U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
PALM SPRINGS—SOUTH COAST FIELD OFFICE

ENVIRONMENTAL ASSESSMENT
EA NUMBER CA-660-06-04

DATE:	October 28, 2005
PROJECT TITLE:	Art Smith Trail Reroute / Art Smith Trailhead Fence / Hopalong Cassidy Trail Construction / Northern Schey Trail Segment Closure
CASE FILE / PROJECT NO.:	N/A
BLM OFFICE:	Bureau of Land Management Palm Springs—South Coast Field Office 690 West Garnet Avenue, P.O. Box 581260 North Palm Springs, CA 92258-1260
PROPONENTS:	Bureau of Land Management Palm Springs—South Coast Field Office 690 West Garnet Avenue, P.O. Box 581260 North Palm Springs, CA 92258-1260 City of Palm Desert 73-510 Fred Waring Drive Palm Desert, CA 92260-2578 California Department of Fish and Game Environmental Services P.O. Box 220 Jamul, CA 91935
LOCATION OF PROPOSED ACTION:	**Art Smith Trail Reroute and Art Smith Trailhead Fence:** Dead Indian and Carrizo Canyons and adjacent lands west of California Highway 74, Santa Rosa Mountains / Sections 1 and 12, Township 6 South, Range 5 East; Section 7, Township 6 South, Range 6 East; San Bernardino Base and Meridian. **BLM public lands: Section 12 (T6S R5E) only.** **Hopalong Cassidy Trail Construction:** Eastern flank of Ramon Peak, Santa Rosa Mountains / Sections 24, 25 and 36, Township 5 South, Range 5 East; Section 30, Township 5

South, Range 6 East; Section 1, Township 6 South, Range 5 East; San Bernardino Base and Meridian. **BLM public lands: W1/2 NW1/4 NW1/4 NW1/4 Section 36 (T5S R5E); W1/2 SW1/4 SW1/4 and SW1/4 NW1/4 SW1/4 Section 30 (T5S R6E) only.**

Northern Schey Trail Segment Closure: Section 35, Township 5 North, Range 5 East; Section 2, Township 6 South, Range 5 East, San Bernardino Base and Meridian. **BLM public lands: Section 2 (T6S R5E) only.**

USGS TOPOGRAPHIC MAP: Rancho Mirage (1:24,000)

LAND USE PLAN CONFORMANCE and Other Regulatory Compliance:

In accordance with Title 43 Code of Federal Regulations (CFR) § 1610.5-3, the proposed action is in conformance with the following approved land use plan: California Desert Conservation Area (CDCA) Plan (1980), as amended. Portions of the proposed activity—Art Smith Trail reroute, Art Smith Trailhead fence, Hopalong Cassidy Trail construction, and northern Schey Trail segment closure—would occur on public lands designated as Multiple Use Class "L" (Limited Use). Class "L" lands are managed to provide for generally lower-intensity, carefully controlled multiple use of resources, while ensuring that sensitive values are not significantly diminished. These lands are suitable for recreation that generally involves low to moderate user densities.

The proposed action also conforms to the recovery strategy for Peninsular Ranges bighorn sheep established through the CDCA Plan Amendment for the Coachella Valley (2002), specifically as regards the management of land uses to avoid, reduce, or mitigate disturbance, especially during the lambing and water stress seasons. A reroute of the Art Smith Trail and fencing in Dead Indian Canyon would direct trail users away from (avoid) a sensitive habitat area currently being re-colonized by a bighorn sheep ewe subgroup. Fencing the Art Smith Trailhead would discourage individuals from accessing Carrizo Canyon Ecological Reserve, managed by the California Department of Fish and Game (CDFG), during periods when entry is not allowed (January 1 through September 30). Construction of the Hopalong Cassidy Trail, a "perimeter trail" as defined in the Trails Plan element of the Draft Coachella Valley Multiple Species Habitat Conservation Plan and Natural Community Conservation (CVMSHCP, October 15, 2004), would provide an alternative trail opportunity that may attract users away from trails in more sensitive bighorn sheep habitat. Year-round closure of a segment of the northern Schey Trail on BLM lands and State lands would limit recreational access to the upper reaches of the Art Smith Trail which crosses Magnesia Spring Ecological Reserve. Each of these actions is anticipated to reduce disturbance to bighorn sheep consistent with the CDCA Plan's bighorn sheep recovery strategy.

A portion of the proposed Art Smith Trail reroute occurs on lands under jurisdiction of the City of Palm Desert (City). A portion of the proposed Art Smith Trailhead fence occurs on State lands in Carrizo Canyon Ecological Reserve managed by CDFG. Segments of the proposed Hopalong Cassidy Trail occur on City lands, State lands within Magnesia Spring Ecological Reserve, and private lands; the City has negotiated an easement with the private property owner for

construction and use of the trail. A portion of the northern Schey Trail to be closed occurs on State lands within Magnesia Spring Ecological Reserve. A separate document addressing environmental effects of the proposed action on non-Federal lands is being prepared in compliance with the California Environmental Quality Act (CEQA).

Threatened and Endangered Species Consultation
The proposed action occurs within designated critical habitat for Peninsular Ranges bighorn sheep (*Ovis canadensis*). The population of bighorn sheep in the United States' Peninsular Ranges was listed as endangered on March 18, 1998. Critical habitat for the species was designated in 2001. In accordance with the regulations at 50 CFR 402.14, each Federal agency shall review its actions to determine whether any action may affect listed species or critical habitat. If such a determination is made, formal consultation is required, except if, as a result of the preparation of a biological assessment or informal consultation with the U.S. Fish and Wildlife Service (USFWS), the Federal agency determines, with the written concurrence of the Director of the USFWS, that the proposed action is not likely to adversely affect any listed species or critical habitat.

The entire Mojave population of desert tortoise (*Gopherus agassizii*) was listed as a threatened species by the U.S. Fish and Wildlife Service on April 2, 1990. Critical habitat for this population was designated on February 8, 1994. The proposed action occurs within potential habitat for the desert tortoise, but not in designated critical habitat. The programmatic biological opinion for small projects affecting desert tortoise (1-8-97-F-17, USFWS, August 22, 1997) is applicable to this action.

Cultural Resources and Native American Consultation
The Federal Land Policy and Management Act of 1976 (FLPMA) charges BLM with the responsibility to manage public lands in a manner that will "protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archaeological values." Section 106 of the National Historic Preservation Act, as implemented at 36 CFR Part 800, requires Federal agencies to take into account the effects of their undertakings on historic properties. The 2004 State Protocol Agreement between the California State Director of the BLM and the California State Historic Preservation Officer (SHPO) defines the roles and relationships between SHPO's office and BLM under the National Programmatic Agreement. The protocol streamlines the Section 106 process by not requiring case-by-case consultation with the SHPO on most individual undertakings. Consultation with the California State Historic Preservation Officer (SHPO) will not be required for the proposed project.

Native American consultation related to trails in the project area was initiated as part of the planning and consultation process for the Santa Rosa and San Jacinto Mountains National Monument Management Plan, CDCA Plan Amendment for the Coachella Valley, and the Santa Rosa and San Jacinto Mountains Trails Plan. Consultation specifically related to the current proposal will continue during the public review period.

PURPOSE AND NEED FOR THE PROPOSED ACTION

Background

The Public Review Draft of the Coachella Valley Multiple Species Habitat Conservation Plan and Natural Community Conservation Plan (CVMSHCP, October 15, 2004) proposed the rerouting of certain trails to protect sensitive resource values. "Identification of trails to be rerouted to protect bighorn sheep will be based on habitat use patterns, home range, and distribution of bighorn sheep" (page 7-63). The Art Smith Trail between Dead Indian Canyon and its intersection with the Schey Trail was identified in the Plan for rerouting to protect bighorn sheep.[1]

In addition, the Draft CVMSHCP included a proposal to construct perimeter trails along the urban-wildland interface to provide alternative hiking opportunities, thereby reducing trail use in more sensitive areas of bighorn sheep habitat. One of these proposed trails is the Hopalong Cassidy Trail, identified as two separate segments in the Draft CVMSHCP with the first segment connecting the Mirage Trail with Homme-Adams Park/Cahuilla Hills Park, and the second segment connecting Homme-Adams Park/Cahuilla Hills Park with California Highway 74 at the Art Smith Trailhead.[2]

The Draft CVMSHCP also identified trails to be decommissioned and removed, including the Schey Trail upon development of a new perimeter trail (Hopalong Cassidy Trail) connecting the Art Smith Trailhead and Homme-Adams Park.

The CVMSHCP, however, will be applicable only to non-Federal lands, such as those under jurisdiction of the City of Palm Desert. Since planning for public use and trails management on proposed Reserve Lands in the Santa Rosa and San Jacinto Mountains Conservation Area necessarily involves trails that cross both Federal and non-Federal lands, environmental effects of the Preferred Alternative "Trails Plan" and its alternatives were addressed in a combined National Environmental Policy Act (NEPA)/California Environmental Quality Act (CEQA) document. This Trails Plan, as revised for presentation in the Final CVMSHCP and EIR/EIS, is proposed for adoption by BLM (a Cooperating Agency on the EIS, for which USFWS is the lead agency) as an activity level plan that implements the trails related portion of BLM's 2002 CDCA Plan Amendment for the Coachella Valley.

As the Record of Decision (ROD) for the CVMSHCP will not likely be signed before March 2006, BLM and the City of Palm Desert, in consultation with USFWS and CDFG, concluded that

[1] Maps of trails in the Santa Rosa and San Jacinto Mountains, which were presented in the Draft CVMSHCP, were based on "Trails Map: Santa Rosa Mountains National Scenic Area" (Coachella Valley Trails Council, 1995). These maps depicted only the northern Schey Trail which emanates from the Cahuilla Hills residential area at Cat Creek and connects with the Art Smith Trail. Another trail further to the south is also known as the Schey Trail; it begins near the Bighorn residential community and also connects with the Art Smith Trail, though it was not depicted on Draft CVMSHCP maps. By depicting only the northern Schey Trail, the proposed reroute of the Art Smith Trail between Dean Indian Canyon and the Schey Trail could reasonably have been inferred to be in reference to the northern Schey Trail. The actual reroute as herein proposed occurs instead between Dead Indian Canyon and the intersection of the southern Schey Trail and Art Smith Trail.

[2] Actually, the Hopalong Cassidy Trail at its southern end would terminate upon intersecting the Art Smith Trail reroute and not extend to the Art Smith Trailhead. Individuals using the Hopalong Cassidy Trail upon reaching the intersection could either proceed to the Art Smith Trailhead along the Art Smith Trail reroute, or head in a northwesterly direction towards the City of Palm Springs on the Art Smith Trail.

rerouting of Art Smith Trail prior to the start of the 2006 bighorn sheep lambing season, which is considered to extend from January 1 through June 30, would be warranted given the currently low population of the Carrizo Canyon/Dead Indian Canyon bighorn sheep ewe subgroup (see below). In conjunction with the Art Smith Trail reroute, BLM and CDFG, in consultation with USFWS, determined that fencing in Dead Indian Canyon would be necessary to preclude seasonal access to the Canyon. In addition, fencing adjacent to the Art Smith Trailhead would be necessary to control access to State lands in Carrizo Canyon. It was also concluded that construction of the Hopalong Cassidy Trail and closure of a segment of the northern Schey Trail should be initiated prior to the anticipated 2006 ROD.

In response to public comments, the Proposed Trails Plan will place a priority on conducting research addressing the effects of recreational trail use on Peninsular bighorn sheep as an aspect of an adaptive trails management approach. The research program is anticipated to begin in January 2007. To minimize variations in trail use in the Santa Rosa and San Jacinto Mountains once the research program begins, no new trails in essential bighorn sheep habitat would be constructed until the initial phase of the program has been completed, which is scheduled to take five years. Addressing construction of the Hopalong Cassidy Trail and the Mirage Trail reroute at this time apart from the CVMSHCP would ensure completion of the project prior to starting the research program.

Goals and Objectives

Goals and objectives for the Santa Rosa and San Jacinto Mountains Trails Plan as stated in the Draft CVMSHCP and Draft Environmental Impact Report/Environmental Impact Statement (October 15, 2004) are applicable to the proposed action herein described:

Goal 1

Minimize the risk of potential adverse impacts to bighorn sheep from recreational activities.

Objective 1:	Design trail management measures to support predictable use patterns by trail users.
Objective 2:	Manage trails to preserve the opportunity for bighorn sheep to access water sources during the summer months.
Objective 3:	Manage trails to preserve the opportunity for bighorn sheep to move across the landscape.
Objective 4:	Implement a biological monitoring program to track trail use and bighorn sheep activity.
Objective 5:	Provide a mechanism to evaluate effectiveness of the trails program and recommend modifications to management actions if necessary.

Goal 2

Provide recreational opportunities throughout the Santa Rosa and San Jacinto Mountains for hikers, equestrians, and mountain bikers that are consistent with recovery of bighorn sheep.

Objective 6:	Provide some opportunities for recreational trail use on a year-round basis.
Objective 7:	Provide at least seasonal opportunities for recreational trail use.

Objective 8: Enhance opportunities for recreation by developing new trails that avoid sensitive bighorn sheep habitat.

Objective 9: Provide consistent management of the trails system across jurisdictional boundaries.

Purpose and Need—Art Smith Trail Reroute

Non-motorized recreationists (hikers, equestrians, mountain bikers) currently use Dead Indian Canyon and the Art Smith Trail to traverse the northern Santa Rosa Mountains between Highway 74 and Dunn Road. Although there is a constructed trail along the southern edge of Dead Indian Canyon, most recreationists use the canyon floor to access the constructed Art Smith Trail where it climbs out of the canyon and continues in a northwest direction towards Dunn Road. Anecdotal information suggests, however, that most hikers do not leave the canyon floor, instead continuing past the intersection with the constructed Art Smith Trail (where it ascends from the canyon floor) to visit a palm oasis located further to the west towards the head of Dead Indian Canyon.

