of the comprehensive *Storm Water Pollution Prevention Plan* which will prevent or minimize the potential of sediment leaving the construction site. Erosion control BMPs include: 1) minimizing the extent of the disturbed areas and duration of exposure, 2) stabilizing and protecting the disturbed areas, 3) keeping runoff velocities low, 4) protecting disturbed areas from contact with runoff, and 5) retaining sediment within the construction area. The construction BMPs that will be applied to the project may include: 1) temporary sedimentation/detention basins, 2) silt fences, 3) gravel bag barriers, 4) temporary soil stabilization through mattress or mulching, 5) temporary drainage inlet protection, and 6) diversion dikes and interceptor swales. The stormwater and pollutants will be contained on site and/or evacuated off site to an appropriate, approved facility. No pollutants or sediment will be allowed to enter the Sweetwater River, Descanso Creek, or any other seasonal streams. Disposal of potential pollutants will be conducted according to accepted protocols. Due to the sensitive nature of the nearby riparian areas and drainages and other natural resources, construction will be

coordinated to reduce impacts, whenever possible. Additionally, the final site grading and construction plan must be approved by a qualified State Environmental Scientist and Archaeologist prior to implementation of the project.

2.5.2 Alternative 2

Alternative 2 would essentially be the same as the Preferred Alternative with a different site configuration (Figure 2.12). The campground location would be in the western portion of the project site, placing it just north of the Descanso Elementary School property. There would be two campground loops which would contain up to 18 campsites. An arena could be included in one of the campground loops. In addition to the arena, there could be additional corrals and ramadas to accommodate special events or gatherings. The equestrian day use parking area, comfort station, round pens, and other associated features would be located in the northeastern corner of the project site. Utilities and amenities would remain the same as in the Preferred Alternative. Landscaping, vegetated swales, and screening would vary from the Preferred Alternative as a result of the alternative configuration of the project features.

2.5.3 Preferred Alternative/ Environmentally Superior Alternative

The Environmentally Superior Alternative would impact up to six acres. This Alternative would have five campsites, a comfort station with vault toilet, a round pen and a day use parking lot (Figure 2.13). Campsite sizes would vary to accommodate the topography and layout of the campground and would range in size from 60 feet by 80 feet to 60 feet by 100 feet. The sites would contain two to four corrals, a tent pad and a facility pad, where a barbeque pit and picnic table would be located, and a parking area that would accommodate one to two rigs. Campsite features would be dependent on size. Parking could be pull-through or back-in. A vegetated berm would be placed west of the proposed campground to screen the project from the neighboring elementary school. The day use parking lot would be mixed-use to accommodate all Park visitors. There would be a gate located at entrances to both the campground and the day use parking lot.

2.5.4 Project Alternative Considered but Rejected

The following alternative was considered during the planning process but was determined to be an infeasible location for the proposed project.

2.5.4.1 The Mack Ranch Alternative

After being identified as a suitable property for addition to the Park, the Mack Ranch Property was acquired by DPR in 2005 (Figure 1.3). According to the Project Evaluation Form (DPR 183) completed for the acquisition, the property was acquired to “enhance recreational opportunities and resource protection.” The Mack Ranch Alternative was first assessed in 2005, when a replacement site for Los Caballos was being investigated. At that time, DPR determined that its lack of safe vehicular access made it an infeasible location for a campground. During public meetings and in comment letters submitted in response to the 2007 NOP, inquiries were made regarding the use of the Mack Ranch Property for an equestrian campground. Therefore, the Mack Ranch site was re-evaluated as a potential alternative site to the proposed Descanso Area Development. Upon re-evaluation, two primary issues were determined to be impediments to

constructing an equestrian campground on the Mack Ranch Property: (1) creating safe vehicular access into the property and (2) creating trails out of the property that would connect to the existing Park trail system. Sensitive cultural and natural resources exist within the Mack Ranch property, further decreasing the property's suitability for use as an equestrian campground.

A number of factors would make it difficult to construct and maintain a trail system at the Mack Ranch Property in accordance with DPR trail recommendations for grade and surface. These factors include steep slopes, poor soil conditions, poor soil drainage, and the lack of area to build a trail system that would disperse users. The terrain of the site includes a steep slope that runs parallel to the west side of the site and a seasonal creek that divides the area between the base of the slope and the historic structure complex at the far west side of the property. The space on each side of the creek is narrow, lacking sufficient area for camping and limiting vehicular access throughout the lower level of the site. The dirt road accessing the bluff top is narrow and steep and would need to be widened and significantly re-graded to meet the requirements for vehicles and horse trailers.

Archaeological inspections of the Mack Ranch property by DPR staff determined that potentially sensitive and important cultural sites and artifacts are present on site (see Appendix J). Based on the identification of these resources, it is likely that additional cultural sites exist in the area, and a full-scale, systematic archaeological survey of the property would need to be conducted prior to any campground or other facility construction on the Mack Ranch property.

There are two historical resources located within the Mack Ranch property: the Fages Trail and the Mack Ranch Complex Historic District, however, only the latter has the potential to be impacted by the proposed project. Within the 4-acre historic district is a significant concentration of nine buildings and structures that are united aesthetically by design, plan, and use. They are connected either architecturally or through common ownership and historic use from 1930 to 1963. The proximity to the historic district, as well as other environmental and accessibility issues, would also lessen this particular area's suitability for a potential equestrian campground. Before any potential land use within the former Mack Ranch property could commence, DPR would have to evaluate the potential to cause an adverse effect on the historic district's buildings, structures, and setting.

**GREEN VALLEY CAMPGROUND LOOP A CONVERSION
ALTERNATIVES MATRIX WITH ENVIRONMENTAL IMPACTS**

	Preferred Alternative	Alternative 2	No Project Alternative
<u>Description</u>	Convert an already existing family campground containing 22 sites to an equestrian family campground containing 10-15 sites. The conversion will include installing fencing, upgrading the restroom to comply with ADA standards, upgrading campsite utilities and furnishings, installing horse corrals in the central portion of the Loop, and constructing a trail spur that would cross the Sweetwater River.	Convert an already existing family campground containing 22 sites to an equestrian family campground containing 10-15 sites. The conversion will include installing fencing, upgrading the restroom to comply with ADA standards, and upgrading campsite utilities and furnishings.	The Loop would remain a 22-site family campground.
Aesthetics	Placement of horse corrals in an area that is currently open space. Split rail type fence placed between campground loop and SR-79.	Split rail type fence placed between campground loop and SR-79.	No Impact
Air Quality	Short-term construction related impacts including equipment emissions, fugitive dust and emissions from construction vehicles being driven to and from the project site. Site is already used as a campground so operational emissions will remain close to present conditions.	Same as Preferred Alternative.	No Impact
Biological Resources	Direct loss of 0.5 acres of coast live oak woodland, the majority of which is nonnative grassland and <i>Rosa californica</i> . Potential indirect impacts to wildlife including the San Diego mountain kingsnake, a CDFG Species of Special Concern, due to construction related activities and loss of habitat.	Direct loss of 0.05 acre of coast live oak woodland and potential indirect impacts to wildlife due to construction related activities.	No Impact
Cultural Resources / Archeological	Potential to disturb, degrade, or damage buried archaeological deposits and for previously unknown, buried cultural resources to be discovered during the course of the project.	Same as Preferred Alternative	No Impact
Hydrology / Water Quality	Waste generated by horses and equestrian activities could impair water quality.	Same as Preferred Alternative	No Impact
Noise	Short-term construction related impacts associated with the transport and operation of construction equipment.	Same as Preferred Alternative	No Impact

PASO PICACHO DAY USE AREA

ALTERNATIVES MATRIX WITH ENVIRONMENTAL IMPACTS

	Preferred Alternative	Alternative 2	Alternative 3	No Project
<u>Description</u>	Construct a day use parking lot, restroom, picnic area, trailhead, and associated facilities for equestrian visitors.	Same as Preferred Alternative	Same as Preferred Alternative	The site will remain undisturbed montane-conifer forest.
Aesthetics	Short-term and long-term impacts associated with the conversion of montane-conifer forest, that can be seen from SR-79, to a day use parking area.	Same as Preferred Alternative	Same as Preferred Alternative	No Impact
Air Quality	Short-term construction related impacts including equipment emissions, fugitive dust and emissions from construction vehicles being driven to and from the project site. Long-term impacts from visitor use would be negligible due to closure of Hual-Cu-Cuish Day Use area upon completion of this project.	Same as Preferred Alternative	Same as Preferred Alternative	No Impact
Biological Resources	Direct loss of 1.12 acres of montane-conifer forest including 16 mature Jeffery pine (<i>Pinus jeffreyi</i>) and 5 oaks (<i>Quercus</i> spp.). Potential indirect impacts to wildlife, including the San Diego mountain kingsnake, a CDFG Species of Special Concern.	Same as Preferred Alternative	Direct loss of 1.68 acres of montane-conifer forest including 14 mature Jeffery pine (<i>Pinus jeffreyi</i>) and 4 oaks (<i>Quercus</i> spp.). Potential indirect impacts to wildlife, including the San Diego mountain kingsnake, a CDFG Species of Special Concern.	No Impact
Cultural Resources / Archeological	Potential to disturb, degrade, or damage buried archaeological deposits and for previously unknown, buried cultural resources to be discovered during the course of the project.	Same as Preferred Alternative	No Impact	
Hydrology / Water Quality	Potential for (1) an increase of stormwater runoff entering Harper Creek; (2) manure to enter Harper Creek and degrade its water quality; (3) an increase in erosion and sediment discharge off site due to the removal of vegetation and construction activities; and (4) accidental release of fuels or other hazardous substances due to the use of construction equipment.	Same as Preferred Alternative	Same as Preferred Alternative	No Impact
Noise	Short-term construction related impacts associated with the transport and operation of construction equipment. Long-term impact associated with visitor use and vehicles.	Same as Preferred Alternative	Same as Preferred Alternative	No Impact

DESCANSO DAY USE PARKING AREA

ALTERNATIVES MATRIX WITH ENVIRONMENTAL IMPACTS

	Preferred Alternative	Alternative 2	No Project
<u>Description</u>	The existing day use area would be expanded and upgraded to include an ADA-compliant restroom, picnic area, trailhead and associated amenities for equestrian visitors.	The existing day use area would be expanded and upgraded to include an ADA-compliant restroom, picnic area, trailhead and associated amenities for equestrian visitors.	The site would remain a day use parking area with chemical toilet.
Aesthetics	Short-term and long-term impacts associated with the conversion of nonnative grassland, that can be seen from Viejas Boulevard, to a day use parking area.	Same as Preferred Alternative	No Impact
Air Quality	Short-term construction related impacts including equipment emissions, fugitive dust and emissions from construction vehicles being driven to and from the project site. Site is already used as a parking lot; however capacity would increase. Therefore, long-term impacts associated with visitor use may occur.	Same as Preferred Alternative	No Impact
Biological Resources	Direct loss of 0.93 acres of nonnative grassland and 5 nonnative elm trees (<i>Elmus</i> sp). Potential indirect impacts to wildlife, including the San Diego mountain kingsnake, a CDFG Species of Special Concern due to construction related activities and loss of habitat.	Same as preferred alternative except 0.99 acres of nonnative grassland, 2 live oak trees (<i>Quercus agrifolia</i>) and 6 nonnative elm trees (<i>Elmus</i> sp) would be impacted.	No Impact
Cultural Resources / Archeological	Potential to disturb, degrade, or damage buried archaeological deposits and for previously unknown, buried cultural resources to be discovered during the course of the project. Increased recreational activities could have long-term impacts on significant cultural resources, including the known archaeological site.	Same as Preferred Alternative	No Impact
Hydrology / Water Quality	Potential for 1) an increase in stormwater runoff entering the Sweetwater River; (2) manure to enter Sweetwater River and degrade its water quality; (3) an increase in erosion and sediment discharge off site due to the removal of vegetation and construction activities; and (4) accidental release of fuels or other hazardous substances due to the use of construction equipment.	Same as Preferred Alternative	No Impact
Noise	Short-term construction related impacts associated with the transport and operation of construction equipment. Long-term impact associated with visitor use and vehicles.	Same as Preferred Alternative	No Impact

DESCANSO AREA DEVELOPMENT (PROGRAMMATIC)

ALTERNATIVES MATRIX WITH ENVIRONMENTAL IMPACTS

	Alternative 3	Alternative 2	Preferred Alternative / Environmentally Superior Alternative	No Project
<u>Description</u>	Construct an equestrian campground on 25 acres with 18 campsites, an ADA-compliant restroom, trailhead and associated equestrian facilities.	Same as Preferred Alternative	Construct an equestrian campground on no more than six acres with only five campsites, an ADA-compliant restroom, trailhead, and associated equestrian facilities.	
Aesthetics	Short-term and long-term impacts associated with the conversion of nonnative grassland, that can be seen from Viejas Boulevard, to an equestrian campground. Increased night-lighting due to visitor use.	Same as Preferred Alternative	Less than but similar impact to the Preferred Alternative due to reduced size of the facility.	No Impact
Air Quality	Short-term construction related impacts including equipment emissions, fugitive dust and emissions from construction vehicles being driven to and from the project site. Long-term impacts associated with emissions from visitor vehicles trips to the campground.	Same as Preferred Alternative	Less than but similar impact to the Preferred Alternative due to reduced size of the facility.	No Impact
Biological Resources	Direct loss of 17.0 acres of nonnative grassland and temporary impacts to an additional 7.7 acres of nonnative grassland. Potential indirect impacts to sensitive species including least Bell's vireo, arroyo toad, San Diego mountain kingsnake, pallid bat, Townsend's big eared bat, and San Diego horned lizard due to construction related activities and loss of habitat.	Same as Preferred Alternative	Direct impacts to no more than 6 acres of nonnative grassland. Potential indirect impacts to sensitive species including least Bell's vireo, arroyo toad, San Diego mountain kingsnake, pallid bat, Townsend's big eared bat, and San Diego horned lizard due to construction related activities and the loss of habitat.	No Impact
Cultural Resources / Historical	Convert a portion of a potentially historic ranch complex into an equestrian campground. This would require landscape improvements including raised earthen berms, native shrubs, and trees. Additionally, the proposed project would introduce non-historic landscape and hardscape elements in an area immediately west, south, and southeast of the Oliver/Merigan Ranch Foreman's Cabin. These elements include native tree species, vegetated swales, berms, roadways, a public restroom, and other equestrian-related amenities.	Same as Preferred Alternative	Same as Preferred Alternative	No Impact
Cultural Resources / Archeological	Potential to disturb, degrade, or damage buried archaeological deposits and for previously unknown, buried cultural resources to be discovered during the course of the project. Increased recreational activities could have long-term impacts on significant cultural resources, including the known archaeological site.	Same as Preferred Alternative	No Impact	
	Alternative 3	Alternative 2	Preferred Alternative / Environmentally Superior Alternative	No Project
Hydrology / Water Quality	Potential for (1) an increase in stormwater runoff entering the Sweetwater River; (2) manure to enter Sweetwater River and degrade its water quality; (3) an increase in erosion and sediment discharge off site due to the removal of vegetation and construction activities; and (4) accidental release of fuels or other hazardous substances due to the use of construction equipment.	Same as Preferred Alternative	Less than but similar impact to the Preferred Alternative due to reduced size of the facility.	No Impact
Noise	Short-term construction related impacts associated with the transport and operation of construction equipment. Long-term impact associated with visitor use and vehicles.	Same as Preferred Alternative	Less than but similar impact to the Preferred Alternative due to reduced size of the facility.	No Impact

3 KNOWN CONTROVERSIES

As stated previously, Descanso residents have voiced a variety of concerns regarding the location of the Descanso Area Development and its intended use. These concerns include the proximity of the project site to the Descanso Elementary School and the adjacent ~~County~~ MEUSD Park, aesthetics, dust, insects, traffic, introduction of fees, groundwater contamination, parking, lack of trails and trail connections.

On November 27, 2007, a scoping meeting took place between DPR and the Mountain Empire Unified School District (MEUSD) superintendent, Descanso Elementary School principal, and two members of the MEUSD school board. During this meeting, school representatives stated their concerns about the potential increase in use of the ~~County~~ MEUSD Park as a result of the proposed project. The school district, which is the fee operator, does not have the staff or revenue to manage the ~~County~~ MEUSD Park at its current level of use. The district believes that increased use by visitors to the Project site could lead to an increased use at the ~~County~~ Park and eventually the Park's deterioration due to lack of management funds. ~~However, at the November 2007 meeting, MEUSD stated that it had recently ascertained that its operating agreement with the County ended in 2002, possibly freeing them from this maintenance responsibility.~~

There were a variety of other concerns brought up at the meeting. One of these was that the school would need to be more restrictive regarding their visitor policies. One example of this was the closure of gates during school hours, which is not current practice. Another issue raised was traffic congestion. According to MEUSD officials, when there have been special events at the nearby Merigan property (approximately six times per year), parking would fill up on both sides of the street allowing for only one car to safely pass through at a time. However, these events typically happen on weekends or during summer months when school is not in session. Pests were another topic of concern. DPR was informed that yellow jackets are present in the daytime from March to November and become numerous when the students eat outside. Additionally, it was stated that mosquitoes often come out after dusk during times of standing water. The District is concerned that these pests will increase once the campground is in use. MEUSD was also concerned with groundwater contamination as a result of the proposed Project. This included the addition of nitrates to the groundwater and an increase in water being dumped onto the ground. Descanso Elementary School is its own water district and has to follow strict stormwater regulations. They also have a well with non-potable water.

Issues were also raised by the general public at both the public meeting and in written responses submitted during the NOP comment period. Some stated that there are currently no fees charged for parking in the existing lot at the Descanso Area Development location and the Project would result in fees charged not only for camping, but for day use parking as well. Many felt that the proposed campground was not in a location that would provide adequate equestrian trails or trail connections, as the existing nearby trails are either highly advanced or for beginning riders.

4 ENVIRONMENTAL SETTING

4.1 AESTHETICS

4.1.1 Regional and Local Setting

As stated previously, the Park is located in a rural and unincorporated portion of east central San Diego County (Figure 1.1). Anza-Borrego Desert State Park is located east of the Park; the town of Julian is approximately 6.5 miles to the north, and the community of Descanso borders the Park to the south. Much of the Park's southern, eastern, and western boundaries are adjacent to the Cleveland National Forest, specifically the Descanso and Palomar Ranger Districts (Figure 1.2). The Park is bisected by State Route 79 (SR-79), which runs north/south through its center. The San Diego County General Plan, Scenic Highway Element (County of San Diego 2009c), designates SR-79 as a first priority scenic route. Additionally, the Park is within the area designated by the San Diego County Light Pollution Code as Zone A, which is defined as all areas within a 15 mile radius of select San Diego observatories; the project site is within the 15 mile radius of Mount Laguna Observatory.

The proposed project would occur at three discrete sites within the Park including from north to south (1) an area east of SR-79 in the vicinity of the Paso Picacho Campground; (2) Loop A of the Green Valley Campground, which is west of SR-79 in the southern third of the Park; and (3) off Viejas Boulevard near the community of Descanso at the southern boundary of the Park (Figures 1.2 and 1.3). The San Diego County General Plan, Scenic Highway Element (County of San Diego 2009c), designates Viejas Road as a third priority scenic route.

The Park lies within the California Floristic Province, Southwestern California Region, Peninsular Range Subregion. It is also located within the South Coast Hydrologic Region, which covers approximately 6.78 million acres of the southern California watershed that drains to the Pacific Ocean. The Park sits astride the Cuyamaca Mountains with elevations ranging from approximately 3,500 feet to 6,512 feet and is known for its geologic formations including Cuyamaca Peak (elev. 6,512 feet) and Stonewall Peak (elev. 5,730 feet).

The Mediterranean climate fluctuates with the seasons, having hot, dry summers and cold, wet winters. The annual precipitation in Descanso averages 27.9 inches and falls primarily as rain in the winter. Average temperatures range from winter lows of 28°F to summer highs of 85°F.

According to the General Plan (DPR 1986), seven vegetation communities occur in the Park: annual grassland, montane meadow, mixed chaparral, montane chaparral, riparian woodland, pine-oak woodland, and mixed conifer forest. Of these, three were identified at the project sites: pine-oak woodland, mixed conifer forest (montane hardwood-conifer), and annual grassland, while mixed chaparral and coast live oak woodland occur adjacent to the Descanso Area Development site (See Section 4.4).

The Green Valley Campground Loop A supports pine-oak woodland dominated by coast live oak (*Q. agrifolia*) with Coulter pine (*P. coulteri*) as a minor overstory component. The shrub layer is poorly developed and includes poison oak (*Toxicodendron*

diversilobum), creeping snowberry (*Symphoricarpos mollis*), and basket bush (*Rhus trilobata*). The Sweetwater River flows to the west of the site and supports riparian woodland, while annual grassland and wild rose (*Rosa californica*) persist within the center of the Loop. Although Loop A provides no direct access to Park trails, the Arroyo Seco Fire Road and the Monument Trail can be accessed from the Green Valley Picnic Area.

The proposed Paso Picacho Day Use Area also supports montane-hardwood habitat that contains both conifers and hardwoods. There is currently a trailhead at this location that leads to the Cold Stream Trail, which is designated for horseback riding, hiking, and biking, and the Stonewall Peak Trail, which is designated as hiking only.

In general, the site of the proposed Descanso Area Development is an open field identified as non-native annual grassland. The field was historically used for agriculture and grazing and numerous non-native species were planted as feed for livestock. The existing facilities within the project site include a day use parking lot with minor amenities (an information panel and portable restrooms), the 1929-built historic Hawley/Oliver/Merigan Ranch House-Foreman's Cabin, the site of the historic 1941-1977 Oliver/Merigan Ranch Complex, and a small shed containing a well pump. As stated above, the site is accessed from Viejas Boulevard and the one on-site trail is the Merigan Fire Road.

4.2 AIR QUALITY

The Park falls within the San Diego Air Basin (SDAB) and therefore, is within the jurisdiction of the San Diego County Air Pollution Control District (SDCAPCD 2009). The SDAB encompasses the entire County of San Diego. Within the County there are four distinct climate zones, which include coastal, inland, mountains, and desert. The project site is included in the mountain climate zone. Overall, the climate in the County is very moderate except for the inland and desert portions. Most of the precipitation occurs during the winter, from November through April, as regional Pacific storms pass through the County. The annual precipitation in Descanso averages 27.9 inches. Average temperatures range from winter lows of 28°F to summer highs of 85°F. The wind in the project area is prominently from west to east.

4.2.1 Air Quality Designations

Public land owners within San Diego County are subject to air quality planning programs required by the federal Clean Air Act of 1970, its 1990 amendments, and the California Clean Air Act of 1988. Both the federal and State clean air statutes provide ambient air quality standards related to air pollutants, timetables for progressing toward achieving and maintaining ambient standards, and the development of plans to guide air quality improvement efforts by State and local agencies. Ambient air pollutants, called criteria pollutants, are pollutants for which acceptable levels of exposure have been determined and for which ambient air quality standards have been set.

The Environmental Protection Agency (EPA) is responsible for setting National Ambient Air Quality Standards and established national area designations for six criteria pollutants after the passage of the Clean Air Act. These six pollutants include carbon monoxide (CO), ozone (O₃), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), lead (Pb), and particulate

matter (PM) in the form of inhalable coarse particles (PM₁₀) and fine particles (PM_{2.5}) (EPA 2009b, 2009c). If an area does not meet the national primary or secondary ambient air quality standard for the pollutant, it is designated as “non-attainment”, if it meets the standard it is designated in “attainment”, and if an area cannot be classified on the basis of available information it is designated “unclassifiable” (EPA 2009d).

The California Air Resources Board (CARB) is the lead State agency responsible for air quality and for assisting local air districts. CARB has set California area designations for 10 criteria pollutants including ozone, PM₁₀, PM_{2.5}, CO, NO₂, SO₂, sulfates, lead, hydrogen sulfide, and visibility reducing particles (VRPs) (CARB 2009a). SDCAPCD is the local regulatory agency that develops and implements air quality plans to identify air pollution levels, sources of air pollution, and attainment strategies for the region where the proposed Equestrian Facilities project is located (SDCAPCD 2009).

Table 4.1 illustrates the criteria pollutant designation at both the State and federal levels for the project sites.

Table 4.1. San Diego County Air Basin Attainment Status by Pollutant (taken from San Diego County General Plan Update DEIR 2009).

Pollutant	State Designation	National Designation
Ozone	Non-attainment	Non-attainment
PM ₁₀	Non-attainment	Unclassified
PM _{2.5}	Non-attainment	Attainment
CO	Attainment	Attainment
NO ₂	Attainment	Attainment
SO ₂	Attainment	Attainment
Sulfates	Attainment	No Federal Standard
Lead	Attainment	No Federal Standard
Hydrogen Sulfide	Unclassified	No Federal Standard
VRPs	Unclassified	No Federal Standard

4.2.2 Sources

Californians release thousands of tons of pollutants into the air everyday. Although each Californian may only produce a small amount of air pollution, the State’s current population exceeds 37.5 million individuals. Air pollutants are formed and released during the combustion of petroleum-based products and other fuels such as wood. Fugitive dust, a type of particulate matter, is introduced into the air through activities such as soil cultivation and vehicles operating in open areas of bare ground or on dirt roadways. Many tons of pollutants also enter the air through evaporation, such as fuel from gasoline storage and dispensing facilities, and car and truck gasoline tanks, and gasoline storage containers (CARB 2009b).

On hot, sunny days, pollutants emitted by vehicles, industry, and many products (nitrogen oxides and volatile organic compounds) react with each other to form ozone, the main ingredient in smog. During the winter, temperature inversions can trap tiny particles of smoke and exhaust from cars, trucks, fireplaces, and anything else that burns fuel. This

keeps the pollution close to the ground at the level where people are breathing (CARB 2009b).

As shown above, air quality in San Diego County does not meet State and federal health standards for ozone or the State standard for particulate matter. On-road motor vehicles (car, trucks and buses) are responsible for approximately 60 percent of regional smog-forming emissions (San Diego County 2009). However, off-road sources such as utility engines, construction and farm equipment, ships, planes, trains, and off-highway recreational vehicles are also significant sources.

According to the County's General Plan DEIR (2009), since 1976, vehicle travel within the County has grown faster than the rate of population growth. This trend is observed nationally and attributed to several factors. The outcome of these factors is the strict separation of land uses seen in most suburbs, which result in more vehicle trips and longer trip distances. Additionally, during the last 60 years, new land uses have been arranged in a low-density pattern, fostering almost complete dependence on automobiles for transportation. This dependence has resulted in traffic congestion and air quality problems throughout the County.

