

ENVIRONMENTAL ASSESSMENT
Voluntary Relinquishment of the Whitewater Canyon Grazing Allotment
CA-660-EA07-26

U.S. Department of the Interior
Bureau of Land Management
Palm Springs South Coast Field Office
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CHAPTER 1: INTRODUCTION

A. Summary

The Bureau of Land Management (BLM) is proposing to accept the request for voluntary relinquishment of the Whitewater Canyon Grazing Allotment, which was submitted by the lessee on April 3, 2003. The allotment was identified for voluntary relinquishment in the *California Desert Conservation Area Plan Amendment for the Coachella Valley* (2002, CDCACV Plan). This EA documents the site specific analysis necessary to implement the proposed decision in accordance with the Purpose and Need section described in this Environmental Assessment (EA). The following is a summary of the current situation:

Public Land Acres in allotment:	40,032
Acres Critical Habitat (Arroyo Toad):	257
Desert Wildlife Management Area:	0
Kind of Livestock grazed:	Cattle
Current Authorized Use:	990 Animal Unit Months (AUMs)
Ephemeral or perennial:	Perennial/Ephemeral
Plan Area:	CDCACV
Identified for voluntary relinquishment:	Yes

B. Background

The grazing lease for the Whitewater Canyon Allotment expired in 2000; however, it was subsequently renewed under the authority of Public Law 106-113 for 10 years with the same terms and conditions as the expired lease. Public Law 106-113 requires compliance with all applicable laws and regulations, including the National Environmental Policy Act (NEPA) and the Endangered Species Act (ESA). Following the analysis of environmental impacts, this grazing lease may be approved, canceled, suspended, or modified; in whole or in part, to meet the requirements of such applicable laws and regulations.

The BLM is proposing to accept the request for voluntary relinquishment submitted by the lessee on April 3, 2003. The Whitewater Canyon Allotment encompasses 40,032 acres of public lands administered by the Bureau of Land Management (BLM). The allotment is located north of Interstate 10 and west of State Highway 62 in the San Bernardino Mountains approximately 15 miles northwest of Palm Springs. Elevations vary between 2,500 and 6,500 feet, providing both low elevation winter range and high elevation summer range. The allotment has a checkerboard pattern of ownership with private lands, particularly within that portion in San Bernardino County. Vegetation communities are a mix of Mojave Desert Scrub, Sonoran Desert Scrub, Pinyon-Juniper, and California Coastal Chaparral series.

C. **Tiering to California Desert Conservation Area Plan Amendment for the Coachella Valley and Final Environmental Impact Statement (CDCACV); Record of Decision dated December 27, 2002.**

This EA is tiered to the CDCACV Plan final EIS and provides site-specific analysis on this

grazing allotment. Tiering helps focus this EA more sharply on the significant issues related to grazing on the allotment while relying on the CDCACV Plan analysis for background. Analysis of environmental issues previously considered and addressed in the CDCACV Plan are by reference.

A summary of the analysis tiered in this EA is as follows:

1. The CDCACV Plan amended the California Desert Conservation Area (CDCA) Plan of 1980 for purposes of developing and establishing conservation strategies for special status plant and animal species within the Coachella Valley. As part of the conservation strategy, BLM determined which public lands will be available or unavailable for livestock grazing. Livestock grazing in the CDCA is an economic resource of public lands recognized in section 601 of FLPMA. In addition to designating lands available or unavailable for grazing, the CDCACV Plan established programmatic management prescriptions including regional land health standards and guidelines for grazing management; utilization prescriptions for perennial species; restrictions on cattle grazing within tortoise habitat; monitoring requirements; and specific management prescriptions for Desert Wildlife Management Areas (DWMAs) such as the elimination of ephemeral authorizations and the implementation of an ephemeral forage production threshold of 200 pounds per acres (CDCACV Plan, section 3.1.6 pg. 3-13 and 3-16). This EA analyzes the specific application of the programmatic management prescriptions of the CDCACV Plan and considers alternative means to achieve the purpose and need on this allotment as described in section C of this chapter.
2. The CDCACV Plan considered a range of alternatives for the livestock grazing program, including more or less restrictive management approaches within the 1.2 million acre planning area. This EA analyzes the range of alternatives for grazing consistent with the CDCACV Plan, including a proposed action and continuation of current management (No Action). A no grazing alternative is considered to address voluntary relinquishment and subsequent designation of the allotment as unavailable for grazing. In addition, a temporary reduced grazing alternative is included on allotments where a lower level of grazing than under the proposed action should be considered. Chapter 2 of this EA describes the alternatives analyzed in detail and identifies the alternatives considered but dismissed from detailed consideration.
3. Impacts of livestock grazing were addressed at a regional level in the CDCACV Plan. Analysis addressed the impacts of livestock grazing on a wide range of resource topics, including impacts to air quality, soil, vegetation, wildlife, cultural resources, wilderness, and socio-economic impacts. The regional analysis is incorporated by reference in this EA (CDCACV FEIS pages 4-1 thru 4-117) and general discussion of these impacts will not be repeated. The EA analysis will sharply focus on the specific environmental issues associated with areas where livestock are having or may have substantive site-specific effects, including: (1) areas where conservation objectives of the desert tortoise, arroyo toad, and riparian species habitat values are not being met; (2) specific areas of the allotment which are not meeting land health standards due to

grazing; and (3) areas of special status species or critical habitat that may be affected by grazing on this allotment. Discussion of the specific topics analyzed in this EA, as well as other resource topics addressed regionally but that will be excluded from further analysis in this EA, is contained in chapter 4.

4. The CDCACV Plan balances conservation with public use, occupancy, and development on a regional level. For example, Areas of Critical Environmental Concern (ACEC) and/or DWMAs are established; routes of travel on public lands are designated as open, limited, or closed to motorized vehicles; and other management prescriptions are provided to guide multiple use management. Issues were identified in the CDCACV Plan that necessitated making the Whitewater Canyon Allotment unavailable to grazing, therefore BLM is proposing to accept the voluntary relinquishment (43 USC 1732(b)).

D. Voluntary Relinquishment

The CDCACV Plan identifies the Whitewater Canyon Allotment for voluntarily relinquishment.

Voluntary relinquishment of the grazing lease for this allotment, in combination with designation of the public lands as unavailable for livestock grazing, is an identified method for achieving conservation goals for special status species identified in the CDCACV Plan amendment. BLM's decision to identify this allotment for voluntary relinquishment in the CDCACV Plan amendment and subsequent designation of the public lands as not available for grazing was based on criteria set forth in the BLM land use planning handbook, H-1601-1.

Voluntary relinquishment and designation as unavailable for grazing would only occur where BLM determines that the action will result in direct conservation benefits for special status species as provided in CDCACV Plan. A grazing decision on the voluntary relinquishment request will be issued based on the site-specific analysis of this EA and other required procedures of 43 CFR 4160. Upon relinquishment and issuance of the final grazing decision, BLM will, without further analysis or notice: not reissue the lease; remove the allotment designation; assume any and all private interest in range improvements located on public lands; and designate the land within the allotment as unavailable for livestock grazing. A separate plan amendment or revision will not be required.

E. Purpose and Need for the Proposed Action

The purpose of the proposed action is to complete site-specific analysis to determine whether grazing should continue or whether the allotment should be devoted to another purpose which precludes livestock grazing in accordance with the CDCACV Plan amendment to the CDCA Plan. The CDCACV Plan Amendment identified this allotment for voluntary relinquishment because it contains listed species and critical habitat as well as other special status species of plants and animals.

The need for the proposed action is to implement the conservation strategy established in CDCACV Plan for the Whitewater Canyon Allotment and associated biological opinion (FWS-ERIV-3006.2 dated December 24, 2002). The proposed action is needed, specifically, to provide for recovery of the arroyo toad, prevent adverse modification of its critical habitat, and protect other special status plants and animals occurring in the allotment.

F. Land Use Plan Conformance and other Regulatory Compliance

The proposed action is subject to the following plans:

- The California Desert Conservation Area Plan of 1980 (CDCA Plan), as amended.
- The Coachella Valley California Desert Conservation Area Plan Amendment of December 27, 2002 (CDCACV), specifically:

Grazing would continue as a permitted use until the lessee voluntarily relinquishes the permitted use and preference, at which time the allotment would become unavailable for grazing as stated in Section 2.4.14 of the CDCACV Plan (page 2-39). Upon BLM’s relinquishment acceptance, the BLM will, without further analysis or notice, not reissue the lease; remove the allotment designation; and assume any and all private interest in range improvements located on public lands.

- Rangeland Health Fall Back Standards and Guidelines for Livestock Grazing remain in effect until CDD S&G are approved by the Secretary of Interior.

The allotment does, and does not, meet the Secretary of the Interior’s Approved Rangeland Health Standards as follows:

Table 1: 1999 Rangeland Health Assessment

Rangeland Health Standard	Meets	Does Not Meet	Impacts from Livestock
Soils	X		
Riparian		X	Yes
Stream Channel		X	No
Native Species		X	No

September 20, 1999 - Rangeland Health determinations were completed.

Authority:

1. General Grazing

Authority for the proposed action includes:

- the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.) as amended by the Public Rangelands Improvement Act of 1978 (43 U.S.C. 1901 et seq.);

- the Taylor Grazing Act of June 28, 1934 as amended (43 United States Code 315, 315a through 315r);
- Public Rangelands Improvement Act of 1978 (43 U.S.C. 1901 et seq.); and the
- Public land orders, executive orders, and agreements authorize the Secretary to administer livestock grazing on specified lands under the Taylor Grazing Act or other authority as specified.