According to BLM data from January to April of 2001 through 2003, 1,385 trail users were observed using Dead Indian Canyon and/or the Art Smith Trail during 1,923 hours of observation; from May through June of 2001 through 2003, 151 trail users were observed during 843 hours of observation.[3] Based on these observations, "potential use" was estimated to account for periods when BLM staff was not present to observe trail use. Extrapolations of observations indicate that 692 to 864 individuals would use Dead Indian Canyon and/or the Art Smith Trail annually from January through June.[4] Given compliance of 64% with the request to voluntarily refrain from using Dead Indian Canyon and the Art Smith Trail (2001-2003), estimated potential use per year from January through June would range from 1,922 to 2,400 individuals.[5]

Since 2000, the number of ewes in the Carrizo Canyon/Dead Indian Canyon subgroup has been estimated to be either three or four per year (see "Affected Environment"). These ewes represent a recent and important re-colonization of the Carrizo Canyon/Dead Indian Canyon area.

The purpose of the Art Smith Trail reroute project is to enhance conditions for re-colonization of the Carrizo Canyon/Dead Indian Canyon area by bighorn sheep ewes. Realigning (rerouting) the

[3] During this period, individuals were requested to voluntarily refrain from using the Art Smith Trail and Dead Indian Canyon under the "Voluntary Trails Avoidance Program." Requests were made through direct contacts with trail users by BLM staff ("Sheep Ambassadors") on site, or through indirect means such as the posting of signs, distribution of flyers, or notifications in the local newspaper (primarily *The Desert Sun*). Individuals observed using the Art Smith Trail and/or Dead Indian Canyon, therefore, were those who chose not to comply with the request. Data were not collected using a statistically valid sampling scheme, but constitute the best available information. The vast majority of trail users observed during this period were hikers—no equestrians and only 17 mountain bikers were seen.

[4] Extrapolations are based on an average of 0.7 users per hour from January through April, and 0.2 users per hour from May through June. The range of 692 to 864 individuals is derived from applying the per-hour use to 8- and 10-hour days.

[5] Potential use is the total of extrapolated annual use (692 to 864 individuals) and estimated use per year by those who complied with the request to avoid use of the trail, assuming these individuals would use the trail if the opportunity is available. The range of 1,922 top 2,400 individuals represents application of hourly use data to 8- and 10-hour days, respectively.

Art Smith Trail to substantially avoid Dead Indian Canyon is anticipated to accomplish this goal by reducing disturbance from recreational activities.

The proposed Art Smith Trail reroute is also consistent with the Proposed Santa Rosa and San Jacinto Mountains Trails Plan, an element of the Proposed CVMSHCP. The Proposed Trails Plan would require immediate action—including trail closures, trail reroutes, or other measures deemed appropriate—if data indicate that a bighorn sheep ewe group or subgroup population drops to fewer than five individuals.[6]

Purpose and Need—Art Smith Trailhead Fence

The Art Smith Trailhead, which serves as an access point to both the Art Smith Trail and Carrizo Canyon Ecological Reserve, is located on lands under jurisdiction of BLM and CDFG. The State lands upon which the trailhead is located comprise part of Carrizo Canyon Ecological Reserve itself. Vehicular access to the trailhead from California Highway 74 is controlled by a gate on State lands. Whereas public entry and use of the Ecological Reserve is prohibited, with exceptions, from January 1 through June 14 per order of CDFG, from June 15 through September 30 per California Code of Regulations (CCR), and between sunset and sunrise except with written permission from CDFG per CCR, the proposed reroute of the Art Smith Trail where it traverses lands managed by BLM and the City would be open year-round.[7]

To facilitate access to the Art Smith Trail reroute on a year-round basis, it is necessary that the gate controlling vehicular access to the Art Smith Trailhead from Highway 74 remain open at all times. The proposed fence precluding access to Carrizo Canyon from January 1 through September 30 would allow for year-round vehicular access to the Trailhead while controlling non-motorized access into Carrizo Canyon.

Purpose and Need—Hopalong Cassidy Trail Construction

The Hopalong Cassidy Trail would be constructed along the urban-wildland interface of the City of Palm Desert within Peninsular bighorn sheep habitat. It would provide an alternative hiking opportunity, potentially reducing trail use on other trails in more sensitive habitat areas.

Purpose and Need—Northern Schey Trail Segment Closure

A segment of the existing northern Schey Trail where it proceeds in a southerly direction from Cat Creek would be incorporated in the proposed Hopalong Cassidy Trail.[8] The remaining portion of the Schey Trail would be closed to ensure that recreational activities on the upper Art Smith Trail in Magnesia Spring Ecological Reserve do not increase coincident with use of the proposed Hopalong Cassidy Trail. The upper segment of the Art Smith Trail has substantial escape terrain for bighorn sheep and could become a significant water source upon removal of

[6] At time of preparation of this Environmental Assessment, the Proposed CVMSHCP and Final EIR/EIS has not been released for public review. Such release is anticipated in November 2005.

[7] In accordance with the Proposed Trails Plan for the Santa Rosa and San Jacinto Mountains, the segment of the Art Smith Trail west of its intersection with the proposed Hopalong Cassidy Trail would be closed from July 1 through September 30. The segment of the Art Smith Trail as herein proposed for rerouting east of the Hopalong Cassidy Trail intersection would be open year-round.

[8] It is the decision of CDFG to designate the Hopalong Cassidy Trail in this part of the Ecological Reserve in accordance with Title 14 of the California Code of Regulations (CCR). Where such trails or paths have been established, hikers and equestrians may only walk and ride upon these trails or paths.

tamarisk in the upper reaches of Cat Creek. Increased recreational use of the Art Smith Trail in this area could compromise efforts to improve important habitat for bighorn sheep.

The decision by CDFG to close the segment of the northern Schey Trail located west of the proposed Hopalong Cassidy Trail and within Magnesia Spring Ecological Reserve is discretionary with the agency. This action severs the segment of the Schey Trail on BLM public lands from the proposed Hopalong Cassidy Trail, thereby precluding access to it from the east. As a result, the western segment of the northern Schey Trail could only be used when accessed via the Art Smith Trail. Users of the trail under these conditions, upon reaching its easternmost point near Bighorn Overlook (about one mile distant from the Art Smith Trail), may be inclined to proceed to the Hopalong Cassidy Trail by traveling an additional 1/8 mile cross-country across State and/or BLM public lands instead of retracing their steps.[9] The relatively short, downhill cross-country route to connect with the proposed Hopalong Cassidy Trail or exit the area via Cat Creek would be contrary to CDFG's management intent for the Ecological Reserve as demonstrated by its closure of the Schey Trail segment on State lands. It would also be inconsistent with an element of the Proposed Santa Rosa and San Jacinto Mountains Trails Plan, which is part of the Proposed CVMSHCP that would prohibit cross-country travel from January 1 through September in essential Peninsular bighorn sheep habitat. To facilitate CDFG's management of the Ecological Reserve and enhance manageability of the Proposed Trails Plan, the remainder of the trail on BLM public lands is proposed for closure.

PROPOSED ACTION AND ALTERNATIVES

[Note regarding exhibits: To expedite preparation of this environmental assessment and ensure consistency of exhibits for both BLM's environmental assessment and the City of Palm Desert's initial study of environmental impacts relating to the proposed action, BLM is utilizing the same exhibits prepared by Terra Nova Planning & Research, Inc. for the City of Palm Desert.]

(1) Proposed Action—Art Smith Trail Reroute

The Bureau of Land Management and the City of Palm Desert propose to construct a new trail to bypass a segment of the existing Art Smith Trail, and install associated signs and fencing for control of recreational access to trails in Dead Indian Canyon and an existing segment of the Art Smith Trail. The reroute, or bypass, trail would incorporate segments of the existing Canyon and southern Schey Trails. The existing segment of the Art Smith Trail to be bypassed, as well as segments of the Canyon and southern Schey Trails not incorporated by the reroute, would be closed. Segments of these closed trails where visible from open trails would be decommissioned and removed.[10] **Approximately one quarter (or about 1/8-mile) of the existing Art Smith**

[9] The descent from Bighorn Overlook to the proposed Hopalong Cassidy is about 200 vertical feet over 1/8 mile; then an additional descent of about 400 vertical feet over two miles to the Art Smith Trailhead via the proposed Hopalong Cassidy Trail and Art Smith Trail reroute, or an additional descent of about 400 vertical feet over 1/2 mile to Cat Canyon. On the other hand, a retracing of steps from Bighorn Overlook to the Art Smith Trail would require an ascent of about 600 vertical feet, followed by a descent of about 1,200 vertical feet to the Art Smith Trailhead.

[10] Decommission and removal of entire segments of trails that would be closed is unnecessary for restricting access. In accordance with the CVMSHCP Proposed Trails Plan, as previously discussed, access in essential bighorn sheep habitat from January 1 through September 30 would be restricted to approved trails. Cross-country travel would be allowed from October 1 through December 31. Attempts to use

Trail identified for closure is located on BLM public lands; the remainder is located on City of Palm Desert lands. All segments of the Canyon and southern Schey Trails identified for closure are located on City of Palm Desert lands. Locations of the existing Art Smith Trail, the proposed reroute, the proposed fence in Dead Indian Canyon, and segments of trails to be closed are depicted in Exhibit D.[11]

Trail alignment:
The proposed Art Smith Trail reroute, upon leaving the Art Smith Trailhead, would extend in a northwesterly direction along the southwestern base of the Coachella Valley Water District's (CVWD) flood control levee. This segment of the trail would not utilize any part of the levee. At the northwestern end of CVWD's levee, the proposed trail reroute would turn west along the northern edge of Dead Indian Canyon, and then ascend the canyon wall to a saddle where it would connect with the existing Canyon Trail. To this point, the proposed reroute trail would require new construction. The reroute would then incorporate the existing Canyon Trail north towards the Bighorn residential area for a short distance rather than follow the Canyon Trail to the west. The reroute would then turn west to reconnect with a portion of the existing Canyon Trail—this segment of the reroute connecting two segments of the Canyon Trail would also require new construction.

The proposed reroute would continue in a westerly direction to intersect with the existing southern Schey Trail—this segment would require new construction—and then utilize the existing southern Schey Trail to a point just below the Art Smith Trail. To minimize potential views of hikers where the existing Schey and Art Smith Trails intersect, the upper segment of the Schey Trail would be rerouted to join the Art Smith Trail further to the west.

Approximately one mile of new trail construction would be required, of which 1/8-mile would occur on BLM public lands. New trail construction on BLM public lands would occur on the flat lands of Dead Indian Canyon immediately southwest of the CVWD flood control levee. Construction would be accomplished using a motorized trail-building tractor, as well as hand tools. Explosives would not be used. Existing trails incorporated by the proposed reroute—segments of the Canyon and southern Schey Trails—may require minor improvements to accommodate hikers, equestrians, and mountain bikers.

Trail facilities:
To ensure that hikers, equestrians, and mountain bikers utilize the Art Smith Trail reroute instead of proceeding up Dead Indian Canyon, a fence of chain link construction would be installed in Dead Indian Canyon (see Exhibit D). **Total length of the fence would be approximately 700 feet, all of which would occur on BLM public lands.** Two gates would be installed in the proposed fence to accommodate seasonal access via existing trails (see "*Access restrictions*" below).

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obliterated trail segments would constitute cross-country travel, a violation during the January 1 through September 30 period.

[11] Depiction of the proposed alignment in Exhibit D for the Art Smith Trail reroute where new trail construction would occur is approximate. Actual alignment of the reroute may vary to a limited degree. Also, due to an error during preparation of Exhibit D, the label identifying it as Exhibit D is missing. Exhibit D is the only exhibit without an identifying label, and is the only one depicting the Art Smith Trail and Trailhead, Dead Indian Creek, and the Canyon Trail.

Signs indicating the seasonal closure of trails in Dead Indian Canyon and the prohibition of travel beyond the fence from January 1 through September 30 would be installed where appropriate (see "*Access restrictions*" below). Signs would also indicate that penalties may be incurred upon violation of the prohibition.

As indicated below under "*Trail closure*," signs would be installed and barriers would be used to prevent continued use of an existing segment of the Canyon Trail near the southern edge of Dead Indian Canyon—this segment would not be incorporated by the Art Smith Trail reroute—as well as an existing segment of the Art Smith Trail until such time that these trail segments are decommissioned and removed. These facilities would be located on City of Palm Desert lands.

Access restrictions:
The proposed project includes year-round closure of segments of the existing Art Smith, Canyon, and southern Schey Trails that would be bypassed by the reroute. Trail segments proposed for closure are depicted in Figure 1. The floor of Dead Indian Canyon, which is considered to be the existing "trail" in this location, would be closed from January 1 through September 30, and open from October 1 through December 31. This seasonal closure would be in effect from the proposed fence to the oasis at the western end of the canyon floor. **Seasonal closure of trails in Dead Indian Canyon would occur entirely on BLM public lands. Year-round closure of a segment of the existing Art Smith Trail would occur on BLM public lands and City of Palm Desert lands.**

Access for administrative and emergency purposes, such as law enforcement, wildland fire suppression, search and rescue operations, vegetative manipulation (e.g., tamarisk removal), and flood control activities, would be exempt from the closure.

Currently, BLM public lands in Dead Indian Canyon are closed to entry with dogs pending completion of the multi-jurisdictional Trails Plan (per 65 FR 3473, January 21, 2000).[12] The prohibition of dogs would be extended under the proposed action to prohibit entry with dogs on the Art Smith Trail reroute where it traverses City of Palm Desert lands.

"Hot season" limitations (June 15 through September 30) on access to the Art Smith Trail above its intersection with the proposed Hopalong Cassidy Trail, as well as permit requirements for use of this portion of the Art Smith Trail, are being addressed through the Trails Plan for the Santa Rosa and San Jacinto Mountains, an element of the Proposed CVMSHCP (see "*Background*" above).

Trail closure:
Segments of the existing Canyon, and southern Schey Trails to be bypassed (i.e., not incorporated in the reroute) would be closed on a year-round basis upon completion of the Art Smith Trail reroute. **These trail segments occur entirely on City of Palm Desert lands.** Segments of these closed trails where visible from open trails would be decommissioned and removed. Decommission and removal of these trail segments may include ripping of the trail tread where visible from open trails, and vertical mulching to facilitate vegetative growth. Rocks and dead vegetation would also be placed on the trail surface to discourage passage.

[12] The Proposed Trails Plan would prohibit dogs in essential bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains, except for an area in the City of Palm Springs and on the Homme-Adams Park/Cahuilla Hills Park trail complex in the City of Palm Desert.