4.2.3 Health Hazards

Ozone (smog) and particulate matter are the most common air pollutants in California. Ozone can irritate the respiratory system, causing coughing, irritation in the throat or a burning sensation in the airways. It can reduce lung function, causing chest tightness, wheezing, and/or shortness of breath. Particulate matter is composed of microscopic solids or liquid droplets that are so small they can get deep into the lungs and cause serious health problems. When exposed to these small particles, people with heart or lung diseases and older adults are more at risk of hospital and emergency room visits or, in some cases, even death from heart or lung disease. Carbon monoxide can cause harmful health effects by reducing oxygen delivery to the body's organs and tissues. Sulfur dioxide causes a wide variety of health and environmental impacts because of the way it reacts with other substances in the air. Impacts include respiratory effects, visibility impairments, acid rain, plant and water damage, and aesthetic damage such as building decay. People, animals, and fish are mainly exposed to lead by breathing and ingesting it in food, water soil, or dust. Lead accumulates in the blood, bones, muscles, and fat. Nitrogen dioxide contributes to ozone; causes respiratory problems; contributes to the formation of acid rain; contributes to nutrient overload, which deteriorates water quality; contributes to atmospheric particles, which causes visibility impairment; reacts to toxic chemicals; and contributes to global warming (EPA 2009c).

4.2.4 Sensitive Receptors

Sensitive receptors include individuals as well as groups relating to specific land uses. Some individuals are considered to be more "sensitive" than others to air pollutants. The reasons for greater sensitivity than average include health problems, proximity to the emission source, or duration of exposure to air pollutants. Primary and secondary schools, hospitals, and convalescent homes are considered to be sensitive receptors to poor air quality because the very young, old, and infirm are more susceptible to respiratory infections and other air quality related health problems than the general public (San Diego County 2009). Residential uses are considered sensitive receptors because

people in residential areas are often at home for extended periods of time, so they can be exposed to pollutants for extended periods. Recreational areas are considered moderately sensitive to poor air quality because vigorous exercise associated with recreation places a high demand on the human respiratory function.

Sensitive receptors at and/or adjacent to the project site include recreational users, the Descanso elementary school, and the residential portion of Descanso.

4.2.5 Climate Change Greenhouse Gases

California Assembly Bill (AB) 32 is California's strategy for reducing greenhouse gas (GHG) emission. AB 32 lists goals and timelines for GHG reduction and gives new authority to existing agencies to meet these goals. The bill requires that statewide GHG emissions be reduced to 1990 levels by the year 2020 and requires CARB to adopt rules and regulations (Jones & Stokes 2007).

Some gases in the atmosphere affect the Earth's heat balance by absorbing infrared radiation. These gases can prevent the escape of heat in much the same way as glass in a greenhouse. This is often referred to as the "greenhouse effect," and it is responsible for maintaining a habitable climate. On Earth, the gases believed to be most responsible for global warming are water vapor, carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). Enhancement of the greenhouse effect occurs when concentrations of these gases exceed the natural concentrations in the atmosphere. Of these greenhouse gases (GHG), CO₂ and methane are emitted in the greatest quantities from human activities. Emissions of CO₂ are largely by-products of fossil fuel combustion, whereas methane primarily results from off-gassing associated with agricultural practices and landfills and from the natural decay of materials in the environment. SF₆ is a GHG commonly used in the utility industry as an insulating gas in transformers and other electronic equipment. SF₆, while comprising a small fraction of the total GHGs emitted annually world-wide, is a much more potent GHG with 23,900 times the global warming potential as CO₂. Global warming potential is the potential of a gas or aerosol to trap heat in the atmosphere. CO₂ is assigned a global warming potential of 1. There is widespread international scientific agreement that human-caused increases in GHGs has and will continue to contribute to global warming, although there is much uncertainty concerning the magnitude and rate of the warming.

Globally, climate change has the potential to impact numerous environmental resources through potential, though uncertain, impacts related to future air temperatures and precipitation patterns. In California the effects of global warming could include loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years. There are many secondary effects that are projected to result from global warming, including global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity. While the possible outcomes and the feedback mechanisms involved are not fully understood, more research is required, the potential for substantial environmental, social, and economic consequences over the long term could be great.

In California, there are no statewide significance criteria or approved mitigation methods concerning GHG emissions; therefore, this section will discuss climate change qualitatively with no significance conclusion.

In discussing climate change, three fundamental questions must be addressed:

1) How will the project affect climate change?

In general, a project would affect climate change if it altered the earth's radiative ability through direct emissions of GHG; indirect emissions of GHG; alteration of sinks of GHG; or changes in land albedo (i.e., reflectivity). The proposed project would construct equestrian facilities including day use parking areas and a campground. The proposed project would not increase the earth's radiative ability through direct or indirect emissions of GHG or change land reflectivity. The project could alter the sinks of GHG by removing vegetation such as small trees/saplings, shrubs, and herbs that currently grow on or immediately adjacent to the three project sites. However, the project has been designed to minimize tree removal. In addition, the number of trees that could be removed as a result of the project would be a small proportion relative to the number of trees in the Park and the region as a whole.

2) How will the project be affected by climate change?

In general, a project would be affected by climate change if there is a change in water availability and quality; an increase in the frequency and severity of extreme weather events; changes in cloud cover and rainfall patterns; and increases in the frequency of days that exceed the ozone standards set for the area. Construction of the project would not be affected by climate change but the people using the equestrian facilities have the potential to be adversely affected by climate change. As stated above, high levels of ozone (smog) can be detrimental to certain sensitive receptors. Lack of water or increases in average summer temperature could also be a deterrent to Park visitors.

3) If the project contributions to climate change are considered a significant impact on the environment, what constitutes feasible 'fair share mitigation'?

As stated above, California has no statewide significance criteria; therefore, at this time DPR is unable to provide analysis and a determination as to the significance of climate change in relation to this project and the overall environment or the feasibility of 'fair share' mitigation.

4.2.6 Significance Criteria

For Air Quality, the State CEQA Guidelines states that a project would have a significant effect on the environment if it will

- Conflict with or obstruct implementation of the applicable air quality plan;
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or State ambient air quality standards;
- Expose sensitive receptors to substantial air pollutant concentrations;
- Create objectionable odors affecting a substantial number of people.

Thresholds of significance illustrate the extent of an impact and are a basis from which to apply mitigation measures. For the proposed project, thresholds of significance for air quality (Table 4.2) were obtained from the County of San Diego’s Guidelines for Determining Significance: Air Quality (2007a).

Table 4.2. Screening-Level Thresholds for Air Quality Impact Analysis (taken from the County of San Diego, 2007a).

Pollutant	Total Emissions		
	Lbs. Per Hour	Lbs. per Day	Tons Per Year
Respirable Particulate Matter (PM ₁₀)	---	100	15
Fine Particulate Matter (PM _{2.5})	---	55*	10*
Oxides of Nitrogen (NOx)	25	250	40
Oxides of Sulfur (Sox)	25	250	40
Carbon Monoxide (CO)	100	550	100
Lean and Lead Compounds	---	302	0.6
Volatile Organic Compounds (VOCs)	---	75**	13.7***

* EPA “Proposed Rule to Implement the Fine Particle National Ambient Air Quality Standards” published September 8, 2005. Also used by the SCAQMD.

** Threshold for VOCs based on the threshold of significance of VOCs from the South Coast Air Quality Management District for the Coachella Valley.

*** Tons Per Year threshold based on 75 lbs/day multiplied by 365 days/yr and divided by 2000 lbs/tons.

On March 18, 2010, amendments to the State CEQA Guidelines pertaining to Greenhouse Gas emissions were adopted. Based on these amendments, a significant impact relative to global climate change is considered to occur if the project would:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.
- Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

In November 2008, in response to the above “proposed” amendments, the County of San Diego issued Interim Draft Guidelines for Determining Significance for Climate Change. The County requires projects that would generate 900 metric tons or more of greenhouse gas emissions to prepare a Climate Change Analysis and demonstrate that the project would not conflict with the goals and strategies established in AB 32 to reduce GHG emissions to 1990 levels by the year 2020. According to the California Air Pollution Control Officers Association (County 2008b), 900 meter tons of GHG emissions are

generally produced by a 50 unit subdivision, a 35,000-square foot commercial or office center, or 11,000 square feet of retail.

4.2.7 Potential Impacts

To evaluate the potential air quality impacts and environmental effects of all four projects' alternatives, it is necessary to understand the activities that are likely to be sources of emissions including:

- Operation of heavy construction equipment;
- Mobilization and demobilization of heavy construction equipment to the Park;
- Temporary and permanent fencing installation;
- Mass and fine grading;
- Excavation;
- Planting and seed installation;
- Stormwater BMP installation and maintenance;
- Removal of trees and other vegetation;
- Construction and maintenance of access roads;
- Monitoring; and
- Operations

Emissions were quantified using URBEMIS Version 9.2.4 for the construction activities and operational activities (Table 4.3). The URBEMIS program output files are provided in Appendix H. The model was run using the worst case scenario for all four projects. Data presented in Table 4.3 is based on summer emissions as construction will likely occur in late summer and Park visitors are more numerous during this season. Based on the URBEMIS output, all of the pollutant amounts generated during construction and operational phases would be well below the County's thresholds of significance. Therefore, there will be no significant impacts to air quality as a result of the construction and operation of the Paso Picacho Day Use Area and the Descanso Area Development-Phases I and II. The conversion of Green Valley Loop A was a component of the URBEMIS analysis; however the operation of the resulting equestrian campground was not. Baseline for this site is 22 family campsites that will be converted to a maximum of 15 equestrian campsites. Although different users will be frequenting the site, trucks with horse trailers versus autos, trucks, trucks with campers, and motorhomes, the number of campsites is being reduced and therefore the number of visitor trips will decrease. It is expected that the amount of emissions associated with this project would actually decrease as a result of the conversion.

Table 4.3. Air Quality Impacts Associated with the Equestrian Facilities Project at Cuyamaca Rancho State Park.

Pollutant	Total Emissions (lbs/day)		
	Construction	Area Source	Operational
Respirable Particulate Matter (PM ₁₀)	9.2	0.02	0.03
Fine Particulate Matter (PM _{2.5})	1.65	0.02	0.03
Oxides of Nitrogen (NO _x)	33.7*	0.06	0.61*
Oxides of Sulfur (SO _x)	0	0	0
Carbon Monoxide (CO)	17.8	4.6	6.0
Volatile Organic Compounds (VOCs)	4.2	4	1.1
Carbon Dioxide (CO ₂)	3,012.93*	8.43	75.97*

* Construction phase (10 days), approximately 1.38 metric tons of GHGs would be generated. Operational phase: 0.03 metric tons of GHGs generated on a daily basis.

4.3 BIOLOGICAL RESOURCES

4.3.1 Vegetation Communities

Research was conducted prior to field surveys to determine the vegetation communities in the project area and the associated specific plants. This research involved querying the California Natural Diversity Database (CNDDB) Rarefind Database Version 3.1.0 (CDFG 2003) and Inventory of Rare and Endangered Plants electronic database Version 7-06d (CNPS 2006) for sensitive plants and natural communities, reviewing published and unpublished material, and contacting Park Environmental Scientists. The Descanso and Cuyamaca Peak USGS 7.5-minute quadrangles were used to query all databases and other sources.

Emphasis was placed on the special-status species that may occur on site. Some of the plants, which were considered, though not formally listed as rare or endangered under the California Endangered Species Act (CESA), meet the definitions of Section 1901, Chapter 10 (Native Plant Protection) of the California Fish and Game Code, and are eligible for state listing. These plant species were given equal consideration during the assessment as if they were already listed species.

Field surveys to locate and identify plant species within the project study area followed the floristic survey protocol recommended by CDFG (2000) and field survey schedules were determined based on the known flowering periods of these species (Natural Environment Study Report, Table 2 in Appendix C).

Only three vegetation communities were identified at the project sites: coastal oak woodland, montane hardwood-conifer forest, and annual grassland. In addition, mixed chaparral and coast live oak woodland occur adjacent to the Descanso Area Development. The following descriptions of major habitat types are summaries of accounts presented in *A Guide to Wildlife Habitats in California* (Mayer and Laudenslayer 1988) and *A Manual of California Vegetation* (Sawyer and Keeler-Wolf 1995).

4.3.1.1 Green Valley Campground

Coastal Oak Woodland

Coastal oak woodlands occupy a variety of Mediterranean type climates and are extremely variable. The overstory consists of deciduous and evergreen hardwoods occasionally mixed with conifers. At drier sites, trees are widely spaced and form an open woodland or savannah. Understory species vary depending on habitat conditions (soil, moisture regimes, etc.) and habitats juxtaposition to oak woodlands. Understory species composition is typically composed of grasses with scattered shrubs. Coast live oak (*Q. agrifolia*) is usually found on moister sites and extends further inland in southern California. ~~Developed~~ Coastal oak woodland was identified within the Green Valley Loop A site.

Within the Green Valley Loop A, coastal oak woodlands are dominated by coast live oak with Coulter pine (*P. coulteri*) as a minor overstory component. The shrub layer is poorly developed and includes poison oak (*T. diversilobum*), creeping snowberry (*S. mollis*), and basket bush (*Rhus trilobata*). Common forbs species include yarrow (*Achillea millefolium*), western ragweed (*Ambrosia psilostachya*), and various non-native species including shortpod mustard (*Hirschfeldia incana*).

4.3.1.2 Paso Picacho Day Use Area

Montane-Hardwood Conifer

Montane-hardwood conifer forests include both conifers and hardwoods. This habitat often appears in a mosaic pattern with small pure stands of broad-leaved trees interspersed with small pure stands of conifers. A bilayered canopy is common with conifers forming the upper canopy and hardwoods the lower canopy. The understory can be sparse or considerable depending on local site conditions. These forests provide habitat for a variety of wildlife species and mast crops can be a very important food source.

Common upper canopy species include Jeffery Pine (*P. jeffreyi*) and incense cedar (*Calocedrus decurrens*) with lower canopy species including California black oak (*Q. kelloggii*), canyon live oak (*Q. chrysolepis*), interior live oak (*Q. wislizeni*), and coast live oak. Common shrubs include creeping snowberry (*S. mollis*), greenbark ceanothus (*Ceanothus spinosus*), and poison oak (*T. diversilobum*). Common forbs include penstemon (*Penstemon* spp.), miniature lupine (*Lupinus bicolor*), phacelia (*Phacelia imbricata*), and grand collomia (*Collomia grandiflora*).

4.3.1.3 Descanso Area Development

Annual Grassland

Annual grassland is a dense to sparse covered habitat composed primarily of introduced annual plant species. Many of these species also occur in the understory of other habitats. Species composition is influenced by seasonal and annual fluctuations in weather patterns. Fall and winter rains cause germination of annual plant seeds, which grow slowly and low to the ground during cool winter months. Warmer spring temperature causes rapid growth, and large amounts of standing dead plant material can be found during the summer months. Nonnative grassland is disturbance-related and usually prevails in old fields or openings in native scrub habitats. Annual grassland occurs throughout the Descanso Area Development site. Previously, this site had been used for agriculture and grazing for many years and numerous non-natives species were planted as feed for livestock.

Typical grasses within the study area include slender wild oat (*Avena barbata*), wild oat (*A. fatua*), black mustard (*Brassica nigra*), mustard (*Sisymbrium altissimum*), California brome (*Bromus carinatus*), ripgut brome (*B. diandrus*), brome grass (*B. hordeaceus*), foxtail chess (*B. madritensis*), cheatgrass (*B. tectorum*), and barley (*Hordeum murinum*).

A few native species were identified at the Descanso Area Development project site, including southern mules ear (*Wyethia ovata*), Mexican rush (*Juncus mexicanus*), deergrass (*Muhlenbergia rigens*), and California poppy (*Eschscholzia californica*). Native species were found primarily within the lower lying areas and the one drainage running through the site.

4.3.2 Bio-corridors

Bio-corridors or linkages are interconnected tracts of land characterized by significant natural resource value through which native species can disperse. Corridors provide pathways for gene flow, seed dispersal, daily movement between habitats (home range movements), migration (seasonal or altitudinal), and dispersal habitat for juveniles. Corridors can function at various temporal and spatial scales. Temporally, it allows for both daily and seasonal movements, as well as movements over many generations. Spatially, corridors function on a landscape/ecosystem scale (with there being no absolute size for a landscape) or at smaller spatial scales such as a home range.

Though natural landscapes have an inherent degree of connectivity, recent (past 50 years) habitat alteration has greatly reduced this connectivity (Penrod et al. 2005). Establishing connections between isolated or fragmented habitat patches is essential for sustaining natural ecological processes, population viability, and biological diversity (Noss and Cooperrider 1994). According to the South Coast Wildlands, a non-profit organization dedicated to ensuring functional habitat connectivity across the South Coast Ecoregion, although the Park functions as part of a regional bio-corridor complex, there are no major dispersal linkages in the project vicinity (Penrod et al. 2001).

4.3.3 Special-status Species

For the purposes of this document, special-status species are defined as plants and animals that are legally protected or are otherwise considered sensitive by Federal, State, or local resource conservation agencies and organizations. Explicitly, this includes

species listed as State and/or Federally threatened or endangered; species identified by CDFG as Species of Special Concern; and plants considered by the California Native Plant Society (CNPS) to be rare, threatened, or endangered (i.e., plants on CNPS List 1B and 2).

4.3.4 Sensitive Botanical Resources

As stated above, research was conducted prior to field surveys to determine the vegetation communities in the project area and the associated plant species. Field surveys were also conducted to locate and identify plant species within the project study area (Table 2 in Appendix C) followed the floristic survey protocol recommended by CDFG (2003).

Although a total of 36 special-status plant species and one rare natural community were identified as occurring in Descanso and Cuyamaca Peak USGS 7.5-minute quadrangles (Table 2 and Figure 5 in Appendix C), no special-status plant species were detected or rare natural communities identified during any survey or site visit at either project site.

4.3.5 Wildlife

A query of the California Wildlife Habitat Relationships Program (CDFG 2002) using annual grassland, montane hardwood-conifer, coastal oak woodland, mixed chaparral, and urban habitats identified 334 wildlife species as potentially occurring in these habitats in San Diego County, California (Table 4 in Appendix C). This includes 216 avian species, 68 mammals, 38 reptiles, and 12 amphibians.

Additionally, the United States Geological Survey (USGS) conducted a habitat assessment and pre/post fire surveys for the federally-listed endangered arroyo toad (*Bufo californicus*) along the Sweetwater River near the Descanso Area Development site during 2003 and 2004 (Ervin and Fisher 2003, Mendelsohn et al. 2005). A herpetological survey (pitfall arrays) was also conducted in April and May 2008 at the Descanso Area Development site. Three reptile species [western fence lizard (*Sceloporus occidentalis*), side-blotched lizard (*Uta stansburiana*), and southern alligator lizard (*Elgaria multicarinata*)], one amphibian species [western toad (*Bufo boreas*)], and one mammal species [Botta's pocket gopher (*Thomomys bottae*)] were identified. In addition, a western rattlesnake (*Crotalus viridis*) was observed during the removal of the pitfall arrays.

No sensitive species were observed or captured. Although the original scope of this herpetological study was for the traps to operate for nine months, this study was suspended after two months due to state budget issues.

4.3.5.1 Sensitive Wildlife Resources

The CNDDDB Version 3.1.0 (CDFG 2003) was queried to compile a list of known special-status wildlife and invertebrate species present in all three project areas. A total of eight special-status wildlife species, two invertebrate species, and one insect were identified as occurring in the Descanso and Cuyamaca Peak USGS 7.5-minute quadrangles (Table 5 and Figure 5 in Appendix C). Additionally, a list of threatened and endangered species was requested from the USFWS on April 16, 2007 (see Appendix C). This list was received on May 11, 2007.

DPR biologists compared specific habitat requirements, life history notes, elevation, species distribution, and species lists to determine if any special-status species may be present in the project vicinity. An expanded discussion is provided for those sensitive or protected species where habitat may exist within the project vicinity and for any species with a known occurrence within the Park boundary.

The following accounts were obtained from California Wildlife Habitat Relationships Program (Zeiner et al. 1990a, b, c) unless otherwise cited and include generalized habitat associations, food habits, cover, and reproduction requirements, seasonal movements, and any known locations in the project areas. All known occurrences for any special-status wildlife species were obtained from the CNDDDB Rarefind Database and Park personnel.

Although only two bat species are known to occur in the project area, numerous other bats species could potentially be present at the three project sites. According to USGS (Stokes et al. 2005), 23 bat species have been documented in San Diego County; 16 of the 23 species were identified during inventories conducted from 2002 to 2004. It is likely that all three project sites would be used primarily for foraging due to lack of suitable roosting (hibernation, night, maternity) sites.

Southwestern Pond Turtle

The southwestern pond turtle (*Clemmys marmorata pallida*) is a California Species of Special Concern. This subspecies of the western pond turtle frequents permanent or nearly permanent water (ponds, lakes, streams, irrigation ditches, etc.) in a wide variety of habitats from San Luis Obispo County to northern Baja California.

Pond turtles require basking sites such as rocks, partially submerged logs, and open mud banks. Western pond turtles are omnivorous and eat a variety of aquatic plants and invertebrates, as well as fishes and frogs. Nests are usually built in sandy banks and eggs are laid from March to August, depending on location. Incubation ranges from 73 to 80 days.

Predators include fishes, bullfrogs, garter snakes, wading birds, and some mammals. This species has declined in southern California due to the loss of regional aquatic and riparian habitat. On-going threats to the species include development and degradation of habitat, reduction of surface water levels, introduction of non-native predators, and stream channel alterations for agriculture and flood control.

Potential Presence in Project Sites

There are no documented occurrences of the southwestern pond turtle within the Park. There is one known occurrence (2001) approximately 5.9 km (3.7 mi) northwest of Lake Cuyamaca. It is unlikely that this species will be impacted by the proposed project due to the lack of breeding and foraging habitat, which includes permanent water, submerged rocks, logs, and debris, at any of the three sites.

San Diego Mountain Kingsnake:

The San Diego mountain kingsnake (*Lampropeltis zonata pulchra*) is a CDFG Species of Special Concern. This species occurs in a variety of habitats including valley-foothill hardwood, and hardwood-conifer, mixed and montane chaparral, valley-foothill riparian, coniferous forests, and wet meadows from sea level to about 2,450 m (8,036 ft).

Diet includes small lizards, smaller snakes, nestling birds, bird eggs, and small mammals. This species breeds from March to May and clutch size varies from 4 to 12 eggs, with an average of 5 or 6. Hatching occurs from late June to early October. Predators probably include hawks, owls, and various mammals. Since the mid-1970s, populations were thought to be threatened by collecting and habitat alteration (Jennings and Hayes 1994).

Potential Presence in Project Sites

There are two known occurrences of the San Diego mountain kingsnake (1952) within the Park. Breeding and foraging habitat exists at all project sites but higher quality habitat (mixed hardwood-conifer forest) exists at the Loop A and the Paso Picacho sites.

Coast Range Newt

The coast range newt (*Taricha torosa torosa*) is a CDFG Species of Special Concern. This species occurs in the Coast Ranges, in coastal sage scrub, mixed chaparral, annual grassland, valley-foothill hardwood, and riparian habitats from sea level to about 1,830 m (6,000 ft). Although this species frequents terrestrial habitats, it breeds in ponds, reservoirs, and slow-moving streams. The lack of data on the movement ecology of this species prevents a complete characterization of the microhabitats used (Jennings and Hayes 1994).

Diet consists of earthworms, snails, slugs, sowbugs, and insects. Adults will also consume eggs of their own species, eggs of other amphibians and trout, as well as aquatic insects. Terrestrial newts seek cover under logs and rocks, mammal burrows, rock fissures, or other human-made structures. Aquatic larvae find cover under submerged rocks, logs, and debris. The species breeds from fall through late spring. Eggs are laid in small clusters on the submerged portions of emergent vegetation and rocks. A skin toxin protects both adults and aquatic larvae and eggs from most predators.

Potential Presence in Project Sites

There are no documented occurrences of the coast range newt within the Park. There is one known occurrence (2001) approximately 5.9 km (3.7 mi) northwest of Lake Cuyamaca. Breeding and foraging habitat does not exist at the Paso Picacho and Descanso Development Area project sites. Breeding and foraging habitat may occur adjacent to the Loop A site along the Sweetwater River. It is unlikely that this species will be impacted by this project due to the lack of permanent streams and necessary elements (submerged rocks, logs, and debris) at the project sites.

Arroyo Toad

The following account and references were obtained from the U.S. Fish and Wildlife Service, Ventura Fish and Wildlife Office website and can be found at http://www.fws.gov/pacific/ventura/es/spplists/species_amphibs.cfm. Detailed references can also be found at this website.

The arroyo toad is a Federal endangered species. A Recovery Plan (USFWS 1999) has been prepared for this species, and critical habitat was designated on April 13, 2005 (70 FR 19561). The arroyo toad is also considered a California Species of Special Concern. It is endemic to the coastal plain and mountains of central and southern California and northwestern Baja California from near sea level to about 2,440 m (8,005 ft) in elevation. Within these areas, arroyo toads are found in both perennial and intermittent rivers and

streams that have shallow, sandy to gravelly pools adjacent to sand or fine gravel terraces. Breeding habitat requirements are highly specialized; specifically, arroyo toads require shallow slow-moving streams and riparian habitats that are disturbed naturally on a regular basis, primarily by flooding. Arroyo toad juveniles, subadults, and adults use the surrounding upland areas (up to 2 km [1.2 mi] from a stream) for foraging and wintering. The arroyo toad has evolved in a system that is inherently dynamic, with marked seasonal and annual fluctuations in rainfall and flooding.

The breeding period occurs from late January or February to early July, although it can be extended in some years, depending on weather conditions. When water temperatures reach 14°C (57°F), adult males advertise with a soft, high whistled trill. Receptive females seek out calling males based on the size of the male and the sound of his call. Although males may breed with several females in a season, female arroyo toads release their entire clutch of eggs as a single breeding effort. Eggs are deposited and larvae develop in shallow pools with minimal current, little or no emergent vegetation and sand or pea gravel substrate. Embryos usually hatch in 4 to 6 days; the larval period lasts approximately 65 to 85 days. After metamorphosis from June to August, the juveniles remain on the bordering gravel bars until the pool no longer persists. Sexual maturity is reached in one to two years; arroyo toads may live for as few as five years (Sweet 1993). Little is known about movements or other behavior in the non-breeding season.