2. State Historic Preservation Officer Protocol Amendment for Renewal of Grazing Leases:

In August 2004 the California State Director, Bureau of Land Management, and the California State Historic Preservation Officer (SHPO) addressed the issue of the National Historic Preservation Act (NHPA) Section 106 compliance for processing grazing permit lease renewals as defined in 43 CFR 4100.0-5. The BLM State Director and the SHPO amended the 2004 *State Protocol Agreement between California Bureau of Land Management and the California State Historic Preservation Officer* with the 2004 Grazing Amendment, Supplemental Procedures for Livestock Grazing Permit/Lease Renewal. This amendment allows for the renewal of existing grazing permits prior to completing all NHPA compliance as long as the 2004 State Protocol direction, the BLM 8100 Series Manual Guidelines, and specific amendment direction for planning, inventory methodology, tribal and interested party consultation, evaluation, effect, treatment, and monitoring stipulations are followed.

3. Biological Opinion on the California Desert Conservation Area Plan

BLM will insure compliance with the incidental take statement of the biological opinion issued for the CDCACV Plan. BLM will immediately report any injuries or mortality to desert tortoises as a result of grazing to the United States Fish and Wildlife Service (FWS). The BLM and FWS will review the circumstances to determine if any additional protective measures are required. The BLM will compile any instances of take of the desert tortoise due to grazing activities and report annually to the FWS.

G. Tribes, Individuals, Organizations, or Agencies Consulted

1. Public Participation

Notification of the proposed action and analysis has been prominently posted in the Palm Springs South Coast Field Office public area and on the Field Office web site during the environmental review process. The web site main page provides a link to projects currently under environmental review.

2. Native American Consultation and Coordination:

The following Native American Tribes were consulted during formulation of the CDCACV Plan including inland use plan level analysis of the Whitewater Canyon Allotment:

- Aqua Caliente Band of Cahuilla Indians
- Augustine Band of Mission Indians
- Cabazon Band of mission Indians
- Cahuilla Band of Indians
- Colorado River Indian Tribes
- Fort Mojave Indian Tribe
- Los Coyotes Band of Indians
- Morongo Band of Mission Indians
- Ramona Band of Mission Indians
- Santa Rosa Band of Mission Indians
- Torres-Martinez Band of Desert Cahuilla Indians
- Twenty-Nine Palms Band of Mission Indians

3. Coordination with the Lessee (CCC):

Whitewater Canyon Allotment:

- 6/01 BLM contacted lessee when Arroyo Toad Critical Habitat was designated within the Allotment.
- 9/10/02 BLM met with lessee to discuss the CDCACV Plan Amendment and its alternatives and how it would affect the Allotment.
- 12/02 BLM spoke with lessee informing them that the CDCACV Plan Amendment was approved and ROD was signed allowing for the relinquishment of the Allotment.
- 12/02 BLM informed lessee that FWS issued a Biological Opinion for the CDCACV Plan Amendment strongly recommended allotment removal.
- 4/03 The BLM received letter from lessee requesting voluntary relinquishment.
- 8/13/04 The BLM contacted the allotment operator to update on the status of the lease issuance process.
- 9/04 The BLM contacted the lessee to inform them that the grazing lease issuance process has been temporarily suspended due to a court decision vacating and remanding the biological opinion for the plan amendment back to the Fish and Wildlife Service.
- 2/23/05: The BLM updated the grazing operator on the progress of the lease issuance. A new Biological Opinion had not been issued but was expected soon.
- 4/5/05: The BLM contacted the lessee informing them that a new biological opinion had been issued.
- 10/6/05: The BLM contacted lessee informing them that the scheduled formal hearing for

appeal CA-660-01-01 was to be withdrawn.

2/2/06 BLM informed lessee that final documentation from Office of Hearings and Appeals formally dismissing appeal CA 660-01-01 was received.

CHAPTER 2: PROPOSED ACTION AND ALTERNATIVES

A. Proposed Action

The proposed action is to approve request of the Whitewater Canyon Allotment lessee for voluntary relinquishment of the lease. Upon approval, the lease will be cancelled and the Whitewater Canton Allotment will be unavailable for grazing in conformance with the CDCA Plan and CDCACV Plan Amendment. No further grazing will occur.

B. No Action Alternative

This alternative would accept the lessee request for voluntary relinquishment but the allotment would remain available for grazing by another qualified applicant. This alternative provides a baseline for comparing impacts of the existing grazing management program on the allotment. Should another qualified applicant submit an application for a new lease, BLM would conduct appropriate NEPA review and necessary consultation with the Fish and Wildlife Service to consider whether to issue a new lease and determine whether any terms and conditions are needed.

1. Livestock Numbers and Season of Use

Cattle Number *	AUMs**	Season of Grazing Use***	
		From	To
118	977	March 1	February 28
5	12	March 1	June 15

* The number of cattle authorized to graze during the season of use.

** Animal Unit Month (AUM) the amount of forage necessary for the sustenance of one cow or its equivalent for a period of 1 month.

*** The period livestock typically graze forage on the allotment. Grazing use on some allotments would be authorized to occur all "year-long" or Y-L. The grazing period of use does not apply (NA) to ephemeral allotments because grazing use would occur when forage is available

2. Livestock Management

Currently there are no cattle grazing on the allotment.

C. Alternatives Considered But Not Analyzed:

No Grazing Alternative

This alternative is dismissed because it would not substantially differ from the proposed action and would not provide a useful comparison.

CHAPTER 3: ENVIRONMENTAL ANALYSIS

A. Critical Elements

The following table summarizes 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.

Environmental Element	Proposed Action	No Action Alternative
Air Quality	See discussion	See discussion
ACEC's	See discussion	See discussion
Cultural Resources	See discussion	See discussion
Native American Concerns	See discussion	See discussion
Farmlands	Not present	Not present
Floodplains	Not affected	Not affected
Energy (E.O. 13212)	Not affected	Not affected
Minerals	Not affected	Not affected
T&E Animal Species	See discussion	See discussion
T&E Plant Species	See discussion	See discussion
Invasive, Nonnative Species	See discussion	See discussion
Wastes (hazardous/solid)	See discussion	See discussion
Water Quality (surface and ground)	See discussion	See discussion
Wetlands/Riparian Zones	See discussion	See discussion
Wild and Scenic Rivers	See discussion	See discussion
Wilderness	See discussion	See discussion
Environmental Justice	See discussion	See discussion
Health and Safety Risks to Children	Not affected	Not affected
Visual Resource Mgmt.	Not affected	Not affected

B. Impacts

1. AIR QUALITY

Affected Environment:

The South Coast Air Quality Management District (SCAQMD) has state air quality jurisdiction over the area associated with the proposed action. The SCAQMD has rules that apply to this project along with permitting requirements. Much of the time, air quality throughout the project area is generally good. There are, however, times that the area does not meet air quality standards due to locally generated and/or wind transported pollutants. The vicinity in which the subject grazing allotment is located is currently classified as a federal non-attainment area for ozone and particulate matter less than 10 microns in diameter (PM₁₀) under national standards. The area is within the South Coast PM₁₀ Planning Area and the Coachella Valley Ozone non-attainment area. The State Implementation Plan (SIP) identifies sources of PM₁₀ emissions and control measures to reduce emissions. The SIP emphasizes controls and management.

Environmental Consequences:

a. Impacts of Proposed Action Alternative

Because no grazing related activities would be undertaken, no impacts to air quality would result from grazing use. No appreciable improvement of air quality would be expected because the area is a non-attainment area and grazing's contribution to periods of poor air quality is de minimus

b. Impacts of No Action Alternative.

Soil disturbance from the trampling action of the livestock when soil moisture levels are low would result in increased fugitive dust emissions (PM₁₀) in the allotment. In addition, vehicles used in association with livestock operations on the access roads would also generate small additional amounts of PM₁₀ emissions and various precursor emissions for ozone.

However, the overall effect on air quality would be slight due to the generally wide distribution of livestock movement patterns in the allotment. Occasionally, livestock will be concentrated in temporary holding areas for short periods off the allotment. Emissions would be higher during potential holding periods, but would not likely exceed standards. PM₁₀ and ozone emissions within this allotment are de minimus and no further conformity determination is required. Same as for the Proposed Action

c. Cumulative Impacts

The slight increase in PM₁₀ emissions resulting from grazing would make a very

small contribution to overall PM₁₀ levels in the general area. Sources of PM₁₀ particles in the area include vehicles being driven on unsurfaced roads and areas devoid of vegetative cover and subject to wind erosion.

Consultation:

Consultation with South Coast Air Quality Management District was not undertaken as emissions are expected to be de minimus and air quality is not expected to be impacted.

Maps:

None

References:

None

2. AREAS OF CRITICAL ENVIRONMENTAL CONCERN (ACEC)

Affected Environment

In 1980, the CDCA plan designated the Whitewater ACEC which allows the multiple-use of resources, including grazing. The ACEC was designated in recognition of important wildlife and Native American resource values requiring special management attention. The ACEC management plan was completed in 1982. The ACEC contains approximately 14,233 acres of public land and occupies approximately 22% of the allotment.

The ACEC provides a unique opportunity to study aspects of biology such as isolation, speciation, and intergradation. Several species of snakes and lizards found here exhibit physical characteristics of both desert and coastal races, and because of the unique appearance of these intergrading forms and the high density of reptiles, the ACEC is a favorite “hot spot” for collectors. The ACEC is also distinctive because of a high concentration of resources important to Native Americans. A historic Indian village and other remains of sacred significance rest in the northern part of the ACEC. These and other physical sites found in the ACEC are of extreme importance to native persons.