The segment of the existing Art Smith Trail to be bypassed and closed on a year-round basis may be decommissioned and removed subsequent to additional environmental analyses—in compliance with NEPA and CEQA—addressing, in particular, the potential presence of prehistoric trail remnants and the effects that trail removal may have on them. These analyses would require additional survey that is not within the scope of this Environmental Assessment. Prior to such analyses and authorization for trail decommission and removal, barriers may be installed (in addition to closure signs) where the closed trail segments intersect open trail segments. These barriers would consist of rocks and dead vegetation being placed on the trail surface to discourage passage. Until decommission and removal of the Art Smith Trail segment has been authorized, the physical structure of the trail would not be degraded or destroyed (except as may occur by natural forces), i.e., it would not be deconstructed by such means as re-contouring bench-cuts to preconstruction slopes. **As previously indicated, approximately one quarter (or about 1/8-mile) of the existing Art Smith Trail identified for closure is located on BLM public lands; the remainder is located on City of Palm Desert lands.**

Until decommission and removal of segments of the Art Smith Trail occur as described above, the proposed fence in Dead Indian Canyon and signs and barriers at both ends of the Art Smith Trail segment identified for closure are anticipated to be effective in curtailing use of the trail.

(2) Proposed Action—Art Smith Trailhead Fence

The Bureau of Land Management and the California Department of Fish and Game propose to construct a fence precluding non-motorized access on a seasonal basis from the Art Smith Trailhead into Carrizo Canyon (see Exhibit D), and provide year-round vehicular access to the Trailhead parking lot. Fencing would be of chain link construction.

Total length of the fence would be approximately 1,300 feet, of which about 600 feet would occur on BLM public lands and 700 feet would occur on State lands. At least one gate would be incorporated into the fence on State lands to control access to Carrizo Canyon Ecological Reserve.

(3) Proposed Action—Hopalong Cassidy Trail Construction

The Bureau of Land Management and City of Palm Desert propose to construct the Hopalong Cassidy Trail extending south from the existing trail system at Homme-Adams Park/Cahuilla Hills Park to connect with the Art Smith Trail reroute. This segment of the proposed trial would traverse Magnesia Spring Ecological Reserve managed by CDFG. The City, apart from BLM, proposes to construct the Hopalong Cassidy Trail north from the Homme-Adams Park/Cahuilla Hills Park trail system to connect with the Mirage ("Bump and Grind"); this segment would also cross Magnesia Spring Ecological Reserve.[13]

[13] As the northern segment of the proposed Hopalong Cassidy Trail from Homme-Adams Park/Cahuilla Hills Park to the Mirage Trail does not traverse any segment of BLM public lands and is considered as a "stand-alone project," the environmental effects of the proposed action are not addressed in this document. A nexus with regards to threatened and endangered species and cultural resource analyses does not exist.

The proposed project also includes the closure of two unnamed trails proceeding in a westerly direction from the existing and proposed segments of the Hopalong Cassidy Trail (see "*Trail closure*" below). **These unnamed trails do not occur on BLM public lands.** Locations of the existing Homme-Adams Park/Cahuilla Hills Park trail system, the proposed new trail, and trails to be closed are depicted in Exhibit E.[14]

Trail alignment:
Access to the proposed Hopalong Cassidy Trail would be provided via Homme-Adams Park and the Art Smith Trailhead. Starting from the existing Homme-Adams Park/Cahuilla Hills Park trail system, the proposed new trail would incorporate a segment of the existing Homestead Trail that currently provides access to "the cross" located near the boundary of Sections 25 (T5S R5E) and 30 (T5S R6E). From the cross, the proposed new trail would generally parallel the eastern and southern fence lines of the Stone Eagle golf course project (currently under development). Upon reaching the toe of slope on the southeastern flank of Ramon Peak, it would turn south. At Cat Creek, the Hopalong Cassidy Trail would incorporate the lower segment of the northern Schey Trail, diverging from it where the existing trail turns west in order to generally follow an existing footpath towards the Cahuilla Hills residential area. This entire segment of the proposed new trail would be located between the Cahuilla Hills residential community and the steep mountain slopes to the west, or between the Cahuilla Hills residential community and the Stone Eagle golf course.

After diverging from the existing northern Schey Trail to follow an existing footpath for a short distance, the proposed Hopalong Cassidy Trail would continue in a southerly direction between the Bighorn residential community and the steep mountain slopes to the west, eventually linking to the Art Smith Trail reroute.

Approximately four miles of new trail construction would be required, of which about 3/8-mile would occur on BLM public lands. Trail construction would be accomplished using a motorized trail-building tractor, as well as hand tools. Explosives would not be used. Existing trails and footpaths incorporated by the proposed Hopalong Cassidy Trail may require improvement to accommodate hikers, equestrians, and mountain bikers.

Trail facilities:
Signs along the trail would be installed to guide users, thereby minimizing potential for inadvertently diverging from the trail. Where appropriate, signs would be installed regarding prohibitions of travel off the trail into other areas of Magnesia Spring Ecological Reserve or onto adjacent private lands.

As indicated below under "*Trail closure*," signs would be installed and barriers may be used to prevent continued use of existing segments of trails that would not be incorporated by the Hopalong Cassidy Trail.

Access restrictions:
Use of the Hopalong Cassidy Trail will be governed by decisions made through the Trails Plan element of the CVMSHCP. It is anticipated that the trail will be open year-round with no requirement for a permit.

[14] Depiction of the proposed alignment in Figure 2 for the Hopalong Cassidy Trail is approximate. Actual alignment of the new trail may vary to a limited degree.

Currently, BLM public lands south of the Homme-Adams Park/Cahuilla Hills Park trail system are closed to entry with dogs pending completion of the multi-jurisdictional Trails Plan (per 65 FR 3473, January 21, 2000).[15] The prohibition of dogs would be extended under the proposed action to prohibit entry with dogs on the Hopalong Cassidy Trail where it traverses City of Palm Desert lands south of the Homme-Adams Park/Cahuilla Hills Park trail system. Dogs are already prohibited on State lands within Magnesia Spring Ecological Reserve in accordance with the California Code of Regulations.

Trail closure:
One unnamed trail spur that proceeds in a westerly direction from the existing Hopalong Cassidy Trail would be closed. **This segment does not occur on BLM public lands.** Segments of this closed trail where visible from open trails would be decommissioned and removed. This trail spur, approximately 1/8-mile in length, is depicted in Exhibit E.

One unnamed trail that provides access to Magnesia Spring Ecological Reserve from the proposed alignment of the Hopalong Cassidy Trail would also be closed on a year-round basis. To discourage access to this trail, a portion of an unnamed trail west of the existing Hopalong Cassidy Trail/Homestead Trail intersection and west of its intersection with the proposed Hopalong Cassidy Trail would be decommissioned and removed. **No segment of this unnamed trail to be decommissioned and removed occurs on BLM public lands.** Where the unnamed trail traverses State lands in the Ecological Reserve, its closure is at the discretion of CDFG.

Decommission and removal of trails or trail segments may include ripping of the trail tread where visible from open trails, and vertical mulching to facilitate vegetative growth. Rocks and dead vegetation would also be placed on the trail surface to discourage passage.

(4) Proposed Action—Northern Schey Trail Segment Closure

The Bureau of Land Management proposes to close a segment of the northern Schey Trail on a year-round basis from its intersection with the Art Smith Trail to its intersection with State lands in Magnesia Spring Ecological Reserve (see Exhibit D). The segment of the trail on State lands between BLM public lands and the proposed Hopalong Cassidy Trail will be closed per decision of CDFG.

The segment of the northern Schey Trail between the Art Smith Trail and the proposed Hopalong Cassidy Trail is approximately 1.5 miles in length, about one mile of which occurs on BLM public lands and 1/2-mile on State lands in Magnesia Spring Ecological Reserve. Closure of this segment would occur coincident with completion of the Hopalong Cassidy Trail between the Art Smith Trail reroute and Cat Creek. A portion of this segment of the northern Schey Trail—west of the proposed Hopalong Cassidy Trail on State lands and east of its intersection with the Art Smith Trail on BLM public lands—would be decommissioned and removed where visible from the open trails. Decommission and removal of these trail segments may include ripping of the trail tread, and vertical mulching to facilitate vegetative growth. Rocks and dead vegetation would also be placed on the trail surface to discourage passage.

[15] In accordance with a decision of March 7, 2003, segments of the Homme-Adams Park/Cahuilla Hills Park trail system that occur on BLM public lands are open to entry with dogs on leash.

No Action Alternative

The proposed action would not be undertaken. Existing management and use of the Federal lands would continue, subject to applicable statutes, regulations, policies, and land use plans.[16]

AFFECTED ENVIRONMENT

1. Area Description

All elements of the proposed project that occur on BLM public lands are located within the Santa Rosa and San Jacinto Mountains National Monument. The National Monument was established on October 24, 2000 through the Santa Rosa and San Jacinto Mountains National Monument Act of 2000 (Public Law 106-351). In establishing the National Monument, the U.S. Congress found: (1) The Santa Rosa and San Jacinto Mountains in southern California contain nationally significant biological, cultural, recreational, geological, educational, and scientific values; (2) The magnificent vistas, wildlife, land forms, and natural and cultural resources of these mountains occupy a unique and challenging position given their proximity to highly urbanized areas of the Coachella Valley; (3) These mountains, which rise abruptly from the desert floor to an elevation of 10,802 feet, provide a picturesque backdrop for Coachella Valley communities and support an abundance of recreational opportunities that are an important regional economic resource; (4) These mountains have special cultural value to the Agua Caliente Band of Cahuilla Indians, containing significant cultural sites, including village sites, trails, petroglyphs, and other evidence of their habitation; (5) The designation of a Santa Rosa and San Jacinto Mountains National Monument by this Act is not intended to impact upon existing or future growth in the Coachella Valley; (6) Because the areas immediately surrounding the new National Monument are densely population and urbanized, it is anticipated that certain activities or uses on private lands outside of the National Monument may have some impact upon the National Monument, and Congress does not intend, directly or indirectly, that additional regulations be imposed on such uses or activities as long as they are consistent with other applicable law; and (7) The Bureau of Land Management and the Forest Service should work cooperatively in the management of the National Monument.

In establishing the National Monument, Congress cited the purpose as being the preservation of the nationally significant biological, cultural, recreational, geological, educational, and scientific values found in the Santa Rosa and San Jacinto Mountains and to secure now and for future generations the opportunity to experience and enjoy the magnificent vistas, wildlife, land forms, and natural and cultural resources in these mountains and to recreate therein.

2. Land Status

a. Land Use Classification: All elements of the proposed project occurring on BLM public lands are located on lands designated Multiple-Use Class "L" (Limited Use) in accordance with the CDCA Plan, as amended. Multiple-Use Class "L" protects sensitive, natural, scenic, ecological, and cultural resource

[16] Use of the existing Art Smith, Canyon, Oasis, northern and southern Schey, and Hopalong Cassidy Trails under the No Action Alternative would be subject to management prescriptions of the Trails Plan for the Santa Rosa and San Jacinto Mountains, an element of the Proposed Coachella Valley Multiple Species Habitat Conservation Plan and Natural Community Conservation Plan, which is currently being prepared.

values. Public lands designated as Class "L" are managed to provide for generally lower-intensity, carefully controlled multiple use of resources, while ensuring that sensitive values are not significantly diminished.

b. Valid Existing Rights: The segment of the proposed Art Smith Trail reroute on public lands in Section 12, Township 6 South, Range 5 East, occurs within a right-of-way held by the Coachella Valley Water District. No other valid existing rights exist on public lands affected by the proposed project.

3. Affected Environment

Wildlife / Threatened and Endangered Species

Several wildlife species that are fully protected under California Fish and Game Code occur within the Santa Rosa and San Jacinto Mountains National Monument. Such species may not be taken at any time. No permits or licenses for their take are available, except for capture associated with research or for protection purposes. These fully protected species are listed in the table below.

California State Fully Protected Species within the Santa Rosa and San Jacinto Mountains National Monument[17]

Common Name	Scientific Name
Golden Eagle	*Aquila chrysaetos*
Peninsular Ranges Bighorn Sheep	*Ovis canadensis nelsoni*
Ringtail	*Bassariscus astutus*
Southern Bald Eagle	*Haliaeetus leucocephalus*
White-tailed Kite	*Elanus leucurus*

Twelve Federal and State listed threatened and endangered species (both plants and animals) also occur within the National Monument, one of which is also a California State fully protected species (Peninsular Ranges bighorn sheep). These species are listed in the table below.

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[17] Source: Santa Rosa and San Jacinto Mountains National Monument Proposed Management Plan and Final Environmental Impact Statement (BLM and USFS, October 2003).

Federal and State Listed Threatened and Endangered Species within the Santa Rosa and San Jacinto Mountains National Monument[18]

Common Name	Scientific Name	Status
Coachella Valley Fringe-toed Lizard	*Uma inornata*	ST, SE
Coachella Valley Milkvetch	*Astragalus lentiginosus coachellae*	FE
Desert Slender Salamander	*Batrachoseps aridus*	FE, SE
Desert Tortoise	*Gopherus agassizii*	FT, ST
Hidden Lake Bluecurls	*Trichostema austromontanum*	FT
Least Bell's Vireo	*Vireo bellii pusillus*	FE, SE
Mojave Tarplant	*Deinandra mohavensis*	SE
Mountain Yellow-legged Frog	*Rana muscosa*	FE
Peninsular Ranges Bighorn Sheep	*Ovis canadensis nelsoni*	FE, ST
Southern Rubber Boa	*Charina bottae umbratica*	ST
Southwestern Willow Flycatcher	*Empidonax traillii extimus*	FE, SE
Triple-ribbed Milkvetch	*Astragalus tricarinatus*	FE

FE: Federal Endangered Species SE: State Endangered Species
FT: Federal Threatened Species ST: State Threatened Species

It is anticipated that only the Peninsular Ranges bighorn sheep and desert tortoise may be affected by the proposed action. These species are addressed below.