Larvae feed by inserting their heads into the substrate and ingesting loose organic material such as detritus, interstitial algae, bacteria, and diatoms. Juveniles and adults forage for insects, especially ants and small beetles, on sandy stream terraces. Juveniles spend more time exposed on these terraces during the daytime than do adults, and are thus vulnerable to diurnal predators. Once juveniles are of sufficient size to dig burrows and bury themselves in sand, they become nocturnal. All age classes of post-metamorphic arroyo toads tend to be active on rainy nights with moderate temperatures (above 7°C [44.6°F]). Adults excavate shallow burrows for shelter during the day when the surface is damp or during longer intervals in the dry season.

Urbanization, agriculture, dam construction, water manipulation, mining, livestock grazing, and recreational activities in riparian areas have caused extensive habitat degradation leading to the decline and isolation of the remaining populations of arroyo toads. The introduction of bullfrogs and exotic fish may have severe impacts on arroyo toad populations due to predation. Exotic plant species degrade arroyo toad habitat, making it unsuitable, and may cause changes in the invertebrate fauna upon which it feeds. Changes in hydrologic regimes and loss of over-wintering habitat as streamside areas are developed are probably the most important factors in the decline of arroyo toads.

Potential Presence in Project Sites

During surveys conducted for DPR in 2002-2004, USGS personnel observed arroyo toads in reaches of the Sweetwater River approximately 1.0 km (0.62 mi) north of the Descanso Area Development site. Additionally, USGS personnel assessed the habitat quality along these reaches as good to high (Mendelsohn et al. 2005). No arroyo toads were observed during any survey along the Sweetwater River adjacent to the Green Valley Loop site and the USGS assessed habitat quality as being low to marginal (Mendelsohn et al. 2005) in these reaches.

While no breeding habitat exists at any of the proposed project sites, dispersal and overwintering habitat may exist at the Descanso and potentially the Green Valley Loop A sites. It is unlikely, however, that this species would be impacted by the proposed project because all of the project sites lack breeding habitat and sandy terraces for foraging. Nevertheless, avoidance / minimization measures would be implemented to prevent any direct impacts to this species.

San Diego County Horned Lizard

The San Diego County horned lizard (*Phrynosoma coronatum blainvillei*), a California Species of Special Concern, is found only in southwestern California from the coast to the foothills and valleys of the Peninsular ranges. It occurs in annual grassland, coastal sage scrub, valley-foothill hardwood, and conifer habitats. It requires open areas of sandy soil within these habitats for foraging.

Diet consists primarily of ants of the genus *Pogonomyrmex* (harvester ants). Additionally, small beetles, wasps, grasshoppers, flies, and caterpillars are also eaten. It is active during early morning and late afternoon and forages by sitting and waiting, often near an ant nest. Coast horned lizards breed from late May through June. Clutch size varies from 6 to 16 eggs, with a mean of 13.

No seasonal movements have been noted but the species may move locally due to food resources. Predators include leopard lizards, sidewinders, loggerhead shrikes, and various hawks. Populations have been reduced by loss of habitat, and past commercial and hobby collectors.

Potential Presence in Project Sites

There are no documented occurrences of the San Diego County horned lizard within the Park. There is one known occurrence outside Park boundaries approximately 0.36 km (0.22 mi) southwest of the proposed Descanso Area Development. Breeding and foraging habitat exists within the proposed Descanso Area Development. Low quality habitat (no sandy soils) may exist at the Paso Picacho Day Use and Loop A sites.

Least Bell's Vireo

The following account and references were obtained from the U.S. Fish and Wildlife Service, Ventura Fish and Wildlife Office website:

http://www.fws.gov/ventura/sppinfo/profiles/details_birds.cfm?speciesid=56.

The least Bell's vireo (*Vireo belli pusillus*; vireo) was listed as State endangered in 1980 and federally endangered on May 2, 1986 (51 FR 16474). A draft recovery plan (USFWS 1998) has been prepared for this species and critical habitat was designated on February 2, 1994 (59 FR 4845). The vireo is a small, olive-gray, migratory songbird that nests and forages in riparian woodland habitats (Garrett and Dunn 1981; Gray and Greaves 1981; Miner 1989). Vireos are almost exclusively insectivorous (Chapin 1925) and highly territorial (Barlow 1962; 1982). Breeding territories are generally established by late March. Most breeding individuals depart their breeding grounds by the third week of September, and only very few are found wintering in the United States (Garrett and Dunn 1981; Pike and Hays 1992; Salata 1982, 1983). Vireo territory sizes range from 1 to 4 acres (Gray and Greaves 1984) and at some sites are known to include adjacent upland habitats for foraging (Salata 1982).

Vireo nesting habitat typically consists of a well-developed overstory, understory, and a low density of aquatic and herbaceous cover (Gray and Greaves 1984; Salata 1982; RECON 1989). The understory frequently contains dense subshrub or shrub thickets. These thickets are often dominated by sandbar willow (*Salix hindsiana*), mulefat (*Baccharis salicifolia*), young individuals of other willow species, such as arroyo willow (*S. lasiolepis*) or black willow (*S. goodingii*), and one or more herbaceous species. Significant overstory species include mature arroyo willows and black willows. Occasional cottonwoods (*Populus* spp.) and western sycamore (*Platanus racemosa*) occur in some least Bell's vireo habitats.

Vireos are sensitive to many forms of human disturbance including noise, night lighting, and consistent human presence in an area. Excessive noise can cause vireos to abandon an area. Greaves (1989) hypothesized that the lack of breeding vireos in apparently suitable habitat was due to human disturbances (e.g., bulldozers, off-highway vehicles, and hiker travel). He further suggested that buffer zones between natural areas and surrounding degraded and disturbed areas could be used to increase the suitability of some vireo habitat.

Historically, vireo ranged from Red Bluff, California in the north, to northwestern Baja California, Mexico in the south, and as far east as the Owens Valley, Death Valley, and along the Mojave River. According to Grinnell and Miller (1944) 4,000 feet is the upper limit where the vireo occurs in coastal southern California. Survey data collected between 1986 and 2005 shows that the vireo population in southern California has increased from an estimated 300 pairs to over 2,968 pairs (USFWS unpublished data). This increase has been attributed to habitat restoration and conservation and cowbird trapping efforts (Kus 1998; USFWS 1998).

Potential Presence in Project Sites

There are no documented occurrences of the vireo within the project sites. According to CNDDDB, no individuals were detected during surveys conducted in 2002 near Descanso. Breeding habitat does not exist at any of the project sites, however foraging and dispersal habitat may exist at the Descanso and Loop A sites. It is unlikely that this species will be impacted by this project due to lack of breeding habitat and low quality foraging habitat. Also, direct impacts to riparian habitat are not expected during the construction or operation of the proposed project.

Cooper's Hawk

The Cooper's hawk (*Accipiter cooperii*), formerly a California Species of Special Concern, is associated with woodlands and forests throughout the state from sea level to 2,700 m (0 to 9,000 ft). Frequently, this species is found in dense stands of oak, riparian deciduous or other forest habitats near water. They can also be found in urban habitats that provide appropriate nesting, cover, and foraging habitats.

Their diet consists of a variety of small birds and mammals. They catch prey in the air, on the ground, and in vegetation. They nest in deciduous trees or conifers 6 to 15 m (20 to 50 ft) above the ground. Nest sites are in second-growth conifers or in deciduous riparian areas, usually near water. Cooper's hawks breed from March through August, with an incubation period of 35-65 days. Clutch size can vary from 2-6 eggs, with an average of 4 or 5. Young fledge in 42-45 days.

Potential Presence in Project Sites

A pair of Cooper's hawks was observed during the initial site visit (March 1, 2007), flying out of coast live oak woodland on the eastern side of the proposed Descanso Area Development site. Additionally, a female Cooper's hawk was heard calling (begging) during the visit. Breeding, foraging, and dispersal habitat does exist at all three project sites. Cooper's hawks have adjusted well to human presence and with implementation of the proposed avoidance and minimization measures; it is unlikely that this species would be directly impacted by this project.

Pallid Bat

The pallid bat (*Antrozous pallidus*) is a California Species of Special Concern. This species is considered locally common throughout most of California. It occurs in a wide variety of habitats, including grasslands, shrublands, woodlands, and forests. It prefers rocky outcrops, cliffs, and crevices with access to open habitat for foraging. Colonies can often be found roosting in rural human-made structures, such as barns and other infrequently used buildings (Stokes et al. 2005).

The bat's diet consists primarily of terrestrial arthropods that it tackles on the ground, but it will also consume flying insects (Stokes et al. 2005). One of its preferred prey items in San Diego County is the Jerusalem cricket (*Stenopelmatus* spp.) (Stokes et al. 2005). The pallid bat mates from October to February with delayed fertilization. Young are born from April to July with a litter size of one to three. Young are altricial, weaned in approximately seven weeks, and are observed flying in July and August. This species is very sensitive to disturbance of roosting sites.

Potential Presence in Project Sites

There are no documented occurrences of the pallid bat within the Park. One occurrence is documented from 1946 in the vicinity of SR-79 and I-8. Foraging habitat does exist and night roosts may exist at the Descanso Area Development site. Maternity and hibernation roosts are not likely found at the project sites, but may exist in the project vicinity (chaparral community north of the proposed Descanso Area Development site). It is unlikely that this species will be impacted by the proposed project due to lack of hibernation/maternity roost sites and the existence of additional foraging habitat juxtaposed to the sites.

Townsend's Big-eared Bat

The Townsend's big-eared bat (*Corynorhinus townsendii*) is a California Species of Special Concern. This species was once considered common throughout California but populations of this species have declined steeply. It occurs in all but alpine and subalpine habitats and may be found during any season. It forages in a variety of habitats, but in California prefers oak woodland, ironwood forests, and riparian woodland but it avoids grazed grasslands (Stokes et al. 2005).

This species' diet consists primarily of moths taken on the fly by echolocation, but it will also glean from foliage, eating a variety of soft-bodied insects and beetles. The Townsend's big-eared bat requires caves, mines, tunnels, buildings, or other human-made structures for roosting and breeding. It breeds from November to February. Sperm is stored until ovulation in spring and births occur in May and June. Litter size is 1 and the

young is weaned in 6 weeks and will fly in approximately 3 weeks. Current threats to this species include disturbance of roosting sites.

Potential Presence in Project Sites

There are two documented occurrences within the Park but neither is within the vicinity of the project sites. Foraging habitat however may exist adjacent to the Descanso Area Development site. In addition, foraging habitat (montane hardwood conifer forest) is located within the Green Valley Loop A and Paso Picacho Day Use sites. Maternity and hibernation roosts are not likely found at the project site but may exist in the project vicinity (chaparral community north of the proposed Descanso Area Development project site). Therefore, it is unlikely that this species will be impacted by the proposed project.

Dulzura Pocket Mouse

The Dulzura pocket mouse (*Chaetodipus californicus femoralis*), a California Species of Special Concern, is found in a variety of habitats in San Diego County, including coastal sage scrub, grassland, and chaparral. It is attracted to grass-chaparral edges and its diet consists primarily of the seeds of annual grasses and forbs. It forages on the ground but will climb into shrubs. It is nocturnal and shows reduced activity above ground during winter months. Young are born between April and July, with an average litter size of four. Predators include coyotes, bobcats, owls, and snakes.

Potential Presence in Project Sites

There are no documented occurrences of Dulzura pocket mouse within the Park. There is one known occurrence (1976) approximately 1.5 km (0.93 mi) east-southeast of the proposed Descanso Area Development site. Breeding and foraging habitat does not exist at the Paso Picacho or Loop A sites but does exist in the grassland-chaparral interface juxtaposed to the Descanso Area Development site. It is unlikely that this species will be impacted by this project as no construction would be conducted at the grassland-chaparral interface and proposed avoidance/minimization measures would be implemented as part of the project.

American Badger

The American badger (*Taxidea taxus*) is considered a regionally sensitive species by the USFWS and a target species by the Multiple Species Conservation Program. Badgers are found throughout the state except in the north coast area and are most abundant in drier open stages of shrub, forest, and herbaceous habitats with friable soils.

Badgers are active yearlong and are both nocturnal and diurnal. Diet consists primarily of small mammals such as rats, mice, chipmunks, and especially ground squirrels. Their diet will shift depending on prey availability. Badgers mate in summer through early fall and young are born the following spring with an average litter size ranging from 2-3. Focused surveys were not conducted for the American badger due to its listing status.

Potential Presence in Project Sites

There are no documented occurrences of the American badger within the Park. No badger was observed during any site visit, but one burrow was identified north of the proposed Descanso campground project area. Scat at the burrow entrance was identified as potentially belonging to badger. Breeding and foraging habitat does exist at the

proposed Descanso Area Development site and within the grassland-chaparral interface juxtaposed to this site. It is unlikely that this species will be impacted by this project due to lack of construction activities near the burrow site. An increase of California ground squirrels (*Spermophilus beecheyi*), due to campers feeding the squirrels, at this site may benefit this species.

Hermes Copper Butterfly

The Hermes copper butterfly (*Lycaena hermes*) is a Category 2 candidate for listing as threatened or endangered by the USFWS. This small butterfly inhabits southern mixed chaparral and coastal sage scrub communities. Its larval host plant is redberry (*Rhamnus crocea*); adults are found most frequently nectaring on flat-topped buckwheat (*Eriogonum fasciculatum*). The Hermes copper butterfly is known only from western San Diego County and a small portion of northwestern Baja California, Mexico. Although there are many extant colonies in San Diego County, this species is threatened with extirpation due to habitat destruction.

Potential Presence in Project Sites

There are no documented occurrences of the Hermes copper butterfly within the Park. It is unlikely that this species will be impacted by this project due to the lack of redberry shrubs at the sites. Additionally, only a few buckwheat plants were observed at the proposed Descanso Area Development and Loop A sites (none at the Paso Picacho Day Use Area or Loop A) during botanical surveys.

4.3.6 Jurisdictional Waters of the United States Including Wetlands

Determinations of jurisdictional limits are based on the January 9, 2001, U.S. Supreme Court decision in *Solid Waste Agency of Northern Cook County vs. United States Army Corps of Engineers (ACOE)*, [121 S.Ct. 675, 2001], which affected ACOE jurisdictions over isolated waters. Guidance on waters that are non-navigable, isolated, and intrastate was published on January 19, 2001, by the Counsel for the Environmental Protection Agency and the ACOE.

All wetland assessments and delineations were conducted by a Parks Environmental Scientist trained by the Wetland Training Institute in basic wetland delineation. The wetlands and other waters of the United States were delineated using guidelines set forth by the ACOE (1987).

The ACOE Manual (1987) includes two methods for determining wetland boundaries: the routine method and the comprehensive method. The routine delineation method involves a field visit where existing conditions are observed and indicators of wetland vegetation, hydric soils, and wetland hydrology are noted and mapped on an aerial photograph. The comprehensive delineation method involves the analysis of vegetation, soils, and hydrology along a number of transects randomly distributed along a main transect that parallels the project site. For this project, the routine method of delineation was used. The routine method of wetland delineation was conducted by noting the presence or absence of the three ACOE wetland parameters at observation points established within the project site.

An initial visit to the Descanso Area Development site was conducted on March 1, 2007. This visit occurred immediately after (next day) a storm event that produced 0.97 inches

(2.5 cm) of rain at the project site and snow in the higher elevations of the Park. A second visit was conducted March 14, 2007. Parks Environmental Scientists surveyed the proposed sites (both dates) looking for indications of wetlands (hydrology, vegetation, soils). Hydrology and vegetation are present at the Descanso Area Development site but soil indicators, including sandy soils indicators (Wetland Training Institute, Inc 2001) were not identified during any visit. Soils throughout the Descanso Area Development site are very sandy but no hydric soils are present (NRCS 1995; 2006).

There are no wetlands present at the Descanso Area Development, Loop A, or Paso Picacho Day Use Area. In addition, there are no jurisdictional “waters of the U.S.” located within any of the proposed project areas. The Sweetwater River does lie adjacent to the Loop A site but no work is projected to occur within the ordinary high water mark for this project. There are no drainages at the Paso Picacho Day Use Area and drainages at the Descanso Area Development site consist of either swales or erosional features, which according to recent ACOE guidelines, are not tributaries or do not have significant nexus to traditional navigable waters (ACOE 2007).

4.4 CULTURAL RESOURCES

4.4.1 History & Historical Resources

4.4.1.1 Park Land Use Historical Background

This section of the document provides a summary of the background land use history of the park and for the select project areas along with subsequent resource findings. For a more detailed discussion and analysis see Appendix G.

Hispanic Period

Scientific evidence of human occupation of the Cuyamaca Mountains indicates people have lived here for~~back~~ thousands of years. ~~The Kumeyaay peoples being the most recent occupants~~ (see Archaeology and Ethnography sections). The Historic Era begins with the arrival of the Spanish Colonial missionaries, soldiers, and settlers to San Diego in 1769. The park’s earliest historic use dates back to the early 1770s, when Spanish soldiers based at the San Diego presidio and recently established Mission San Diego de Alcalá, came in contact with the area’s indigenous Kumeyaay. In 1772, and again ten years later, Spanish military governor Pedro Fages followed the Kumeyaay trails linking San Diego to Spanish settlements along the Colorado River and Sonora. After Mexico obtained its independence from Spain in 1821 this became the official inland route between San Diego and Mexico. The trail, which basically follows the present Viejas Grade Road and SR-79 to Green Valley before veering northeast toward Oriflamme Canyon and down to the desert, continued this important function when California became part of the United States after the 1846-1848 Mexican-American War. Between 1857 and 1860 it was also part of the *San Antonio* and *San Diego* mail line, the first federally subsidized overland mail route connecting San Diego to the east coast.

The Kumeyaay continued to be the primary residents of the area until 1845 when Governor of Mexican California, Pío Pico, granted a “tract known as Cuyamaca [consisting] of 11 leagues, more or less” to his nephew by marriage, Augustín Olvera.

Don Olvera sent his agent, Cesario Walker, to manage his affairs at the ranch. Walker lived in an adobe near the Indian village of *Mitaragui*, on the south side of Green Valley. Walker did not stay long but Olvera would allow others to graze their cattle in the ranch's meadows during his over twenty years of ownership.

American Homesteading/Ranching Period

As with many Mexican Era Rancho grants in the Early American Period of California, much of Olvera's efforts were spent in confirming his claim in U.S. courts and fighting off squatters. In 1856 James Ruler Lassator and his stepson, John Mulkins "settled" 160 acres of land in Green Valley that included the site of Cesario Walker's adobe at the former *Mitaragui* Indian ranchería. To hedge off further squatters, in 1869, Olvera began selling off parcels himself. One third of what was left of his 35,501-acre ranch he sold to Isaac Hartman, while he sold the remainder to Samuel Stewart. Stewart later sold one-half of his remaining lands to Robert Allison, one quarter to John Treat, and one-quarter jointly to Allison and Juan Luco. Treat, who homesteaded just south of present-day Cuyamaca Lake, between Middle and Cuyamaca peaks, established the Milk Cattle Ranch, where he raised prized Durham cattle and horses. Together, Treat and Allison operated a saw-mill on South Cuyamaca Peak. The discovery of gold near what became Julian triggered a rush into the mountains that resulted in the discovery and establishment of the Stonewall Mine in 1872 on the hill south of Cuyamaca Lake within the rancho boundaries. As such between 1870 and 1884 the Cuyamaca owners Allison, Hartmann, Treat, and Luco, were co-defendants in a legal claim against their property after they had allegedly attempted to "float" the boundaries of their rancho grant north to include the new Julian Mining District. The resulting court decision concluded in favor of the mining district and the setting of the final rancho grant boundaries in 1884. Shortly thereafter mining engineer and soon to be Governor Robert Waterman purchased the mine and much of the ranch property. His son Waldo managed and helped expand the mining operations including the development of the resultant company town, Cuyamaca City.

It was during this period that the Descanso Valley located at the southern end of the Cuyamaca grant, at the confluence of three streams: the Sweetwater, Descanso, and Samugantua, began to see settlement. The Descanso Valley, which was then known as "Little Guatay Valley" was reportedly settled by a man named Chase whose ranch may have included the current project's Descanso Area Development site. Chase was soon joined by other homesteaders such as Trinidad Rodriguez, Julian Sandoval, Moses Manasse, James Flinn, and Gavino Aguilar. By the 1890s the rural community of farmers and ranchers had established itself with a school, church, and store.

Road Development

As more and more homesteaders established small ranches and farms, by 1900 Descanso's success lay in its geographical location as the nexus of two important backcountry roads: the "Alternate Eastern" San Diego-Yuma Road and the Descanso-Julian Road. The current Viejas Grade Road that borders the Descanso Area Development project southern boundary roughly follows the historic Alternate Eastern east-west route's original right-of-way. The Descanso to Julian route (much of it now part of SR-79) traveled north from Descanso then veered northeast through Green Valley, then up over the circuitous *Paso Picacho* (Sp. The Pass through the Peak) on toward

Cuyamaca Lake and Julian. Also known as "Stonewall Gap" after the nearby peak, the Paso Picacho grade became the route of the Old San Diego-Cuyamaca Stage Route to Stonewall Mine and Cuyamaca City on the south shore of Cuyamaca Lake (dammed in 1886 by the San Diego Flume Company).

By 1913 automobile traffic slowly began to supplant horse-drawn stages and freight wagons along these roads. As a result of a 1909 County Road bond issue, existing winding wagon roads were straightened out and graded such as with parts of the Descanso-Julian Road. In addition, the Viejas Grade Road, which became part of State Route 12 in 1911, was rerouted in 1926 to a new alignment a mile south to Descanso Junction with its rededication as U. S. Highway 80 that same year.

Descanso Area Development as a Mountain Resort

Originally known as "Guatay," its oak-shaded glen offered a *Descanso* or Place of Rest (Spanish) for travelers making the long, hot, and dry thousand-foot climb up the Viejas Grade. As such the Descanso area had been promoted as a mountain retreat as early as the 1880s with the establishment of mountain retreats such as Ebenezer Hulburd's Mountain View Ranch. By the 1920s, the Hulburd Grove Resort [as it was then known] was a recognized tourist destination, with a hotel, small store, swimming pool and riding stable. In addition, a large number of "artistic and commodious homes" were built on the surrounding hillsides and "along the streams." Many of these homes were built as second homes or vacation rentals for families from San Diego, El Centro, and Los Angeles who were taking advantage of the improved automobile access via the new highways.

Also vying for the weekend or summer vacationer was the Descanso Park Addition, which Peter Jacobs developed in 1926. Jacobs along with his sons reportedly designed and built 15 to 20 cottages within the tract to "fit in with the natural contour and scenic beauty of the surrounding hills". One of these cottages, located a half mile to the east of the study site at 25133 Oak Lane, was listed on the San Diego County Register of Historic Places in August 2006.

During the 1920s, the phenomenal expansion of automobile ownership resulted in the network of new county and state highways from established urban centers into nearby beach, mountain, and desert areas throughout Southern California. Expecting an increase in automobile-oriented tourism, real estate speculators in these areas purchased and subdivided rural land for recreational uses. Once such person was Ralph M. Dyar, who purchased the majority of the former 20,000-acre Rancho Cuyamaca in 1924. A Los Angeles venture capitalist, Dyar and his partners planned to develop a mountain resort along Lake Cuyamaca, which would feature rustic cottages amid exclusive amenities including golf courses, equestrian trails, polo fields, and a private airport. Visitors to the resort would then be enticed to buy parcels in nearby tracts so that they could "realize the delights of a whole summer spent in the mountains or the advantages of having a place to run out to for weekends . . . [by building] rustic cottages of their own."

Allen T. Hawley's Descanso Ranch

One San Diego urbanite who was attracted to Descanso's natural beauty was Allen T. Hawley, who purchased over 2,200 acres of land in a portion of Lot L of Rancho Cuyamaca on November 29, 1929 that includes the current Descanso project area. The scion of a pioneer ranching family, Hawley's family first came to the El Cajon Valley

from Nebraska in 1884. Allen took advantage of the region's growth during these decades to prosper as a developer, financier, and real estate broker both in San Diego and throughout the East County.

It is not currently known if Hawley commissioned someone to build or moved into an already built stone cabin on his Descanso ranch but it is likely that Peter Jacobs and Sons built Hawley's cabin (and a smaller automobile garage), although there were two other local stone masons who might have been responsible, Harry and Austin McCoy.

The Allen Ranch's one-story, 57-foot by 18-foot ~~cott~~ottage's cabin, along with an adjacent automobile garage's singular distinguishing architectural feature was being its rustic fieldstone and rock rubble vener exterior wall-construction. The use of local natural building materials, including native stone, together with cedar slab wood and half-timbered construction, reflects local and regional building traditions that date back to the early 1880s. The Allen T. Hawley two-bedroom cabin would have been adequate for Hawley and his wife, as well as a guest or two. At fifty-nine and fifty-eight years old, respectively, at the time of its purchase, Hawley may have bought it as a retirement cabin where he could live out the rest of his life as a "gentleman rancher" raising horses and other livestock on his property as an avocation. Besides a front porch, the cabin contains another interesting exterior feature: a wood-fired stone masonry and iron stove/oven in back of the kitchen. The only other improvement was a 12-foot by 8-foot frame addition off the kitchen around 1940. Hawley and his wife sold the property in 1941 to Lawrence and Mary Oliver. Allen Hawley passed away three years later in 1944.

The Oliver Ranch

Arguably the most important historical figures associated with the project property are Lawrence and Mary Emily Oliver. An innovative entrepreneur, businessman, rancher, community leader, and philanthropist, Lawrence Oliver was another "gentleman rancher" who contributed to San Diego's economic and social history. A naturalized United States citizen, Oliver had emigrated from the Azores Islands in 1903. Eventually settling in San Diego, he worked his way up from delivery boy to become the President of the Oliver Meal and Oil Company, one of the most successful businesses in San Diego. When San Diego's fishing and canning industry began phasing out after World War II, he shifted into other successful business ventures.

Oliver's success garnered him the attention of San Diego's business elite. He was described as "a man of integrity and of recognized business ability" and served on many corporate and non-profit boards and was a key member of numerous civic and fraternal organizations. Oliver and Mary were also significant contributors to San Diego's Portuguese-American and Roman Catholic communities.

His beneficence extended out into the Descanso area. During the late 1940s he donated twenty-two acres of his ranch south of Highway 79 east of Descanso Junction to the Sisters of Social Service as a camp for underprivileged children. During the camp's 1954 dedication ceremonies, to the Olivers' surprise, the Sisters named it "Camp Oliver" in their honor. The camp continues to function to this day as a non-denominational all-year non-profit group campground.