Environmental Consequences

a. Impacts of the Proposed Action Alternative

No grazing is proposed within the allotment and therefore, no negative impacts to the values protected within the ACEC. The chances for adverse impacts to Native American historic and cultural sites from trampling by livestock would diminish, as would competition for food, water, and cover by wildlife species.

b. Impacts of No Action Alternative

Past grazing management, consistent with the allotment management plan (AMP), has been compatible with the values the ACEC was designed to protect. The ACEC

management plan recommended the construction of 1.5 miles of gap fencing to prevent livestock movement into Whitewater Canyon. This fencing was completed. It is important that any grazing strategies, construction, and maintenance of improvements, water distribution, and mineral supplement areas be particularly sensitive to biological and Native American values within the ACEC.

c. Cumulative Impacts

The ACEC is minimally affected by use along the Whitewater River and Pacific Crest National Scenic Trail (PCT). Because much of the ACEC lies within a designated wilderness area, it is afforded some of the highest protections from surface-disturbing activities since use of motorized equipment or travel is, for the most part prohibited. Ongoing impacts within the area include wind turbines and associated infrastructure such as roads, power lines, and switching stations, and illegal collection of reptile species.

Consultation:

None

Maps:

Appendix 1, Map 1

References:

Bureau of Land Management. 1980. The California Desert Conservation Area Plan. California Desert District. Riverside, California.

Bureau of Land Management. 2002. Proposed California Desert Conservation Area Plan Amendment for the Coachella Valley and Final Environmental Impact Statement.

3. CULTURAL RESOURCES

Affected Environment

Approximately 3000 acres of BLM-managed lands within the Whitewater grazing allotment have been surveyed for cultural resources at the Class III, intensive pedestrian, level. The bulk of these surveys were related to wind energy development in the southern portion of the allotment and a proposed private residential development in the Mission Creek drainage. Twelve archaeological sites have been recorded on public lands within the allotment. Only one these sites, CA-RIV-269, has been evaluated as eligible for listing on the National Register of Historic Places.

The Whitewater Canyon Allotment falls within the traditional use areas of the Cahuilla and Serrano people. Village sites, temporary camps, trails, lithic scatters, bedrock milling, and pottery provide archaeological evidence for prehistoric occupation and use of the area. The first recorded European visit to the area occurred as a result of Romero's expedition in 1823.

Romero sought a route through San Gorgonio Pass to the Colorado River. Romero's accounts include descriptions of meeting with local Native Americans in San Gorgonio Pass and camping within "Bonopiapi" canyon. Bean (1962) indicates that Bonopiapi canyon may actually have been a reference to "Wanapiapa", a village site associated with the Wanakik Cahuilla Indians. Wanapiapa village was located in Whitewater Canyon until the mid 1800's when a flood apparently destroyed it. The village may later have been reestablished further south. The exact location of Wanapiapa within Whitewater Canyon is unclear and complicated by the possibility that there may have been several villages or occupation areas within the canyon.

The allotment also includes the Mission Creek drainage system. The Mission Creek Indian Reservation was established in 1876. Members of the Serrano Maringa clan, along with other Serrano and Cahuilla Indians, lived on Mission Creek until about 1890. The reservation was disbanded in 1891 due to lack of occupants, then reestablished and expanded in 1908. The reservation was again disbanded in 1969. The eligible archaeological site (Riv-269 Yamisevul), encompasses the reservation period occupation area and associated prehistoric features. The site was determined to be eligible for inclusion in the National Register of Historic Places. The majority of the site occurs on private lands.

Today the Cahuilla and Serrano descendants of the Whitewater and Mission Creek areas are primarily affiliated with the Morongo Band of Mission Indians.

Euro-American occupation of the allotment began as transportation routes were established through San Gorgonio Pass and northward to the Morongo and Bear Valleys. General Land Office survey maps from the late 1800's and early 1900's record trails and "roads" in the Whitewater and Mission Creek drainages which connected the area to Bear Valley (northwest) and Warren's Ranch in the Morongo Valley (northeast). Archaeological site Riv-1068 represents the location of an 1854 stage stop at the mouth of Whitewater Canyon and is adjacent to the southern edge of the allotment. The community of Bonnie Bell was established at this location in the 1930's to house highway construction workers. Other historic uses of the Whitewater allotment include mining and ranching.

Historic archaeological sites within the allotment include trails, mining claim cairns, and remnants of a 1920'-1930's telephone line. Stills Landing consists of historic debris associated with a 1940's homestead effort in Whitewater Canyon.

A 1979 site form for 36-004007 indicates that the site had been disturbed by "cows and rodents" but was "fairly intact" and in good condition. The site is reported as a prehistoric temporary camp with pottery and a light midden. The site is located in a remote area and was not field-checked. The condition of the site and the level of impacts from past grazing have not been assessed.

Site 33-000053T consists of a segment of the Cocomaricopa trail, which runs from the Colorado River through San Gorgonio pass. Patricia and Francis Johnston's 1955 site form reports that the trail had been impacted by "cattle and horse usage." The Johnstons also noted that the "Indians who were gathered onto the Morongo Reservation... used this trail to run

horses and cattle.” The mapped location of the trail corresponds with a graded road and a section of the Pacific Crest Trail; it also passes through a wind energy project area. It is likely that the trail has either been destroyed by road construction or that the Pacific Crest Trail follows the original course of Riv-53T.

Environmental Consequences:

a. Impacts of Proposed Action Alternative

There will be no impacts to cultural resources as a result of grazing since the Proposed Action alternative will result in voluntary relinquishment and designation of the allotment as unavailable for grazing. Therefore the Proposed Action Alternative will have no effect to historic properties.

b. Impacts of No Action (Current Management).

Site forms for two sites indicate impacts from cattle grazing may have occurred in the past. These sites have not been evaluated for eligibility for listing on the National Register of Historic Places (NRHP) and were not field checked in preparation for this analysis. Should another qualified applicant submit an application for a new lease, BLM would conduct appropriate NEPA review, including cultural resources review for Section 106 compliance. Cultural resources inventory and evaluation, determination of effect, treatment, and monitoring would be conducted as necessary. Tribal consultation would also be conducted.

c. Cumulative Impacts

Impacts to cultural resources in the Whitewater Canyon Allotment are primarily associated with wildfire and fire suppression, recreational use, erosion, and illegal collecting. Under the Proposed Action Alternative there would be no increase in impacts as a result of grazing. There is insufficient information available to assess the incremental effect grazing would have on impacts to cultural resources within the allotment under the No Action alternative.

Consultation:

See Native American section

Maps:

Maps identifying the locations of cultural resources are not included due to the proprietary nature of the information.

References:

- 1991 Bean, Lowell John, Syliva Brakke Vane, and Jackson Young
The Cahuilla Landscape: The Santa Rosa and San Jacinto Mountains. Ballena Press
- 1962 Bean, Lowell John and William Marvin Mason

Diaries and Accounts of the Romero Expeditions in Arizona and California 1823-1826.

Palm Springs Desert Museum

- 1978 Bureau of Land Management
California Desert Program: Archaeological Sample Unit Records for the Santa Rosa Planning Unit. Document on File Palm Springs-South Coast Field Office.
- 1955 Johnston, Francis and Patricia Johnston
Archaeological Site Survey Record: CA-RIV-53T
- 2004 Northwest Economic Assocs. and Cultural Systems Research Inc.
Ethnographic Overview of the San Bernardino Forest Part A: the North
- 1989 Stillwell, Elizabeth and Philip Wilke
Analysis of Surface Ceramics from Two Sites in Southern California, Archaeological Research Unit, UCR (Riv-3395)
- 2006 Wilson, Britt (Cultural Resources Coordinator, Morongo Band of Mission Indians)
Personal Communication: Wanapiapa village.

4. ENVIRONMENTAL JUSTICE

Affected Environment:

The grazing allotment being analyzed is located in Riverside and San Bernardino Counties. No minority communities or low-income communities are located within or adjacent to the proposed project area. The lessee that holds the grazing lease is not a minority or considered low income in relation to the population as a whole or regionally. Further, the proposed action would not impact Native American's distinct cultural practices or result in disproportionately high or adverse human health or environmental effects on minority communities. This element will not be further discussed in this document.

Environmental Consequences:

a. Impacts of Proposed Action Alternative and No Action Alternatives:

The implementation of the proposed action would not have a disproportionate affect on low-income or minority populations living on or near the allotment being analyzed. Continued grazing in this allotment under the no action alternative would have an economic benefit to the lessee and employees. This benefit would have a slight direct and indirect benefit on the local Coachella Valley economy during infrequent periods of grazing.

b. Cumulative Impacts

There are no known cumulative impacts to low-income or minority populations as result of relinquishing grazing practices (proposed action).

Consultation:

None

Maps:
None

References:

Bureau of Land Management. 2002. Proposed California Desert Conservation Area Plan Amendment for the Coachella Valley and Final Environmental Impact Statement.

5. FLOOD PLAINS

Affected Environment

The allotment does not contain identified flood plains within its boundaries, although it contains the watershed for several 100 and 500-year floods. Streams present within the allotment boundary correspond to the watershed of the Whitewater River (approx. 8 miles), Mission Creek (approx. 11 miles), Big Morongo Creek (approx. 2 miles), and Little Morongo Creek (approx. 4 miles).

Past flooding within and downstream from the allotment has primarily centered on the Whitewater River. The river's boulder strewn channel is up to ½ mile wide at some points and shows signs of great levels of flow at infrequent intervals although normal flows are very small. Because the Whitewater channel is relatively useless to grazing, due to rockiness and lack of forage, infrequent flood events have little impact on grazing operations.