Peninsular Ranges Bighorn Sheep:
The Peninsular Ranges population of desert bighorn sheep (*Ovis canadensis nelsoni*) is a distinct population isolated from adjacent populations by urbanization and interstate highways. It was listed as an endangered distinct vertebrate population segment by the U.S. Fish and Wildlife Service on March 18, 1998. Critical habitat for this population segment, within which the project area is located, was subsequently designated. From 1984 to 1990, bighorn sheep populations in the Santa Rosa and San Jacinto Mountains declined 69% (Bighorn Institute 2000). This decline has been attributed to a variety of causes, including disease; automobile collisions; mountain lion predation; exotic plant invasion; toxic plant ingestion; competition with cattle; habitat loss, degradation and fragmentation; and recreational disturbance. During 1992-1998, mountain lion predation accounted for 69% of bighorn mortality in the Peninsular Ranges, accounting for 50-100% of all mortality annually (Hayes et al. 2000). Preliminary results from an on-going lamb mortality study reveal that 56% of lamb mortality is attributed to predation and 89% of all mortality occurred within 300 meters of the urban-wildland interface. Disease is thought to have played a pivotal role in the decline of bighorn sheep during 1983-1994. However, the cause-effect relationship relative to disease in the Peninsular Ranges has not been clearly established (USFWS 2000). Global climate change may also play a role in the decline of bighorn sheep populations, range-wide.

In recent years, the bighorn sheep population in the Peninsular Ranges has stabilized and appears to be increasing. From 1990 to 1995, the population was stable, but in 1996, ewe survival was low and the population declined again (Bighorn Institute 2000). During 1997 to 2001, bighorn sheep populations in the Santa Rosa and San Jacinto Mountains increased an average of 15.3%.[19]

[18] Ibid.

[19] Information regarding the status of Peninsular Ranges bighorn sheep herein provided is from Proposed Santa Rosa and San Jacinto Mountains National Monument Management Plan and Final Environmental Impact Statement (BLM and USFS, October 2003).

The following table provides adult population estimates for ewe groups and subgroups in Recovery Regions from 2000 through 2004.

Peninsular bighorn sheep recovery regions, associated trails in the Santa Rosa and San Jacinto Mountains, and adult population estimates for ewe groups and subgroups[20]

Ewe Group or Subgroup	Associated Trails	Year	Adult population estimates for ewe groups and subgroups
Recovery Region 1: San Jacinto Mountains	North Lykken, Skyline, Museum, South Lykken	2000	26
		2001	31
		2002	24*
		2003	25
		2004	32*
Recovery Region 2a: Bradley / Magnesia / Cathedral Canyons	Garstin, Wild Horse, Clara Burgess, Goat, Eagle Canyon, Cathedral Canyon, Dunn Road, Hahn Buena Vista, Mirage, Art Smith	2000	27
		2001	41
		2002	35
		2003	44*
		2004	57
Recovery Region 2b: Carrizo / Dead Indian Canyons	**Art Smith, Carrizo Canyon, Schey**	**2000**	**3**
		2001	**4**
		2002	**3**
		2003	**3**
		2004	**4**
Recovery Region 3: La Quinta area	Bear Creek Canyon, Bear Creek Oasis, Guadalupe, Boo Hoff	2000	53
		2001	57
		2002	115
		2003	87
		2004	234**
Recovery Region 4: Martinez Canyon	Martinez Canyon, Cactus Spring	2000	51
		2001	96
		2002	84
		2003	100
		2004	234**

* Denotes the population was augmented with captive-reared bighorn sheep from Bighorn Institute.
** In 2004, separate population estimates for Recovery Regions 3 and 4 were not available and the estimate is for both regions combined.

Effects of recreation on bighorn sheep

Although studies have been conducted on the impacts of recreation on bighorn sheep and other ungulates, the responses of bighorn sheep to recreational impacts are variable and not currently well understood. Consequently, the literature available to support management recommendations for recreational trails is controversial. Perhaps one of the most controversial aspects of the scientific literature is the extent to which that literature does or does not address the impacts of recreational trail use on bighorn sheep in general and Peninsular bighorn sheep in particular. Despite numerous studies on short-term effects of various types of human disturbance on bighorn sheep, there remains little empirical data regarding the long-term effects of recreational trail use on populations of bighorn sheep. The lack of testing for a causal connection between recreational trail use and long-term impacts to bighorn sheep populations evidences the difficulty of studying large mammal ecology with sufficient sampling intensity and duration to account for potential confounding factors. The literature ranges from published opinions which provide no supporting data to experimental studies that tested a specific hypothesis relevant to bighorn sheep and human

[20] Source: U.S. Fish and Wildlife Service, Carlsbad, California. 2005. Unpublished table. Developed for inclusion in the Proposed Santa Rosa and San Jacinto Mountains Trails Plan, an element of the Proposed CVMSHCP anticipated for release to the public in November 2005.

disturbance. The lack of focused studies that address the core question of population-level effects of recreational trail use on Peninsular bighorn sheep has allowed a wide range of interpretations of what the literature does and does not say.

Most studies of the effects of recreation on wildlife (especially bighorn sheep) were plagued by the common problems associated with recreation and wildlife studies (Knight and Cole 1995; Taylor and Knight 2003): ambiguous terminology, comparisons using inconsistent methodology, inadequate study duration, inadequate controls or replication, and inadequate treatment of potentially confounding factors. For example, in a review of the wildlife literature to describe the behavioral responses of wildlife to recreation, Taylor and Knight (2003) found inconsistencies in the methods used to address specific research questions (e.g., whether animals were approached directly or tangentially, and whether the approach was continuous or interrupted (Papouchis et al. 2001). These seemingly minor differences in methodology may dramatically influence the selection of analysis techniques as well as the interpretation of study results. In some cases the published article may essentially contain no more than the opinion of the author. Therefore, in reviewing the literature related to recreational trail use and bighorn sheep, it is also necessary to consider each study's strength of inference, or in other words, the study's ability to provide support for the conclusions it drew.

It is important to realize that although publications regarding the effects of recreation on bighorn sheep extend over the past 70 years, the standards and techniques of wildlife science have improved in recent years, with an increasing emphasis on quantitative, manipulative studies, and decreasing reliance on anecdotal information and observational studies. This is not to discount the value of observational data. Observational data play an essential part of the scientific process, as they provide a means to quantitatively describe a pattern (Manly 1992), which is an important step in developing testable hypotheses (Quinn and Keough 2002). Natural, but uncontrolled, experiments can provide as useful data as purposeful experiments in some situations. However, when evaluating observational studies, it is essential to consider whether appropriate controls, baseline data, or replication were incorporated into the study, and how these factors may affect the conclusions of the study.

In order to glean all information possible from the literature, it is necessary to consider results from studies of similar topics (e.g., various types of human disturbance) and similar species (e.g., other ungulates). However, it is also necessary to critically review study results from other species, study areas, or generalized topics with attention to ecological or geographic differences that are limited in their relevance to bighorn sheep. For example, studies conducted on bighorn sheep in the Sierra Nevada may not be directly applicable to the Peninsular Ranges because of differences in the amount of available escape terrain, limits on human use of trails, trail density, and the juxtaposition of the trails, escape terrain, humans, etc. Still, for example, despite a short study duration and the lack of a control or baseline data, Hicks and Elder (1979) identified several factors that influenced how Sierra Nevada bighorn sheep responded to disturbance and these factors are expected to be similar for bighorn sheep in the Peninsular Ranges. Another example of this principle is the study by King and Workman (1986). These authors compared responses of hunted and unhunted populations of bighorn sheep to intentional human disturbance (hikers and vehicles). The responses of the hunted population are expected to be more severe (87% of encounters for the hunted population resulted in bighorn fleeing) than the expected response of Peninsular bighorn sheep; however, their data on the unhunted population (43% of encounters resulted in bighorn fleeing) is useful for understanding how Peninsular sheep may respond to disturbance.

A clear cause-and-effect link between trail use and reduced bighorn sheep fitness (defined as survival and reproduction) and population levels does not exist. Studies of appropriate duration and design have not been attempted to establish this link. Nonetheless, the scientific literature does provide some support for the premise that recreational use of sensitive bighorn sheep habitat (particularly during lambing and hot seasons) may negatively affect bighorn sheep (Horesji 1976; Graham 1980; Stemp 1983; Miller and Smith 1985; Etchberger et al. 1989; Krausman et al. 2001; Papouchis et al. 2001). Researchers have determined that, under certain circumstances, human recreation may temporarily displace bighorn sheep, disrupt foraging which may reduce nutrient acquisition, and cause uncertain levels of stress. However, uncertainty remains where the long-term effects on bighorn sheep populations are concerned. As described in the Recovery Plan for Peninsular bighorn sheep (USFWS 2000), excessive disturbance may reduce an animal's conception or reproductive abilities indirectly by disrupting optimal feeding and ruminating cycles (Wagner 2000) and consequently reduce the nutritional condition of the animal. Ewes that fail to acquire adequate energy reserves may fail to conceive (Wehausen 1984) or they may produce small offspring with a poor chance of survival (Price and White 1985). Etchberger and Krausman (1999) found that the reproductive success of ruminants was related to the mother's body weight, access to resources, quality of home range, and age. When resources are scarce, ewes have been found to reduce care of lambs to favor their own nutritional requirements over the lamb's development (Fiesta-Bianchet and Jorgensen 1996). The unanswered question is the extent to which these impacts have long-term effects on bighorn sheep populations.

The extent to which recreational use of trails may result in habitat fragmentation or loss in bighorn sheep habitat also needs to be further evaluated. Evidence of bighorn sheep avoiding trails in the northern Santa Rosa Mountains was reported by Ostermann (2001). Etchberger et al. (1989) found that habitat used by desert bighorn sheep in the Santa Catalina Mountains was twice as far from human disturbance as habitat that had been abandoned by bighorn sheep. However, these authors also found that the habitat used by the remaining sheep had characteristics that made it better bighorn habitat and that lack of fires may have been a factor in the habitat selection. The study was not conclusive as to whether interactions with humans played a role in habitat use patterns and the demise of that population. Papouchis et al. (2001) also documented habitat loss through avoidance behavior in certain situations. For another species, a well-designed experimental study of antelope (*Antilocapra americana*) found groups of antelope were significantly farther from trails in years with recreational use than in the year before recreational use (Fairbanks and Tullous 2002).

In examining the scientific evidence on whether recreation (hiking, mountain biking, horseback riding) is a disturbance to bighorn sheep and what the long-term and population level effects of this disturbance may be, it is critical to recognize the complexity and difficulty of studying and quantifying these effects. Although disturbance from recreation is not generally recognized as a major influence on bighorn sheep population dynamics, many biologists have expressed concern over the effect of recreation in bighorn sheep habitat (Light and Weaver 1973; Stemp 1983; Etchberger et al.1989; USFWS 2000; Krausman et al. 2001; Papouchis et al. 2001). Even researchers who reported that human recreation was not adversely affecting bighorn sheep in their study area (Hicks and Elder 1979) recommended for the Mt. Baxter area in the Sierra Nevada, that managers "continue current regulations (the maximum Bighorn Zoological Area limit of 25 hikers per day) with increased restrictions on off-trail hiking and alteration of the Baxter Pass trail to route people away from areas intensely used by sheep." Flather and Cordell (2001) stated, "The fact that outdoor recreation is dispersed over large areas has undoubtedly contributed to the perception that it has little environmental impact compared to extractive uses of natural resources such as timber harvesting or livestock grazing. Given the growing number of outdoor

recreationists … the notion that recreation has no environmental impact is no longer tenable." It is clear that rigorous, scientific investigations of the impacts of recreation on wildlife are lacking (Knight and Cole 1995; Taylor and Knight 2003). However, it is also clear that that human population in the Coachella Valley is increasing and the number of recreationists will also increase.

Desert Tortoise:
The desert tortoise (*Gopherus agassizii*) was listed as a threatened species in 1990 under the Federal Endangered Species Act. In 1994, the U.S. Fish and Wildlife Service designated desert tortoise critical habitat and completed the *Desert Tortoise (Mojave Population) Recovery Plan*, which contains recommendations for protective action. This *Recovery Plan* identifies six major populations or "recovery units." Critical habitat was designated within each recovery unit. The proposed action is located outside designated critical habitat for the desert tortoise, but within habitat where tortoises may be found.

Invasive, Non-native Species

Noxious weeds are a serious problem in the western United States. Estimates of the rapid spread of weeds in the west include 2,300 acres per day on BLM-managed lands and 4,800 acres per day on all western public lands.[21] Undesirable weeds rapidly invade healthy ecosystems, displace native vegetation, reduce species diversity, and degrade wildlife habitat. Noxious weed invasions increase soil erosion and stream sedimentation, and threaten Federally protected plants and animal. Of particular concern in the Santa Rosa and San Jacinto Mountains is the spread of tamarisk and fountain grass since these species have already established themselves in various locations. Eradication projects involving Federal and State agencies, local and Tribal governments, and others occur on a regular basis to control their spread.

Cultural Resources and Native American Concerns

Many of the trails in the Coachella Valley and Santa Rosa Mountains were created by the Cahuilla Indians and their ancestors or predecessors. Artifacts such as pottery sherds and flaked stone occur along some of the trails and provide physical evidence of the prehistoric origins of the trails. Grinding slicks and mortars may be found on bedrock outcrops adjacent to trails. Habitation and temporary camp sites may also be located adjacent to trails. The Art Smith Trail is believed to follow a route established by the Cahuilla Indians or their predecessors. Other prehistoric period trails are reported to have existed in Dead Indian and Carrizo Canyons. Because the trails lend themselves to an understanding of the broad patterns of our history and have the potential to yield information important in prehistory or history, they may be eligible for inclusion in the National Register of Historic Places (NRHP) under criteria (A) and (D).

Both prehistoric and historic trails may be eligible for listing on the NRHP individually or as properties within an archaeological or historic district. Historic period trails (those constructed and in use more than 50 years ago) used by early cattle ranchers and recreational equestrians may be eligible for inclusion in the NRHP under Criterion A for their association with the themes of local economic development and the development of recreation. A local equestrian group, Desert Riders, has been constructing and maintaining trails in the mountains and Coachella Valley area

[21] Source: Santa Rosa and San Jacinto Mountains National Monument Proposed Management Plan and Final Environmental Impact Statement (BLM and USFS, October 2003).

since the 1920's. The Art Smith Trail was constructed by Desert Riders within the past 50 years and therefore does not qualify as a historic period trail.

Previous inventories in the immediate vicinity of the project area have identified prehistoric trail segments, rock cairns, bedrock milling features, lithics (chipped stone), pottery scatters, habitation or camp sites, and rockshelters, as well as historic refuse and building foundations.