Oliver Ranch Improvements

During Oliver's 1941 to 1958 ownership of the "Circle R" ranch, Oliver made several major improvements. These included erecting several addition buildings and structures on both side of Viejas Boulevard. The first were a custom-designed ranch house and a large "Red Barn" south of Viejas Boulevard. North of the road, he converted Hawley's stone cabin into the ranch foreman's cabin. Around it, on an oak-shaded rocky knoll, he built at least nine (9) additional ranch-related buildings and structures. Dominated by a large board-n-batten clad, corrugated sheet metal-roofed redwood barn, the complex included a smaller shed, as well as single-family and duplex residential cabins for ranch hands.

Other Oliver Ranch-related improvements include a white grapestake fence-lined graded dirt service road leading from Viejas Boulevard, around the knoll's base, and north along a meadow's east perimeter, where it eventually ended at a concrete check dam. The latter, along with three wells, provided water to irrigate the meadow's alfalfa crop during the summer. Horses and cattle roamed the meadow where the crop wasn't growing. A branch of the road looped around the barn/residential complex, providing access to a workshop/storage and implement shed to the southeast. A line of elm trees provided shade and delineated the entrance road off Viejas Boulevard. The ranch complex also contained two electric-powered water pumps, and a 550 gallon above-ground gasoline fuel storage tank next to the workshop. Between 1941 and 1958, Oliver made improvements to the Descanso ranch including the addition of several buildings and structures. Among these was a 22-foot by 20-foot rectangular, board-sided wood-framed gable-roofed cabin. In 1950, two separate room additions were built on this cabin. Another 54-foot by 28-foot single-story wood frame, board-sheathed gable-roofed cabin was built in 1952.

The Oliver Ranch contained four additional structures: 1) an 80-foot by 48-foot wood-frame barn; 2) an 18-foot by 20-foot shed; 3) a 20foot by 70-foot closed workshop and open-bay storage shed; and 4) an attached 18-foot by 100-foot open-bay implement shed extending south from its southeast corner. The ranch complex also contained two electric generators, and a 550-gallon above-ground gasoline storage tank next to the workshop. Except for the original 1929-built stone masonry cabin, all of the other buildings and structures have been removed. The current visitor parking lot southeast of the stone cabin is the site of the L-shaped implement shed, while the area north and northwest of the stone cabin is where the majority of the other structures were built. A short curving dirt road that branches off the study area's southeast corner to north dirt access road dates back to the Oliver Ranch era.

During Oliver's 1941 to 1958 ownership, he kept work horses and a small stœkherd of award-winning Hereford herd-cattle-and-horses on the ranch. Once a year he would employ local cowboys to roundup and cull the herd; selling the surplus being sold for beef. By the late 1950s Oliver found the demands of raising cattle and attending stock shows no longer feasible. In 1958 he sold the ranch to Dr. Haig C. Merigan, a San Diego dentist/pharmacist and his wife Joann M. Merigan.

The Merigan Ranch

As was Hawley and Oliver, Dr. Merigan was reportedly “a very good business man” who also invested and developed local real estate. Like Hawley and Oliver, Merigan continued the ranch’s historic use as a “gentleman’s ranch”. All of the Merigan family, including the children, were involved in “living the cowboy life”—riding, herding, branding, medicating, feeding, and selling Black Angus cattle. Indeed, the Merigans had inherited a fully equipped ranch; Oliver had left a small fleet of trucks and farm implements in the two storage sheds. While the Red Barn south of Viejas Boulevard continued to be the center of the ranch’s operations, the north meadow and the oak-shaded knoll complex continued to play a role in the ranch’s operation. The former was used on a rotational basis for livestock grazing and growing alfalfa hay. The latter continued to serve as a residential, barn, storage, workshop, and other ranch-related center. The only other improvement in this area attributed to the Merigans was a 1966-built 15’x20’ cabin behind the stone foreman’s cabin. Besides housing ranch hands, they utilized one of the cabins as a rental unit for visitors.

The Merigans owned and operated the former Hawley/Oliver ranch until September 26, 1977, when they donated 1,823 acres north of the County Highway to DPR. At the time, this parcel contained “one duplex, three single family residences, one barn, and various out buildings.” Eighteen months later, the Merigans donated two additional unimproved parcels to DPR. Except for the original 1929-built stone masonry cabin, a small board-n-batten shed, dirt road, and elm trees, DPR demolished and removed all evidence of the other ranch-related buildings and structures soon after its acquisition of the ranch.

Historic Resources Summary

Oliver/Merigan Ranch Foreman’s Stone Cabin

This building is potentially eligible for listing on the California Register for its 48-year association with an independent, family-owned and operated “Gentleman’s Ranch” associated with award-winning livestock ranching in San Diego’s mountainous backcountry. Constructed in 1929, the cabin’s design and construction may be attributed to several local area craftsmen who specialized in traditional stone masonry construction methods at the time. The cabin is one of at least twenty similar cabins scattered throughout the Descanso/Guatay area, which may be collective contributors to a larger discontinuous thematic historic architectural district that represents a 128-year-old regional building tradition. The cabin is also historically significant for its association with two historical figures who contributed to San Diego County’s early 20th century economic and cultural development: Allen T. Hawley and Lawrence Oliver. The cabin may have served as Hawley’s ranch house from 1929-1941, and as the subsequent Oliver Ranch’s foreman’s residence from 1941 to 1958. The ranch’s next owner, Dr. Haig Merigan, continued the cabin’s historic use until he donated the property to California State Parks in 1977.

Hawley/Oliver Ranch House

Despite the property’s protracted history, there is only one recorded historic resource, the *Hawley/Oliver Ranch House* on-site. It may be potentially eligible for listing on the California Register as an excellent local example of a hand-built, stone-veneer cabin typical of the area and its association with local businessmen Allen T. Hawley and

Lawrence Oliver. For example, a nearby rock cabin located at 25121 Oak Lane was designated as a San Diego County historic resource in August 2006. It was also built in 1929 on property developed by Peter Jacobs. Like the Hawley/Oliver Ranch House, “it is an example of the original mountain retreats in [the area] in the late 1920s and into the 1930s.

Oliver/Merigan Ranch House and Outbuildings Complex Historic Site

Located on an oak-shaded rocky knoll, the site is potentially significant for its forty-eight-year association with a family owned and operated cattle ranch. Developed in 1929 by San Diego real estate investor Allen T. Hawley, the site originally contained a stone cabin and detached garage, and several ancillary wooden structures. It reached its highest development and use from 1941 to 1977, when it served as the operational center of the Oliver and Merigan ranches. During this time, the site contained at least twelve (12) residential, storage and work structures built on or immediate to the knoll. The structures’ arrangement, setting, type, and building materials typify those found in a local example of an early-to-mid-20th Century “Gentleman’s Ranch”: a rustic retreat where its three successive owners, Allen T. Hawley, Lawrence Oliver, and Dr. Haig Merigan, could escape the pressures of their professional lives by recreating with their families by “playing cowboy” on an actual working cattle ranch. While the site still contains several structures dating from its 1929 to 1960 period of historical significance, at least ten (10) structures, including their stone and concrete foundation walls, pads, fencing and other landscape improvements, are no longer extant. As a result, the surviving historic-period resources—a stone cabin, redwood-built storage shed, dirt road segments, grazing fields, and a row of mature elm trees—no longer convey the feeling and consecutiveness associated with a potentially eligible historic ranch complex. However, despite the cumulative loss of historic fabric, the location still possesses historic value based on its association with historic ranching activities and individuals. Therefore, the former Oliver/Merigan Ranch may qualify as a potential historic site, where the location itself possesses historic value, despite the loss of any buildings or structures.

Another potentially historical resource is the site of the *Oliver Ranch House and Outbuildings*. Since the owners prior to DPR’s acquisition removed the former Oliver ranch house and other structures associated with the ranch’s operation, possible historic archaeological building and/or cultural remains may be present.

Descanso Elementary School Complex

While not on, but adjacent to the project site, the Descanso Elementary School Building may be a potentially eligible historic resource. Completed in 1935 and dedicated in 1936, it replaced an earlier schoolhouse located near Old Highway 80 (the present intersection of Wildwood Glenn Lane and Los Terrentos Road) from 1898 to 1935. The present schoolhouse is one of three known Works Progress Administration (WPA)-funded elementary and secondary schools designed by San Diego architect William Percy Lodge during the Great Depression.

The original Descanso Elementary School building appears to have retained much of its historic integrity. The site, however, has undergone changes that, arguably, have impacted its historic setting. For example, a second wing of rooms was added during the 1940s. During the 1980s, modular buildings were added to accommodate a marked

increase in student enrollment. Mature trees also obscure the school building from the main roadway.

In 1979, *San Diego County Central Mountain Community Plan* stated that the Community of Descanso regarded the Descanso Elementary School as having “historical interest.” However, it did not state why it is historically significant; nor is the building listed on any County or State landmark registers. However, due to its age and relative integrity (when viewed from the south), the 1935 and 1940s school buildings may qualify as potentially eligible historic resources at the local level.

4.4.1.2 Green Valley Campground

The proposed Green Valley Campground conversion project's A.P.E. is limited to Loop A (also known as the Sweetwater Loop).

Green Valley Campground: Early History

The Loop A Campground's historical period of development begins on January 10, 1933, when the California State Department of Beaches and Parks acquired and created Cuyamaca Rancho State Park. The new Park's headquarters were located in the “Stonewall Lodge”, the mountain home of the acquisition's former owner, Los Angeles capitalist Ralph M. Dyar. Dyar's mountain retreat was located near the confluence of the Sweetwater River and Cold Stream Creek in Green Valley, northeast of the campground. Due in part to the failure of his proposed El Rancho Cuyamaca resort development and the onset of the Great Depression, Dyar chose to sell his ranch property to the State for a park in 1932.

Although in the depths of the Great Depression, the recently created California State Park System took advantage of President Franklin D. Roosevelt's Civilian Conservation Corps (CCC) to improve their new parklands. The CCC was a work program that employed thousands of young men and veterans through useful public work. In State Parks, National Park Service (NPS) designers directed park development and improvements featuring NPS' distinctive “Park Rustic” style. At Cuyamaca Rancho, State Parks established public campgrounds at the Green Valley Falls area west of SR-79 and in the meadow immediately east of the Dyar House (at the present site of the San Diego City/County School Camp).

The CCC constructed the first Park improvements in the Green Valley Falls area including 1) an Entrance Kiosk, park residence, and maintenance area on SR-79's western shoulder, and 2) a road from the entrance that ran in a northwesterly direction crossing over the Sweetwater River and leading to the new Green Valley Falls Campground and Picnic Area. The CCC also constructed a dirt road leading up the unnamed hill located above the current Loop A campground unit where they constructed a 50,000 gallon concrete reservoir to serve the Green Valley complex. These are the only CCC era improvements in the current Project Area.

Green Valley Campground: Loop A

The Project Area's Loop A development occurred after World War II, when, responding for a need for more public camping throughout the Park, DPR chose to add a new camp loop in a grassy meadow between the Sweetwater River and the northeast slope of the

knoll below the CCC-built reservoir. Between 1948 and 1950, 21 campsites were constructed in what was originally known as the "Sweetwater Loop" campground, all of the new campsites featured a graded parking spur, a concrete and wood picnic table, and a cement-mortared stone rubble masonry camp stove. Near the middle of the meadow was a standard plan Combination Building. Inspired by NPS' earlier designs, State Parks new Development Division created these Post-War era buildings and improvements in a style that reflected a simpler "stripped-down" standardized version of the Park Rustic structures. These "standard plan" structures allowed the Department to rapidly meet the demand for providing public use amenities to the growing Post-War State Park System.

Documentation indicates that some of the Loop A's most character-defining landscape features and elements—cement-mortared coarse stone rubble masonry retaining walls and steps—were not built during the campground's 1948 to 1960 period of potential historic significance but were replaced later.

While the campground's "D"-shaped circulation road, as well as the campsites' parking spurs and turnouts are in their original configuration, the composition asphalt gravel pavement laid over them is not. It was added during the mid-1970s.

Historic Resources Summary

CCC Reservoir and Access Road

Located along the campground's southeastern perimeter, the single-lane-wide dirt road begins at a gated entrance between campsites 10 and 12 and curves up the southeastern and southern ridgeline of an unnamed rocky knoll to a point overlooking the knoll's western flank. At this location sits a 40-foot by 24-foot poured-in-place above-ground concrete reservoir. Approximately 6 feet of the reservoir's 10-foot-high side walls are above ground. Constructed by the CCC in 1934, it is one of three concrete water-storage reservoirs that the CCC built throughout the Park during the 1930s. Despite some minimal modifications, the structure has maintained its historic integrity in regards to location, setting, materials, workmanship, and design. The road and storage reservoir still maintains its historic integrity in regards to location, setting, and materials as a contributor to a potential Cuyamaca Rancho CCC/Post War Park Rustic district.

Loop A Campground Historic Landscape

While the campground has maintained its original location, setting, design, materials, workmanship, there have been cumulative changes to its historic fabric that lessen its historic significance. For example, the 1948-built Comfort Station's original exterior horizontal wood clapboard wall cladding and awning-style wood windows have been replaced reducing the structure's historic integrity.

In addition, some of the campgrounds' most distinctive landscape features, the stone masonry retaining walls and stairways, are less than 50 years old, and are not eligible for consideration as contributors to a Park-side "Park Rustic" district.

However, while they are not eligible for consideration as contributing historic landscape features, the stone work does reflect the area's 100+ year regional vernacular construction history (including the Park's own design vocabulary) of using indigenous stone to construct rustic buildings, structures, walls, culverts, and other landscape features.

Because of this, they should be given special consideration during the project's planning, design, and construction phases.

4.4.1.3 Paso Picacho Day Use Area

The proposed Paso Picacho Equestrian Day Use Project Area's A.P.E. is limited to the area being developed east of the SR-79 shoulder and does not contain any recorded historic resources. However, there are two potentially eligible historic resources within the project's A.P.E. The first is the historic route of the Old San Diego-Cuyamaca Stage, an important historic transportation corridor dating back to the 1870s. The second is the existing Stonewall Peak Trail, which is associated with the celebrated CCC's work in developing the Park's infrastructure during its infancy. In addition, a potential Park Rustic style district exists west of the project's A.P.E. across the SR-79 at the Paso Picacho Campground, Day Use, and Park Administrative Complex.

The proposed equestrian trailhead's built improvements will not physically affect any of the potentially eligible historic resources within or immediately adjacent to the proposed project's A.P.E. Likewise, the trailhead improvements' compatible design, scale, and use of building materials, in addition to existing trees and shrubs, should provide an enhancement to those using the Stonewall Peak Trail.

Potential Historic Resources

Old San Diego-Cuyamaca Stage Route

Located just east of SR-79, the Old San Diego-Cuyamaca Stage Route is a historic transportation route that extended along the western base of Stonewall Peak through the Stonewall Gap. Native Americans, Spanish, and later Mexican and Anglo-Americans may have used this route connecting Green Valley to what is now Lake Cuyamaca via Paso Picacho. However, its primary historical use began in the early 1870s as a more direct alternative, graded dirt freight wagon and passenger coach road linking San Diego with the newly discovered gold mines at Julian and later Cuyamaca City, north and south, respectively, of Lake Cuyamaca. After the mines played out during the early part of the 20th century, the road continued to carry freight, passenger, and mail coaches between San Diego and its mountainous backcountry and desert areas. After 1910, as gasoline-powered cars and automobiles supplanted horse-drawn wagons and coaches, the road's importance decreased due to the construction of the present highway. A segment of the historic stage route passes through the Paso Picacho Project Area.

Stonewall Peak Trail

This trail is associated with Park improvements made by the CCC during the Great Depression, and provides a tangible link to a cooperative federal and state park development program. From the main base CCC camp just east of the Dyar Lodge (a.k.a. Stonewall Lodge); supervised CCC enrollees built roads, trails, campgrounds, buildings, and other structures throughout the Cuyamaca Rancho, as well as at Palomar and Anza-Borrego Desert State Parks. While the trail has experienced some modifications, including some rock work near its junction with the Cold Stream Trail, the route up to an observation lookout at Stonewall Peak is essentially intact.

Green Valley-Cuyamaca Valley Segment of SR-79

The scenic SR-79 transportation corridor has served as a key transportation and communication route between the mountain communities of Descanso and Julian. Besides providing southern access for automobile traffic from San Diego to Lake Cuyamaca and Julian beginning in the early 1910s, the road contributed to the development of the Park from the 1930s through today.

Although the highway's route has not changed appreciably since the 1930s, the current roadbed appears to have been widened and paved over since the 1970s to accommodate modern highway safety standards. While this has reduced its historic integrity, the historic route itself may be an eligible historic resource. The Paso Picacho Day Use Area Project would not impact the route's physical characteristics and its historical integrity.

Paso Picacho Campground and Administrative Complex

This excellent example of the CCC and Post War Park Rustic design in State Parks is located across SR-79 west of the Project Area. Contributing buildings to the potential National Register eligible district that are visible from the Project Area include the Residence #7 building (now the Park Sector Office), the Forest Fire Suppression Station, Campground Entry Kiosk, and Campground Gift Shop building. These buildings along with the rest of the CCC and California State Parks-built Park Rustic Style buildings and landscape features at Paso Picacho are contributors to a potentially eligible Park Rustic Thematic Historic District at the Park. The Project will not have a physical or visual impact to this potentially eligible district.

4.4.2 Archaeology

4.4.2.1 Prehistoric Context

According to the indigenous people of the San Diego region, they are descendents of the first people, and have lived in their ancestral lands since the time of creation (Cline 1979; Gifford and Block 1990). Scientific studies have found evidence of people in the San Diego region over 9,000 years ago. Rogers (1966) called the earliest cultural complex of southern California sites the "San Dieguito Complex" or "San Dieguito Tradition". San Dieguito dates to the early Holocene and, although the San Dieguito people were previously thought to have been almost exclusively "big game hunters" (Pourade 1966), more recent evidence suggests that they also gathered plant resources and, along the coast, utilized marine resources (Gallegos 1992).

Around 5,000 years ago rainfall in the deserts increased (making such areas more inhabitable), population increased, and specialized and selective utilization of particular environments became more common (Wallace 1978). In the southern California deserts, the rise and fall of Lake Cahuilla helped to dictate settlement patterns and availability of resources. When the lake dried up and resources became scarce, people may have had to travel into the foothills and mountains to obtain food, medicinal plants, and other materials.

4.4.2.2 Ethnographic History

The project area falls within the ethnographic territories of the Kumeyaay and, Kwaaymii, or and Kamia, which some also call an eastern division of the Kumeyaay. The Kumeyaay were historically called the Diegueño after the Mission San Diego de Alcalá, and were split into the Ipai in the north and the Tipai in the south. Kumeyaay territory included a vastly varied terrain, ranging from coastal beaches and lagoons, across the mountains, and down into the arid desert. The Kumeyaay and Kwaaymii were mainly hunters and gatherers, making seasonal rounds to take advantage of various resources. However, they had also developed horticultural/agricultural techniques including burning, seed broadcasting, transplanting, and planting (Bean and Lawton 1973; Cline 1979; Gee 1972; Luomala 1978; Shippek 1982).

The Kumeyaay were organized into autonomous bands with a hereditary (patrilineal) clan chief as well as at least one assistant chief (Luomala 1978). Each band had a central primary village and a number of outlier camps located at small water sources, springs, or at the mouths of secondary creeks (Shippek 1982). Campsites were selected for accessibility to water, drainage, availability of boulder outcrops or other natural protection from weather and ambush, and the abundance of flora and fauna (Luomala 1978). Kumeyaay structures varied in shape and construction technique by region and use. The more permanent dwellings were domed or gabled, with a slightly sunken floor, and were constructed of a tied-pole framework overlain with brush thatch and sometimes a mud and grass covering (Kroeber 1976; Luomala 1978).

The Ipais and Western Kumeyaay practiced shamanism, utilizing the *toloache* (*Datura*) initiation customs that had been learned from the Luiseños and Gabrielinos to the north; while the Eastern Kumeyaay/Kamia practiced the system of song-myth cycles that came from the Colorado River region (Heizer and Whipple Kroeber 1971). Items such as stone, cane, or ceramic pipes; pottery, tortoise shell, gourd, and deer-hoof rattles; and crescentic stones were used in ceremonial rituals (Gifford 1931; Kroeber 1976; Luomala 1978).

The Kumeyaay and Kwaaymii cremated their dead. The body and its possessions were burned on a pyre over a pit (Luomala 1978). After the cremation of the body, the ash, bones, and unburned fragments of possessions were gathered up and placed in a pottery jar (olla) that was then capped and buried or hidden among remote rocks (Cline 1979; Kroeber 1976; Luomala 1978).

4.4.2.3 Archaeological Resources

Green Valley Campground

The Loop A area was partially examined during previous DPR project work. One site (CA-SDI-16294) had been recorded within Loop A and a few others were documented around the edges of the campground.

During project scoping, limited archaeological survey of the campground loop and proposed trail routes was undertaken by DPR archaeological staff. A few additional archaeological features were identified and recorded as part of CA-SDI-16294. The inclusion of these newly identified features expanded the site boundaries to the west and east. There are grinding features within the use areas of two campsites and adjacent to the use areas of two additional campsites. Additional features have also been recorded

within bedrock outcrops around the perimeter of the campground. See Appendix J (attached) and Confidential Appendix F (under separate cover) for additional details.

Only one possible artifact was noted during the examination of the Loop A area, although additional artifacts may be located under duff, thick grasses, or below the ground surface. The presence of bedrock grinding features, while not always indicative of the presence of artifacts, does show that the area was used prehistorically for grinding and preparing foodstuffs and/or other materials, and that there is a potential for artifacts to be present.

Paso Picacho Day Use Area

No archaeological resources are known to exist within this proposed day use location. The archaeological survey of this area was negative. Archaeological and Native American monitoring during geotechnical test boring was also negative. A few sites have been recorded farther to the north and east, but the proposed facilities will avoid them. See Appendix J for additional details.

Descanso Area Development

The Descanso Area Development site was first examined for archaeological resources in 1974 by Westec Services (Carrico 1974). At the time, it was postulated that the site represented a late period village site or possibly a satellite village to a larger settlement to the southeast and that this large village complex may represent the ethnographic Kumeyaay village of Hum-poo Arrup-ma (“whip of the wind”). Subsequent to this first recordation of the site (CA-SDI-8855), additional investigations took place (Foster 1981a, 1981b; Mealey 2007; Parkman et al. 1982, Sampson 1992; Schwaderer 1999).

Testing was carried out within the proposed project area by DPR staff and Native American monitors in 2007 and 2008 (Confidential Appendix F, under separate cover). A total of 87 auger test holes and four 1-meter by 0.5-meter test units were excavated to determine the extent and content of any subsurface deposits. The results of the testing indicated that this area was the location of a habitation site that was occupied for many years and at which many different activities were carried out including some level of trade with their neighbors to the west and east. Prehistoric human remains were uncovered during site testing. The presence of human remains at CA-SDI-8855 indicates the cultural significance and highly sensitive nature of this site. Additional details regarding the survey and testing methods and results can be found in Appendix J (attached) and in Confidential Appendix F (under separate cover).

4.5 GEOLOGY / SOILS

4.5.1 Geology

The following information was taken from the Park’s General Plan (DPR 1986).

The Park lies within the Pensinsular Ranges Geomorphic Province. This province extends from the Los Angeles Basin and the Transverse Ranges in the north, southward to the tip of Baja California. The province is made up primarily of granitic rock of the Southern California batholith, older schists, and gneisses (metamorphic rocks). The batholith was emplaced in discrete pulses, which resulted in the solidification of rocks with special chemical compositions, according to the cooling time and nature of emplacement. Rock types range from dark gabbros to quartz-rich monzonites, including

most granitic rock types in between. The rocks of the batholith characteristically weather into rounded boulders and flat-lying exfoliation sheets. Most of the rocks in the Park were from 110 to possibly 240 million years ago.

All of the igneous rocks have undergone regional metamorphism, synchronous with the emplacement of the magmatic bodies. The nature of the contacts between the igneous rocks is scientifically of great interest, since “normal” relationships often seem to be reversed, with older rocks giving the appearance of having intruded younger rocks.

Resting on the Cretaceous igneous rocks are unconsolidated alluvial deposits: colluvious, stream deposits, and localized landslide materials. This relationship, Quaternary alluvium directly on top of Cretaceous igneous rocks, is a notable feature of the Peninsular Ranges Geomorphic Province. There was a period of time from about 95 million years ago to one or two million years ago that left no lithologic or fossil record.

The structure of the Park was influenced by regional crustal movements along the San Jacinito and Elsinore fault zones, 18.6 miles and 4.4 miles to the northwest, respectively. No active faults occur closer than the Elsinore fault zone, although small-scale lineaments may have experienced lateral displacement.

4.5.2 Soils

The U.S. Natural Resource Conservation Service (NRCS) has mapped two soil series in the project vicinity, Calpine sandy loam and Crouch sandy loam (Figure 4.1). These soils vary widely in depth, fertility, permeability, and other important characteristics. No hydric soils are present in the proposed project vicinity (NRCS 1995). The following soil series descriptions were obtained from the NRCS website located at <http://ortho.ftw.nrcs.usda.gov/cgi-bin/osd/osdlist.cgi>.

Crouch:

The Crouch series consists of deep, well drained soils that formed in material weathered from granitic rock. Crouch soils are on mountainous uplands that have slopes of between 8 and 75 percent. The mean annual precipitation is about 68.6 cm (27 in) and the mean annual air temperature is about 11.7° C (53° F). Crouch soils are on mountainous uplands. They formed in material weathered from igneous (granitic) rocks. Elevations are 914 to 2438 m (3,000 to 8,000 ft). Crouch soils are somewhat excessively drained with medium or rapid runoff and rapid permeability. They are used for rangeland or watersheds. Wooded areas in favorable locations are used for recreation. Vegetation is mainly annual grasses and forbs with open stands of timber at higher elevations.

Calpine:

The Calpine series consists of very deep, well drained soils that formed in alluvium derived from granitic rocks. They are well drained with very low or low surface runoff and moderately rapid permeability. Calpine soils are found on alluvial fans, fan remnants, and stream terraces. Slopes are 0 to 15 percent. The mean annual precipitation is about 30.5 cm (12 in) and the mean annual temperature is about 11.1° C (52° F).

Calpine soils form in alluvium derived mainly from granitic rocks. Slopes are 0 to 15 percent. Elevations range from 914 to 1829 m (3,000 to 6,000 ft). The climate is semiarid with cool, moist winters and warm, dry summers. Calpine soils are used

principally for rangeland. A few areas are used for irrigated agriculture with alfalfa hay and pasture as the main crops.