High flows may also occur on other streams, though not to the extent that Whitewater is susceptible to. While several fences cross streams susceptible to flood events (Section 28 fence, Section 16 fence, Upper and Lower Morongo fences, and Big Morongo fence), no known problems with cattle operations have been recorded during the allotment's history.

Environmental Consequences

a. Impacts of the Proposed Action Alternative

No direct or indirect impacts to flood plains would occur since no grazing would occur under this alternative.

b. Impacts of No Action Alternative

Livestock grazing can increase the likelihood and/or the severity of flooding by increasing soil erosion along stream banks through direct hoof-action on soils and removal of riparian vegetation that stabilizes stream banks and slows water flow. Under this action, it is not likely that livestock would significantly increase the frequency or severity of flooding, either within or downstream from the allotment. The Whitewater River receives little impact from grazing and the nature of flood events would likely not change from past flood behavior due to grazing. Other riparian

systems within the allotment were found to be at Proper Functioning Condition; and, as long as grazing management maintains this level, adverse impacts resulting in increased flooding will not be likely.

Removal of tamarisk from lower Whitewater Canyon may have a short term effect of increasing the volume or frequency of flood events, however the long term benefits of this removal outweigh possible short term impacts. Removal of tamarisk will temporarily reduce cover and structure from the riparian system, temporarily reducing water flow resistance and stream bank stability. Long-term benefits would be realized from increasing native vegetation providing improved stream bank stabilization, stream sinuosity, and flow resistance.

c. Cumulative Impacts

Other factors influencing watersheds downstream from the allotment include developments within the Whitewater, Mission Creek, and Big Morongo watersheds. Of these, development is most extensive in lower Whitewater Canyon. The former trout farm and Bonnie Bell, a small community, have created channel diversions to lessen the flooding potential to homes and other structures in the canyon. Paved roads, unpaved roads, and buildings have disrupted the natural flow patterns of the Whitewater River, and to a lesser extent, other streams within the allotment. This permanent disruption can result in increased canalization, resulting in swifter stream flows, increased erosion, and increased water flow downstream when flood events do occur.

Consultation:

None

Maps:

None

References:

None

6. NATIVE AMERICAN CONCERNS

Affected Environment

The following Native American Tribes were consulted during formulation of the CDCACV Plan, of which identified the allotment as authorized for voluntary relinquishment and discontinued livestock use and subsequently making the Allotment unavailable for grazing:

- Aqua Caliente Band of Cahuilla Indians
- Augustine Band of Mission Indians
- Cabazon Band of mission Indians
- Cahuilla Band of Indians

- Colorado River Indian Tribes
- Fort Mojave Indian Tribe
- Los Coyotes Band of Indians
- Morongo Band of Mission Indians
- Ramona Band of Mission Indians
- Santa Rosa Band of Mission Indians
- Torres-Martinez Band of Desert Cahuilla Indians
- Twenty-Nine Palms Band of Mission Indians

Environmental Consequences:

a. Impacts of Proposed Action and No Action Alternatives.

No impacts were identified associated with acceptance of voluntary relinquishment and making this allotment unavailable for grazing.

b. Cumulative Impacts

No cumulative impacts were identified during the Native American consultation process.

Consultation:

See above list of tribes consulted.

Map:

None.

References:

None.

7. RECREATION

Affected Environment:

The lands within this allotment contain many recreational opportunities and are utilized by a wide range of people. The Pacific Crest National Scenic Trail (PCT) traverses the entire allotment north to south. This trail is utilized by hikers and equestrians with most use occurring during winter and spring. The trail is most often accessed from the Verbena Trailhead immediately south of the allotment, from West Fork Mission Creek in the eastern portion of the allotment, and from various Forest Service trailheads north of the allotment. Primitive camping, hunting, and wildlife viewing are popular and common pursuits within the allotment. Due to wilderness designation and the amount of private lands surrounding the allotment, off-highway vehicle (OHV) use is minimal. Other forms of recreation occur at low

to moderate levels.

Environmental Consequences:

a. Impacts of Proposed Action Alternative

Under this alternative, no negative impacts to recreation would occur as a result of grazing. Hikers and other visitors would not encounter livestock and impacts to the PCT itself would not occur.

b. Impacts of No Action (Current Management)

Based on past observations, the effects of livestock grazing primarily affect users of the PCT. Livestock routinely utilize this trail to move from area to area, resulting in deteriorated trail conditions and increased maintenance needs. Properly maintained, the PCT does not create undue erosion problems, but concentrated cattle use on the trail has resulted in impacts to the trail tread and water bars that have caused localized areas of erosion along the trail. While rarely reported, conflicts between trail users and livestock on or in the vicinity of the trail have been known to occur. Aggressive bulls may threaten hikers and equestrians, resulting in increased negative attitudes towards grazing. Many visitors use the PCT to venture into the San Gorgonio Wilderness and are surprised to encounter livestock, not realizing that the grazing is authorized. Numerous fences intersect the trail, and trail users may inadvertently or purposely leave gates open, resulting in lost or strayed cattle and more work for the rancher. No conflicts with hunters or other users have been known to occur.

c. Cumulative Impacts

Recreation is a vital activity throughout the California desert and provides both economic and leisure based benefits to the public. Grazing can sometimes conflict with recreation activities when it results in negative attitudes towards commercial users of public lands, including ranchers. Negative public attitudes towards grazing are primarily formed in areas where visitors spend time in areas that are grazed, particularly when an individual's expectation is to see nature in its pristine state in a given area. The presence of cattle, particularly in narrow canyons may also cause fear in individuals who have had little contact or exposure to such large and apparently unpredictable animals. On the whole, grazing may negatively affect the attitudes of the public at large on the appropriateness of grazing, especially where recreation and grazing occur in the same areas.

Consultation:

None

Maps:

None

References:

None

8. SOCIAL AND ECONOMIC**Affected Environment:**

The current lessee of this allotment is The Wildlands Conservancy (TWC). TWC is a non-profit land conservancy organization whose primary goal is to acquire private lands, manage them for conservation purposes, and eventually donate some lands to federal land agencies. TWC has been the lessee of record for this allotment since 1998, and has yet to reap any direct financial gain from the use of this allotment. Until 1999, the prior lessee continued to run cattle on the allotment much as he had for the prior ten years. This individual did derive income from the allotment, but the overall contribution of this allotment to the region in terms of employment or production of goods and services has been minor to none. There are no known individuals who, in the last ten years, have depended upon the operations of this allotment as a source of primary income. The small amount of beef produced from the allotment has generated a small contribution to the beef market at large, but overall this effect is negligible.

The most financial gain from the resources in the allotment are found in commercial hunting operations on non-federal lands, goods and services provided to non-motorized recreation activities, and the conservation management of TWC on private lands within the allotment which results in continued private contributions to this non-profit organization.

Environmental Consequences:**a. Impacts of Proposed Action Alternative**

This alternative would likely benefit the current lessee. TWC is seen as a conservation/preservation oriented organization and any non-use of the allotment, as long as the lease remains in good standing is seen as positive, both by TWC and its sponsors. This organization holds the lease in order to take as much non-use as allowable by law and regulation with the ability to control the livestock that would graze the allotment, if need be. No grazing would benefit TWC by allowing it to concentrate resources in its acquisition and conservation operations as well as increase its standing in the eyes of sponsors whose donations support the organization.

b. Impacts of No Action Alternative

There would be no change to lessee operations or economic conditions since this alternative would not modify permitted use or season of grazing use.

c. Cumulative Impacts

Overall, the livestock industry contributes very little to the overall economy of southern California. Over the years, the manufacturing, service, and tourism industries have replaced ranching as a major player in the economy, both in terms of employment and value-added goods. Socially, ranching is seen as both a scourge on the land and as the last vestige of an important, family-oriented occupation and lifestyle. Currently, these social values play a much larger role than economic ones. Many operators no longer rely on ranching as a primary source of income; rather, they see themselves as protectors of a time when family values and work ethics were different than they are today.

Consultation:

None

Maps:

None

References:

None

9. SOIL

Affected Environment:

A soil survey has not been conducted on most of this allotment. While an Order III survey is not available for much of the allotment itself, there is a soil survey that extends into the southern tip and to the eastern boundary of the allotment, so some inferences can be made as to the soil associations within portions of the allotment. Based on neighboring soil data, soil associations in the allotment include the Chuckwalla-Badland association (gravelly and cobbly sandy loams) and the Carsitas-Myoma-Carrizo association (various sands on alluvial fans and valley fill). Since the allotment itself is largely unsurveyed, these associations can only be considered to be in the southerly and southeasterly portions of the allotment.

The erosion potential of known soils ranges from slight to very high. There are no identified erosion problems on this allotment.

BLM assessed the allotment in May of 1999 to determine if the rangeland health standards were being met. Specific soil standards relate to soil permeability. One polygon (WW 1) failed to meet soil permeability standards due to excessively fragmented biological crusts. The location of the assessment represented a polygon of approximately 1200 acres located in the southern portion of the allotment. For this polygon, the rangeland health assessment team determined that the biological crusts has been fragmented so excessively by hoof action that the ability of the crusts to stabilize the soil surface and prevent undue water or wind erosion was compromised. While the soils in this particular polygon are only partially mapped, based on nearby mapped soils relative to the nature of the assessed site, it is likely that the soils in the

assessed site are Chuckwalla fine sandy loams. These soils exhibit rapid runoff with moderate erosion potential.