Surface disturbance related to new trail construction, and physical decommissioning and removal of closed trails, could result in effects to historic properties. Installation of fencing also has the potential to affect historic properties. Cultural resources inventories for the proposed new trails and for areas which will be decommissioned were conducted by CRM Tech in 2004[22] and by BLM archaeologist Wanda Raschkow in 2005.[23] Raschkow also conducted an inventory of Dead Indian Canyon in 2000.[24] Three archaeological sites were identified along the proposed new trail alignment. One site, a lithic quarry, occurs on the crest of a ridge above Ramon Creek. Another site occurs on a terrace adjacent to a canyon and consists of bedrock milling features and a limited number of potsherds. The third site consists of an isolated scatter of potsherds. These sites do not possess characteristics which would qualify them for listing on the NRHP. No other cultural resources were identified within the project area. There are no historic properties within the APE of the proposed project and there will be no effect to historic properties.

Although the quarry site does not qualify as a historic property impacts to the site will be minimized. Trail construction through the site will be limited to marking the route: no surface disturbance will occur.

The bedrock milling site is located adjacent to an existing trail. This location presents an opportunity to provide for public education through interpretation of the site. Interpretive signs could be installed to provide the public with an understanding of prehistoric use of the area and the importance of preserving cultural resources.

Native American groups whose traditional use areas include the project area have expressed concern with preservation of prehistoric trails and protection of cultural resources associated with the trails. No prehistoric trails will be affected by the proposed project.

Recreation

Art Smith Trail / Dead Indian Canyon:
The Art Smith Trail is among the most recognized and popular trails in the Santa Rosa Mountains. It begins on California Highway 74 near the Santa Rosa and San Jacinto Mountains National Monument Visitor Center at an elevation of about 1,000 feet, and ascends approximately 1,300 feet to its intersection with Dunn Road and the Hahn Buena Vista Trail. The Art Smith

[22] CRM Tech *"Identification and Evaluation of Historic Properties: Santa Rosa and San Jacinto Mountains Trails Plan."* April 2004.

[23] Raschkow, Wanda *"Cultural Resources Inventory for Proposed Trails Actions: EA# 660-06-04."* October, 2005.

[24] Raschkow, Wanda *"Cultural Resources Inventory of Dead Indian Canyon."* January, 2001.

Trail and Dead Indian Canyon are located on BLM public lands, City of Palm Desert lands, State lands in Magnesia Spring Ecological Reserve, and private lands.

As previously stated, BLM monitored use of the Art Smith Trail and Dead Indian Canyon from January to April of 2001 through 2003. Data show that 1,385 trail users were observed using the Art Smith Trail and/or Dead Indian Canyon during 1,923 hours of observation; from May through June of 2001 through 2003, 151 trail users were observed during 843 hours of observation.[25] Based on these observations, "potential use" was estimated to account for periods when BLM staff was not present to observe trail use. Extrapolations of observations indicate that 692 to 864 individuals would use the Art Smith Trail and/or Dead Indian Canyon annually from January through June. Given compliance of 64% with the request to voluntarily refrain from using the Art Smith Trail and Dead Indian Canyon (2001-2003), estimated potential use per year from January through June would range from 1,922 to 2,400 individuals.

During the period when trail use surveys occurred, individuals were requested to voluntarily refrain from using the Art Smith Trail and Dead Indian Canyon. Requests were made through direct contacts with trail users by BLM staff ("Sheep Ambassadors") on site, or through indirect means such as the posting of signs, distribution of flyers, or notifications in the local newspaper (primarily *The Desert Sun*). Individuals observed using the Art Smith Trail and/or Dead Indian Canyon, therefore, were those who chose not to comply with the request. Data were not collected using a statistically valid sampling scheme, but constitute the best available information. The vast majority of trail users observed during this period were hikers—no equestrians and only 17 mountain bikers were seen.

Southern Schey and Canyon Trails:
The southern Schey Trail provides a link between the Canyon Trail and the Art Smith Trail, gaining about 400 feet in a half-mile. The Canyon Trail parallels the southern edge of the Bighorn residential community, and is situated between the developed area to the north and Dead Indian Canyon to the south. Access to the Canyon Trail from both ends is controlled by locked gates that allow passage only by residents of Bighorn; the southern Schey Trail intersects the Canyon Trail near its western end and constitutes the only existing trail access to it. No segments of these trails occur on BLM public lands.

Art Smith Trailhead:
Development of the Art Smith Trailhead—dedicated on April 19, 1997—was the result of a partnership between the Coachella Valley Trails Council, County of Riverside, City of Palm Desert, Coachella Valley Water District, California Department of Fish and Game, and Bureau of Land Management. The trailhead itself spans the jurisdictions of CDFG and BLM. The State lands upon which a portion of the trailhead is located comprise part of Carrizo Canyon Ecological Reserve. Vehicular access to the trailhead from California Highway 74 is controlled by a gate

[25] Use of the Art Smith Trail and/or Dead Indian Canyon as observed from January to June of 2001 through 2003 occurred despite closure of the Art Smith Trailhead during this period. Trail users parked their vehicles alongside Highway 74 outside the trailhead and crossed existing cable fences along the Coachella Valley Water district levee to gain access to the Art Smith Trail and/or Dead Indian Canyon. It is important to acknowledge that observers recorded use when stationed at or near the Art Smith Trailhead. From this observation post, they were not able to observe use of the Art Smith Trail where it ascends from the floor of Dead Indian Canyon, which occurs more than one-half mile west of the trailhead. Anecdotal evidence—unrecorded observations of trail users returning from hikes sooner than would account for travel up the Art Smith Trail—suggests that most users remain in Dead Indian Canyon to hike to the oasis located about one mile west of the trailhead, and then return via the same route.

located on State lands. Whereas public entry and use of the Ecological Reserve is prohibited, with exceptions, from January 1 through June 14 per order of CDFG, from June 15 through September 30 per California Code of Regulations, and between sunset and sunrise except with written permission from CDFG per CCR, access to adjacent BLM public lands is not currently restricted. In recent years, the gate controlling vehicular access to the trailhead has been closed from January 1 through September 30, consistent with closure of the Ecological Reserve to public entry.

Northern Schey Trail:
The northern Schey Trail connects the Cahuilla Hills residential area at Cat Creek with the Art Smith Trail, rising about 900 feet over approximately 1.5 miles. It traverses lands managed by the BLM and California Department of Fish and Game. A spur trail about 1/8-mile long provides access to Bighorn Overlook; it is located entirely on BLM public lands. Access to the eastern end of the trail at Cat Creek is via private lands.

Visual Resources

The Federal Land Policy and Management Act of 1976 requires the BLM to consider the effects of management actions on the visual quality of the landscape. Public lands are inventoried and assigned a Visual Resource Management (VRM) class according to the relative value of the visual resources. Visual values are identified through the VRM inventory and are considered with other resource values in the Resource Management Planning (RMP) process. Visual management objectives are established in RMPs in conformance with the land use allocations made in the plan. These area specific objectives provide the standards for planning, designing, and evaluating future projects.

The California Desert Conservation Area Plan, as amended, constitutes the RMP in which land use allocations for the subject area are described. BLM public lands on which the proposed Art Smith Trail reroute, Dead Indian Canyon fence, Art Smith Trailhead fence, and Hopalong Cassidy Trail would be located are designated as Visual Resource Management (VRM) Class 2 (CDCA Plan Amendment for the Coachella Valley, 2002). The objective of this class is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.

Additional information about BLM's VRM system—including a discussion about the regulatory setting, VRM objectives, contrast rating, determining whether VRM objectives are met, and potential mitigation measures—is located in Appendix 1.

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ENVIRONMENTAL CONSEQUENCES

A. Critical Elements

The following tables summarize potential impacts to various elements of the human environment, including the "critical elements" listed in BLM Manual H-1790-1, Appendix 5, as amended. Elements for which there are no impacts will not be discussed further in this document. "N/A" indicates "Not Applicable."

ART SMITH TRAIL REROUTE /
ART SMITH TRAILHEAD FENCE

Environmental Element	Art Smith Trail Reroute		Art Smith Trail Fence	
	Proposed Action	**No Action Alternative**	**Proposed Action**	**No Action Alternative**
Air Quality	No impacts	No impacts	No impacts	No impacts
ACECs	N/A	N/A	N/A	N/A
Cultural Resources	No effect	No effect	No effect	No effect
Native American Concerns	No effect	No effect	No effect	No effect
Farmlands	N/A	N/A	N/A	N/A
Floodplains	N/A	N/A	N/A	N/A
Energy (E.O. 13212)	N/A	N/A	N/A	N/A
Minerals	N/A	N/A	N/A	N/A
T&E Animal Species	Not likely to adversely affect; potential beneficial effect	Potential adverse effect	Not likely to adversely affect; potential beneficial effect	Potential adverse effect
T&E Plant Species	No impacts	No impacts	No impacts	No impacts
Invasive, Nonnative Species	Potential impacts	No impacts	Minimal impacts	No impacts
Wastes (hazardous/solid)	N/A	N/A	N/A	N/A
Water Quality (surface/ground)	No impacts	No impacts	No impacts	No impacts
Wetlands/Riparian Zones	No impacts	No impacts	No impacts	No impacts
Wild and Scenic Rivers	N/A	N/A	N/A	N/A
Wilderness	N/A	N/A	N/A	N/A
Recreation	Minor impacts	Minor short-term impacts	No impacts	No impacts
Environmental Justice	N/A	N/A	N/A	N/A
Health and Safety Risks to Children	N/A	N/A	N/A	N/A
Visual Resource Management	Conforms to VRM Class II objectives	No impacts	Conforms to VRM Class II objectives	No impacts

HOPALONG CASSIDY TRAIL CONSTRUCTION / NORTHERN SCHEY TRAIL SEGMENT CLOSURE

Environmental Element	Hopalong Cassidy Trail Construction		Northern Schey Trail Segment Closure	
	Proposed Action	No Action Alternative	Proposed Action	No Action Alternative
Air Quality	No impacts	No impacts	No impacts	No impacts
ACECs	N/A	N/A	N/A	N/A
Cultural Resources	No effect	No effect	No effect	No effect
Native American Concerns	No effect	No effect	No effect	No effect
Farmlands	N/A	N/A	N/A	N/A
Floodplains	N/A	N/A	N/A	N/A
Energy (E.O. 13212)	N/A	N/A	N/A	N/A
Minerals	N/A	N/A	N/A	N/A
T&E Animal Species	Not likely to adversely affect	No impacts	Not likely to adversely affect; potential beneficial effect	Potential adverse effect
T&E Plant Species	No impacts	No impacts	No impacts	No impacts
Invasive, Nonnative Species	Potential impacts	No impacts	Potential impacts	No impacts
Wastes (hazardous/solid)	N/A	N/A	N/A	N/A
Water Quality (surface/ground)	No impacts	No impacts	No impacts	No impacts
Wetlands/Riparian Zones	No impacts	No impacts	No impacts	No impacts
Wild and Scenic Rivers	N/A	N/A	N/A	N/A
Wilderness	N/A	N/A	N/A	N/A
Recreation	Enhanced recreation opportunities	No impacts	Minor impacts	No impacts
Environmental Justice	N/A	N/A	N/A	N/A
Health and Safety Risks to Children	N/A	N/A	N/A	N/A
Visual Resource Management	Conforms to VRM Class II objectives	No impacts	Conforms to VRM Class II objectives	No impacts

B. Discussion of Impacts

(1a) Proposed Action—Art Smith Trail Reroute

Wildlife / Threatened and Endangered Species

As shown under "Affected Environment," adult population estimates for the ewe subgroup in Recovery Region 2b (Carrizo and Dead Indian Canyons) were three or four individuals annually from 2000 through 2004, substantially less than any other Recovery Region in the Santa Rosa and San Jacinto Mountains. Although the responses of bighorn sheep to impacts from recreational activities are variable and not currently well understood, many biologists have expressed concern over the effect of recreation in bighorn sheep habitat. The low population estimate for Recovery Region 2b warrants a precautionary management approach that minimizes disturbances to the ewe subgroup in light of uncertainties regarding the effects of recreation, though such a precautionary approach may not be warranted in the other Recovery Regions where population estimates are substantially higher. Whether rerouting the Art Smith Trail to a location outside Dead Indian Canyon, closing the existing Art Smith Trail between the floor of Dead Indian Canyon and its intersection with the rerouted Art Smith Trail, and limiting access to the western end of Dead Indian Canyon to the fall months would facilitate an increase of the ewe subgroup population cannot be ascertained at this time.[26]

Construction of the Art Smith Trail reroute would create a temporary disturbance to wildlife within a few hundred meters of the work area. This disturbance would be created by the presence of trail builders, and the noise and visual disturbance that the work would generate.

Application of terms and conditions from the programmatic biological opinion for small projects affecting desert tortoise (1-8-97-F-17, USFWS, August 22, 1997) would minimize the potential for adverse effects to desert tortoises that may be inhabiting the project area during construction activities, though occurrences of tortoises is low and impacts would not be anticipated.

Invasive, Non-native Species

Disturbance to soils that would result from both construction of new trails and removal of existing trails enhances conditions for the establishment of invasive, non-native species such as tamarisk and fountain grass, especially where seeds of these species may be present. Limiting trail decommissioning and removal to areas within sight of open trails facilitates monitoring for establishment of invasive species and subsequent response should they be sighted. Monitoring for establishment of these species would also be facilitated along trails where use is expected to occur. Decommission and removal of trails beyond sight of open trails, on the other hand (though not proposed), could allow for invasive species to more easily spread since monitoring would be constrained, thereby potentially delaying an appropriate eradication response.

[26] In accordance with the Proposed Santa Rosa and San Jacinto Mountains Trails Plan element of the Proposed CVMSHCP, a research program to ascertain the effects of recreation on Peninsular bighorn sheep would be undertaken upon approval of the Plan. This research program, which reflects the adaptive management approach of the Trails Plan, would begin in 2007. Based on data emanating from the program, the initial aspects of which are anticipated to take about five years, modifications to recreational use of trails and areas in the Santa Rosa and San Jacinto Mountains may occur, including changes in access to the Art Smith Trail and Dead Indian Canyon.

Construction of the proposed fence across Dead Indian Canyon would have minimal effect on the establishment of invasive, non-native species such as tamarisk and fountain grass. These public lands on the floor of Dead Indian Canyon already exist in a disturbed state given the occasional flow of water across them.