4.6 HYDROLOGY AND WATER QUALITY

Regional Hydrology

The Park is located within the South Coast Hydrologic Region, which covers approximately 6.78 million acres (10,600 square miles) of the southern California watershed that drains to the Pacific Ocean. More specifically, the project site is located within the Sweetwater Hydrologic Unit (HU), which consists primarily of the Sweetwater watershed, plus the smaller Telegraph Creek (Figure 4.2). Both watersheds drain into the wetlands of southern San Diego Bay (Mazor and Schiff 2008). The Sweetwater River watershed encompasses 230 square miles and ranges from the Cuyamaca Mountains to the Pacific Ocean. Over 86 percent of the watershed is within unincorporated jurisdictions. The dominant land uses in the Sweetwater River watershed are urban (29%), open space / agriculture (22%), and undeveloped (49%). About two-thirds of the land area categorized as urban is composed of residential communities, with approximately 300,000 people residing within the Sweetwater River watershed. By 2015, this amount is projected to increase to 365,000 (Project Clean Water 2009).

Within the Sweetwater watershed, the most important issues are related to the protection of municipal water supplies, and the protection and restoration of sensitive wetland and wildlife habitats. Between the headwaters and the outlet to San Diego Bay, the watershed contains a variety of habitat types including oak and pine woodlands, riparian forest, chaparral, coastal sage scrub, and coastal salt marsh. The upper watershed contains large undeveloped areas within the Cleveland National Forest and the Park, the unincorporated communities of Pine Valley, Descanso, and Alpine, and the Viejas Indian Reservation. Unincorporated rural and suburban communities characterize the central part of the watershed. The urbanized lower portion of the Sweetwater watershed contains portions of several cities including San Diego, National City, Chula Vista, La Mesa, and Lemon Grove.

Site Hydrology

The Sweetwater River runs adjacent to Loop A of the Green Valley Campground. This reach of the Sweetwater flows year-round and is heavily vegetated. Dominant plant species include willow, mulefat, alder, oak, wild rose, and mugwort (*Artemisia douglasiana*). There are no perennial drainages flowing through the Paso Picacho Day Use and Descanso Area Development sites; however, three unnamed ephemeral drainages, generally running north to south, flow through the Descanso Area Development site (Figure 2 in Appendix C). These three drainages flow only after rain events and flows quickly disipate depending on rainfall totals.

The first drainage, located within a low lying area on the western edge of the proposed Descanso Area Development site, flows south-southeast to a depression on the east side of the elementary school. This drainage is vegetated primarily with non-native grasses but also has sporadic clumps of Mexican rush (*Juncus mexicanus*) and deergrass (*Muhlenbergia rigens*).

A second drainage flowing northeast to southwest lies next to the current Park residence. It flows under the Merigan Fire Road via a culvert and then onto the site where it runs across the lower portion of the property. It exits the property through culverts underneath Viejas Boulevard, where it then flows into a pasture next to a feed store. From this site it becomes sheet flow and disappears. There appears to be no direct connection between this unnamed drainage and the Sweetwater River. Sections of this drainage are vegetated with non-native grasses, while other sections are unvegetated. If any activities are to take place within the bed and bank of this drainage, a CDFG 1602 Streambed Alteration Agreement would be required.

A third drainage, starting in the northeast corner (in the adjacent chaparral community) flows just west of the fire road into the center of the Descanso Area Development site and then disappears. Sections of this drainage appear to have a bed and bank and are either barren or vegetated with non-native grasses. No riparian vegetation of any kind is located along or within any drainage at the proposed Descanso Area Development site.

Water Quality

Water quality effects are defined as the chemical, physical, or biological changes to water as a result of its flow through developed areas, soil, or rock material. Issues of concern within the Sweetwater Watershed include loss of native species, pollution from non-point source runoff and direct discharges, habitat degradation, loss of wetlands and riparian habitats, and constrictions of wildlife movement corridors (Clean Water Project 2009). The County of San Diego has adopted the Project Clean Water program to protect water resources in the area. This program provides residents, businesses, and developers with information on how to comply with applicable federal, state, and local regulations regarding urban runoff and its potentially polluting effects.

Surface Water-Beneficial Uses

Beneficial uses are designated by the California Regional Water Quality Control Board (RWQCB) and take into consideration the use and value of water for many purposes including recreation, in and on the water; protection and propagation of aquatic life; and public water supplies. The beneficial uses for a watershed can be affected when water quality is limited or altered by a variety of factors. Beneficial uses include uses of water necessary for the survival or well being of humans, plants, and wildlife. The water bodies of the Sweetwater Watershed have multiple beneficial uses, as designated in the Water Quality Control Plan for the San Diego Basin (RWQCB 1994) including municipal; agriculture; industry; power; recreation; biological habitats of special significance; warm and cold freshwater habitat; wildlife habitat; rare, threatened, or endangered species; and spawning habitat (Mazor and Schiff 2008).

Under section 303(d) of the Clean Water Act, states, territories, and authorized tribes are also required to develop lists of impaired waters. These are waters that are too polluted or otherwise degraded to meet the water quality standards set by states, territories, or authorized tribes. The law requires that these jurisdictions establish priority rankings for waters on the list and develop a Total Maximum Daily Load (TMDLs) for these waters. A TMDL is a calculation of the maximum amount of a pollutant that a waterbody can receive and still safely meet water quality standards (EPA 2009a). No streams in the Sweetwater HU are listed as impaired on the 303(d) list of water quality limited

segments; however, the Loveland Reservoir is listed for dissolved oxygen, aluminum, and manganese and the Sweetwater Reservoir is listed for dissolved oxygen (Mazor and Schiff 2008). Although there are no streams listed as impaired in the Sweetwater HU per the 303 (d) standards, a recent report prepared by Mazor and Schiff (2008) for the RWQCB states that the watershed is in poor ecological health. A total of 10 sites were sampled including a site along Cold Stream within the Park. Water chemistry, toxicity, and biological condition were degraded at every site assessed. In general, ecological condition was worst near San Diego Bay and better towards the interior. However, poor ecological health was evident throughout the watershed and multiple indicators indicated impacts at all sites in the HU. For example, the pesticide diazinon was detected at every site. Similarly, many water chemistry constituents, like ammonia-N, selenium, and total nitrogen, exceeded aquatic life thresholds at every site. Moreover, water and sediment samples from all sites caused toxicity to indicator species, and bioassessment samples in poor or very poor condition were collected at all sites in the watershed.

4.7 LAND USE AND PLANNING

The Park is surrounded by lands that are managed by a variety of agencies. To the east is Anza-Borrego Desert State Park, the town of Julian is less than six miles to the north, and the community of Descanso borders the Park at its southern boundary. Much of the Park's southern, eastern, and western boundaries are adjacent to the USDA-Forest Service's Cleveland National Forest. Land-use decisions for these areas are often based on General Plans that include long-term planning goals, measures to protect natural and cultural resources, and discussions related to recreational opportunities. Although DPR is guided by its park units' General Plans; it takes these other agencies' plans into consideration when developing its recreational facilities.

The Park General Plan was adopted in April of 1986, while Anza-Borrego Desert State Park's General Plan was finalized in October of 2003. These General Plans were prepared to guide DPR in protecting each Park's natural and cultural resources while allowing for development of recreation facilities. A General Plan is required before permanent facilities can be provided and, when completed, directs the long-range development and management of the Park by defining broad policy and program guidance.

Descanso is a rural community in the Central Mountain Subregion of San Diego County. It covers approximately 19,483 acres (30.44 square miles) and the 2008 population is estimated at 1,741 (County of San Diego 2008a). Descanso has a community planning group whose members are elected by the community's registered voters and who advise and assist the County of San Diego on matters of planning and land use in the area. DPR attended the February 15, and June 21, 2007 Descanso Community Planning Group (DCPG) meetings to give updates on the project and to hear planning group and community members' concerns about the project. The DCPG also submitted a response to the 2007 NOP.

Both the community of Descanso and the Park are included in the Central Mountain Community Plan, Part XIX of the San Diego County General Plan, which was adopted January 2, 1979, and amended April 17, 2002. An updated draft General Plan was made

available for public review in November 2008 and the draft EIR for the General Plan was circulated in July 2009.

The portions of the Cleveland National Forest adjacent to the Park are part of both the Palomar and Descanso Ranger Districts. Management of the Cleveland National Forest is guided by the Cleveland National Forest Land Management Plan (U. S. Forest Service 2006), which describes the strategic direction for managing the land and the natural resources over the next 10 to 15 years.

4.8 PALEONTOLOGY

Paleontological resource assessments were conducted for all three sites and based on existing geological and paleontological literature, as well as a preliminary survey of the proposed Descanso Area Development site that took place February 5, 2007.

Although it is not displayed on the San Diego-El Centro Sheet of the Geological Map of California (Division of Mines and Geology 1962), the Descanso area is underlain by a presumably shallow (less than 10 meters) layer of granitic-grus alluvium, and a basement of Bonsall Tonalite and Woodson Mountain Tonalite. No vertebrate or invertebrate fossil remains have been reported from the proposed Descanso Area Development location. Additionally, no vertebrate or invertebrate fossil remains have been reported from the proposed Paso Picacho and Loop A locations. Given the shallow extent of surficial deposits, encountering such remains is not expected.

4.9 RECREATION

The Park's large size and assortment of natural and cultural resources allows for a wide variety of recreational activities, including nature watching, educational study and interpretation, hiking, picnicking, backpacking, camping, mountain biking, and horseback riding. The Park's proximity to the growing San Diego Metropolitan Area will likely lead to an increased demand on the Park to provide more recreational open space and a greater diversity of opportunities. This demand will also affect regional recreation providers, such as the adjacent Cleveland National Forest. According to the Park's General Plan (1986), "recreation in California is a shared responsibility among the many public, semi-public, and private agencies involved. the Park must look to the surrounding region and to the other recreation suppliers in the area, for help in fulfilling equestrian camping and other recreation needs...The variety and amount of recreation suppliers surrounding the Park complement the complex missions of the State Park System – to preserve open space beauty and cultural/natural resources, while, at the same time, providing public access to these resources". It is anticipated that the proposed project will result in a net benefit for the Park, its visitors, and neighboring recreational land managers.

4.9.1 Camping

The Park offers a variety of camping opportunities including family, primitive, and group camping. The Park has two family campgrounds, Paso Picacho and Green Valley, which are both open on the reservation system from spring through fall. Paso Picacho Campground, in the northern portion of the park, has 85 campsites and a group camp. From the campground, visitors can reach the trailheads for two of the Park's most

popular hikes—those leading up to Stonewall and Cuyamaca Peaks. Green Valley Campground is located in the southern half of the Park, has 81 campsites, and is segmented by the Sweetwater River in its eastern portion. Both of these campgrounds have day use and picnic areas. The Park’s two primitive campgrounds are Arroyo Seco, on the west side of the Park, and Granite Springs on the east. These primitive campgrounds offer tent pads, restrooms, and basic equestrian facilities such as corrals and water troughs. The Park has one group horse camp, Los Vaqueros, which has corrals, picnic tables, barbecues, water, a large fire ring, and a restroom with showers. The group camp is limited to a maximum of 80 people, 50 vehicles, and 45 horses.

4.9.1.1 Regional Camping

There are many recreation providers surrounding the Park that provide camping opportunities. These providers include: the Laguna Mountain area of the U. S. Forest Service (Forest Service) east of the Park; the Lake Cuyamaca Recreation and Park District and the William Heise County Park, both to the north of the Park; and the private recreation developments *KQ Ranch Resort* at the Park’s north entrance, and *Oakzanita*, *Thousand Trails*, and *Stallion Oaks Ranch* in Descanso. Anza-Borrego Desert State Park is adjacent to the Park on its east side and offers three developed campgrounds and five primitive campgrounds.

4.9.2 Trails

The Park has approximately 122.2 miles of riding and hiking trails (Table 4.24; Figure 1.3). The trails/roads system provides Park visitors with hiking, biking, and horseback riding opportunities. According to the Park’s General Plan (DPR 1986), “the trail system is essential to public access and enjoyment of the Park. Most of the Park’s 25,000-acre area can be reached only by trail. Planning decisions concerning trail alignments rely almost totally on specific site conditions. Soils, slope, drainage, vegetation, and cultural sensitivity are crucial to trail design, and all are likely to have extreme variation along any chosen route”. Maintenance is also an important factor in trail design. Trails and roads need periodic repairs due to natural wear and tear from visitor use and also for damage that occurs as a result of occasional extreme environmental conditions (flooding, erosion, fire, etc.). Properly maintained trails are essential for visitor safety, natural and/or cultural resource protection, preservation of educational structures, and to allow maintenance, patrol, and emergency functions by Park personnel and State and County fire crews.

Equestrian trails have particular requirements, dimensions, and configurations. DPR follows the standards established by Hancock et al. (2007) in the *Equestrian Design Guidebook for Trails, Trailheads, and Campgrounds*, which states that equestrian trails be a minimum of 8-feet wide and have a minimum of 10-feet of head clearance.

The parking lot at Hual-Cu-Cuish Camp, which was previously the site of a Boy Scout camp, has been designated as a temporary staging area for equestrians. This staging area allows equestrians to access trails at the northern end of the Park. The staging area can accommodate up to 10 rigs and has a restroom but no day use area. The temporary staging area will be closed upon completion of the proposed Paso Picacho Day Use Area.

Approximately 94 percent of the Park’s 122.2 miles of trails are available for equestrian use (Table 4.24). The majority of the available equestrian riding trails are concentrated in

the northern portion of the Park; however, northern trails can be reached from trail connections in the southern half of the Park.

There are no trails that leave directly from Loop A of the Green Valley Campground. However, there are two trails that leave the Green Valley Picnic Area (Arroyo Seco Picnic Area), which is a short walk/ride from Loop A. A connector trail that leads to the West Side Trail is located at the eastern end of the picnic area parking lot; however, it is designated for hiker use only. The Arroyo Seco Fire Road, which is open to horseback riding, starts at the western end of the parking lot (Figures 1.3 and 2.2).

Table 4.2 4. Types of Trails Available in Cuyamaca Rancho State Park.

<u>Trail Users</u>	<u>Amount of Trails (miles)</u>
Hike/bike/horse	55.2
Hike and horse	57.6
Hike and bike	1.5
Horse only	0.6
Hike only	7.3
TOTAL	122.2

The West Side Trail is located west of SR-79, which it parallels from its beginning at the Lookout Fire Road to its end at the Arroyo Seco Fire Road. The trail runs north and south and intersects four other trails/fire roads including from north to south, West Mesa Fire Road, the Japacha Fire Road, the Monument Trail, and the Arroyo Seco Fire Road. Between Paso Picacho and Green Valley the trail descends approximately 900 feet in elevation. The trail meanders through pine forest, and oak/pine forest and meadow habitats.

The Monument Trail is approximately 1.5 miles long and runs between the West Side Trail and the West Mesa Trail, just northeast of the Green Valley Picnic Area. The trails' beginning elevation is 4,025 feet and its maximum elevation is 4,763 feet. The trail climbs to the northeast with views of Green Valley. After about 0.75 mile there is a good view point to the south overlooking the Green Valley Campground. The trail continues to climb, now to the northwest, and passes through an area of pines before ending at the West Mesa Trail. Following the West Mesa Trail to the north for another 0.2 mile, the hiker/rider reaches another short trail to the west that leads to the Airplane Monument.

The Japacha Fire Road starts at SR- 79 at an elevation of 4,020 feet. The road's highest point, 4,488 feet, is at its intersection with the West Mesa Fire Road. Leaving the highway to the west, the road meets the West Side Trail. The road and trail at this point share the same route as they travels north. After 0.1 mile, the West Side Trail leaves the road. The road continues to the west and climbs steadily. At 0.85 mile from the highway the road levels and parallels Japacha Creek. The creek is in a steep canyon on the north side of the road and is not accessible from the road. After another 0.25 mile, the road crosses Japacha Creek, which is usually dry at this location. Beyond the crossing, the

road turns north and intersects a second creek after 0.25 mile. This creek is fed from Japacha Spring and runs year round. The trail now runs along the edge of a meadow and turns northwest. Eventually, after another 0.25 mile it ends at the intersection with the West Mesa Fire Road and West Mesa Trail.

The Arroyo Seco Fire Road starts at the Green Valley Picnic Area at an elevation of 3,940 feet. Its highest point, 4,300 feet, is at its end at the Arroyo Seco Primitive Camp, 1.4 miles from the trailhead. Approximately 0.3 mile from the trailhead, the fire road intersects with West Side Trail to the east and the Green Valley Connector Trail to the west. The Green Valley Connector trail is a hiking only trail that leads into the Green Valley Campground. The fire road continues to slowly climb and at another 0.5 mile it reaches the intersection of the South Boundary Fire Road. Continuing north for another 0.6 mile the road ends at the primitive camp. The trail meanders through meadow habitat and pine/oak forest.

The Cold Stream Trail is the only trail in the vicinity of the Paso Picacho Day Use Area that allows equestrian use. Southbound, the Cold Stream Trail decreases in elevation as it follows Cold Spring and parallels SR-79. At 1.8 miles from the proposed day use area the Cold Stream Trail intersects with the Cold Spring Trail. At this location there is an automatic watering trough for horses. The user can travel east on the Cold Spring Trail or continue south on the Cold Stream Trail. Traveling 0.2 miles further, the Cold Stream Trail passes the West Mesa Parking area. At this location the user has the option to continue south or cross the highway and access the Westside Trail or the West Mesa Fire Road.

Northbound, the Cold Stream Trail also parallels SR-79. It is a gently rolling trail that runs through a mixed forest community damaged by the recent fires. It does not intersect with any other trail until it ends at the CRHT, 1 mile from the day use area. At this point, the user may travel east or southwest on the CRHT. Going east for approximately 0.5 mile the CRHT intersects with the northeast end of the Stonewall Peak Trail, which is open to equestrian use. Traveling southwest on the CRHT, the trail crosses the highway and parallels it while running south on the edge of a meadow. After 0.7 mile it passes below the Paso Picacho Group Camps. No equestrian use is allowed in the Group Camp area. The CRHT intersects with the Azalea Glen Loop Trail after another 0.5 mile. From this point, the CRHT and the Azalea Glen Loop Trail share the same route. The Azalea Glen Loop Trail does not allow equestrian use; however, at the point where it and the CRHT share a route to Azalea Spring, it is open to both equestrians and hikers.

The Stonewall Peak Trail crosses the Cold Stream Trail directly across from the Paso Picacho Campground entrance within the proposed Paso Picacho Day Use Area. This trail is only open to hikers.

There is only one trail currently leading out of the Descanso Area Development site. However, from this trail (the Merigan Fire Road) four other trails are accessible: Dead Horse, Saddleback, Sweetwater, and Blue Ribbon. The following mileages and elevations may have been rounded up or down and trail conditions can vary from year to year.

The Merigan Fire Road begins at 3,415 feet in elevation as a flat and sandy road leading out of the Descanso Area Development site. Heading north, it meets the Dead Horse

Trail 0.7 miles from the trailhead. The road changes to a rocky trail, losing and gaining elevation until it reaches the intersection with the Saddleback Trail, approximately 1.2 miles from the trailhead. The Sweetwater Trail then intersects the Merigan Fire Road 100 feet beyond Saddleback Trail junction. At this point, the road is 3,635 feet in elevation and begins to head in a southeasterly direction. After 1 mile it intersects the Blue Ribbon Trail and after another 0.1 mile it ends at SR-79.

Dead Horse Trail is the first accessible trail from the Merigan Fire Road (approximately 0.7 miles from the proposed campground) and is considered to be a technically advanced riding trail. Dead Horse begins at an elevation of 3,589 feet, descending down a steep, narrow drop to the Sweetwater River. The trail crosses the river and climbs steeply up a rocky, chaparral covered hill, reaching 4,196 feet at its highest elevation. The Dead Horse Trail is 2.4 miles long and does not intersect any other trail before its terminus at the CRHT. This is also the boundary of the Park and the Cleveland National Forest. From this point, trail users can continue on within the Park or enter the Cleveland National Forest via the CRHT.

Saddleback Trail is the next trail to intersect the Merigan Fire Road. Saddleback also leads to the CRHT. The trail begins at an elevation of 3,635 feet and crosses the flood plain of the Sweetwater River. The width of the water crossing varies with the amount of annual rainfall and time of year. From the river, the trail climbs over a ridge and drops into a drainage, which it follows uphill. The trail gets steeper and continues to climb until it meets the CRHT, 1.6 miles from its trailhead. Saddleback Trail reaches an elevation of 4,070 feet at its highest point.

Sweetwater Trail intersects the Merigan Fire Road just beyond the Saddleback Trail. The trail consists of a gentle climb, starting at 3,635 feet and reaching a height of 3,800 feet. The trail comes close to the Sweetwater River, where it becomes sandy. At times, this section can also be muddy and wet. It ends at the intersection with the South Boundary Fire Road, 1.2 miles from its trailhead.

The Blue Ribbon Trail is the last trail to intersect the Merigan Fire Road before it ends at SR-79. The trail heads north, paralleling Descanso Creek for a short distance. It then crosses over the creek, continues along a drainage and then starts a gentle climb uphill until ending at the intersection with the South Boundary Fire Road, 1.5 miles from its trailhead. The trail starts at an elevation of 3,620 feet and reaches a height of 4,000 feet.

The CRHT connects the Park to the Cleveland National Forest via the Dead Horse Trail. Riders can use the CRHT to reach Arroyo Seco, a primitive campground in the central portion of the Park, and other popular riding trails at the northern end of the Park. The CRHT can also be reached by riders that use the Descanso Area Development (both the day use and the campground sites). Visitors could ride from Descanso to the Arroyo Seco Primitive Campground via the CRHT, camp overnight and then ride to the Granite Springs Primitive Campground. Riders could then spend the night at Granite Springs and ride back to Descanso the following day.

4.9.2.1 Regional Trails and Connections

Surrounding the Park are open space and parks, which contain networks of riding and hiking trails. There are five locations where the Park's trails system connects to these outlying trails: (1) the CRHT continues onto Cleveland National Forest land on the

southwestern edge of the Park and into Anza-Borrego Desert State Park in the northeast; (2) the Deer Park Trail connects to Forest Service trails on the eastern side of the Park; (3) the Kelley Ditch Trail connects with the County Park trail on the northern end of the Park; (4) the Trans County San Diego Trail, which cuts east-west across the northern part of the Park and follows Milk Ranch Road and the northern part of the CRHT; and (5) at the northeastern end of the Park, there are connections to other trails within Anza-Borrego Desert State Park (Figure 1.3).

4.10 NOISE

Sound is any detectable fluctuation in air pressure and generally is measured on a logarithmic scale in decibels (dB). When unwanted sound is measured, an electronic filter is used to de-emphasize extreme high and low frequencies to which human hearing has decreased sensitivity. Resulting noise measurements are expressed in weighting frequencies called A-weighted decibels (dBA). While zero dBA is the low threshold of human hearing, a sustained noise equal or greater than 90 dBA is painful and can cause hearing loss (Table 4.35, Bearden 2000).

Noise is further described according to how it varies over time and whether the source of noise is moving or stationary. Background noise in a particular location gradually varies over the course of a 24-hour period with the addition and elimination of individual sounds. Several terms are used to describe noise and its effects. The equivalent sound level (L_{eq}) describes the average noise exposure level for a specific location during a specific time period, typically over the course of one hour. The Community Noise Equivalent Level (CNEL) is a twenty-four hour average of L_{eq} with an additional 5 dBA penalty for noise generated between the hours of 7:00 p.m. and 10:00 p.m. and a 10 dBA penalty during the hours of 10:00 p.m. and 7:00 a.m. The penalties account for how much more pronounced a noise is at night when other sounds have diminished. Federal, State, and local governments have established standards to protect people from adverse health effects such as hearing loss and disruption of certain activities. Noise is defined in the California Noise Control Act, Health and Safety Code, California Code of Regulations § 46,022 as excessive or undesirable sound made by people, motorized vehicles, boats, aircraft, industrial equipment, construction, and other objects.

The most common source of noise in most rural and semi-rural environments in San Diego County is transportation-related. Transportation noise sources include automobiles, trucks, other vehicles, aircraft operations, and railroads. Traffic on the roadways is the most significant and pervasive source of noise in the County (County of San Diego 2009a). A total of 16 major airports are located throughout San Diego County: 8 operated by the County, 4 operated by the military, and 4 operated by the City of San Diego (County of San Diego 2009b). Of these, Ramona and Ocotillo airports are the closest to the project site. They are approximately 20 air miles west and east of the proposed project, respectively.

4.10.1 Applicable Standards

4.10.1.1 State

The State of California has adopted noise standards in areas of regulation not preempted by the federal government. State standards regulate noise levels of motor vehicles and

motor boats, establish noise impact boundaries around airports, regulate freeway noise affecting classrooms, and set noise insulation standards.

The State Guidelines establish noise acceptability ranges for various land uses. These ranges are in terms of the CNEL scale (OPR 2003). Playgrounds and neighborhood parks are typically compatible with noise levels up to 70 CNEL while golf courses, riding stable, and similar active outdoor use areas are typically acceptable in noise environments up to 75 CNEL. There is no other specific standard for state parks or other open space areas, although these noise levels should be as quiet as possible. For residential land uses, an outdoor noise of 65 CNEL is considered acceptable. The more restrictive standard for residential land uses is due to nighttime noise sensitivity due to sleeping and similar activities. Commercial, retail, and industrial land uses are not as sensitive to noise as residential land uses and therefore have higher noise standards.

Table 4.3 5. Sound Levels Generated by Various Sources (taken from Bearden 2000).

Source	dBA
Quiet library, soft whispers	30
Living room, refrigerator	40
Light traffic, normal conversation, quiet office	50
Air conditioner at 20 feet, sewing machine	60
Vacuum cleaner, hair dryer, noisy restaurant	70
Average city traffic, garbage disposals	80
Constant exposure to the following sound levels can lead to hearing loss	
Subway, motorcycle, truck traffic, lawn mower	90
Garbage truck, chain saw, pneumatic drill	100
Rock band concert in front of speakers, thunderclap	120
Gunshot blast, jet plane	140
Rocket launching pad	180

4.10.1.2 Local

County of San Diego General Plan

Policy 4b of the Noise Element of the General Plan (County 2009a) sets a standard for exterior noise levels at noise sensitive areas of 60 dBA. According to Policy 4b, when a new development may result in any (existing or future) noise sensitive land use being exposed to noise levels of 60 CNEL or greater, an acoustical analysis is required. A noise sensitive area is defined as, “any residence, hospital, school, hotel, resort, library or any other facility where quiet is an important attribute of the environment.” If the acoustical analysis shows that noise levels at any noise sensitive land use would exceed 60 CNEL, modifications to the development will be required to reduce the “exterior noise” level to 60 CNEL or less and reduce the interior noise level to 45 CNEL or less. If

modifications to a development that would reduce the exterior noise to 60 CNEL are infeasible, “the development shall not be approved unless a finding is made that there are specifically identified overriding social or economic considerations which warrant approval of the development without such modification.” However, if a project’s acoustical study shows that sound levels for any noise sensitive land use would equal or exceed 75 CNEL even with modifications to the development, “the development shall not be approved irrespective of social or economic considerations.”