Environmental Consequences

a. Impacts of Proposed Action Alternative

Discontinuing grazing use on the Whitewater Canyon allotment would minimize soil erosion and associated alterations in drainage patterns and runoff quantities on steep slopes where cattle graze. Biological crusts would continue to reestablish where deficient at a more natural pace assuming no other factors disturb them.

b. Impacts of No Action Alternative

By and large, no adverse impacts to soil resources are expected. Soil erosion would still need to be minimized and appropriate hydrologic process would still need to be maintained to meet the rangeland health assessment standards. The exception is in the polygon not meeting standards as described above. This is in an area that is critical for livestock access to uplands from the turnout and gathering areas in Gold Canyon. High concentrations of livestock where they move from Gold Canyon into the uplands (such as at the site assessed) have likely resulted in the current condition. Requiring the operator better control livestock in this area and ensure better animal distribution and dispersal as they move into the uplands to graze will likely have a beneficial effect upon the retention and recovery of biological crusts in this area.

c. Cumulative Impacts

Various activities have affected soils throughout this allotment over the years. The construction of the Pacific Crest Trail (PCT) has facilitated access for hikers, equestrians, and (illegally) bicyclists into some of the steeper, more erodible terrain within the allotment. Due to high quality trail construction, routing, and maintenance, adverse soil effects have been very minimal. Wind energy parks in the southern portion of the allotment have resulted in localized impacts due to wind turbine construction and associated roads and facilities. It does not appear that these impacts have hastened adverse erosion, but the facilities create localized areas of highly compacted soils. Other roads throughout the area have created localized areas of erosion and compaction, but are not an overriding problem. In many cases, old roads are now closed due to wilderness designation and have been either actively reclaimed or are undergoing natural reclamation.

Consultation:

None

Maps:

None

References:

None

10. WASTE, HAZARDOUS OR SOLID

Affected Environment:

The proposed action or any alternative would have no effect on hazardous and solid wastes on public lands as no hazardous wastes are present in or adjacent to the Whitewater Canyon grazing allotment, and agricultural solid wastes are not managed as an environmental contaminant under federal or State law, except at confined animal facilities. Under 41 CFR 261.4(b), *Identification and Listing of Hazardous Waste*, the EPA has determined that the raising of animals, including animal manures are solid wastes that are exempt from consideration as hazardous wastes if returned to the soils.

Use of agricultural solid wastes, including manure, is managed pursuant to State and local law under RCRA implementing regulations (RCRA Subtitle D). California has issued joint California Integrated Waste Management Board/State Water Resources Control Board regulations (Division 2, Title 27). Use of non-hazardous decomposable waste is generally exempt from these regulations. The Regional WQCB may issue waste discharge requirements of reclamation requirements to cover such materials, and has done so for confined animal facilities such as feed lots and poultry farms. Since agricultural solid wastes from free-roaming cattle are not managed by federal or State law, any site-specific impacts associated with free-roaming cattle are addressed in the context of water quality in this analysis.

Environmental Consequences:

a. Impacts of Proposed Action and No Action Alternatives.

No impacts anticipated as lessee would comply with solid and hazardous material-related Federal, State, and local environmental regulations and directions.

b. Cumulative Impacts:

There is a low potential for hazardous or solid waste contamination from recreation or other use that traverse the area, however, there are no known records of such contamination in the area.

Consultation:

None

Maps:

None

References:

40CFR Part 300, National Oil and Hazardous Substance Pollution Contingency Plan; Federal Land Policy and Management Act of 1976, Titles I – III.;

11. WILD AND SCENIC RIVERS

Affected Environment:

Portions of river segments determined to be eligible for inclusion into the National Wild and Scenic River (WSR) System are located within the Whitewater Allotment. In accordance with the Wild and Scenic Rivers Act of 1968 (PL 90-542), the BLM shall identify and evaluate all rivers that have potential for wild and scenic river designation. To be eligible for designation, a river must be free-flowing and contain at least one Outstandingly Remarkable Value, i.e., scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar value. A “river” means a flowing body of water or estuary or a section, portion, or tributary thereof, including rivers, streams, and creeks. “Free-flowing” is defined as “existing or flowing in a natural condition without impoundment, diversion, straightening, rip-rapping, or other modification of the waterway.” Rivers with intermittent or non-perennial flows may be eligible for designation.

Under the CDCACV Plan, river segments determined eligible for designation as WSRs include the main channel of the Whitewater River and the Mission Creek channel, both within the San Gorgonio Wilderness Addition. These segments were given the tentative classifications of both “wild” and “recreational.” Once a river segment has been determined eligible and given a tentative classification, BLM is required to protect its free-flowing characteristics; protect and enhance the Outstanding Remarkable Values which contribute to the river segment’s eligibility; and ensure that its eligibility or tentative classification will not be affected before a determination of its suitability or non-suitability as a WSR can be made, or by a designation as a WSR by Congress.

Environmental Consequences:

a. Impacts of Proposed Action and No Action Alternatives.

In accordance with the Wilderness Act of 1964 and the California Desert Protection Act of 1994, livestock grazing is allowed in wilderness where such use has established before wilderness designation. Grazing in the San Gorgonio Wilderness Addition meets this provision. Whether grazing is continued or discontinued, impacts to BLM-managed river segments eligible for designation as Wild and Scenic Rivers within wilderness and the allotment (Whitewater Canyon and Mission Creek totaling 16.1 miles in length) would not be anticipated. Continuance of grazing activities must conform, at a minimum, to National Fallback Standards and Guidelines that would help maintain free-flowing characteristics and Outstandingly Remarkable Values of these river segments until such time as suitability determinations can be made.

b. Cumulative Impacts

The proposed action would help protect the values which were determined to make the river segments within the allotment eligible for inclusion in the WSR System. The No Action alternative of continued grazing under current BLM standards, would not contribute to long-term impacts to these values and should not impair the river segments suitability for inclusion in the WSR System.

Consultation:

None

Maps:

None

References:

Bureau of Land Management, 2002. Proposed California Desert Conservation Area Plan Amendment for the Coachella Valley and Final Environmental Impact Statement.

12. WILDERNESS

Affected Environment:

The allotment lies partially within the 54,709 acre San Geronio Wilderness Addition created in 1994 by the California Desert Protection Act. The wilderness includes 46,885 acres of this allotment. This wilderness was designated to protect outstanding opportunities for solitude and primitive recreation that exist in the area. The allotment predates the wilderness designation by 14 years.

The allotment currently impacts wilderness values through the presence of range improvement structures such as fences, corrals, and troughs. The presence of livestock also impacts wilderness character by their presence as an exotic animal species and degrades the “untrammeled by man” ideal of wilderness through surface impacts associated with their movements (hoof action and trailing), grazing (individual key forage plants do not achieve their complete growth potential), and handling (presence of structures and potential for motorized intrusions).

Upon wilderness designation in October of 1994, the allotment was permitted for 990 AUM’s, allowing for up to 123 cattle to be present within the allotment, and potentially all within wilderness depending upon pasture use in a given month. This is the baseline of grazing use within wilderness for this allotment. Since 1999, the permittee has taken non-use of this allotment and there are no livestock on the allotment or within wilderness at this time. Since acquisition of the allotment by the current permittee in 1998, no motorized use within wilderness has occurred in conjunction with grazing management except use of a right-of way, West Fork Mission Creek Road, held by the Forest Service and assigned to the BLM permittee

through an interagency agreement.

Hiking and hunting are predominant recreational activities occurring within this wilderness. Access to the wilderness primarily occurs along the Pacific Crest National Scenic Trail, a route that may be used at times to trail cattle from one pasture to another. Illegal OHV intrusion into this wilderness is rare and not a widespread problem within the allotment area.

The following lists the range improvements located in wilderness and their locations. This table is derived from the master range improvement table in AMP.

Map Index	Project Name	Location	Condition
2	Catclaw Spring	T1S R3E SE1/4 Sec. 32	Good
4	Catclaw Corral	T2S R3E NW1/4 Sec. 4	Fair
5	Catclaw Fence	T2S R3E NW1/4 Sec. 4	Fair
6	Whitewater Cabin & Corral	T1N R3E SE1/4 Sec. 32	Corral-Good Cabin- Poor
7	Upper Big Morongo Fence	T1S R3E SE1/4 Sec. 2	Good
8	Big Morongo Canyon Fence	T1S R4E SW1/4 Sec. 7	Good
9	Section 16 Fence	T1S R3E SE1/4 Sec. 16	Fair
10	Lower Big Morongo Fence	T1S R4E SW1/4 Sec. 7	Good
11	Section 28 Fence	T1S R3E SE1/4 Sec. 28	Fair
12	Blue Cliff Fence	T2S R3E SW1/4 Sec. 3	Good
13	North Fork Trough	T2S R3E NE1/4 Sec. 20	Good
14	Toutane Fence	T2S R3E Secs. 15, 16, 21, 22, 27, 28, 33	Good
17	Juniper Spring	T2S R3E NE1/4 Sec. 10	Good
22	Manzanita Spring	T2S R3E NW1/4 Sec. 11	Good
23	Steen Spring	T1N R4E NW1/4 Sec. 32	Good

Environmental Consequences

a. Impacts of Proposed Action

Under this alternative, all aforementioned impacts to wilderness values from livestock grazing would cease. Wilderness quality would continue to be affected by the presence of range improvements. Given the large number of improvements located in this wilderness and the remote locations of many of them, some might persist for years until funding and

personnel could be made available for removal. Additionally, some larger improvements in very remote locales, such as the Whitewater Cabin and Corral or the Big Morongo Corral, may require the use of motorized equipment (i.e. helicopters to remove materials too large to carry) to deconstruct and remove

b. Impacts of No Action (Current Management)

The grazing of livestock in designated wilderness is permitted by Sec. 4 (d) (4) of the Wilderness Act and Sec. 103 (c) of the California Desert Protection Act where grazing was established prior to the designation of wilderness. Although these provisions allow the activities under the proposed action, there are negative impacts to wilderness quality. Cattle detract from the pristine qualities of the area by leaving numerous hoof prints, trails, and feces. There is also a visual intrusion by the animals themselves as they are not native and not a natural part of the area, counter to values normally protected by wilderness designation. Cattle also degrade wilderness quality by decreasing water quality through introduction of animal wastes and increasing turbidity through hoof action. Range improvements are visual intrusions as fences, wells, troughs, and corrals are structures that detract from the pristine and untrammled nature of the area. The need to service these improvements through occasional motorized or mechanized access ensures that vehicle use will persist.

c. Cumulative Impacts

The San Geronio Wilderness Area is minimally affected by non-conforming uses. The topography and nature of access roads curtails OHV trespass. There is little activity on private in holdings that negatively affect wilderness values. The proposed action does not significantly increase the cumulative level of human disturbance in this wilderness. The area is already popular with hikers and hunters. The level of such use is expected to increase as southern California's population increases over the next ten years. The level of this increase is difficult to predict, however, the steep terrain and lack of vehicular access do place a limit on human use. Therefore, it is unlikely that human use of this area will ever be heavy.