Recreation

Since hikers, mountain bikers, and equestrians would be provided continued year-round access via the reroute to the upper reaches of the existing Art Smith Trail,[27] adverse effects to recreation would be minimal upon closure of the bypassed segment of the trail. The reroute trail traverses a similar landscape as the existing segment of the Art Smith Trail proposed for closure, thereby offering very similar recreational opportunities and experiences.

General public access to the existing southern Schey and Canyon Trails currently is available only from the Art Smith Trail where it intersects the Schey Trail about 1.5 miles northwest of the Art Smith Trailhead. Descent of the southern Schey Trail from the Art Smith Trail to access the Canyon Trail necessitates a return trip to the Art Smith Trail since no outlet for the general public exists. Two locked gates—one at each end of the Canyon Trail—allow for access to the Canyon Trail only by residents of and visitors to the Bighorn residential community. Incorporation of segments of the southern Schey and Canyon Trails in the Art Smith Trail reroute would increase use of these trails by the general public. As a result, opportunities for solitude as historically enjoyed on these trails by residents of and visitors to the Bighorn community would be diminished.

The most substantial modification of the existing situation would be seasonal closure of the western end of Dead Indian Canyon whereupon access to the palm oasis, a historically popular destination located about one mile west of the Art Smith Trailhead, would be available only from October 1 through December 31. Although other palm oases can be visited along the Art Smith Trail, all are located considerably more distant (two to three miles via the reroute) and require substantial uphill climbing on the trail (about 1,300 vertical feet versus 300 vertical feet to the Dead Indian Canyon oasis). Therefore, opportunities to easily access a back country palm oasis in this area would be reduced.

Visual Resources

Visibility of the proposed action on BLM public lands from key observation points would be absent or extremely limited. The Art Smith Trail reroute on public lands would be limited to the floor of Dead Indian Canyon immediately west of a flood control levee, thereby screening it from view of California Highway 74 (the key observation point). The proposed fence in Dead Indian Canyon, located about 1/2-mile west of Highway 74, would also be largely screened from view by the flood control levee. Due to their limited visibility, these actions on BLM public lands

[27] In accordance with the CVMSHCP Proposed Trails Plan, manipulation of trail use—including increases, decreases, or prohibitions altogether—could occur on the Art Smith Trail in conjunction with the proposed research program to ascertain the effects of recreational trail use on Peninsular bighorn sheep. Until the CVMSHCP is approved and the research program methodology is established, use of the upper Art Smith Trail would be allowed, except for segments that traverse State lands in the Magnesia Spring Ecological Reserve which are closed from June 15 through September 30 in accordance with the California Code of Regulations.

would not attract the attention of the casual observer. Therefore, the proposed action conforms to VRM Class II objectives.

(1b) No Action Alternative—Art smith Trail Reroute

Wildlife / Threatened and Endangered Species

As previously indicated, adverse effects of recreation on bighorn sheep are unclear. However, continued use of the existing Art Smith Trail between Dead Indian Canyon and its intersection with the southern Schey Trail, and continued year-round access to the western end of Dead Indian Canyon would increase disturbances from recreational activities to bighorn sheep in the Dead Indian Canyon area. It is unknown, however, whether such disturbances would have an adverse effect on the ewe subgroup population in Recovery region 2b (Carrizo and Dead Indian Canyons).

No impacts to desert tortoises would occur from construction activities under this alternative since no new trails would be developed and no new fences would be installed.

Invasive, Non-native Species

Adoption of the No Action Alternative would neither enhance nor diminish establishment of invasive, non-native species such as tamarisk and fountain grass.

Recreation

Use of the existing Art Smith Trail, including Dead Indian Canyon, would continue subject to existing regulations. Segments of the trail that traverse State lands in the Magnesia Spring Ecological Reserve would be closed from June 15 through September 30 in accordance with the California Code of Regulations. Until approval of the CVMSHCP and separate decision by BLM regarding the Proposed Trails Plan as addressed therein, public land segments of the Art Smith Trail, including Dead Indian Canyon, would continue to be subject to BLM's Voluntary Trail Avoidance Program. Prospective trail users would be asked to voluntarily refrain from using the trail from January 1 through June 30, and voluntarily refrain from using certain segments of the trail near potential wildlife water sources from July 1 through September 30. However, there would continue to be no penalty for noncompliance with the request.

Hikers, mountain bikers, and equestrians choosing to comply with the Voluntary Trail Avoidance Program would have reduced opportunities for use of the Art Smith Trail, including Dead Indian Canyon, compared to those choosing not to comply with the request and compared to the proposed action, the approval of which would afford year-round opportunities to access the Art Smith Trail without being burdened by decisions whether to comply or not comply with the trail avoidance request.

Upon approval of the CVMSHCP and separate decision by BLM regarding the Proposed Trails Plan as addressed therein, anticipated in 2006, use of the Art Smith Trail, including Dead Indian Canyon, would be subject to the Plan's management prescriptions, the effects of which are addressed in the EIR/EIS for the Plan.

Current opportunities for solitude by users of the southern Schey and Canyon Trails—which are predominantly enjoyed by residents of and visitors to the Bighorn residential community—would be maintained given the lack of egress for the general public upon accessing these trails via the Art Smith Trail.

Visual Resources

Since the rerouted Art Smith Trail and fence in Dead Indian Canyon would not be constructed, there would be no change to visual resources on BLM public lands.

(2a) Proposed Action—Art Smith Trailhead Fence

Wildlife / Threatened and Endangered Species

As shown under "Affected Environment," adult population estimates for the ewe subgroup in Recovery Region 2b (Carrizo and Dead Indian Canyons) were three or four individuals annually from 2000 through 2004, substantially less than any other Recovery Region in the Santa Rosa and San Jacinto Mountains. The primary purpose for establishing Carrizo Canyon Ecological Reserve is to protect and conserve bighorn sheep in the Peninsular Ranges. Currently, this Ecological Reserve is closed from January 1 through June 14 per order of CDFG, and closed from June 15 through September 30 per California Code of Regulations to minimize the potential for impacts to bighorn sheep. The proposed fence in Carrizo Canyon would help deter recreationists from violating these closures, thereby facilitating CDFG's goal of bighorn sheep protection.

However, as previously indicated, responses of bighorn sheep to impacts from recreational activities are variable and not currently well understood. Further, the extent of noncompliance with the seasonal closure of Carrizo Canyon Ecological Reserve is unknown. Nonetheless, restrictions on access to the Ecological Reserve are imposed at the discretion of CDFG and the California Fish and Game Commission. The proposed fence, therefore, is a cooperative undertaking to enhance compliance with established closures.

Application of terms and conditions from the programmatic biological opinion for small projects affecting desert tortoise (1-8-97-F-17, USFWS, August 22, 1997) would minimize the potential for adverse effects to desert tortoises that may be inhabiting the project area during construction activities, though occurrences of tortoises is low and impacts would not be anticipated.

Invasive, Non-native Species

Construction of the proposed Art Smith Trailhead fence would have minimal effect on the establishment of invasive, non-native species such as tamarisk and fountain grass, particularly on BLM public lands on the floor of Carrizo Canyon. These public lands already exist in a disturbed state given the occasional flow of water across them.

Recreation

Installation of a fence to seasonally restrict access to Carrizo Canyon in accordance with existing restrictions applicable to State lands in Carrizo Canyon Ecological Reserve per order of CDFG and per CCR would not affect legal recreational use of the canyon. The fence would only hinder individuals who otherwise choose to violate existing restrictions regarding access.

The fence, however, would restrict access to an extremely small portion of the wash on public lands in Carrizo Canyon (approximately two acres). Generally, access to Carrizo Canyon from the Art Smith Trailhead occurs entirely on State lands. Access to Carrizo Canyon via the public lands affected by the proposed fence does not generally occur since it would necessitate one to take an indirect route from the trailhead. Therefore, installation of the fence would have a minor impact on recreation.

Visual Resources

Visibility of the proposed action on BLM public lands from key observation points would be extremely limited. The proposed fence in Carrizo Canyon where located on BLM public lands would be visible from Highway 74 for only a short duration when passing the entrance to the Art Smith Trailhead; otherwise, it would be screened from view by the flood control levee. It would be seen primarily from the Art Smith Trailhead itself, but given its displacement to the south (about 1/8-mile) and backdrop of canyon walls, it would not constitute a dominant element of the landscape. Due to its limited visibility, this action on BLM public lands would not attract the attention of the casual observer. Therefore, the proposed action conforms to VRM Class II objectives.

(2b) No Action Alternative—Art Smith Trailhead Fence

Wildlife / Threatened and Endangered Species

As previously indicated, adverse effects of recreation on bighorn sheep are unclear. However, continued use of Carrizo Canyon in violation of the January 1 through September 30 closure of the Ecological Reserve would increase disturbances from recreational activities to bighorn sheep in this area. It is unknown, however, whether such disturbances would have an adverse effect on the ewe subgroup population in Recovery region 2b (Carrizo and Dead Indian Canyons). Nonetheless, illegal recreational activities in Carrizo Canyon during the closure period may occur at higher levels in the absence of a fence than might occur with a fence in place.

No impacts to desert tortoises would occur from construction activities under this alternative since a new fence would not be installed.

Invasive, Non-native Species

Adoption of the No Action Alternative would neither enhance nor diminish establishment of invasive, non-native species such as tamarisk and fountain grass.

Recreation

Access to a small portion of the wash on public lands in Carrizo Canyon (about two acres) would continue, though opportunities for recreation on these lands are very limited given the lack of interesting features and the steep canyon walls that constrain travel beyond the edge of the wash bottom. Use of these lands would occur infrequently to access adjacent State lands in Carrizo Canyon Ecological Reserve when allowed, since most access would occur entirely on State lands from the Art Smith Trailhead. Whether the fence is installed or not installed does not change applicability of the January 1 through June 14 closure order issued by CDFG and the June 15

through September 30 closure per CCR. Adoption of this alternative with regards to the Art Smith Trailhead fence would have minimal impact on recreation.

Visual Resources

Since the Art Smith Trailhead fence in Carrizo Canyon would not be constructed, there would be no change to visual resources on BLM public lands.

(3a) Proposed Action—Hopalong Cassidy Trail Construction

Wildlife / Threatened and Endangered Species

Construction of the Hopalong Cassidy Trail along the urban-wildland interface would provide alternate opportunities for trail-based recreation, thereby potentially reducing trail use in more sensitive bighorn sheep habitat areas (such as lamb rearing habitat traversed by the Art Smith Trail). For reasons previously discussed about the uncertain impacts that recreation may have on Peninsular bighorn sheep, whether a diversion of recreational use to the Hopalong Cassidy Trail would result in a net benefit to bighorn sheep is not clear. Further, the extent to which use would be reduced on existing trails in sensitive habitat is unknown.

Similar to Carrizo Canyon Ecological Reserve as previously discussed, Magnesia Canyon Ecological Reserve was established by the State to protect and conserve bighorn sheep in the Peninsular Ranges. Closure of two unnamed trails that extend in a westerly direction from the existing and proposed Hopalong Cassidy Trail into this Ecological Reserve would reduce recreational disturbances to bighorn sheep in the Ramon Peak area. In particular, closure of the existing trail that generally parallels Ramon Creek about 1/4-mile northeast of the creek, and ascends to a high point (elevation 2,220 feet) overlooking the Coachella Valley to the north would reduce disturbances to bighorn sheep occupying the lamb rearing habitat around Ramon Peak.[28] Although responses of bighorn sheep to impacts from recreational activities are variable and not currently well understood, precluding access to locations overlooking bighorn sheep rearing habitat would likely benefit sheep. Hikers in such locations are known to increase flight distance and cardiac response in bighorn sheep (MacArthur et al. 1979, 1982).

Construction of the Hopalong Cassidy would create a temporary disturbance to wildlife within a few hundred meters of the work area. This disturbance would be created by the presence of trail builders, and the noise and visual disturbance that the work would generate.

The likelihood of encountering desert tortoises in the project area is extremely low. Hence, the potential for adverse impacts to desert tortoises is concomitantly low.

Invasive, Non-native Species

Disturbance to soils that would result from both construction of new trails and removal of existing trails enhances conditions for the establishment of invasive, non-native species such as tamarisk and fountain grass, especially where seeds of these species may be present. Limiting trail decommissioning and removal to areas within sight of open trails facilitates monitoring for establishment of invasive species and subsequent response should they be sighted. Monitoring for

[28] This trail is currently accessed from Homme-Adams Park via the Homestead Trail.

establishment of these species would also be facilitated along trails where use is expected to occur. Decommission and removal of trails beyond sight of open trails, on the other hand (though not proposed), could allow for invasive species to more easily spread since monitoring would be constrained, thereby potentially delaying an appropriate eradication response.

Recreation

Construction of the Hopalong Cassidy Trail from the Art Smith Trail reroute to Homme-Adams Park, therein crossing two relatively small parcels of public lands, would provide new opportunities for non-motorized recreation where few such opportunities currently exist. Given the trail's location along the urban-wildland interface, these opportunities would not provide for "back country" experiences; trail users would almost always be overlooking nearby residences when on the trail. Nevertheless, recreational opportunities would be enhanced upon adoption of the proposed action.

In conjunction with construction of the Hopalong Cassidy Trail, certain existing trails that provide access to State lands in Magnesia Spring Ecological Reserve would be closed, such as the northern Schey Trail and an unnamed trail that climbs to a high point in the southwest corner or Section 24 (T5S R5E) near Ramon Peak. (Closure of the northern Schey Trail is addressed separately below.) Entries in a trail register at the high point in Section 24—the "register" consists of a notebook contained within a plastic container—indicate the trail is used on a regular basis. Closure of this trail would diminish opportunities to access a high viewpoint overlooking the Palm Desert-Rancho Mirage area. However, access to Ecological Reserves, other than specifically addressed by the California Code of Regulations, is at the discretion of CDFG. No segments of this trail traverse public lands.

Visual Resources

Visibility of the proposed action on BLM public lands from key observation points would be virtually absent. The proposed Hopalong Cassidy Trail would traverse BLM public lands in two locations; a trail located therein would not be visible from California Highway 74 or nearby residential areas. Due to its limited visibility, this action on BLM public lands would not attract the attention of the casual observer. Therefore, the proposed action conforms to VRM Class II objectives.