For all projects other than a single family dwelling, exterior noise is defined as “noise measured at all exterior areas, which are provided for group or private usable open space purposes.”

County of San Diego Noise Ordinance

The County Noise Ordinance, Section 36.404, sets limits on the noise levels generated from one property to another, such as from mechanical equipment, and Section 36.410 governs noise generated by construction activities.

Section 36.404. Sound Level Limits

Unless a variance has been applied for by an applicant and granted by the County, it is unlawful for a person to cause or allow noise generated on a particular property to exceed the 1-hour average sound level, at any point on or beyond the boundaries of the property, set forth in Section 36.404. The noise level limits vary with the zoning of the properties concerned.

Section 36.410. Construction Noise

Section 36.410 states “except for emergency work,

- It shall be unlawful for any person to operate construction equipment between the hours of 7 p.m. of any day and 7 a.m. of the following day.
- It shall also be unlawful for any person to operate construction equipment on Sundays, and days appointed by the President, Governor, or the Board of Supervisors for a public fast, Thanksgiving, or holiday, but a person may operate construction equipment on the above-specified days between the hours of 10 a.m. and 5 p.m. at his residence or for the purpose of constructing a residence for himself, provided that the average sound level does not exceed 75 decibels during the period of operation and that the operation of construction equipment is not carried out for profit or livelihood.
- It shall also be unlawful to operate any construction equipment so as to cause at or beyond the property line of any property upon which a legal dwelling unit is located an average sound level greater than 75 decibels between the hours of 7 a.m. and 7 p.m.”

Section 36.410 (B) is related to individuals working on private property and does not apply to the proposed project. County staff interprets Section 36.410 (C) to require that the average hourly noise level from construction work does not exceed 75 dBA at receiving residential property lines.

4.10.2 County Guidelines for Determining Significance

The County Guidelines for Determining Significance provides additional guidance (County 2007b):

“Project implementation will result in the exposure of any on- or off-site, existing or reasonably foreseeable future noise sensitive land use (NSLU) to exterior or interior noise (including noise generated from the project, together with noise from roads [existing and planned Circulation Element roadways], railroads, airports, heliports and all other noise sources) in excess of any of the following:

A. Exterior Locations:

- i. 60 dB (CNEL); or
- ii. An increase of 10 dB (CNEL) over pre-existing noise.

For all projects, except single family homes, exterior noise shall be measured at all exterior areas provided for group or private usable open space.

To promote compatibility among various land uses and protect health and safety, San Diego County sets noise standards for projects in certain land use categories and for sensitive receptors such as residential areas, hospitals, and schools (County of San Diego 2009b). According to the County Land Use / Noise Compatibility Standards, which can also be found in the County of San Diego’s General Plan Noise Element (2006), the outdoor environment in the Park would be acceptable with CNEL noise levels up to 62 dBA, normally unacceptable from 63 to 78 dBA, and clearly unacceptable above 78 dBA. The Park is known for its natural, quiet setting. Typical sounds include bird song, wind through the trees, and water flow in the streams. Throughout the year, out-of-town visitors and local residents are likely to be heard within the Park particularly at the Visitor Center, along the numerous Park trails, and in campgrounds and day use areas. Motor vehicles traveling along SR-79 are also audible in many areas throughout the Park. The Visitor Center and Park office are located along SR-79 in close proximity to the Paso Picacho Day Use Area. As stated previously, sensitive receptors including residences and a school are located in close proximity to the Descanso Area Development.

Short-term noise level measurements were taken at the Descanso Area Development project site on June 19, 2008, between the hours of 10:30 AM and 1:30 PM (EDAW 2008). The dominant noise source in the project area was traffic on SR-79 and local roads. Other noise sources in the project area were typical of a rural environment. Measurements were taken at the proposed equestrian campground site northeast of the Descanso Elementary School. The dominant noise sources included activity at the school and traffic noise on Viejas Boulevard. L_{eq} measured 41 dBA and the L_{max} measured 60 dBA. Short-term level measurements were also taken near the Paso Picacho Day Use Area, approximately 80 feet east of SR-79, north of the entrance to the Paso Picacho Campground. The dominant noise source at this site was traffic noise on SR-79. L_{eq} measured 50 dBA and the L_{max} measured 67 dBA. Therefore, average ambient noise at both projects sites is currently within the acceptable range of the County’s Noise Compatibility Standards. Noise measurements were not taken at Green Valley Loop A; however, the dominant noise source as this site is SR-79.

5 ENVIRONMENTAL EFFECTS & MITIGATION

This section describes the probable impacts of the Preferred Alternatives. The environmental impacts analysis and the proposed mitigation measures are based on preliminary project design and current information and circumstances. Technical reports and analyses were prepared as part of the environmental studies for the proposed action. These reports analyze existing conditions and identify potential impacts for the all of the alternatives except the No Project Preferred Alternative. This section summarizes the findings of these reports and analyses. The following studies were conducted for this EIR: biology report and natural resources constraints analysis, cultural resources constraints analysis, hydraulic study, noise study, traffic analysis, and preliminary geotechnical studies (Appendices C-G). Studies that were contracted out for the Descanso Area Development that were not completed due to budget cuts include noise, air quality, and hydrology. Prior to a project specific environmental document for the Descanso Area Development campground, these studies would be updated and completed. The following sections contain information regarding potentially significant impacts and proposed mitigation measures associated with all of the project alternatives, except the No Project alternatives. Adoption of the No Project alternatives would not have a significant effect on the environment, unless otherwise noted below.

5.1 POTENTIALLY SIGNIFICANT IMPACTS & PROPOSED MITIGATION:

5.1.1 Aesthetics

Green Valley Campground Loop A

~~For the Preferred Alternative, the Conversion of the Green Valley Campground Loop A~~ will require the placement of horse corrals into an area that is currently vegetated with nonnative grasses and a large patch of wild rose. An unobtrusive split rail-type fence will also be installed between the campground and SR-79; however views from SR-79 are not expected to change as a result of the conversion. Impacts associated with For Alternative 2, impacts would result only from are only for the installation of the fencing as no horse corrals will would not be installed in the center of the Loop.

Paso Picacho Day Use Area

~~For both alternatives, the viewshed along SR-79 will be impacted during and post-Construction of the Day Use Area at Paso Picacho will affect the viewshed along SR-79 during and post construction.~~ During construction heavy equipment will be present on the site, trees will be removed and the area graded. Post-construction, the natural vegetation will have been replaced with an equestrian day use facility that includes a bathroom, picnic tables, and a parking lot.

Descanso Day Use Parking Area

For both alternatives, expansion of the existing day use parking area would affect the viewshed across a small portion of the open field during and post-construction. During construction, large equipment will be seen grading the site. Post-construction, the open field will be permanently converted to a parking area and the view from the road will no longer have an open feel.

Descanso Area Development (Phase II)

Construction of the Descanso Area Development would affect the viewshed across the open field during and post-construction. During construction, large equipment will be seen grading the site. Post-construction, the open field will be permanently converted to an equestrian campground and the view from the road will no longer have an open feel. Instead, visitors to the area will see campground amenities, berms, and landscaping. Impacts associated with Alternative 3 will be reduced due to the smaller size of the campground.

Discussion: All three elements of the proposed project are visible from roads, which are considered scenic routes by the County of San Diego. The purpose of the San Diego County General Plan, Scenic Highway Element (County of San Diego 2009c), is to establish a Scenic Highway Program to protect and enhance the County's scenic, historic, and recreational resources within a network of scenic highway corridors. The Scenic Highway Element contains a priority list that describes each route within the Scenic Highway System and designates the route's priority for scenic corridor planning and implementation. Both Loop A and the Paso Picacho Day Use Area are visible from SR-79, which is designated a first priority scenic route. Loop A is currently screened from SR-79 by large mature trees and shrubs. As stated above, the view from SR-79 would not change as a result of the conversion project; however, views within the campground would change due to the construction of the horse corrals. The Paso Picacho site would be set-back from SR-79 and trees adjacent to the highway would not be removed for the project. This site is directly across SR-79 from the entrance to the Paso Picacho Campground. Therefore, this area of the Park already contains Park facilities that can be seen from SR-79. Although the day use area would require the removal of trees, views from this portion of SR-79 are already somewhat degraded by existing Park facilities.

The Descanso Area Development site is visible from Viejas Boulevard, which is designated as a third priority scenic route. Although the proposed Descanso Area Development would create an equestrian campground in an undeveloped portion of the Park, some development already exists in the area including the Descanso Elementary School, private businesses and single family residences. Additionally, vegetation will be planted around the campground to act as a visual barrier and ~~the project would be screened by either the presence of existing trees or the planting of additional vegetation, which would be designed to match the existing character of the surrounding area.~~

Impact Aes 2: ~~There would be an increase in light as a result of the project.~~

Discussion: Light sources are not expected to increase at Loop A and no lighting would be required at the Paso Picacho Day Use Area. For the Descanso Area Development, lighting would be installed near the restroom and at the self-pay station. Headlights from vehicles entering and exiting the project area at night would also create a new source of light. The proposed project is within the area designated by the San Diego County Light Pollution Code as Zone A, which is defined as all areas within a 15 mile radius of either San Diego observatory. The project site is within a 15 mile radius of Mount Laguna Observatory, and therefore would have stringent lighting restrictions due to its proximity to the observatory. However, according to the Light Pollution Code, outdoor light fixtures on facilities and land owned or operated by the State of California are exempt from the requirements of this division of the code.

Mitigation Aes-MM1: The project shall incorporate a visual buffer around the Descanso Area Development campground, which could include native trees and shrubs, earthen berms, boulders, and rustic style ranch fencing.

Mitigation Aes-MM2: DPR would voluntarily comply with San Diego County's Light Pollution Code Sections 59.105 and 59.106. This includes installation of fully shielded low pressure sodium lights per the Class II requirements.

Findings: Aesthetic impacts due to the construction of the Descanso Area Campground and the Paso Picacho Days Use Area would remain significant even after mitigation. For the Descanso Area Development, there would be an extended period of time until the native landscaping matures and is large enough to reduce the visual effect of the campground. Even with the planting of oak trees along SR-79, the Paso Picacho Day Use Area would remain visible to highway motorist. Aesthetic impacts associated with the conversion of Green Valley Loop A would be less than significant.

5.1.2 Air Quality

~~Impacts AQ-1: Impacts and Discussion:~~ For all elements of the proposed project, short-term construction-related impacts may affect air quality as a result of (1) construction equipment emissions; (2) fugitive dust from grading and earthmoving; and (3) emissions from vehicles driven to/from the sites by construction workers.

~~Discussion:~~ As shown in Section 4.2.7, the proposed project taken as a whole, would not emit air contaminants at a level that, by themselves, would violate any local air quality standards, or contribute to a permanent or long-term increase in any air contaminant; however, project implementation would generate intermittent, short-term emissions of fugitive dust, a type of particulate matter described in Section 4.8, and involve the use of equipment that would emit ozone precursors (nitrogen oxides and volatile organic compounds). Increased emissions of fugitive dust could contribute to the existing non-attainment conditions for PM₁₀ in San Diego County. Equipment used at the project sites would be maintained and would not cause a violation of federal and/or State air quality standards or cumulatively, cause a considerable net increase for ozone, which is currently in attainment.

Based on the URBEMIS analysis discussed in Section 4.2.7, the proposed project when taken as a whole would have a less than significant impact on Air Quality. Therefore, no mitigation measures would be required. However, the Mitigation AQ-1: The following seven measures—DPR Project Requirements would be implemented at all three sites during project construction to minimize impacts associated with fugitive dust: (1) area disturbed by earthmoving equipment or excavation operations shall be minimized at all times; (2) demolition and earth-moving activities shall be limited or redirected during periods of high winds; (3) on-site vehicle speed shall be restricted to a maximum of 15 mph; (4) storage piles of material and graded areas shall either be watered or covered to prevent fugitive dust emissions; (5) all mechanical equipment shall be operated in compliance with appropriate air quality controls; (6) all trucks hauling soil, sand, or other loose materials on public roads will be covered or required to maintain at least two feet of freeboard; and (7) excavation and grading activities will be suspended if sustained winds exceed 25 mph, instantaneous gusts exceed 35 mph, or dust from construction might obscure driver visibility on public roads.

Finding: ~~Potentially significant impacts to air quality will be mitigated to a level below less than significant.~~

5.1.3 Biological Resources

Impact Bio-1: Conversion of Loop A, construction of the two day use areas and construction of the Descanso Area Development campground would negatively affect wildlife resources, primarily due to temporary construction-related disturbances and through permanent habitat loss. Construction activities require heavy equipment and personnel, which create noise, visual, and vibration disturbances within project areas and potentially within several hundred feet of construction limits. During construction, these activities decrease the amount of available habitat for many wildlife species in the vicinity of the proposed project. Ground-disturbing activities, including trenching, excavating, and grading, would have the potential to bury and trap organisms such as invertebrates, amphibians, reptiles, and small mammals.

Post-construction, the permanent loss of habitat would reduce the amount of nesting, roosting, and foraging habitat available to wildlife species as well as some insects. Additionally, increased foot traffic in all project areas would result in vegetation trampling and create noise and sight disturbance, impeding wildlife use of those areas. Furthermore, lighting at bathrooms, self-pay stations, and parking lots could impact nocturnal foraging species and night roosting bats, while sedimentation in drainages could affect wildlife species and invertebrates by degrading water quality.

Discussion: Indirect effects to wildlife and habitats associated with construction activities include noise, light, possible introduction of invasive species, erosion, and habitat fragmentation. Indirect effects to plant and animal species in the vicinity of Loop A would increase for a short duration during the conversion activities. During the operation of the campground, however, these impacts are expected to be similar to current baseline.

The site proposed for the Paso Picacho Day Use Area is relatively undisturbed other than by users of the Cold Stream Trail, while areas in the vicinity of the proposed Descanso Area Development receive a moderate level of disturbance relative to other areas of the Park. This includes visitor use at the existing day use area, the surrounding residential community, the school, and businesses.

Mitigation Bio-MM1:

Noise: At all project locations, DPR shall minimize the effects of noise on species present in adjacent habitat through control of noise sources during construction and through installation of noise barriers, if deemed necessary by the bio-monitor. Long-term, indirect impacts associated with noise would be mitigated through placement of facilities in areas of less sensitive resources.

Lighting: Conversion of Loop A would not include the installation of additional light sources and no lighting is proposed at the Paso Picacho Day Use Area. New lighting at the Descanso Area Development shall be limited to the restrooms(s) and at the parking lot entrance off of Viejas Boulevard. As discussed above, all lighting shall be low sodium and shielded in compliance with the San Diego County Light Pollution Code.

Wildlife: Routes of escape from excavated pits and trenches shall be maintained for animals that might get trapped in these areas. Post holes and other narrow pits and trenches shall be covered with boards. During construction, these areas will be checked daily by the bio-monitor to ensure that trapped animals are released unharmed.

Migratory Birds and Raptors: Trees or structures containing unoccupied nests (stick nests or tree cavities) shall be removed prior to ~~15 February~~ 1 January or after 15 September. Also, unoccupied nests shall be removed where they occur in trees that are not to be removed, but that are within areas expected to be subjected to disturbance during the breeding season. Should construction activities take place during the breeding season (1 January ~~15 February~~ to 15 September); a qualified biologist shall conduct a preconstruction survey no more than one week prior to construction. If it is determined that construction would affect an active nest or disrupt reproductive behavior, then avoidance strategies shall be implemented. No construction could occur within 500 feet of an active nest, until a qualified biologist determines that the subject birds are no longer nesting or until any juvenile birds are no longer using the nest as their primary day and night roost. These measures should apply to all species of birds that are afforded protection from take, as defined by the federal Migratory Bird Treaty Act.

Sensitive Habitats: At all project locations, fencing and signs shall be installed to direct visitor use away from sensitive habitats. Procedures to limit the chance of pollution spills, both during construction and during subsequent use of completed facilities, shall be provided.

Impact Bio-2: Development has the potential to impact *special-status species* (see Section 4.3.45), primarily due to habitat loss and disturbance. For the Green Valley and Paso Picacho sites, only one special status species, the San Diego mountain kingsnake, has the potential to be directly and/or indirectly impacted by the proposed project. Permanent impacts at these sites include loss of understory and overstory vegetation, while indirect impacts could occur during and post-construction. During project construction, heavy equipment and personnel would create noise, visual, and vibration disturbance within construction areas and potentially within several hundred feet of construction limits, thus decreasing the amount of available habitat for most species of wildlife. Other indirect effects could result from visitor access to surrounding habitat. Visitor access could cause trampling of vegetation, as well as an increase in the level of noise disturbance, which could in turn degrade the quality and suitability of habitat for the kingsnake.

Special status species that have the potential to occur at the Descanso Area Development site include the San Diego mountain kingsnake, arroyo toad, San Diego horned lizard, least Bell's vireo, Cooper's hawk, pallid bat and Townsend's big-eared bat (see Section 4.3.4). As with the Paso Picacho site, direct impacts to habitat used by these species for foraging, roosting and/or breeding will occur. Indirect impacts associated with construction activities and visitor uses are also likely. An additional indirect effect associated with this project is an increase in night-time lighting at the campground. However, as stated in Section 4.3.4 only the Cooper's hawk has been observed using the site and although the other species may use the site for foraging and/or dispersal, use of the site for breeding is unlikely.

Discussion: Currently, the Paso Picacho Day Use Area is relatively undisturbed except for the presence of the Cold Stream Trail. However, within the vicinity (less than 0.25 mile) are the Park's Interpretive Center, the Paso Picacho Campground, and numerous hiking trails including the paved Lookout Fire Road. Therefore, this portion of the Park is already subjected to a high volume of visitors. The Descanso Area Development has a history of agricultural uses and consists primarily of low-quality nonnative grassland. It is also located near residences, a school, and businesses. Therefore, the site is exposed to indirect effects associated with human uses including noise, light, nonnative species, and habitat fragmentation. These conditions may limit use of the area by special-status species.

Mitigation Bio-MM2: Preconstruction briefings shall be required to educate construction crews on the measures required to protect natural resources, including species listed by CDFG and USFWS as threatened or endangered. The training shall include a description of the arroyo toad and its habitats, the general provisions of the Act, and the need to adhere to the provisions of the Act. Grading and other ground disturbance activities shall be timed to avoid the overwintering season of the arroyo toad (generally September through March). To avoid attracting predators of the arroyo toad, the project site shall be kept as clean of debris as possible. All food related trash items shall be enclosed in sealed containers and regularly removed from the site(s). Pets of project personnel shall not be allowed on-site where they may come into contact with any listed species. Equipment storage, fueling, and staging areas shall be located on upland sites with minimal risks of direct drainage into sensitive habitats. All necessary precautions shall be taken to prevent the release of cement or other toxic substances into surface waters. All project related spills of hazardous materials shall be cleaned up immediately and contaminated soils removed to an approved disposal area.

Public access to the Sweetwater River reaches identified as suitable arroyo toad breeding habitat and associated uplands shall be restricted and off-trail horse riding, biking, and hiking shall be discouraged in these areas. Unobtrusive informational signs shall be installed to make the public aware of the restrictions and will include the justification for these restrictions. The signs shall be designed so that they do not provide perches for corvids, potential predators of the arroyo toad. These displays shall provide information regarding the ramifications of disturbing, collecting, or killing protected species. Outreach shall also involve working with Park Rangers that patrol areas with known arroyo toad populations. A protocol shall be developed with maps delineating safe zones (outside of arroyo toad breeding and upland habitat) within which heavy machinery can be brought on-site and operated when fire conditions or post-fire management actions (e.g., creation of roads for firefighting, dead tree removal) require them. Arroyo toads would be at greatest risk of being crushed in the riparian zone between the start of the first warm rains of winter through late summer (roughly January through September), and in upland habitat during the fall and early winter (September through December) (Sweet 1992). A barrier (large logs) shall be placed along the southern and western edge of the Descanso Area Development to direct arroyo toad around the new campground.

A qualified biologist will be available to inspect all excavations before refilling occurs, ensuring that any trapped special-status species are passively relocated to avoid incidental take. If project activities occur during the breeding season, preconstruction surveys will be conducted for special-status birds within 500 feet of new development. If construction

could affect an active nest, construction will be delayed until a qualified biologist determines that adults are no longer caring for young and that juvenile birds have fledged. A qualified biologist shall perform a bat survey three days prior to construction, to determine whether affected structures or trees provide hibernacula, nursery colony, or roosting habitat. If bats are not detected during preconstruction surveys, work must be initiated within three days of the survey. Work is not to occur within 100 feet of an active roost. No clearing and grubbing is to occur adjacent to any roost structure. Combustion equipment, such as generators, pumps, and vehicles, are not to be parked nor operated under or adjacent to any roost structure.

Impact Bio-3: The conversion of Loop A would permanently impact 0.5 acres of ~~developed~~ coast live oak woodland habitat, while the construction of the Paso Picacho Day Use Area would permanently impact 1.12 acres of montane-hardwood conifer forest. The Descanso Area Development portion of the project would permanently impact ~~17.0~~approximately 6.93 acres of ~~annual-nonnative~~ grassland; approximately 6 acres for the campground and 0.93 acre for the day use. ~~and temporarily impact an additional 7.7 acres of annual grassland.~~

Discussion: Development of Descanso Area Development (day use and campground) would occur in areas that are already developed, have been previously disturbed, or contain nonnative vegetation. Potential construction impacts to vegetation associated with grading and excavation include the direct grubbing of vegetation, and spread of dust and debris into areas adjacent to construction sites. Measures would be implemented to control dust and control the spread of nonnative seed. Additionally, the Loop A site is currently a developed campground so minimal additional disturbance would occur.

Mitigation Bio-MM3: Direct impacts to 1.12 acres of montane-hardwood conifer forest would be mitigated at a 2:1 restoration to impact ratio for a total of 2.24 acres of mitigation. Currently, DPR is implementing a forest restoration project in an effort to restore montane-hardwood conifer forest habitat that was destroyed during the 2003 Cedar Fire (SCH #2009028080 and 2009088012). Mitigation for the Equestrian Facilities Project will be incorporated into this ongoing project. Revegetation plans will also be developed for any area left in a disturbed state post-construction. Only native species, from the same gene pool if possible, will be used in revegetation areas. Soil preparation, native seed/plant mixes, and mulching shall be specified for all areas disturbed by construction activities. A monitoring plan should be developed and implemented to ensure successful revegetation. Native vegetation shall be salvaged to the greatest extent possible for use in revegetating disturbed areas. Construction specifications regarding soil salvage and reuse, trenching, plant protection, and finished grading shall be enforced. Buildings, trails, parking, and campsites shall be sited to minimize impacts to vegetation, and avoid large trees to the greatest extent feasible. All construction operations shall be confined to specified project work limits. Temporary barriers shall be installed to protect natural surroundings (including trees, plants, and root zones) from damage.

The replacement ratios (using rooted plants in liners or direct planting of acorns) for oak trees that are **removed** will be as follows:

- trees less than 5 inches diameter at breast height (DBH) should be replaced at 3:1;

- trees between 5 and 12 inches DBH should be replaced at 5:1;
- trees between 12 and 36 inches DBH should be replaced at 10:1; and
- trees greater than 36 inches DBH should be replaced at 20:1.

The replacement ratio for **damaged** oak trees less than 12 inches DBH will be 2:1 and greater than 12 inches DBH will be 5:1. All other oaks will be fenced off and tagged to prevent equipment from operating in their drip line. Oak replanting efforts will utilize locally collected acorns or saplings grown from collected acorns. When possible, appropriate understory species will also be included to enhance structural diversity of the mitigation site. The site will be monitored and managed for a minimum of 10 years to ensure success of the restoration effort.

Signs shall be installed as needed to direct use to more appropriate areas. Placement of fencing and signs shall be developed in consultation with cultural resources and natural resources staff. Native or weed-free mulch shall be used to minimize surface erosion and introduction of non-native plants.

Direct impacts to nonnative grassland would be mitigated at 0.5:1 restoration to impact ratio for a total of ~~8.53.47~~ acres of nonnative grassland mitigation. CDPR will enhance/restore nonnative/native grassland habitat just north of the existing Paso Picacho Day Use Parking area (Figure 2.4). However, The areas to be restored within the Park would the final restoration/mitigation site(s) will be identified in the final subsequent CEQA document that would be developed for Phase II of the Descanso Area Development.

If a pedestrian/equestrian crossing is constructed over the Sweetwater River in the vicinity of the Green Valley Campground Loop A, then CDPR will notify CDFG to determine if a Lake or Streambed Alteration Agreement pursuant to Fish and Game Code Section 1600 is required.

Findings: DPR has made the determination that there will be no “take” of any State or federally listed species and that the proposed project is “not likely to adversely affect” either the arroyo toad or least Bell’s vireo. Furthermore, the proposed project will not negatively affect the continued existence of any federally-or State-listed species. With incorporation of mitigation measures such as restoration or replacement of habitat at appropriate mitigation ratios, limiting the work area, covering excavation areas, timing construction to avoid disruption of breeding activities, and conducting preconstruction surveys, potentially significant impacts to biological resources would be mitigated to a level below significance.

5.1.4 Cultural Resources / Historic

Impacts Hist-1: The Descanso Area Development phase of the project would convert a portion of a potentially historic ranch complex into an equestrian campground. This would require landscape improvements including raised earthen berms, native shrubs, and trees. Additionally, the proposed project would introduce non-historic landscape and hardscape elements in an area immediately west, south, and southeast of the Hawley/Oliver/Oliver/Merigan Ranch Foreman’s Cabin House and Oliver/Merigan Ranch Complex House and Outbuildings-Site. These elements include native tree species, vegetated swales, berms, roadways, a public restroom, and other equestrian-related amenities.

Discussion: Once mature, the shrubs and trees will help soften and shield the hardscape improvements, structures, and activities from the two potential historic resources' line of sightview. Likewise, existing and newly planted trees will soften and shield the facility from view from Viejas Boulevard and Viejas River Drive.

Mitigation Hist-MM1: The proposed landscape elements shall complement the site and blend in with the surrounding area.