Consultation:

None

Maps:

See appendix A

References:

The Wilderness Act, 1964

The California Desert Protection Act, 1994

BLM Manual 8560 – Management of Designated Wilderness Areas

13. WILDLIFE HABITAT

Affected Environment:

Wildlife (General)

The wide range of habitats in the area supports a great diversity of wildlife. Desert, mountain, and coastal species may be found throughout the area. The area supports populations of California mule deer (*Odocoileus hemionus*), black bear (*Ursus americanus*), and desert bighorn sheep (*Ovis canadensis nelsoni*). Coyote (*Canis latrans*), desert woodrat (*Neotoma lepida*), and cactus mouse (*Peromyscus eremicus*) are also among mammals inhabiting the area. Bird species include California quail (*Callipepla gambelii*), ladder-backed woodpecker (*Piccooides scalaris*), Nuttall's woodpecker (*P. nuttallii*), mourning dove (*Zenaida macroura*), and western screech owl (*Otus kennicottii*). Reptile species include desert horned lizard (*Phrynosoma platyrhinos*), coast horned lizard (*P. coronatum*), side-blotched lizard (*Uta stansburiana*), whiptail lizard (*Cnemidophorus tigrus*), and red diamond rattlesnake (*Crotalus ruber*). A tremendous variety of insects, spiders, soil microbes, and other invertebrates are also present.

Threatened and Endangered Species:

The desert tortoise (*Gopheus agassizi*) was listed as a Federally threatened species in 1990. The U.S. Fish and Wildlife Service (USFWS) designated the area within the allotment as being within the Northern Colorado Recovery Unit for the Mojave population of the desert tortoise (USFWS 1994a). The allotment is not located in USFWS designated critical habitat nor in a BLM Desert Wildlife Management Area (DWMA). Nevertheless, the Whitewater Canyon area represents a biologically significant portion of the desert tortoise's overall range. Desert tortoises in the foothills of the southeastern San Bernardino Mountains (especially in the Whitewater Hills) represent the western-most reproductively active population of desert tortoises in the Colorado Desert ecosystem (Lovich et al. 1999).

The Arroyo toad (*Bufo californicus*) was listed as a Federally endangered species in 1994. Critical habitat for the arroyo toad was designated by the USFWS in 2005. Approximately 7.2 miles of the Whitewater River and adjacent uplands from near Red Dome downstream to the Colorado River Aqueduct were included in critical habitat designation. According to the USFWS Recovery Plan for the arroyo toad, maintaining the population of arroyo toads in the Whitewater Canyon is essential for the delisting of this species (USFWS 1999). The Whitewater Canyon supports an isolated desert population that may possess genetic variation unique to desert populations. Maintaining greater genetic diversity creates greater potential for adaptation to changing environmental conditions.

Both riparian habitat types may have southwestern willow flycatcher (*Empidonax extimus tralli*), least Bell's vireo (*Vireo belli pusillus*), and arroyo toad (*Bufo microscaphus californicus*). These three riparian obligates are listed as endangered under the federal Endangered Species Act. They have all been located downstream of the allotment and are likely to occur on it.

Sensitive Species

Desert bighorn sheep (*Ovis canadensis nelsoni*) is designated as a BLM sensitive species. Bighorn sheep typically occupy steep, mountainous, open terrain, although migration between mountain ranges through valleys has been documented (Bleich et al. 1990)

Environmental Consequences:

a. Impacts of Proposed Action Alternative

Accepting the voluntary relinquishment of the grazing lease, and subsequent grazing decision to discontinue livestock grazing use, including all forage allocations, and all range improvements on BLM lands, would benefit the threatened desert tortoise by eliminating direct impacts from cattle grazing, such as trampling of burrows. Additional benefit would come from reducing indirect impacts from grazing by reducing competition for vegetation used for forage by cattle, and used for forage and thermal cover by the tortoise. Exclusion of grazing from this allotment would allow annual plants, rich in nitrogen and potassium, to continue to be more available to tortoises. Soil crusts could continue to re-establish, leading to an increase in fixed nitrogen available to annual plants. The spread of non-native weeds would continue to decline, resulting in a more nutritious food source and a reduced danger of wildfires.

Similar benefits for the arroyo toad, as according the Fish and Wildlife Service grazing can trample egg clutches, larvae, and metamorphs in breeding pools, crush juveniles and adults on alluvial terraces, and degrade/reduce habitat suitability by churning substrates, which may prematurely dry breeding pools, alter stream bank structure and hydrologic characteristics, and degrade water quality (Service, 1999)

Riparian obligates species least bells vireo and southwestern willow flycatcher habitat could have similar benefits as no grazing would occur and negatively influence riparian habitat.

b. Impacts of No Action Alternative (Current Management)

A review of the impact of grazing in desert systems is provided in Lovich and Bainbridge (1999). The following analysis is based on this paper, a paper by Bock and Bock (1998) and field observations by BLM staff. Cattle grazing can affect wildlife and its habitat in several ways. Annual plants normally eaten by cattle would increase in abundance and set seed, becoming available to native herbivores such as tortoises, birds, insects and deer. Soil compaction and trampling of tortoise burrows, juvenile tortoises, insects, amphibians and plants would increase. The erosion associated with grazing potentially would occur. Disruption of cryptogamic crusts and their associated invertebrates and micro-organisms would increase. Potential sedimentation of the Whitewater River would occur. Such sedimentation may interfere with the proper development of amphibian eggs, including those of the arroyo toad. Annual plant diversity and abundance would

probably decrease slightly as would the abundance of lizards, insects and ground foraging and seed eating birds (Bock and Bock 1998).

The cottonwood, alder and willow stands in the allotment may be habitat for the vireo and flycatcher, as well as other wildlife. Disturbance to these stands and their associated wildlife by cattle would likely occur. The consumption and trampling of plants by cattle in such riparian areas would increase, hindering regeneration of the riparian vegetation and the associated insect prey base. This would have impacts to insectivorous birds nesting in the riparian vegetation, including the vireo and flycatcher (if they are present).

Cattle may aid in the spread of salt cedar (*Tamarix ramosissima*) in the Whitewater river channel. As cattle graze an area they create a fresh disturbance in the soil. This disturbance creates the ideal seed bed for salt cedar. The cattle may also aid seed dispersal by rubbing against seed heads, causing the small seeds to become detached and blow away. Seed may also adhere to the legs and hooves of cattle and be mechanically dispersed as the cattle move through the riparian channel.

If grazing is continued, all of the above impacts would resume. Plant biomass and cover would decline and erosion on steep slopes used by cattle would resume. Disturbance to the riparian areas and their associated wildlife would resume. Trampling of tortoises and their burrows could resume. Juvenile tortoises and estivating arroyo toads or their eggs could once again be crushed by cattle. Nesting birds, including the vireo or flycatcher could be disturbed. The degree to which these impacts would occur would vary with the timing, location and number of cattle released onto the allotment.

The USFWS Recovery Plan for the arroyo toad identified livestock grazing as being a threat to the recovery of this species throughout its range. According to the recovery plan, “grazing by livestock affects arroyo toads directly and indirectly through impacts on habitat features (Sweet 1992, 1993). Livestock can trample egg clutches, larvae, and metamorphs in breeding pools, and juveniles and adult toads may be crushed as livestock walk through alluvial terraces. These impacts can become pronounced as livestock may also concentrate in riparian zones in large numbers after fires destroy, at least temporarily, upslope vegetation (M. Freel, in litt. 1997). However, as the upslope vegetation recovers, cattle will move back into those areas (D. Bacon, in litt. 1997). Sand bars and terrace habitats often are altered by the activities of livestock herds, rendering them unsuitable for juvenile arroyo toads. The increase in surface area caused by churning of the substrate may cause premature drying of breeding pools by increasing evaporation rates on the bars and subsequent wicking of water from the pools (S. Sweet, in litt. 1997). Grazing may change the stream morphology by altering erosion and flow processes (Campbell et al. 1996). Excessive grazing on upstream slopes can increase siltation, degrading water quality downstream and negatively affecting arroyo toad reproduction.”

c. Cumulative Impacts

Wildlife habitat has undergone various site-specific and area-wide impacts over the years. Bighorn sheep have been fragmented from populations to the south by Interstate 10 and other developments in San Geronimo Pass as well as Highway 62 and urbanization to the east. Rapid urbanization since World War II has resulted in greatly decreased air quality throughout the area, resulting in the deposition of large amounts of pollutants into the ecosystem. Wind energy development in the southern end of the allotment has resulted in localized impacts to habitat and has posed a threat to birds, especially raptors. Some impacts, such as OHV use and planned home developments on private lands have greatly decreased due to wilderness designation and land purchase by conservation-oriented groups and individuals.