(3b) No Action Alternative—Hopalong Cassidy Trail Construction

Wildlife / Threatened and Endangered Species

Non-construction of the Hopalong Cassidy Trail could result in minor impacts to Peninsular bighorn sheep, but only to the extent that recreational use of existing trails (such as the Art Smith Trail) is not decreased because individuals would have fewer choices for using trails in less sensitive habitat areas. However, whether a diversion of recreational use to the Hopalong Cassidy Trail would result in a net benefit to bighorn sheep is not clear given the uncertainty regarding the impacts of recreation to Peninsular bighorn sheep.

Continued use of the two unnamed trails that extend in a westerly direction from the existing and proposed Hopalong Cassidy Trail into Magnesia Spring Ecological Reserve, particularly the one that ascends to an elevation of 2,220 feet overlooking lamb rearing habitat in the Ramon Peak

area, would result in disturbances to bighorn sheep. Although responses of bighorn sheep to impacts from recreational activities are variable and not currently well understood, access to the high point overlooking bighorn sheep would increase flight distance and cardiac response (MacArthur et al. 1979, 1982). As a result, bighorn sheep utilization of the habitat area could decline over time.

No impacts to desert tortoises would occur from construction activities under this alternative since no new trail would be developed.

Invasive, Non-native Species

Adoption of the No Action Alternative would neither enhance nor diminish establishment of invasive, non-native species such as tamarisk and fountain grass.

Recreation

Opportunities for recreation between the Art Smith Trail and Homme-Adams Park would not be enhanced. Recreational access in this area would continue to be limited. Access to existing trails such as the northern Schey Trail, which would intersect the proposed Hopalong Cassidy Trail, and a trail accessing a high point in the southwest corner of Section 24 (T5S R5E) near Ramon Peak would be subject to decisions of CDFG given their locations, in part, within the Magnesia Spring Ecological Reserve. Access to Ecological Reserves, other than specifically addressed by the California Code of Regulations, is at the discretion of CDFG.

Visual Resources

Since the Hopalong Cassidy Trail would not be constructed, there would be no change to visual resources on BLM public lands.

(4a) Proposed Action—Northern Schey Trail Segment Closure

Wildlife / Threatened and Endangered Species

As shown under "Affected Environment" (and as previously discussed), adult population estimates for the ewe subgroup in Recovery Region 2b (Carrizo and Dead Indian Canyons) were three or four individuals annually from 2000 through 2004, substantially less than any other Recovery Region in the Santa Rosa and San Jacinto Mountains. The northern Schey Trail is one of the existing trails associated with this Recovery Region. Although the responses of bighorn sheep to impacts from recreational activities are variable and not currently well understood, many biologists have expressed concern over the effect of recreation in bighorn sheep habitat. The low population estimate for Recovery Region 2b warrants a precautionary management approach that minimizes disturbances to the ewe subgroup in light of uncertainties regarding the effects of recreation, though such a precautionary approach may not be warranted in the other Recovery Regions where population estimates are substantially higher.

Closure of the northern Schey Trail may reduce levels of recreational use on the upper Art Smith Trail that could emanate from the proposed Hopalong Cassidy Trail, as well as reduce current levels of use via Cat Canyon. Segments of the upper Art Smith Trail traverse Magnesia Spring Ecological Reserve which was established by the State for the protection and conservation of

bighorn sheep in the Peninsular Ranges. To minimize the potential for increased levels of recreational use in the Ecological Reserve via the northern Schey Trail, CDFG will close the segment of the Schey Trail that crosses the Ecological Reserve just west of the proposed Hopalong Cassidy Trail.[29] This closure severs the remaining segment of the northern Schey Trail on BLM public lands from the proposed Hopalong Cassidy Trail. Whether closure of the northern Schey Trail would facilitate an increase of the ewe subgroup population in Recovery Region 2b cannot be ascertained at this time.

Impacts to desert tortoises from closure of the northern Schey Trail would not be likely since the occurrence of tortoises in the project area is extremely low.

Invasive, Non-native Species

Disturbance to soils resulting from removal of a segment of the northern Schey Trail on BLM public lands would enhance conditions for the establishment of invasive, non-native species such as tamarisk and fountain grass, especially where seeds of these species may be present. Limiting trail decommissioning and removal to areas within sight of open trails facilitates monitoring for establishment of invasive species and subsequent response should they be sighted. Decommission and removal of trails beyond sight of the Art Smith Trail and proposed Hopalong Cassidy Trail, on the other hand (though not proposed), could allow for invasive species to more easily spread since monitoring would be constrained, thereby potentially delaying an appropriate eradication response.

Recreation

Closure of a segment of the northern Schey Trail on State lands, as well as closure of the segment where it traverses public lands, would preclude access to Bighorn Overlook. Although the extent to which the Schey Trail is used to access the overlook is unknown, hikes to Bighorn Overlook regularly appear as scheduled activities that are publicized and conducted by local hiking clubs. However, access to the upper reaches of the Art Smith Trail would not be constrained under the proposed action. Opportunities for hiking, mountain biking, and horseback riding in the immediate area would remain. Upon completion of the Hopalong Cassidy Trail, opportunities for trail-based recreation in the area would be enhanced, thereby offsetting closure of the northern Schey Trail segment to some degree.

Visual Resources

Visibility of the proposed action on BLM public lands from key observation points would be extremely limited. Decommission and removal of segments of the northern Schey Trail on BLM public lands would only be visible from the Art Smith Trail when observers are in close proximity to the project site, and then only for the short-term until natural forces have rendered the man-made alterations virtually invisible. Due to its limited visibility, this action on BLM public lands would not attract the attention of the casual observer. Therefore, the proposed action conforms to VRM Class II objectives.

[29] Closure of the northern Schey Trail segment on State lands is at the discretion of CDFG.

(4b) No Action Alternative—Northern Schey Trail Segment Closure

Wildlife / Threatened and Endangered Species

As previously indicated, the extent to which recreational activities may adversely affect bighorn sheep is unclear. Although recreational use of the northern Schey Trail may result in disturbances to bighorn sheep occupying the upper reaches of the Art Smith Trail in Magnesia Spring Ecological Reserve, such disturbances emanating from use of the Schey Trail would only occur if the segment of the trail on State lands remains open, thereby allowing continued access to it via Cat Creek or the proposed Hopalong Cassidy Trail. Closure of the trail segment on State lands, on the other hand, would allow access to the northern Schey Trail only from the Art Smith Trail. Such closure on State lands may occur even under the No Action Alternative. Therefore, disturbances to bighorn sheep from use of the northern Schey Trail under this alternative, if CDFG closes a segment of the trail on State lands, would necessarily stem from associated use of the Art Smith Trail, which would occur regardless of status of the northern Schey Trail. It is unknown, however, whether such disturbances from recreational activities would have an adverse effect on the ewe subgroup population in Recovery region 2b (Carrizo and Dead Indian Canyons).

Impacts to desert tortoises from continued use of the northern Schey Trail would not be likely since the occurrence of tortoises in the project area is extremely low.

Invasive, Non-native Species

Adoption of the No Action Alternative would neither enhance nor diminish establishment of invasive, non-native species such as tamarisk and fountain grass.

Recreation

Continued use of the northern Schey Trail segment on BLM public lands, in concert with closure of the segment of State lands in Magnesia Spring Ecological Reserve (which may occur at the discretion of CDFG), would provided limited opportunity for access to Bighorn Overlook given the extensive hike necessary to access it and leave via the same route. Should CDFG decide not to close the segment of the trail on State lands, access to Bighorn Overlook and the upper Art Smith Trail via the northern Schey Trail from Cat Creek would continue. Current opportunities for recreation would not be affected under the latter scenario.

Visual Resources

Since the segment of the northern Schey Trail on BLM public lands would not be decommissioned and removed, there would be no change to visual resources on these lands.

C. Mitigation Measures

STIPULATIONS TO LIMIT DISTURBANCES TO WILDLIFE HABITAT WHEN CONSTRUCTING TRAILS AND INSTALLING FENCES

1. The alignments for new trails and fences shall be refined in the field to the greatest extent practicable to limit disturbances to barrel cactus, ocotillo, mesquite, acacia, palo verde, and other native trees and plants providing important wildlife habitat.

2. In order to comply with the Federal Migratory Treaty Bird Act, any vegetation or tree removal between February 1 and August 15 shall require a qualified biologist to conduct as least one nesting bird survey (more if deemed necessary by the biologist) ending no less than three days prior to removal. In the event that active nests are found, exclusionary fencing shall be placed 200 feet around each nest.

STIPULATIONS ADDRESSING SOILS AND EROSION, AND SEISMIC/SLOPE STABILITY WHEN CONSTRUCTING TRAILS

1. The trail alignment shall avoid placement of trail users immediately below areas of unstable slope or perched rock to the greatest extent practicable.

2. Trail placement and design shall limit gradient or steepness to the greatest extent practicable.

3. Trails shall include periodic stormwater runoff diversions (water bars) to minimize trail erosion from local flooding events.

STIPULATIONS ADDRESSING DISCOVERY OF CULTURAL RESOURCES WHEN CONSTRUCTING TRAILS

1. If cultural resources are uncovered during trail construction, construction activities in the immediate area shall be halted and a qualified archaeologist shall survey the area to determine their appropriate disposition.

STIPULATIONS TO REDUCE IMPACTS TO VISUAL RESOURCES WHEN CONSTRUCTING NEW TRAILS AND INSTALLING FENCES

1. Where possible, construction of trails in continuous straight lines shall be avoided. Irregular lines that repeat lines of the characteristic landscape shall be incorporated into trail design to the extent practicable.

2. Vegetation and landforms shall be used where possible to screen views of new trails.

3. When constructing side-hill bench cuts, surface disturbances downhill of the trail's tread shall be minimized. Cuts shall be shaped to appear as natural forms. Freshly broken rock faces shall be treated with an asphalt emulsion or paint to reduce color contrasts, if necessary.

4. Non-reflective fence materials shall be used if not cost prohibitive.

STIPULATIONS TO MINIMIZE THE ESTABLISHMENT OF INVASIVE WEEDS ON CLOSED TRAILS

1. Ripping or similar disturbances to trails in conjunction with their decommission and removal shall be limited to trail segments within view of open trails for monitoring purposes.

2. Placement of rocks and dead vegetation on closed trails beyond view of open trails is allowed to discourage use of the closed trails.

STIPULATIONS TO ENSURE EFFECTIVENESS OF NEW FENCES

1. The City of Palm Desert, BLM, and/or CDFG shall provide for the periodic (at least monthly) inspection of project-related fencing in Dead Indian and Carrizo Canyons.

2. Cuts or breaks in fencing shall be repaired within 30 days.

STIPULATIONS FOR THE PROTECTION OF DESERT TORTOISES DURING CONSTRUCTION OF NEW TRAILS AND INSTALLATION OF FENCES IN DEAD INDIAN AND CARRIZO CANYONS (the following stipulations are not applicable to activities occurring outside Dead Indian and Carrizo Canyons)

1. A field contact representative (FCR) who will be responsible for overseeing compliance with protective stipulations for the desert tortoise and for coordination on compliance with the BLM shall be designated. The FCR must be on-site during construction activities. The FCR shall have the authority to halt all activities that are in violation of the stipulations. The FCR shall have a copy of all stipulations when work is being conducted on the site. The FCR may be a crew chief or field supervisor, a project manager, any employee of the project proponent, or a contracted biologist.

2. All employees of the project proponent who work on-site shall participate in a tortoise education program prior to initiation of field activities. The BLM has developed an appropriate desert tortoise education program for this purpose (see Appendix 2).

3. Only biologists authorized by the U.S. Fish and Wildlife Service, California Department of Fish and Game, and the BLM shall handle desert tortoises. The BLM or project proponent shall submit the name(s) of the proposed authorized biologist(s) to the USFWS for review and approval at least 15 days prior to the onset of activities. No activities shall begin until an authorized biologist is approved. Authorization for handling shall be granted under the auspices of the Section 7 consultation.

4. The area of disturbance shall be confined to the smallest practical area, considering topography, placement of facilities, location of burrows, public health and safety, and other limiting factors. Work area boundaries shall be delineated with flagging or other marking to minimize surface disturbance associated with vehicle straying.

5. Where practical, no access road shall be bladed to the project site. Cross-country access shall be the standard for temporary activities. A qualified biologist shall select and flag the access route, whether cross-country or bladed, to avoid burrows and to minimize disturbance to vegetation.

6. Workers shall inspect for tortoises under a vehicle prior to moving it. If a tortoise is present, the worker shall carefully move the vehicle only when necessary and when the tortoise would not be injured by moving the vehicle, or shall wait for the tortoise to move out from under the vehicle.

7. Desert tortoises, if encountered, shall be approached no closer than five (5) yards.

8. Upon locating a dead or injured tortoise, the FCR is to notify the BLM Palm Springs-South Coast Field Office. The information provided by the FCR must include the date and time of the finding or incident (if known), location of the carcass or injured animal, cause of death (if known), and other pertinent information.

9. No dogs shall be allowed at a work site.

10. All trash and food items shall be promptly contained within closed, raven-proof containers. All trash and food items are to be removed from the project site on a daily basis.

D. Residual Impacts

Upon incorporation of proposed mitigation measures (stipulations), site-specific impacts to wildlife habitat and visual resources would exist, though to a limited extent.

E. Cumulative Impacts

Multiple factors have contributed to past declines in the population of Peninsular Ranges bighorn sheep. These factors include destruction, modification, or curtailment of their habitat or range; disease; predation; drought; human disturbance; livestock grazing and water diversion; establishment of non-native plants; and fire suppression. Population declines, however, are cumulative and often cannot be attributed to a single factor. The establishment of new trails within essential bighorn sheep habitat and continued use of certain existing trails, as herein proposed, constitute sources of human disturbance, though the responses of bighorn sheep to impacts from recreational activities are variable and not currently well understood. Hence, the cumulative effects of the proposed action on bighorn sheep, when considered relative to past, present, and reasonably foreseeable actions—such as the Proposed Santa Rosa and San Jacinto Mountains Trails Plan, an element of the Proposed CVMSHCP—are uncertain. However, the Proposed Trails Plan would assume an adaptive management approach to public lands management where research and monitoring to ascertain the effects of recreational trail use on bighorn sheep is a focus.[30] Annual review of the effectiveness of the Trails Plan as an aspect of adaptive management would allow for revisions of management prescriptions in response to adverse impacts that may occur to bighorn sheep.