Impacts Hist-2: The proposed project seeks to convert the former ranch property into an equestrian campground and will introduce native tree species into the area west, southwest, south, and southeast of on the suspected site of the Lawrence Oliver family ranch house complex north of the existing potentially historic Oliver/Merigan stone Ranch Foreman's Cabineabin and Oliver/Merigan Ranch Complex Site, which could impacting perhaps to the southeast on the present day use parking area. The primary concern is whether or not the proposed project will have an adverse effect on the Hawley/Oliver Ranch Houset potentially eligible historic resources in regard to their location, setting, materials, and other aspects of their historic integrity.

Discussion: The project area is far enough removed that it does not appear to pose an a significant impact on the existing stone cabin's historic integrity. Nor are there any planned structures, road alignments, or landscaping that would impact its the location, setting, materials, design, or feeling of the stone cabin or the surrounding ranch complex site. Recently discovered DPR records reveal that all evidence of non-surviving buildings and structures associated with the ranch complex, including their stone and concrete foundation/retaining walls and building pads, were removed in 1977. Therefore, in regards to proposed equestrian campground and day use improvements, the project does not have the potential to disturb any known 1929 to 1960 historic buildings and/or landscape features associated with a potential historic site. Exeavation of root basins prior to planting may produce concrete footings, artifacts and/or cultural features from the site's 1929 to 1958 period of historic significance.

Mitigation Hist-MM2: A qualified archaeological monitor shall be on site when these root basins or other improvements are dug. DPR will 1) preserve identified historic-era buildings, structures, and landscape improvements in place; 2) design new improvements that complement but do not mimic these features in scale and materials; 3) have a qualified archaeological monitor on site during any excavation work.

Impacts Hist-3: Concerns have been expressed by some members of the Descanso community that the proposed project will introduce modern hardscape and landscape elements that did not exist during the adjacent School's 1935 to 1940s period of historic significance and that these additions will then impact the school's northern view corridor; thereby, having an adverse effect on the School Complex's historic integrity.

Discussion: The School Complex's primary character-defining features, particularly in regards to its location, setting, design, and feeling, present themselves best when viewed from across Viejas Boulevard. From this viewpoint, the casual viewer would be hard-pressed to see the proposed Park improvements beyond the school. Indeed, the proposed project includes the importation and planting of numerous native trees, vegetated swales, and berms that will soften and obscure any new roadways, restroom, corrals, and other public and equestrian-related support facilities from view. A counter argument can be

made that the school's historic setting has already been compromised by the 1980s introduction of the modular classrooms onto the school property. While technically reversible, they nonetheless impact the site by adding non-contributing, non-historic elements into the setting. Regarding known and potential historic resources, the project ~~does not appear to pose~~ will not have a significant impact ~~n-adverse effect to the existing stone ranch house associated with the Hawley and Oliver ranches. Nor does it pose an adverse effect to any historic resources associated with their past operation on the school,~~ therefore no mitigation is required.

~~Mitigation Hist-3: A qualified archaeological monitor shall be on-site during all excavation events shall be on-site to mitigate any loss of resources.~~

Findings: The proposed project would have a less than significant impact on historic resources. The project would not ~~adversely affect~~ directly impact any historic or potentially historic resource within the Descanso Area Development A.P.E. Additionally, there are no recorded or potentially eligible historic resources located within the Paso Picacho Day Use Area's A.P.E. The closest recorded historic resources to the Paso Picacho site are CCC-built fire suppression, administration, and campground buildings across from and southwest of SR-79. While they and the adjacent highway may be eligible for listing on the California and National Registers, the project does not appear to pose an adverse effect to their historic integrity and subsequent eligibility. The proposed project would not pose an adverse effect on any recorded or eligible historic resource located within the Loop A Campground area. The closest potentially eligible historic resources are a dirt road leading up from the campground's southeastern corner, around an unnamed rocky knoll to a CCC-built, above-ground concrete reservoir. The project's A.P.E. does not include any adverse effects to these resources. The majority of the project's A.P.E. is within the campground below. Although the latter dates back over 50 years, it has been altered to where it no longer reflects its historic integrity to its potential historical context. However, nearly half of the campsites contain unique 1970-1971 cement-mortared coarse stone rubble masonry retaining walls and stairways. While they are not eligible as contributing historic landscape features, they should be recognized for special consideration during the project's planning, design, and construction phases. The stone work reflects the Park's 75+ year building history of using indigenous materials to construct Park Rustic style buildings, structures, walls, culverts, and other landscape features.

5.1.5 Cultural Resources / Archaeology

Impacts Arch-1: Construction and maintenance of the proposed facilities and an increase in visitor-use activities at the Descanso Area Development site have the potential to disturb, degrade, or damage buried archaeological deposits, historic structures or features, sacred sites, and human remains. In addition, construction and conversion work at Green Valley Campground Loop A could disturb, degrade, or damage buried archaeological deposits.

Discussion: Significant archeological, historical, and ethnographic resources, including archaeological site CA-SDI-8855, are known to occur within and adjacent to the Descanso Area Development area. These include prehistoric Native American habitation, processing sites, and burial areas, and a historic stone cabin and associated

features. Additional archaeological resources including archaeological site CA-SDI-16294 are present at Green Valley Campground Loop A. Activities associated with construction, maintenance, and use of proposed facilities, as well as recreational activities in the area could have long-term impacts on significant cultural resources.

Mitigation Arch-MM1: New facilities shall be designed and constructed to avoid known burial grounds, religious, and ceremonial sites and shall avoid all other archaeological and historical resources to the greatest extent practicable. A DPR cultural resource specialist will (1) review and authorize all vehicle and equipment staging and material storage sites that are located off paved surfaces; (2) implement archaeological monitoring during ground disturbing construction activities at the project sites at his/her discretion; (3) be notified by the site manager a minimum of five (5) days prior to ground disturbing work. In the event that previously unknown cultural resources (including but not limited to dark soil containing shellfish, bone, flaked stone, groundstone, or deposits of historic trash) are encountered by anyone during construction related activities, the site manager will stop work at that specific location and personnel will be redirected to other tasks. The DPR approved cultural resources specialist will record and evaluate the finds and work with the site manager to implement avoidance, preservation, or recovery measures as appropriate prior to any work resuming at that specific location. During previous consultation with Native American representatives, Native American monitoring was requested within the Descanso Area Development site. A DPR approved cultural resource specialist will also coordinate with a Native American monitor for work within the Descanso Area Development site. For other locations, additional consultation will determine if Native American monitoring is needed.

Impacts Arch-2: There is a potential for previously unknown, buried cultural resources to be discovered during the course of the project.

Discussion: Because of previous use and development as well as possible sediment deposit in the areas of Descanso Area Development and Green Valley Campground Loop A, there is a potential for cultural resources to have become buried. These resources may not have been observed or encountered during archaeological survey or testing, but may be identified during construction earth-moving activities.

Mitigation Arch-MM2: In the event that previously unknown cultural resources (including but not limited to dark soil containing shellfish, bone, flaked stone, groundstone, or deposits of historic trash) are encountered during construction related activities by anyone, the site manager will put work on hold at that specific location and personnel will be redirected to other tasks. A DPR-approved cultural resources specialist will record and evaluate the finds and work with site manager to implement avoidance, preservation, or recovery measures as appropriate prior to any work resuming at that specific location.

Impacts Arch-3: Increased recreational activities in the Descanso Area Development site could have long-term impacts on significant cultural resources, including the known archaeological site.

Discussion: Inadvertent or intentional damage from off-trail use, vandalism, or artifact collection could occur as a result of increased visitation at the site.

Mitigation Arch-MM3: To protect cultural resources in the vicinity of the Descanso Area Development, fencing shall be placed along the campground's perimeter trail. Signs shall be placed to dissuade visitors from going off-trail into those areas with the most sensitive resources. Rangers and other Park personnel shall be informed of the presence and extent of the archaeological site and features within this portion of the Park in order to watch for illegal collecting and to monitor natural erosion effects. The Merigan Ranch House is proposed as a Park employee residence. Additional Park presence may help deter visitor-use, damage, or vandalism. Any evidence of damage to archaeological resources shall be brought to the attention of a DPR archaeologist. Site CA-SDI-8855 shall be included within Colorado Desert District's site stewardship program, so that it is visited and evaluated for archaeological resources and condition issues on a regular basis. An archaeological site condition assessment record or other such condition report shall be filled out for the site, and updated every few years, or as the level or threat of impact or damage warrants.

Impact Arch-2: Human remains have been documented at CA-SDI-8855, outside the Descanso Area Development site, but indicating the sensitivity of the area and the potential for additional burials or cremations to be present within the Descanso Area Development site.

Discussion: Due to the sensitive nature of these remains, no development is proposed within the archaeological site; however, to ensure avoidance of significant impacts to unknown buried cultural deposits, all subsurface work in the vicinity must include both archaeological and Native American monitors. Standard DPR Project Requirements require that ~~Mitigation Arch-2~~ in the event human remains are discovered, work will cease immediately in the area of the find and the project manager/site supervisor will notify the appropriate DPR personnel. Any human remains and/or funerary objects will be left in place or returned to the point of discovery and covered with soil. The DPR sector Superintendent (or authorized representative) will notify the County Coroner/Medical Examiner, in accordance with §7050.5 of the California Health and Safety Code, and the Native American Heritage Commission or Tribal Representative. ~~If a Native American monitor is on-site at the time of discovery, the monitor will be responsible for notifying the appropriate Native American authorities.~~ and California Code of Regulations (Title 14, Division 6, Chapter 3, §15064.5). The Local Coroner will make the determination of whether the human bone is of Native American origin. If the remains are determined to be of Native American origin, the Coroner will be responsible for notifying the CNAHC in Sacramento, and the CNAHC will be responsible for identifying the most likely descendants, who will determine appropriate disposition of the remains. ~~If the coroner determines the remains represent Native American interment, the CNAHC in Sacramento will be consulted to identify the most likely descendants (MLD). DPR will work with the MLD to determine appropriate disposition of the remains.~~ Work will not resume in the area of the find until proper disposition is completed (PRC §5097.98). No human remains or funerary objects will be cleaned, photographed, analyzed, or removed from the site prior to determination.

Known burial grounds, religious, and ceremonial sites will be avoided by the project work, and all other archaeological sites will be avoided to the maximum extent practicable. ~~If the find is a sacred or religious site, the site will be avoided to the maximum extent practicable.~~ Formal consultation with the State Historic Preservation

Office and review by the CNAHC and Tribal Cultural representatives will occur as necessary to define additional site mitigation or future restrictions.

There are Native American/Tribal interests concerning cultural resources, sacred sites, and traditional landscapes in the area of the Descanso Area Development and other regions of the Park.

Discussion: During consultation with Native American representatives, Native American monitoring was requested within the Descanso Area Development site. For other locations, additional consultation will determine if Native American monitoring is needed. Standard DPR Project Requirements include provision for qualified Native American monitors to be present during all earthmoving activities within Descanso Area Development. Additional consultation will determine if Native American monitors are appropriate at other project locations. In the event of discovery during construction activities of Tribal cultural resources, human remains, grave goods, or ceremonial items, the Native American Monitor will have the ability to stop work in that area in order to evaluate the find. The County Coroner/ Medical Examiner will be notified in the event of discovery of human remains. The process followed shall be in accordance with §7050.5 of the California Health and Safety Code, California Code of Regulations (Title 14, Division 6, Chapter 3, §15064.5), and Public Resources Code §5097.98. Preconstruction Cultural Sensitivity Training for all construction personnel will occur in coordination with the Native American Monitor.

The Native American Monitor will be consulted in regards to placement of signs and fencing within and around known archaeological sites. Native American consultants will be contacted in regards to development of interpretive/educational materials relating to Native American culture and resources.

Findings: Potentially significant impacts to archeological and Native American resources will be mitigated to a level below significance.

5.1.6 Geology / Soils

~~Impact Geo-1:~~ Impacts and Discussion: Extremely wet weather or significant changes in drainage at the Descanso Area Development site may result in shallow groundwater conditions that could adversely impact the proposed improvements, especially the building foundations and slabs, and road subgrade. If construction coincides with wet weather, shallow or perched groundwater may result in adverse conditions for heavy equipment operation, requiring the use of specialty or low ground pressure tracked equipment.

Discussion: Groundwater was encountered at the Descanso Area Development site in the exploratory borings conducted for the geotechnical report at depths of 15 to 18 feet below ground surface. Historic groundwater records indicate that groundwater levels have risen to within 2 to 3 feet of the ground surface during extremely wet years (Appendix D).

~~Mitigation Geo-1:~~ DPR Standard Project Requirements dictate that ~~The project facilities shall be designed according to accepted and recommended engineering and geotechnical specifications. Based on a recent report by Winzler & Kelly (2008), a conventional septic system is not feasible for the Descanso Area Development site, therefore when DPR proceeds with the final design for this project; appropriate alternative systems/solutions will be investigated and implemented.~~

Impact Geo-2: Loose, compressible soils, including alluvium, colluvium, and topsoil are found over much of both project sites.

Discussion: Loose, compressible soils may settle under increased loads, or due to an increase in moisture content from changes in irrigation or site drainage. ~~Mitigation Geo-2:~~ In compliance with DPR Standard Project Requirements The aforementioned materials shall be excavated and replaced as compacted fill in areas that shall be subjected to fill or structural loads, and in pavement areas. In areas of loose, saturated alluvial soils, additional settlement due to dynamic densification or liquefaction of the alluvial soils may occur. Reinforced mat foundations and compacted soil pads may be used to reduce the adverse effects of seismically induced settlements. Because of the size of the proposed improvements, the cost of improving the underlying soils or placing the structures on deep foundations would probably be significantly more than the cost of the structures. When Parks proceeds with the final design for this project, appropriate alternatives will be investigated and implemented.

Impact Geo-3: Actions proposed in the Equestrian Facilities Project could affect soil resources through erosion, compaction, soil profile mixing, and soil removal. Activities that could result in soil impacts include, the construction of buildings, campsites, parking areas, trails, other facilities (corrals etc.), and utilities.

Discussion: Removal of vegetation through grading activities or pedestrian use could accelerate erosion of the soil surface. Soils on steep slopes and along watercourses are especially susceptible to erosion. Soil compaction could occur as a result of construction activities or in areas of intensive use such as trails, campgrounds and picnic areas. Soil compaction could reduce infiltration rates (depending on the soil type), thereby increasing surface runoff and the potential for erosion. Deep compaction of soils may impede subsurface flow. In turn, these effects could alter soil chemical processes such as nutrient transfer, biological processes such as root development and microbial patterns, and physical processes such as soil structure. Vegetation growth on compacted soils is often limited due to low infiltration and poor root penetration. Soil excavation and redistribution result in removal or mixing of the soil profile and disrupt soil structural characteristics, interrupting the chemical, physical, and biological processes that naturally occur in the soil. The level of change is dependent on the level of the alteration. It may take many years to redevelop the soil profile. Construction activities remove and/or cover the soil surface (paving) and can result in changes to basic soil properties. Excavation and removal of the soil surface would result in a long-term impact because the basic soil properties have taken thousands of years to develop. Covering the surface reduces water movement and interferes with normal physical and chemical processes.

~~Mitigation Geo-3:~~ In accordance with DPR Standard Project Requirements, If needed, additional site-specific geologic and geotechnical investigations of proposed buildings, facilities, and infrastructure requiring foundation design criteria shall be performed to assess local liquefaction and cyclic densification potential, surficial expansive soil, and strength of soil. Otherwise, the proposed designs will follow the recommendations in the Geotechnical Reports (Appendix D). Consideration of these issues in the final design shall be documented and addressed, as appropriate, in the construction documents. Appropriate landscape design shall be incorporated for areas with the potential for

erosion. Appropriate engineering design shall be incorporated for areas comprised of liquefiable soils, weak or expansive soils, or soils above the base of frost zone.

If on-site soil meets the criteria for engineered fill, soil from foundation excavations (drilled pier and/or shallow spread footing) shall be used to reduce the need to transport material off site or import material for fill. Any imported fill material is required to be free of exotic and noxious weed species. Verification of compliance with this requirement will be accomplished as directed by the Contracting Officer in accordance with Division 1 Specifications. This requirement is not intended to apply to fill to be placed 12 inches or more below grade or beneath an impermeable surface. Semi-permeable materials shall be used as much as possible to allow for water infiltration through the soil column and aeration of any compacted soils at the completion of construction.

Findings: The project facilities will be designed according to accepted and recommended engineering and geotechnical specifications and risks due to geological hazards will be less than mitigated below a level of significance.

5.1.7 Hydrology / Water Quality

Impacts Hydro-1: At all project sites, new buildings would slightly increase impervious surface, increasing the potential for non point-source pollution, which would result in local, long-term, minor impacts to water quality.

Discussion: With management and diversion of runoff, as well as strategic placement of buildings and facilities, water quality impacts would be less than significant.

Mitigation Hydro -MM1: The 10-year storm design for the Paso Picacho Day Use Area includes segregating the clean mountainside stormwater runoff from the parking lot runoff. It is anticipated that a concrete v-ditch shall be used to route the mountainside flows away from the parking lot and animal maintenance facilities, maintaining the volume of water within the same watershed. Roof runoff shall be directed away from high-use, bare, un-vegetated areas and manure storage areas. This could include the use of gutters and downspouts, subsurface drains, or any other available technology. New buildings and confinement areas shall be located away from drainages. Wash stations and manure storage areas shall be from any waterways with buffer strips of vegetation to filter sediments and absorb nutrients in runoff. Potential runoff from water troughs shall be controlled with automatic waterers or other means. Clean water shall be diverted around areas with pollutants by building berms, ditches, underground pipelines or other methods.

Impacts Hydro-2: The 100-year floodplain for the Sweetwater River encroaches into the Descanso Area Development site. It has been determined that during a 100-year event for the Sweetwater River, the existing culverts would not have the capacity to handle the runoff from the proposed campground.

Discussion: Based on the draft design, a portion of the overland runoff will be re-routed through new drainage channels causing differentiating flows between the existing and proposed condition. New channels will be sized to convey the 10-year design flow and anything above the 10-year will top the channel's banks. It is anticipated that post-construction, the site elevation will be close to existing conditions. Therefore, design

flows larger than the 10-year will be similar to the current design flows minus the 10-year flow being conveyed by the new channels (Appendix D).

Mitigation Hydro -MM2: Any structure (e.g., restroom and/or kiosk) that should not be subjected to flooding would be built with a pad elevation higher than 3,404 feet (the 100-year floodplain according to FEMA) or be elevated such that the sheet flow from runoff will not negatively impact the area.

Impacts Hydro -3: The Paso Picacho Day Use Area is located in the Sweetwater Hydrologic Unit in the Upper Sweetwater Hydrologic Area and in the Garnet Hydrologic Subarea. Currently, stormwater runoff at this site flows into Harper Creek, a tributary to the Sweetwater River; this will not change post construction. The Descanso Area Development site is located in the Sweetwater Hydrologic Unit in the Upper Sweetwater Hydrologic Area and in the Descanso Hydrologic Subarea. Currently, stormwater runoff from the proposed project site discharges into the Sweetwater River; this will not change post-construction.

Discussion: Neither Harper Creek nor the Sweetwater River are not listed as a Clean Water Act Section 303(d) impaired water body, nor are they County Environmentally Sensitive Areas.

Mitigation Hydro -MM3: A Storm Water Management Plan (SWMP) Pollution Prevention Plan during the project application process. It will incorporate details of pre-construction BMPs early in the design process, construction BMPs, and the implementation of a long-term post-construction maintenance program. Because the project will be considered a Priority Project within the County of San Diego's Standard Urban Stormwater Mitigation Plan (SUSMP) for Land Development and Public Improvement Project, it will be necessary to implement Site Design BMPs, Source Control BMPs, and Treatment Control BMPs to the maximum extent practicable based on the pollutants of concern, receiving water bodies, and proposed development (Appendix D)

Impacts Hydro -4: The grade of the Descanso Area Development site is such that the areas with the most exposure to horse facilities are sloping towards the western channel (Figure 2.11).

Discussion: According to the SUSMP, detention basins have high removal efficiency for sediments, trash, and debris and medium removal efficiency for nutrients, heavy metals, oxygen demanding substances, oil and grease.

Mitigation Hydro -MM4: For the Descanso Area Development, a detention basin is proposed near the site property line and the western drainage channel (Figure 2.11). The detention basin will provide treatment for the stormwater runoff coming from parking lots, streets and roads, and horse facilities. A portion of the stormwater shall be treated by roadside vegetated swales and vegetated buffer strips before entering the detention basin or Drainage Channel 1.

Impacts Hydro -5: Removal of existing vegetation and construction of the new campsites, roadways, and parking areas would involve grading, trenching, and soil compaction, which could increase erosion and sediment discharge

Discussion: Restoration with native vegetation upon completion should minimize impacts to local hydrologic processes and water quality.

Mitigation Hydro -MM5: Disturbed areas shall be revegetated as appropriate to minimize erosion. Native shrubs, grasses, and other groundcover shall also be planted along and within the drainages to reduce erosion. To the extent feasible, bridges shall be constructed and/or culverts installed when there is no water in the watercourses. Ditches shall be kept vegetated with native grass to help maintain stability and shall be cleared of sediments. Vegetated ditches with a gentle slope of 2 to 6 percent will slow the velocity of the stormwater and allow sediment to drop-out of the system. For chronic sediment problems, the erosion source shall be addressed. Debris shall be placed in refuse containers daily and the containers shall be disposed of on a weekly basis. Refuse shall not be burned or buried inside the Park but disposed off site.

Impacts Hydro -6: Construction activities could have the potential to increase erosion and sediment discharge into drainages. The use of heavy equipment presents a potential for accidental releases of fuels or other hazardous substances that could affect local surface water or groundwater quality.

Discussion: Construction impacts would be mitigated by minimizing the area disturbed, using pervious material in parking areas, salvaging existing soils for use as fill, and implementing BMPs during construction to reduce the potential for water quality impacts associated with soil erosion and construction equipment releases.

Mitigations Hydro -MM6: Construction activities, particularly those resulting in substantial soil disturbance, shall be scheduled during periods of low precipitation and low groundwater, when feasible, to reduce the risk of accidental hydrocarbon leaks or spills reaching surface and/or groundwater, to reduce the potential for soil contamination, and to minimize erosion of loose materials in construction areas. Volatile wastes and oils shall be disposed of in approved containers for removal from construction sites to avoid contamination of soils, drainages, and watercourses. Equipment shall be inspected for hydraulic and oil leaks prior to use on construction sites, and inspection schedules shall be implemented to prevent contamination of soil and water. When using heavy equipment, absorbent pads, booms, and other materials shall be kept on site, so as to contain oil, hydraulic fluid, and solvents.

Impacts Hydro -7: Waste generated by horses and equestrian activities at the campground could increase non point-source pollution.

Discussion: Horse manure, wash racks, water troughs, and hoses could all lead to excess water or waste, resulting in runoff, erosion, and water quality impacts.

Mitigation Hydro -MM7: Campers will be informed that they must clean the corrals daily and place the horse manure in one of the on-site manure trailers. Corrals will be designed to slope away from any adjacent waterway and both the corrals and the trailer(s) will be located away from any waterways to prevent manure entering these areas. Manure trailers(s) will be emptied 2-3 times each week, depending on visitor use. No horse waste shall be dumped on the edge of, or directly into waterways. The wash area shall be elevated above the surrounding ground. All wash water shall be drained away from the wash area to a filter strip or other vegetated area. Water from horse wash areas shall not be allowed to flow into storm drains, creeks, ponds or seasonal drainages. A

shut-off nozzle or low-flow nozzle shall be used at the end of all hoses. Signage shall be placed encouraging the proper use of horse grooming and health products, recommending using plain water to rinse horses and to avoid using soap as much as possible. Horse access and human activities around the horse facilities shall be prohibited in drainages, swales, creeks, creek banks, meadows, and steep hillsides.

Findings: Potentially significant impacts to hydrology and water quality would be mitigated to a level below significance with incorporation of the mitigation measures listed above.

5.1.8 Noise

Impacts Noise-1: Noise impacts associated with the proposed project would be primarily related to construction activities and would result ~~mainly~~ from the use of heavy equipment and transport vehicles. According to the U.S. Department of Transportation, these types of machines produce noise emissions between 74 and 85 dBA (<http://www.fhwa.dot.gov/environment/noise/handbook/09.htm>). Noise generated by construction crews also has the potential to affect existing noise levels. Normal conversation typically measures 50dBA (Table 4.6). During the construction phase of the proposed projects, the County's threshold for open space areas of 62 dBA would be exceeded; but only for a short period. Construction equipment is expected be on site for no more than 10-12 days. Also, throughout a given work day, equipment would not necessarily be operated on a continuous basis.

Discussion: Operation of heavy equipment for the proposed project is loud, but temporary in nature (Natural Environmental Study Table 6). Sensitive noise receptors for the Paso Picacho portion of the proposed project include Park visitors, while sensitive noise receptors in the southern portion of the Park include neighborhood residents, school staff and students, and Park users.

Mitigation Noise-MM1: In compliance with the County of San Diego's Noise Ordinance Section 36.410. Construction Noise, Wwork hours within 0.25 mile of sensitive noise receptors (i.e., residential neighborhood, school) shall not begin before 7 AM and shall cease by 7 PM, Monday through Friday and there shall be no work on Saturdays, Sundays, or State holidays in the Descanso Area Development. Access by large, noisy equipment to the work site ~~shall~~ and work within staging areas near sensitive receptors shall also be limited to the above hours. All equipment shall have sound-control devices that are no less effective than those provided on the original equipment including a muffled exhaust. As directed by DPR, the contractor shall implement standard noise abatement measures, such as developing a construction schedule that minimizes impacts to adjacent noise-sensitive receptors; using best-available noise control techniques wherever feasible; using hydraulically or electrically powered impact tools when feasible; locating stationary noise sources as far from sensitive uses as possible; erecting temporary noise barriers; turning off idling equipment; rescheduling construction activity; and notifying adjacent residents in advance of construction work.

Impacts Noise-2: Noise during project operation would be primarily related to Park users and their vehicles and Park maintenance activities. ~~These uses may cause minor to moderate changes to existing noise levels in the project vicinity. It is assumed the on site noise sources would be similar to those at the Paso Picacho Campground and other~~

equestrian facilities in the region. Normal conversation typically measures 50 dBA (Table 4.6). Post-construction, on site noise levels should not be louder than the pre-construction noise on site levels with the exception of intermittent large vehicles or trucks pulling horse trailers, which measures approximately 75-90 dBA. No significant vibration sources are associated with project operation. Lastly, the Paso Picacho Day Use Area would increase sensitive receptors in the project area.