Consultation:

In 1989, the FWS issued an emergency listing for the desert tortoise, and in 1990, the FWS listed the desert tortoise as threatened. After listing the desert tortoise as threatened in 1990, the California Desert District entered into informal consultation with the FWS for livestock grazing in the Mojave Desert. During analysis it was determined that formal consultation should occur for cattle grazing in San Bernardino and Riverside Counties.

The BLM initiated consultation with FWS and submitted a biological evaluation on January 15, 1992. Subsequently, the FWS issued several biological opinions for cattle grazing activities in critical and non-critical habitat for the desert tortoise: *Biological Opinion for Cattle Grazing on 25 Allotments in the Mojave Desert, Riverside and San Bernardino Counties, California* (1-8-94-F-17) was issued on March 14, 1994. Until recently this biological opinion formed the basis for grazing use in the Whitewater Canyon Allotment. As an interim measure, the BLM conducted informal and formal consultations with FWS after 1994 to extend the authority of this BO so that livestock could continue to graze until completion of the CDCACV Plan. The BO and grazing decisions were effective for a specified period, after that initial period, BLM requested and received an extension of authority for the BO. BLM authorized another set of grazing decisions for continuation of grazing activities within desert tortoise habitat.

The 1994 BO defined terms and conditions to mitigate cattle grazing activities in desert tortoise critical and non-critical habitat. Immediately effective grazing decisions were issued to implement applicable terms and conditions of the 1994 BO. These decisions were issued on an emergency basis in order to bring the existing leases and permits into immediate compliance with the issued BO. The terms and conditions listed in the 1994 BO were incorporated by reference in the June 2002 BO (1-8-01-F-16) and were referenced and detailed as a plan action in the CDCACV Plan.

The ROD and approved plan, interim actions and measures listed in other biological opinions and settlement agreements have been superseded by actions within the CDCACV Plan, its supporting authority and the 2002 BOs for the CDCACV. In December 2002, the BLM

received biological opinions; *Endangered Species Consultation on the Effects of the California Desert Conservation Area Plan on the Coachella Valley Fringe-toed Lizard, Coachella Valley Milk-vetch, and Triple-ribbed Milk-vetch, Riverside County, California* dated December 11, 2002 biological opinion; *Endangered Species Consultation on the Effects of the California Desert Conservation Area Plan on Southwestern Willow Flycatcher, least Bell's Vireo, and Arroyo Toad* dated December 17, 2002 and biological opinion; *Endangered Species Consultation/Conference on the Effects of the Proposed California Desert Conservation Area Plan Amendment of the Coachella Valley on 10 Listed Plants and Animals and one Proposed Species, Riverside County, California* dated December 24, 2002 authorizing CDCACV planned actions to occur in habitat for the desert tortoise and other listed species.

According to the Service in the BO dated December 17, 2002, reestablishment of grazing in the Whitewater Canyon Allotment would introduce the likelihood of adverse effects, including incidental take, if listed riparian species breeding populations are extant or establish in the future.

In the December 24, 2002 BO, FWS-ERIV-3066.2, the Service states in their Conservation Recommendations #10: "Permanently close the Whitewater Canyon Grazing Allotment to protect the riparian species triple-ribbed milk-vetch population in the Whitewater Canyon."

Maps:

See Appendix I

References:

Avery, H.W. and A.G. Neibergs. 1997 Effects of Cattle Grazing on the Desert Tortoise, *Gopherus agassizii*: Nutritional and Behavioral Interactions. Proceedings: Conservation, Restoration, and Management of Tortoises and Turtles—An International Conference. New York Turtle and Tortoise Society. pp.13-20.

Avery, H. W. 1998. Nutritional ecology of the desert tortoise (*Gopherus agassizii*) in relation to cattle grazing in the Mojave Desert. PhD dissertation, Univ. of Calif. Los Angeles.

Bainbridge, D.A., and R.A. Virginia. 1990. Restoration in the Sonoran desert of California. Restoration and Management Notes 8:3-13.

Berry, K. 1978. Livestock grazing and the desert tortoise. Transactions of the 43rd North American Wildlife and Natural Resources Conference. pp. 505-519.

Berry, K.H. 1996. Summary of the results of long-term study plots for the desert tortoise in California. Letter to Molly Brady, Bureau of Land Management, Riverside, California. Riverside Field Station, U.S. Geological Survey. Riverside, California.

Berry, K.H. 1999. Preliminary report from the 1999 spring survey of the desert tortoise long-term study plot in Chemehuevi Valley and Wash, California. Box Springs Field Station, Western Ecological Research Center, U.S. Geological Survey. Riverside, California.

Bureau of Land Management. 1980. The California Desert Conservation Area Plan. California Desert District, Riverside, California.

Bureau of Land Management. 2002. Proposed Northern and Eastern Colorado Desert Management Plan and Final Environmental Impact Statement. California Desert District, Riverside California.

Bureau of Land Management. 2002. Proposed Northern and Eastern Mojave Desert Management Plan and Final Environmental Impact Statement. California Desert District, Riverside California.

Bureau of Land Management. July 10, 1998. Instruction Memorandum No, 98-140: Revised Guidelines for Management of Domestic Sheep and Goats in Native Wild Sheep Habitats.

Evans, R.D., and J.R. Ehleringer. 1993. Broken nitrogen cycles in arid lands: Evidence from ^{15}N of soils. *Oecologia* 94: 314-317.

Garrett, K. and J. Dunn. 1981. *Birds of Southern California, Status and Distribution*. Los Angeles Audubon Society, Los Angeles, CA.

Goguen, C.B., and N.E. Mathews. 2000. Brown-headed cowbird behavior and movements in relation to livestock grazing. *Ecological Applications* 11:1533-1544.

Jessup, David A. 1985. Diseases of Domestic Livestock Which Threaten Bighorn Sheep Populations. *Desert Bighorn Council Transactions*, 1985, pages 29-33.

Johnson, R. and Belnap, J. 1996. Soil biota changes along a disturbance gradient: Impacts on vegetation composition and prospects for restoration. *Proceedings of the Desert Tortoise Council Symposium*, Vol. 1996: 29-31.

Jones & Stokes. 2003. Final report for Southwestern Willow Flycatcher and Least Bell's Vireo Surveys in the Mojave desert. January. (J&S 02-183). Sacramento, CA.

Lovich, J.E., and D.A. Bainbridge. 1999. Anthropogenic degradation of the southern California desert ecosystem and prospects for natural recovery and restoration. *Environmental Management* 24:309-326.

Oftedal, O. 2002. The nutritional ecology of the desert tortoise in the Mojave and Sonoran Deserts. Pages 194-241 *in* Van Devender, T. R. *The Sonoran Desert Tortoise. Natural history, Biology and Conservation*. Univ. of Arizona Press, Tucson, AZ.

U.S. Fish and Wildlife Service (USFWS). 1994a. Desert Tortoise (Mojave Population) Recovery Plan. U.S. Fish and Wildlife Service, Portland, Oregon. 73 pp.

USFWS. 1994b. Biological Opinion for the Bureau of Land Management's interim livestock

grazing program in Mojave desert tortoise critical habitat (1-5-94-F-107). Memorandum from Regional Director, Region 1 to State Director, Bureau of Land Management, Sacramento, California. Dated April 20. Portland, Oregon.

USFWS. 1994c. Biological Opinion for Cattle Grazing on 25 Allotments in the Mojave Desert, San Bernardino Counties, California (1-8-94-F-17). Memorandum from Field Supervisor, Ecological Services Ventura Field Office to State Director, Bureau of Land Management, Sacramento, California. Dated March 14. Ventura, California.

USFWS, 1999. Arroyo southwestern toad (*Bufo microscaphus californicus*) recovery plan. U.S. Fish and Wildlife Service. Portland, OR vi+ 119 pages.

USFWS. 2002. Final Recovery Plan Southwestern Willow Flycatcher (*Empidonax traillii extimus*). U.S. Fish and Wildlife Service, Albuquerque, New Mexico, 60 pp.

USFWS. May, 2003. Draft Recovery Plan for the Sierra Nevada Bighorn Sheep (*Ovis canadensis californiana*).

USFWS. 2005. Biological Opinion for the California Desert Conservation Area Plan [Desert Tortoise] (1-8-04-F-43R). Memorandum from the Field Supervisor, Ventura Fish and Wildlife Office to State Director, Bureau of Land Management, Sacramento, California. Dated March 31, 2005. Ventura, California.

USFWS. 2005. Endangered and Threatened Wildlife and Plants; Final Designation of Critical Habitat for the Arroyo Toad (*Bufo californicus*); Final Rule. Federal Register. 50 CFR Part 17 Vol. 70, No. 70 Pages 19562-19633 April 13, 2005.

Wehausen, J.D. and M.C. Hansen. 1986. Unpublished report, California Department of Fish and Game, Sacramento, California.

14. VEGETATION INCLUDING INVASIVE/NON-NATIVE SPECIES

Affected Environment:

The lands within the allotment contain several diverse plant communities. The diversity arises from the transition zones that typify the area. The eastern and southern San Bernardino Mountains exhibit an ecotonal community composed of Mojave desert scrub, Sonoran desert scrub, and pinyon-juniper woodland communities. The distribution and dominance of these communities is largely dependent upon slope aspect and elevation with desert scrub communities exhibiting higher dominance at lower elevations and on southerly facing slopes and pinyon-juniper woodland becoming more dominant toward higher elevations and northerly facing slopes. Influences of California coastal chaparral are also present, primarily in the more western reaches of the area and on westerly facing slopes.