[30] The Proposed CVMSHCP, which includes the Proposed Santa Rosa and San Jacinto Mountains Trails Plan, along with the Final Environmental Impact Report / Final Environmental Impact Statement is scheduled for release to the public in November 2005. The proposed Trails Plan includes the research element herein cited. A Record of Decision is anticipated in March 2006.

The proposed action would result in minor cumulative effects on opportunities for recreation. Limitations on recreational access to lands in the Santa Rosa and San Jacinto Mountains, regardless of jurisdiction, have been limited to date. In 1998, BLM, in coordination with the California Department of Fish and Game, initiated the Voluntary Trails Avoidance Program (VTAP) affecting seven trails or trail segments of about 40 existing trails in essential Peninsular bighorn sheep habitat in the Santa Rosa and San Jacinto Mountains. Under the VTAP, individuals were requested to voluntary refrain from using these trails or trail segments from January 1 through June 30. In 2001, the program was expanded to a total of ten trails or trail segments in essential bighorn sheep habitat, with four of these trails being subject to voluntary avoidance from July 1 through September 30. Individuals not complying with the VTAP did not incur any penalties. The VTAP remains in effect pending completion of the Santa Rosa and San Jacinto Mountains Trails Plan. In 2000, BLM issued an order to prohibit entry with dogs on public lands in essential bighorn sheep habitat in the Santa Rosa Mountains; this order remains in effect pending completion of the Santa Rosa and San Jacinto Mountains Trails Plan. In 2002, California Department of Fish and Game expanded the closure period for Carrizo Canyon Ecological Reserve, which occurs from June 15 through September 30 in accordance with the California Code of Regulations, to include the period of January 1 through June 14; this closure remains in effect. In 2003, BLM, in coordination with the City of Palm Desert, closed a segment of the "Old Shirley Road" to public access—this road segment (about 1/2-mile in length) is located approximately 1/2-mile east of the Art Smith Trailhead—this closure remains in effect. The Proposed Santa Rosa and San Jacinto Mountains Trails Plan includes "hot season" closures of three trails or trail segments from July 1 through September 30, and expands existing prohibitions on access by bicycles to certain trail segments on non-Federal lands to include Federal land trail segments.

While the closure of segments of the Art Smith Trail, Canyon, southern Schey, and northern Schey Trails, as well as trails in Dead Indian Canyon, suggests a trend towards increased limitations of public access to trails in the Santa Rosa and San Jacinto Mountains, new trails are proposed for construction, both through the proposed action herein described—Art Smith Trail reroute and Hopalong Cassidy Trail—as well as through the Proposed Trails Plan for the Santa Rosa and San Jacinto Mountains. Although these new trails may not represent substitutes in the eyes of some individuals for existing trails identified for closure, they do constitute alternate recreational trail opportunities upon completion, and balance the loss of recreational opportunities to some degree. In addition, the current VTAP would be eliminated under the Proposed Santa Rosa and San Jacinto Mountains Trails Plan, thereby increasing opportunities for individuals that previously complied with the request to refrain using certain trails.

The construction of trails and installation of fences, as proposed, contribute to an overall conversion of natural open space to an increasingly non-natural landscape, though to a very limited extent. Such conversion generally results in adverse impacts to scenic quality. Closure of some trail segments, along with decommission and removal of parts of them, however, balances this conversion to some degree, thereby limiting cumulative impacts to visual resources.

FREEDOM ON INFORMATION ACT CONSIDERATIONS:

Public comments submitted for this environmental assessment, including names and street addresses of respondents, will be available for public review at the Palm Springs-South Coast Field Office during regular business hours (7:45 a.m. to 4:30 p.m.), Monday through Friday, except holidays. Individual respondents may request confidentiality. If you wish to withhold your

name or address from public review or from disclosure under the Freedom of Information Act, you must state this prominently at the beginning of your comments. Such requests will be honored to the extent allowed by law. All submissions from organizations or businesses, and from individuals identifying themselves as representatives of officials of organizations or businesses, will be made available for public inspection in their entirety.

PERSONS / AGENCIES CONSULTED:

U.S. Fish and Wildlife Service
Agua Caliente Band of Cahuilla Indians

PREPARED BY:

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REVIEWED BY:

/s/ Greg Hill	October 28, 2005
Environmental Coordinator	Date

APPENDIX 1

VISUAL RESOURCE MANAGEMENT

Elements of the Proposed Action on BLM Public Lands Subject to Visual Resource Management Considerations

- Art Smith Trail Reroute
- Dead Indian Canyon Fence
- Art Smith Trailhead Fence
- Hopalong Cassidy Trail Construction
- Decommission and Removal of Segments of the Northern Schey Trail

Regulatory Setting

The Federal Land Policy and Management Act of 1976 (FLPMA) requires that public lands be managed in a manner that will protect the quality of scenic values. BLM is responsible for ensuring that the scenic values of public lands are considered before allowing uses that may have negative visual impacts. The agency accomplishes this through its Visual Resource Management (VRM) system, which involves inventorying scenic values and establishing management objectives for those values through the resource management planning process, and then evaluating proposed activities to determine whether they conform to these management objectives. It is the policy of BLM that visual design considerations be incorporated into all surface-disturbing projects occurring on public lands regardless of their size or potential visual impact. Use of BLM's current VRM manuals and handbooks to set management objectives and evaluate potential impacts is mandated.

The 106th Congress of the United States found that the magnificent vistas of the Santa Rosa and San Jacinto Mountains occupy a unique and challenging position given their proximity to highly urbanized areas of the Coachella Valley, and that these mountains provide a picturesque backdrop for Coachella Valley communities. Hence, to secure now and for future generations the opportunity to experience and enjoy these magnificent vistas, as well as other resources in these mountains, Congress established the Santa Rosa and San Jacinto Mountains National Monument on October 24, 2000. Although the National Monument consists only of Federal lands and Federal interests in lands located within its boundaries, it is clear that the quality of the visual resource extends beyond the Federal lands. One's perception of the visual integrity of these mountains cannot be compartmentalized by land ownership. Views of the Santa Rosa and San Jacinto Mountains from the Coachella Valley sweep across all jurisdictions.

However, BLM's VRM system is applicable only to BLM-managed public lands. Where the proposed action occurs on non-Federal lands, the associated CEQA document addresses the effects of the project on visual resources. Therefore, only those portions of the proposed action occurring on BLM public lands as listed above will be herein addressed.

VRM Objectives

BLM established Visual Resource Management objectives for public lands in the Santa Rosa and San Jacinto Mountains National Monument through its California Desert Conservation Area Plan Amendment for the Coachella Valley (2002). These lands were designated as VRM Class II,

except for designated wilderness which is Class I. The proposed action herein addressed occurs on public lands designated as VRM Class II. The objective of Class II is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.

Contrast Rating

The basic philosophy underlying visual quality of a landscape depends on the visual contrast created between a project and the existing landscape. The contrast can be measured by comparing the project features with the major features in the existing landscape. The basic elements of form, line, color, and texture are used to make this comparison and to describe the visual contrast created by the project. This assessment process provides a means for determining visual impacts and for identifying measures to mitigate these impacts. However, it is not intended to be the only means of addressing impacts. It should be used as a guide, tempered by common sense, to ensure that every attempt is made to minimize potential visual impacts.

The rating is accomplished from the most critical viewpoints, or key observation points. These points are usually along commonly traveled routes or at other likely observation locations. Factors that should be considered in selection of key observation points are angle of observation, number of viewers, length of time the project is in view, relative project size, season of use, and light conditions.

The rating is accomplished by determining the degree of contrast (i.e., strong, moderate, weak, or none) for each element. The following general criteria and factors are used when rating the degree of contrast:

Degree of Contrast	Criteria
None……	The element contrast is not visible or perceived.
Weak……...	The element contrast can be seen but does not attract attention.
Moderate…….	The element contrast begins to attract attention and begins to dominate the characteristic landscape.
Strong…….	The element contrast demands attention, will not be overlooked, and is dominant in the landscape.

Determining Whether VRM Objectives Are Met

The contrast ratings are compared with established objectives for the VRM class. For comparative purposes, the four levels of contrast (none, weak, moderate, and strong) roughly correspond with Classes I, II, III, and IV, respectively. This means that a “strong” contrast rating may be acceptable for a Class IV area, but probably would not meet the VRM objectives for a Class III area. Similarly, a “moderate” contrast rating may be acceptable in Class III and IV areas, but probably would not meet Class II objectives. In making these comparisons, the cumulative effect of all the contrast ratings from each key observation point must be considered. Certain combinations of ratings may indicate there is a stronger overall contrast than the individual

ratings show. For example, several "moderate" ratings from key observation points when viewed in combination may warrant an overall "strong" rating. This is a judgmental determination.

Potential Mitigation Measures

Since the overall visual resource management goal is to minimize visual impacts, mitigating measures should be recommended for all adverse contrasts that can be reduced. This includes reduction of contrast in projects that have met the VRM objectives. The concepts of strategic location (in less visible and less sensitive areas), minimizing disturbance, and repetition of the basic elements (form, line, color, and texture) should be considered. Mitigation measures should also be realistic.

Visual Contrast Rating Worksheets

Typically, visual contrast rating worksheets are prepared for a proposed action. In this case, however, visibility of the proposed action on BLM public lands from key observation points is absent or extremely limited. The Art Smith Trail reroute on public lands would be limited to the floor of Dead Indian Canyon immediately west of a flood control levee, thereby screening it from view of California Highway 74 (the key observation point). The proposed fence in Dead Indian Canyon, located about ½-mile west of Highway 74, would also be largely screened from view by the flood control levee. The proposed fence in Carrizo Canyon where located on BLM public lands would be visible from Highway 74 for only a short duration when passing the entrance to the Art Smith Trailhead; otherwise, it would be screened from view by the flood control levee. The Hopalong Cassidy Trail traverses BLM public lands in two locations; a trail located therein would not be visible from any key observation point. Decommission and removal of segments of the northern Schey Trail on BLM public lands would only be visible from the Art Smith Trail when observers are in close proximity to the project site, and then only for the short-term until natural forces have rendered the man-made alterations virtually invisible. The remaining elements of the proposed action occur on non-Federal lands, the effects of which are addressed in an associated CEQA document.

APPENDIX 2

DESERT TORTOISE EDUCATION PROGRAM

In accordance with *Biological Opinion for Small Projects Affecting Desert Tortoise Habitat in Imperial, Inyo, Kern, Los Angeles, Riverside, and San Bernardino Counties, California (1-8-97-F-17)* issued by the U.S. Fish and Wildlife Service (Service) to the California Desert District, Bureau of Land Management (BLM) on August 22, 1997, all employees of the project proponent who work on-site must participate in a tortoise education program prior to initiation of field activities. The information contained herein constitutes such an education program.

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The desert tortoise (*Gopherus agassizii*) is a large, herbivorous reptile found in portions of the California, Arizona, Nevada, and Utah deserts. It also occurs in Sonora and Sinaloa, Mexico. In California, the desert tortoise occurs primarily within the creosote, shadscale, and Joshua tree series of Mojave desertscrub, and the lower Colorado River Valley subdivision of Sonoran desertscrub. Optimal habitat has been characterized as creosote bush scrub in which precipitation ranges from two to eight inches, diversity of perennial plants is relatively high, and production of ephemerals is high. Soils must be friable enough for the digging of burrows, but firm enough so that burrows do not collapse. In California, desert tortoises are typically associated with gravelly flats or sandy soils with some clay, but are occasionally found in windblown sand or in rocky terrain. Desert tortoises occur in the California desert from below sea level to an elevation of 7,300 feet, but the most favorable habitat occurs at elevations of approximately 1,000 to 3,000 feet.

Desert tortoises are most active in California during the spring and early summer when annual plants are most common. Additional activity occurs during warmer fall months and after summer rain storms. Desert tortoises spend the remainder of the year in burrows, escaping the extreme conditions of the desert.

On August 4, 1989, the U.S. Fish and Wildlife Service published an emergency rule listing the Mojave population of the desert tortoise as endangered. In its final rule, dated April 2, 1990, the Service determined the Mojave population of the desert tortoise to be threatened. The Service designated critical habitat for the desert tortoise in portions of California, Nevada, Arizona, and Utah in a final rule, published February 8, 1994.

Critical habitat is designated by the Service to identify the key biological and physical needs of the species and key areas for recovery, and focuses conservation actions on those areas. Critical habitat is composed of specific geographic areas that contain the biological and physical attributes essential to the species' conservation within those areas, such as space, food, water, nutrition, cover, shelter, reproductive sites, and special habitats. These features are called the constituent elements of critical habitat. The specific constituent elements of desert tortoise critical habitat are: sufficient space to support viable populations within each of the six recovery units and to provide for movement, dispersal, and gene flow; sufficient quality and quantity of forage species and the proper soil conditions to provide for the growth of these species; suitable substrates for burrowing, nesting, and overwintering; burrows, caliche caves, and other shelter sites; sufficient vegetation for shelter from temperature extremes and predators; and habitat protected from disturbance and human-caused mortality.

Determination of the Mojave population of the desert tortoise as threatened and designation of critical habitat affords protection to the population and its habitat under the federal Endangered Species Act of 1973, as amended. A programmatic biological opinion—*Biological Opinion for Small Projects Affecting Desert Tortoise Habitat in Imperial, Inyo, Kern, Los Angeles, Riverside, and San Bernardino Counties, California*—was issued to the Bureau of Land Management by the Service on August 22, 1997. For certain activities that result in a small amount of surface disturbance to desert tortoise habitat (less than two acres), the Service determined such activities are not likely to jeopardize the continued existence of the desert tortoise or result in destruction or adverse modification of critical habitat upon implementation of applicable mitigation measures identified in the biological opinion.

Any "take' of desert tortoises without special exemption is prohibited by Section 9 of the Endangered Species Act. "Taking" is defined as harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, collecting, or attempting to engage in any such conduct. "Harm" is further defined to include significant habitat modification or degradation that results in death or injury to desert tortoises by significantly impairing essential behavior patterns, including breeding, feeding, or sheltering. Violations of the Endangered Species Act may result in fines and/or imprisonment.

APPENDIX 3

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