~~The Paso Picacho Day Use Area would increase sensitive receptors in the project area and overall would result in a local long-term minor impact on the noise environment. Vehicle-related noise levels from additional traffic along SR-79 and from vehicles parking could increase slightly, resulting in a local, long-term, minor impact on the noise environment. Discussion: Vehicle-related noise levels from additional traffic along SR-79 and from vehicles parking may increase slightly; however, once Paso Picacho Day Use Area opens to the public, Hual-Cu-Cuish day use site will close. Therefore, noise associated with traffic in this portion of the Park is expected to remain close to current levels.~~

~~At the Paso Picacho site, baseline L_{eq} was 50 dBA and L_{max} was 67 dBA. Therefore, noise generated by Park visitors at this site would likely be muffled by traffic along SR-79. Also, both of the campgrounds would have camp hosts that patrol the area to keep noise levels low. Campgrounds are also patrolled by Park staff, to ensure that campers follow the Park's rules and regulations. Increases in overall, general sound levels associated with traffic along Viejas Boulevard and SR-79 would result in a local, long-term, minor cumulative impact according to the traffic analysis conducted for this EIR. Construction of some of the reasonably foreseeable projects planned or approved within the Park could result in local, short-term, minor to moderate impacts on noise. The impacts of these projects would be localized and short-term in nature, and primarily relate to noise generated from construction activities and construction-generated traffic. The intensity of the effects from the construction-related traffic noise would range from negligible to minor, depending on which, if any, of the construction projects occurred simultaneously. Increases in overall, general sound levels associated with traffic along SR-79 would result in a local, long-term, minor impact. Noise in the area of construction activities would vary depending upon a number of factors, such as the amount and type of equipment in operation on any given day, usage rates, the level of background noise in the area, and the distance between sensitive uses and the construction site. Construction noise would be loudest immediately adjacent to the construction area.~~

Mitigation Noise-MM2: Both campgrounds will have posted "Quiet Hours", which is usually from 10 pm to 7am to ensure that noise levels are kept to a minimum at night.

~~All equipment shall have sound control devices that are no less effective than those provided on the original equipment including a muffled exhaust. As directed by DPR, the contractor shall implement standard noise abatement measures, such as developing a construction schedule that minimizes impacts to adjacent noise sensitive receptors; using best available noise control techniques wherever feasible; using hydraulically or electrically powered impact tools when feasible; locating stationary noise sources as far from sensitive uses as possible; erecting temporary noise barriers; turning off idling equipment; rescheduling construction activity; and notifying adjacent residents in advance of construction work.~~

Findings: Implementing the construction and operational mitigation measures listed above would reduce construction noise levels impacts to a level below less than significant.

5.2 LESS THAN SIGNIFICANT IMPACTS & AVOIDANCE OF SIGNIFICANCE

5.2.1 Agricultural Resources

Impacts and Discussion: Past use of the Descanso property included farming and the proposed campground site is considered Farmland of Local Importance. Development of the site would remove it from the diminishing agricultural lands available in San Diego County. However, the property has been fallow since 1962, being sold for to State Parks in 1977. Because the land is within the Park, it will not be used for agricultural purposes in the future, regardless of whether or not the proposed project is implemented. Although the proposed project would change the current land use from a fallow field with passive park use to an actively used, developed park area, little or no effect on existing agricultural resources and production would occur as long as the land remains within the Park.

5.2.2 Hazards and Hazardous Materials

Impacts and Discussion: Materials used and stored at the Park that could be hazardous include fluids such as motor vehicle and mechanical equipment fuels, oils, and other lubricants. DPR maintains storage facilities for fuels and lubricants within the Park. No storage facilities, or other structures or industrial sites that could contain hazardous materials are located at the sites of the proposed project. Construction activities associated with the proposed project could require the use of certain hazardous materials, such as fuels, oils, lubricants or other fluids associated with the operation and maintenance of vehicles and equipment. Generally, these materials would be contained within vessels engineered for safe storage. Large quantities of these materials would not be stored at or transported to the project sites; however, spills, upsets, or other construction related accidents could result in an inadvertent release of fuel or other hazardous substances into the environment. Prior to the start of construction, DPR and/or its designee will prepare a Spill Prevention and Response Plan to provide protection to on-site workers, the public, and the environment from accidental leaks or spills of vehicle fluids or other potential contaminants. This plan will include but not be limited to the following: a map that delineates construction staging areas, and where refueling, lubrication, and maintenance of equipment will occur; a list of items required in an on-site spill kit; spill kit will be maintained on-site throughout the life of the project; procedures for the proper storage, use, and disposal of any solvents or other chemicals used during the project; and identification of lawfully permitted or authorized disposal destinations outside of the project site. Appropriate agencies will be notified immediately in the event of a significant spill.

As stated previously, 16 major airports exist throughout San Diego County. Of these, Ramona and Ocotillo airports are the closest to the project site. They are approximately 20 air miles west and east of the proposed project, respectively. The proposed project is not within an airport land use zone/plan, or within two miles of a public airport or private air strip. The closest school, Descanso Elementary School, is located adjacent to the Descanso Area Development site in the town of Descanso.

The Park is designated as a State Responsibility Area for fire protection and the California Department of Forestry and Fire Prevention (CalFire) describes the fire hazard severity for the vicinity of the project as very high (CalFire 2007). The San Diego Unit of CalFire is responsible for fire protection in the Park; the nearest CalFire Air Attack Base is located in Ramona, approximately 16 miles from the Park. Additional fire stations providing emergency services to the Park include Julian Cuyamaca Fire Protection District and CDF Fire-Julian Battalion, both approximately 7.5 mile north of the Park, and Alpine Fire Protection District, approximately 10 miles southwest (Fire Departments Net 2009).

The project sites are within forested/vegetated portions of the Park and are subject to dry conditions, especially during the fall Santa Ana season. Heavy equipment that could become hot with extended use would be in close proximity to flammable vegetation. Improperly outfitted exhaust systems or friction between metal parts and/or rocks could generate sparks, resulting in a fire. Spark arrestors or turbo-charging (which eliminates sparks in exhaust) and fire extinguishers will be required for all heavy equipment. DPR and/or its Contractor will have approved (per PRC § 4431) fire suppression equipment on site and in working order at all times when welding, torch cutting, grinding or any other spark or flame generating activity is conducted. This equipment will be located within Code approved distance to the spark/flame generating work activity and readily accessible by workers conducting or observing the activity.

Post-construction, use of camping facilities has the potential to place the public and neighboring properties at risk of wildfires caused by inadvertent or natural ignition from within, as well as from outside, the Park. No campfires will be allowed outside designated areas. Park managers will have the authority to stop the use of fires or smoking during periods of extreme fire danger and will regularly patrol to prevent fires in unauthorized locations. Park staff currently use the CalFire system to determine if there is a high risk of a wildfire to the Park. Lastly, the District has a type 6 engine that is available to the Park to use for fire patrols.

5.2.3 Land Use / Planning

Impacts and Discussion: The proposed equestrian campground is located within a portion of the Park that extends into the County of San Diego's unincorporated community of Descanso. The project site is also adjacent to a school and across from several equestrian related businesses. Many of the residents in Descanso have horses and livestock on their property, but some do not. The introduction of the campground and its users will potentially change this portion of Descanso by increasing human activity, noise, traffic, and light. This change may benefit some members of the community; primarily those that would use the campground and its amenities, however the development may alienate other residents. Lastly, the proposed project may benefit local businesses that would serve Park visitors.

The proposed project is consistent with the General Plan (DPR 1986). Access to the road by the campground is under the jurisdiction of the County of San Diego, as are the neighboring school and privately owned properties. DPR has been and will continue to coordinate with the County of San Diego in the implementation of this project. DPR will make all efforts to reduce traffic conflicts and noise impacts to the school and neighboring residences during and post-construction. During project implementation,

DPR will continue to coordinate with all appropriate resource agencies and the County of San Diego to ensure that the project is in conformance with any applicable planning efforts.

5.2.4 Paleontology

Impacts and Discussion: The proposed project is not expected to have an impact on paleontological resources; however, in compliance with DPR Department Operations Manual (Chapters 0300 and 0309, 2004a), the most effective and appropriate combination of paleontological resources avoidance and monitoring should be employed during all phases of project construction.

The findings suggest that soils and sediments at the Paso Picacho Day Use Area are likely devoid of all but the latest Holocene age fossils. However, these materials may be of archaeological significance, and should be monitored for such remains during any ground disturbing activities.

The Descanso Area Development site appears to be underlain by Holocene soils and sediments. There is a remote possibility of encountering late Pleistocene deposits in these depositional contexts. Such deposits are potentially fossiliferous, and elsewhere are known to yield both macro and micro vertebrate, and invertebrate remains. Accordingly, any ground disturbance below 1 meter (3.3 feet) at the Descanso Area Development should be monitored by a qualified paleontologist. Should significant paleontological remains be encountered at the Descanso Area Development, protocols and methods prescribed in the Colorado Desert District Field Expedition Safety Rules and Specimen Recovery Guidelines (Jefferson and McDaniel 2002), and Paleontological Resources and Collections Management Policy (2004a, b) must be followed.

5.2.5 Public Services

Impacts and Discussion: There may be potential conflicts with the Descanso Elementary School during project construction and operation. Additionally, visitors to the Descanso Area campground may use the adjacent ~~County~~ MEUSD Park, which could result in ~~its~~ the County Park experiencing some accelerated deterioration if MEUSD does not have the resources for additional maintenance activities.

Although elementary schools and State Park campgrounds in other locations have not indicated problems, the design of the Descanso area campground would incorporate a visual and noise buffer or berm between the proposed campground and the school. A fence would also be installed at the State Park/~~County~~ MEUSD Park boundary. Restrooms were also designed to be located away from the school, while providing a minimum walking distance to all campsites. DPR will continue to coordinate with all public services providers, as needed, throughout the construction and operation of the project.

5.2.6 Recreation

Impacts and Discussion: The proposed Project may impact recreation at the Park both during and post-construction. Construction activities at the Paso Picacho Day Use Area would cause some slowing of traffic on SR-79; however, the work is expected to last only four months. Therefore, construction activities are not anticipated to result in significant impacts to Park visitors.

The Cold Stream Trail, which is located adjacent to the proposed Paso Picacho Day Use Area, connects to the Stonewall Peak Trail. The Stonewall Peak Trail is heavily used by hikers. Hikers access these two trails by parking in the Paso Picacho day use lot and crossing the SR-79. Use of the Paso Picacho Day Use Area would cause an increase in vehicle traffic in this area and an increase equestrian use of the Cold Stream Trail. However, conflicts between hikers and equestrians are not expected to increase as most (94 percent) of the trails in the Park are shared use. The proposed project would also increase equestrian use on the Merigan Fire Road, the only trail connecting to the Descanso Area Development site. At this time, while there are plans to increase equestrian facilities, there are no new trails planned for the southern portion of the Park.

The project would temporarily close the adjacent parking lot at the Descanso Area Development site, which currently requires no day use fees, and replace it with a lot where fees are required. The lot is currently used by equestrians, hikers, and mountain bikers. It is anticipated that after project completion, the parking lot would still be utilized by all three user groups.

5.2.7 Utilities and Service Systems

Impacts and Discussion: The Park is under the jurisdiction of the San Diego RWQCB, Region 9. The proposed project would be in compliance with all applicable water quality standards and waste discharge requirements. Construction of the restroom at Paso Picacho Day Use Area will not require the installation of new wastewater treatment facilities as it will either contain composting toilets or vault toilets. The restroom at Descanso Area Development will also likely employ this type of system.

The 10-year storm design for the Paso Picacho Parking Day Use Area includes segregating the clean mountainside stormwater runoff from the parking lot runoff. It is anticipated that a concrete v-ditch shall be used to route the mountainside flows away from the parking lot. Clean water shall be diverted around areas with pollutants by building berms, ditches, underground pipelines or other methods. Based on the draft design for the Descanso Area Development site, a portion of the overland runoff will be re-routed through new drainage channels causing differentiating flows between the existing and proposed condition.

A SWPPP shall be submitted during the project application process. It will incorporate details of pre-construction BMPs early in the design process, construction BMPs, and the implementation of a long-term post-construction maintenance program. The detention basin at the Paso Picacho Day Use Area would provide treatment for the stormwater runoff coming from parking lots, streets and roads, and horse facilities. A portion of the stormwater shall be treated by roadside vegetated swales and vegetated buffer strips before entering the detention basin or adjacent drainage.

Water for the Park is provided by wells. The water supply is adequate to meet existing demand except for the Descanso Area Development. The proposed project includes the construction of new facilities that would increase Park visitation and demand for water. However, existing infrastructure at Green Valley and Paso Picacho can support the increased demand. Water for the Descanso Area Development will be provided by the Descanso Community Water District. Specific details of the campground would be provided in future environmental review.

The project would also result in an increase in solid waste disposal needs for the Park. Currently, Park employees remove trash from public use areas; therefore more staff time would have to be allotted for trash removal at the Paso Picacho and Descanso Area sites. Service at Green Valley would not increase except for the removal of horse waste. In addition, the project would comply with all federal, state, and local statutes and regulations as they relate to solid waste.

5.3 EFFECTS WITH LITTLE OR NO IMPACTS

Section 15128 of the *CEQA Guidelines* requires the identification of impacts of a project that were determined not to be significant and that were not discussed in detail in the impact section of the EIR.

5.3.1 Mineral Resources

Discussion: Granitic rock underlies the project sites. However, granitic rock was not encountered in any of the borings excavated during the geotechnical testing. Sandy soils also exist at the Descanso Area Development project site. There are no other known mineral resources at the proposed project sites, and construction of the proposed facilities would not result in the loss of availability of any known mineral resource. The site is currently owned by DPR and would not be subject to mining for mineral resources.

5.3.2 Population and Housing

Discussion: The site of the proposed project is located entirely within Park boundaries. No new homes would be built and no homes or persons would be displaced as a result of project construction.

5.3.3 Traffic

Discussion: A traffic study was performed by Koa Corporation (Appendix E). The analysis of the existing roadway segment conditions and intersections found that, with the proposed project, all the study segments and intersections operate at level of service B or better and no significant impacts were found based on the County of San Diego Guidelines for Determining Significance (KOA Corporation 2007).

6 CEQA REQUIRED CONSIDERATIONS

6.1 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES WHICH CANNOT BE AVOIDED

In accordance with CEQA Guidelines § 15126.2(c), an EIR must identify any significant irreversible environmental changes that would be caused by the proposed project. Irreversible environmental changes may include current or future commitments to the use of non-renewable resources or secondary growth-inducing impacts that commit future generations to similar uses. Growth-inducing impacts are discussed below.

Construction, operation, and maintenance of the project would contribute to the depletion of resources, including renewable and non-renewable resources. Resources such as timber used in building construction, are generally considered renewable resources, and would be replenished over the lifetime of the project. Non-renewable resources, such as natural gas, petroleum products, steel, copper, and other materials are typically considered to be in finite supply and would not be replenished over the lifetime of the project. The demand for all such resources is expected to increase regardless of whether the project is developed. According to the San Diego Association of Governments (2006), by 2030 close to one million people would be added to the San Diego region. This population increase would directly result in the need for more recreational facilities in the region. Lastly, if the resources are not consumed by this project, these resources would likely be committed to other projects in the region.

6.2 OVERRIDING CONSIDERATIONS

This section addresses Section 15093 of the CEQA Guidelines requiring the public agency "to balance, as applicable, the economic, legal, social, technological, or other benefits of a proposed project against its unavoidable environmental risks when determining whether to approve the project. If the specific economic, legal, social, technological, or other benefits of a proposed project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered 'acceptable'" (14 CCR §15093). This is known as a statement of overriding considerations.

DPR hereby determines that specific economic, legal, social, technological, and other benefits of the proposed project outweigh the unavoidable adverse environmental effects identified in this Final EIR, including any effects not mitigated because of the infeasibility of Project Requirements or mitigation measures and that the adverse environmental effects are considered acceptable. DPR adopts this statement of overriding considerations because the recreational benefits resulting from the proposed project warrant project approval as provided in CEQA Guidelines section 15093. This statement of overriding considerations warrants the finding that the Project's adverse environmental impacts are acceptable.

DPR further determines that, based on the findings contained in this Section 6.0, and the evidence in the record, the project's benefits are sufficient to make a determination that the adverse project-level and cumulative environmental impacts are acceptable. DPR has balanced the adverse environmental effects of the Project, which cannot otherwise be avoided or substantially lessened, against the benefits of the Project, and hereby adopts

this Statement of Overriding Considerations based upon each of the benefits individually provided in this Final EIR and contained in the record.

For all the foregoing specific environmental, economic, social, technological and other benefits of the Project, all Project Requirements and mitigation measures contained in this Final EIR that are not imposed on the Project are infeasible. In addition, because the benefits of the Project outweigh the unavoidable adverse environmental effects identified in the Final EIR and discussed in this Statement, the adverse environmental effects are acceptable.

6.3 RELATIONSHIP OF LOCAL SHORT-TERM USES AND MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

The long-term use of the proposed recreational facilities will provide further opportunities for the local community, region, and visitors to enjoy equestrian recreation at the Park. Short-term construction impacts will adversely affect Park users due to a temporary loss of vehicular and trail access at the proposed facilities. The local community of Descanso will also be affected by the short-term construction impacts due to noise, aesthetic, and traffic impacts. These impacts, however, will be temporary and will be minimized by use of the proposed mitigation measures.

6.4 GROWTH INDUCING IMPACTS

There will be no growth inducing impacts because the project does not create new housing or provide infrastructure to support new residential, commercial, or industrial development.

6.5 CUMULATIVE IMPACTS

As required by CEQA Guidelines §15130, this EIR analyzes whether the proposed project may have a significant impact on the environment due to cumulatively considerable environmental impacts, even when the environmental impacts are individually limited. Cumulatively considerable, as defined by CEQA Guidelines §15065(c), means the incremental impacts of an individual project are considerable when viewed in connection with the related impact of recent past projects, other current projects and probable future projects. CEQA Guidelines §15355 defines cumulative impacts as "...two or more individual environmental effects which, when considered together, are considerable or which compound or increase other environmental impacts." Cumulative impacts may result from individual effects of a single project or the effects of several projects that are developed within a particular window of time.

According to the County of San Diego's Planning and Land Use Department, no development projects requiring CEQA review are currently planned for the community of Descanso or other unincorporated areas adjacent to the Park (County of San Diego 2009d). However, within the Park's boundaries, four additional projects have recently been proposed (Table 6.1).

Table 6.1. Cumulative Projects within Cuyamaca Rancho State Park.

Project Name	Location	Description
Rehabilitate Water System Park-wide	Green Valley, Paso Picacho, Stonewall, Azalea, and Los Vaqueros	Clean and repair water storage tanks at Stonewall, Azalea, Los Vaqueros, and Green Valley, and activate a new well at Paso Picacho.
Vegetation Management Plan	Park-wide	Adoption and implementation of a vegetation management plan in an effort to restore forest habitats destroyed in the 2003 Cedar Fire.
Mixed Conifer Restoration Projects	Park-wide	Plant 540 acres of the Park that were burned in the 2003 Cedar Fire with over 160,000 seedlings. This project is included in the Vegetation Management Plan.
Cuyamaca Outdoor School Improvements	Cuyamaca Outdoor School	Funded by the San Diego County Office of Education, the project would implement a camp host program, expand facilities to allow more students to participate in the program on a weekly basis, and improve access road into the camp.

6.5.1 Aesthetics

Cumulatively, as other open space parcels are developed in and around Descanso, the open and rustic character of the community will be impacted. All development within the community of Descanso, however, must meet the standards stipulated in Section XIX of the County's General Plan, which attempt to protect the rustic, country charm of the area. Development of the Paso Picacho Day Use Area and the Descanso Area Development site cumulatively adds to the loss of vacant land in and around the Park. However, the proposed project is consistent with the Park's General Plan, which designated these two sites as appropriate for the proposed recreational uses (DPR 1986). Development of the Paso Picacho site also clusters development / facilities in an already developed portion of the Park. Implementation of the proposed project, however, will result in significant impacts to aesthetic resources both at the project level and cumulatively, that cannot be mitigated below significance.

6.5.2 Air Quality / Global Climate Change

Implementation of the proposed project in conjunction with related projects within the area, would cumulatively add to the regional air pollution. Construction activities associated with the proposed project could result in short-term temporary construction related cumulative impacts. However, all future projects would be subject to required mitigation measures for construction, such as measures to minimize dust emissions. Therefore, it is anticipated that construction emissions would not be cumulatively significant.

On an operational level, the project will contribute to regional air emission through vehicle traffic. However, the proposed land use is less intense than those proposed in more urbanized settings such as residential and commercial development throughout other parts of the County. Also, the project would be consistent with the Regional Air Quality Strategy for the region, which is based on General Plan land uses. Lastly, the Park is currently planting 540 acres of native trees throughout the Park, which will help reduce the amount of carbon dioxide entering the atmosphere. Therefore cumulatively, the proposed project will have a less than significant impact on air quality and the emissions of greenhouse gases. ~~Climate change is defined by the State of California as a global effect, not susceptible to full mitigation by any proposed project within the State. There is no de minimis threshold established for the reduction of GHG on a project level, and no comprehensive program, even on a statewide level, specifically targeting the emission of GHG, or exposure to risks associated with global warming, in which the project could participate. In the absence of such yardsticks to measure effective participation in the effort to reduce climate change risks, the incremental contribution of the project to climate change is considered less than significant.~~

6.5.3 Biological Resources

Implementation of the proposed project, in conjunction with related projects within the area would cumulatively add to the loss of open space, vegetation communities, and common plant and wildlife species. However, the Equestrian Facilities project would be consistent with all of the policies and guidelines of the Park's General Plan and the draft East County Multiple Species Conservation Program Plan (MSCP). The MSCP is a long-range conservation effort, which when finalized, will establish appropriate conservation measures for biological resources within the eastern portion of the County. Since the proposed project is consistent with the County's draft MSCP, no cumulative impact to biological resources is identified. Other projects in the area would also be required to comply with the provisions of the draft Plan, CEQA, and state and federal regulations protecting biological resources such that cumulative impacts are less than significant.

6.5.4 Cultural Resources

With more development in and around the Park there is an increased possibility of encountering historical, and/or archaeological resources. However, for all projects, including the proposed project, that are subject to CEQA, avoidance, minimization, and mitigation measures must be incorporated in the project to protect cultural resources. Projects subjected to NEPA must also have conservation measures incorporated into the project. Through recordation and curation of cultural resources, and by providing the public and cultural resource specialists the opportunity to review these resources, the proposed project and other development in the area would not result in a cumulatively significant impact to cultural resources.

6.5.5 Geology / Soils

The proposed project, in conjunction with past, present, and reasonably foreseeable future projects would not contribute to a cumulative impact to geology and/or soils, as all impacts are site specific. Although project-level impacts are considered significant

and/or potentially significant, these impacts would be mitigated on a project-specific basis to below a level of significance. Therefore, the proposed project would not contribute to a cumulative impact to geology and/or soils, and a less than significant cumulative impact is anticipated.

6.5.6 Hydrology / Water Quality

The use of water and the introduction of horse waste at the Descanso Area Development site could have a cumulative impact on the water levels and water quality in the Descanso area. However, through compliance with the Regional Water Quality Control Board, the Clean Water Project, and the County's regulations, the proposed Equestrian Facilities Project would result in a less than significant cumulative impact on hydrology and water quality.

6.5.7 Recreation

In the future, use of the proposed facilities may require that additional trails are built in the Park or may result in the need for increased maintenance of the existing trails. For example, if use of the Descanso Area Development leads to the degradation of the Merigan Fire Road, the development of new trails leading out of the campground and day use area may be considered. Any construction of new trails inside the Park, however, would require subsequent CEQA review and include the implementation of avoidance, minimization, and mitigation measures. Therefore, cumulative impacts to recreation are less than significant.

6.5.8 Traffic

Events at the Descanso Elementary School during times of high visitation or special events at the Descanso Area Development campground may result in an increase of traffic and traffic hazards. However, the likelihood that events at the school would coincide with times of high use for the campground is minimal; school is not in session during the peak summer months. Also, the Descanso Area Development project would increase the amount of available parking in the area such that Park visitors would not need to park on Viejas Road. Therefore, cumulative impacts to traffic are less than significant.

6.5.9 Remaining Environmental Factors

The proposed project would have a less than significant impact or no impact on the following environmental factors: Agriculture, Hazards and Hazardous Materials, Land Use / Planning, Mineral Resources, Population / Housing, Public Services, and Utilities / Service Systems. Therefore, the proposed project in conjunction with other projects in the vicinity would not contribute to a cumulative impact for these factors.

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7.1 LIST OF PREPARERS AND REVIEWERS

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7.3 ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
ADA	American with Disabilities Act
A.P.E.	Area of Potential Effect
BMP	Best Management Practice
Calfire	California Department of Forestry and Fire Prevention
CALTRANS	California Department of Transportation
CARB	California Air Resources Board
CCC	Civilian Conservation Corps
CDF	California Department of Forestry
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
cfs	Cubic Feet per Second
CRHT	California Riding and Hiking Trail
CNAHC	California Native American Heritage Commission
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	Carbon monoxide
Park	Cuyamaca Rancho State Park
dB	Decibel

dBa	A-weighted decibels
DBH	Diameter at breast height
DCPG	Descanso Community Planning Group
DG	Decomposed Granite
DPR	California Department of Parks and Recreation
EIR	Environmental Impact Report
EPA	Environmental Protection Agency
ESA	Environmentally Sensitive Area
FEMA	Federal Emergency Management Agency
FR	Federal Registrar
GHG	Greenhouse Gas
GIS	Geographic Information System
HDM	Highway Design Manual
HU	Hydrologic Unit
KM	Kilometers
L_{eq}	Equivalent sound level
L_{max}	Maximum sound level
MEUSD	Mountain Empire Unified School District
MLD	Most Likely Descendent
NO ₂	Nitrous oxide
NOP	Notice of Preparation
NPS	National Park Service
O ₃	Ozone (smog)
OHV	Off-highway Vehicle
Pb	Lead
PM	Particulate matter
PRC	Public Resources Code
RAQS	Regional Air Quality Strategy
RWQCB	Regional Water Quality Control Board
SDAB	San Diego Air Basin
SDCAPCD	San Diego County Air Pollution Control District
SCH	State Clearinghouse
SO ₂	Sulphur dioxide

SR	State Route
SUSMP	Standard Urban Storm Water Mitigation Plan
SWPPP	Storm Water Pollution Prevention Plan
TMDL	Total Maximum Daily Load
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VRP	Visibility Reducing Particle
WPA	Works Progress Administration

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