The Mojave desert scrub and Sonoran desert scrub communities are very closely intertwined in

this area. Neither community appears particularly distinct from the other. The desert scrub communities include creosote bush (*Larrea tridentata*), catclaw acacia (*Acacia gregii*), Mojave yucca (*Yucca schidegera*), desert willow (*Chilopsis linearis*), and white brittlebrush (*Encelia farinosa*).

The pinyon-juniper woodland community is found primarily above 4000 feet, although species associated with this community may occur at lower elevations on northerly facing slopes. Species in this community include singleleaf pinyon (*Pinus monophylla*), California juniper (*Juniperus californica*), mountain mahogany (*Cercocarpus montanus*), and California buckwheat (*Erigonum fasciculatum*). Conspicuous in this community is the presence of the exotic annual cheatgrass (*Bromus tectorum*).

The California coastal chaparral community is represented by California scrub oak (*Quercus dumosa*), bigberry manzanita (*Arctostaphylos glauca*), sugar sumac (*Rhus ovata*), and hollyleaf cherry (*Prunus ilicifolia*).

Invasive/non-native

Invasive/non-native species, such as Sahara mustard (*Brassica tournefortii*), filaree (*Erodium cicutarium*), red brome (*Bromus rubens*), and Mediterranean grasses (*Schismus* spp), have been established on upland sites of the allotment for many years. No comprehensive inventory data of invasive/non-native annual species has been collected. Rangeland Health Assessments conducted in 1999 documented the presence of the invasive/non-native annual species in several locations on the allotment. It would be difficult to accurately inventory the exact location and acreage of invasive/non-native annual species because composition and density of annual plant species vary from year to year depending on climatic conditions. It is not economically feasible to collect the inventory data necessary to get an exact acreage of infestation.

Salt cedar (*Tamarisk ramosissima*) have invaded many of the riparian springs. Eradication efforts have been on-going since 1990s. These riparian invasive/non-native species reduce the amount of water available for native riparian plants and wildlife species.

Environmental Consequences:

a. Impacts of Proposed Action Alternative.

There would be no potential impacts by cattle grazing to vegetation because the allotment would be unavailable and would not allow authorizations to graze cattle.

Invasive/non-native

Grazing would be unavailable, therefore there would be no potential for cattle grazing to introduce and/or spread invasive/non-native species on the allotment.

b. Impacts of the No Action Alternative (Current Management)

Vegetation utilized for forage is affected in a number of ways. Key forage plant species are palatable species that may be utilized frequently, when available, as forage for livestock. Key forage species that occur in the plant communities within the allotment are listed above in the affected environment.

Vigor and abundance of key species experience the greatest impact around high-use facilities such as corrals, and water developments due to constant soil compaction from trampling and continual cropping of vegetation from cattle. Impacts to resource conditions next to these facilities are expected, and the area impacted will vary in size in improvements and lessee's livestock needs. The trend of the adjacent vegetation constantly changes and downward or upward trends are dependent upon past and current use of foraged species. In general, trends for vegetative conditions adjacent to facilities tend to be downward with heavy use and grade upward or static as you move farther away from the facility.

The impacts to plants from grazing can affect plant vigor, recruitment, and density. The direct act of grazing by large herbivores represents a loss of organics to individual plants and an alteration of canopy structure to the community (Milchunas, 1993). Proper grazing management would ensure that impacts to plants from grazing are slight and would have no permanent impacts to plant vigor, recruitment, and density. The impacts from cattle grazing under the no action would be slight with the implementation of the proposed terms and conditions, including Standards and Guidelines, forage utilization levels restrictions, required maintenance of range improvements, CDCA BO stipulations, along with grazing strategies that require proper cattle distribution and periodic rest of individual grazing use areas during the critical growing season.

Invasive/non-native

It is undetermined how much grazing practices contribute to the introduction and/or spread of invasive/non-native species. It is possible that livestock can spread the seeds of invasive/non-native species through seeds sticking to their hide, or deposition of seed through their digestive system. Improper grazing practices reduce the diversity, and reproductive abilities of native, desert plant communities. This in turn promotes the establishment and spread of invasive/non-native species that now occupy habitat once inhabited by native species. Grazing practices that allow for periodic recruitment opportunities of native plants commonly have lower densities on non-native species and are more compatible with sustaining native plant communities.

Overall, the current densities of invasive/non-native species on the allotment being analyzed in the document are considered moderate. Annual fluctuations in densities are directly influenced by the amounts of late winter, early spring precipitation.

Implementation of the proposed terms and conditions, including Standard and

Guidelines, forage utilization levels, and CDCA BO stipulations, along with grazing strategies that require proper cattle distribution and periodic rest of individual grazing use areas during the critical growing season would aid in sustaining native plant communities, and would ensure that cattle grazing would have reduced risk of introducing and/or spreading invasive/non-native species on the Whitewater Canyon Allotment.

c. Cumulative Impacts – Grazing Lease Cancellation for Whitewater Canyon Allotment

Cumulative impacts, as defined by Council of Environmental Quality regulations in 40 CFR 1508.7, are “the impacts on the environment which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or persons undertakes such other actions.” The cumulative impact analysis for the Whitewater Canyon Allotment is tiered to the analysis of the CDCACV plan as described below.

CDCACV Plan - Other past, present, and reasonably foreseeable future actions

The CDCACV described the current environment of the planning area as having been broadly influenced by past activities occurring prior the passage of FLPMA in 1976, such as development of major highways, railroads, and communities in the region. Other important activities related to the baseline condition of the planning area have included mining, military use, recreation, lands actions, wildfire, actions related to Joshua Tree National Park, and livestock grazing. CDCACV further addressed recent and reasonably foreseeable future changes in land use resulting from FLPMA and other resource management related laws, including State and Federal Endangered Species Acts and the California Desert Protection Act. CDCACV considered BLM’s six CDCA regional plan amendments that were approved or under preparation as key determinants of environmental conditions (Proposed Plan/FEIS, pages 4-16 and pages 4-112 through 4-115).

CDCACV Plan – Cumulative Impact

The CDCACV Plan analyzed the impacts to air quality, water quality, soils, biological resources, wilderness, livestock grazing, cultural, and socio-economic conditions. The main conclusion was that the CDCACV plan, as well as other CDCA plan amendments, provides new conservation strategies for plant and animal species that have an overall beneficial cumulative impact on many resources (CDCACV Proposed Plan/FEIS, pages 4-112, 115).

CDCACV specifically recognized the cumulative conservation benefits of other past actions by Congress in setting aside large areas within the CDCA for parkland, military use, and wilderness; benefits derived from designation by US Fish and Wildlife Service of millions of acres of critical habitat in the CDCA; and benefits

resulting from the implementation of management actions established under BLM land use planning for six regional plan areas in the CDCA. For example, CDCACV identified cumulative conservation benefits resulting from the restrictions BLM places on OHV use throughout the CDCA (which reduced by 5 % the routes available for OHV use in the CDCACV plan area), closure of washes to OHV use in DWMA, elimination of wild burro and horse herds, elimination of grazing allotments and reallocation of forage on remaining allotments including elimination of ephemeral allocations, and substantial restrictions on grazing within DWMA (Proposed Plan/FEIS, pages 4-112 through 115).

Past impacts to vegetation include activities such as mining, vehicle use, grazing, and military maneuvers. Grazing of cattle in the Mohave and Colorado Desert has occurred continuously since the mid-1800's (Lovich, J.E., and D.A. Bainbridge 1999). Early grazing in the Mojave and Colorado occurred on public lands and was unrestricted. In response to deteriorating conditions, the Taylor Grazing Act was passed in 1943. Three years later, the BLM was created when the Government Land Office and the Grazing Service merged in 1946. However, it was not until the 1970's that grazing was seriously regulated by the BLM. The listing of the desert tortoise in 1990 and implementing Desert Tortoise Recovery Plan recommendations, lead to even greater restrictions on grazing to protect desert tortoises and their habitat. The CDCA land use plan, as amended by CDCACV, has further increased regulations on grazing that protects vegetation.

The spread and establishment of non-native invasive species occurs through a variety of mechanisms. The BLM's multiple use mission typically results in a variety of activities that are authorized to occur on the same lands. Other activities that may overlap grazing allotments including utility corridors (including electrical towers and natural gas pipelines), general recreation (i.e. hunting, picnicking, camping, and rock hounding), scientific study, and off-highway vehicle (OHV) activities. All of these activities, past, present, and future have contributed to the introduction and spread of non-native/invasive plant species.

Future activities may include grazing, authorized and unauthorized vehicle use, and activation of additional mining claims. The acceptance of voluntary relinquishment and making grazing unavailable in the proposed action would, offset the impact potential for cattle grazing to introduce and spread non-native/invasive species and cumulative impact of past, present and future activities.

Other impacts in and in the vicinity of the allotment have had impacts on the plant community. The Interstate 10 corridor, the wind park, PCT, Powerline, and numerous dirt roads have degraded plant habitat through direct mortality, habitat fragmentation, soil compaction, and introduction of exotic plants. Overall the area remains low to moderate impacted by man, due mainly to its ruggedness and severe summer climate. An increase in the level of human impacts in this area within the foreseeable future is unlikely due to its rugged remote terrain and lack of accessibility and minimal economically desirable resources.

Consultation:

None.

Maps:

Appendix I

References:

Sawyer, J.O. and T. Keeler-Wolf. 1995. A Manual of California Vegetation. California Native Plant Society, Sacramento, CA.

Appendix I
Maps