

ENVIRONMENTAL ASSESSMENT
Issuance of 10-Year Grazing Lease for the Beauty Mountain Allotment
DOI-BLM-CA-060-0010-0007-EA

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

A. Summary

The Bureau of Land Management (BLM) is proposing to issue a ten year lease on the Beauty Mountain Allotment (approximately 18,567 acres) to authorize livestock grazing in accordance with law and policy described in the Purpose and Need section below. The following is a summary of the current situation:

Private Land acres:	200
Public Land acres:	18,754*
Kind of livestock:	Cattle
Current authorized Use:	Yearlong 1452 AUMs
Plan Area:	South Coast RMP
Identified for voluntary relinquishment:	No

*Total acres different than SCRMP totals due to improved GIS information

B. Background

The BLM is proposing to issue a ten-year lease on the Beauty Mountain Allotment to authorize cattle grazing on approximately 18,754 acres of public land located in San Diego and Riverside counties. This grazing allotment is mountainous with rolling hills and a mosaic of dense chaparral and open spaces. Elevations in the allotment area range from 3,000 to 5,200 feet.

The lease for the Beauty Mountain Allotment is currently active and was renewed in 2002 under the authority of Public Law 106-113 for 10 years with the same terms and conditions. Public Law 106-113 requires compliance with all applicable laws. 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.

For the past four years, the lessee has elected non use due to drought conditions or other resource purposes and grazing has not occurred.

C. Tiering to South Coast Resource Management Plan and Final Environmental Impact Statement (SCRMP); Record of Decision dated June, 1994.

The Otay Grazing EIS (1984) decisions summarized in Tables G-1 and 2 are incorporated by reference into the South Coast RMP and provide site-specific analysis for this grazing allotment. Analysis of environmental issues previously considered and addressed in the SCRMP will be incorporated by reference.

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

1. The SCRMP provides overall direction for managing and allocation of BLM public land resources and developing and establishing conservation strategies for special status plant and animal species within the South Coast Area. As part of this conservation strategy, the BLM

determined which public lands would be available or unavailable for livestock grazing based, in part, on impacts to these resources. In addition, the SCRMP by reference of the Otay Grazing EIS established programmatic management prescriptions including: land health standards and guidelines; utilization prescriptions for perennial species; and restrictions on cattle grazing within sensitive habitat. This EA analyzes the specific application of the programmatic management prescriptions of the SCRMP Plan and considers alternative means to achieve the purpose and need on this allotment as described in Section C of this chapter.

2. The SCRMP considered a range of alternatives for the livestock grazing program, including more or less restrictive management approaches within the 129,000 acre planning area.

D. Purpose and Need for the Proposed Action

The purpose of the proposed action is to authorize cattle grazing on public lands, determined suitable for this use, in a manner that is consistent with law and regulation. Since completion of the Otay Grazing EIS and SCRMP, there have been considerable changes in circumstances surrounding the original lease authorizations. Noticeable changes in allotment conditions have occurred since the original lease approvals, including acre adjustments with improved GIS information, weather changes, drought, increased fire frequencies, invasive species, and recent recognized listed and sensitive species over the last decade.

Actions must be in conformance with the implementing regulations for the National Environmental Policy Act, NEPA (40 CFR Part 1500), the Federal Land Policy and Management Act (FLPMA), BLM grazing regulations (43 CFR Part 4100), and Public Law 106-113 section 325.

E. Land Use Plan Conformance and Other Regulatory Compliance

The proposed action is in conformance with the South Coast Resource Management Plan and Record of Decision, June, 1994 specifically:

- The Allotment Boundary is within the Beauty Mountain Management Area Map 2-7. The northern portion of the allotment is in western Riverside County and the southern portion in San Diego County, adjacent to the community of Oak Grove, California.
- Otay Grazing Area EIS. July, 1984

The allotment meets the Secretary of the Interior’s Approved Rangeland Health Standards as follows:

Table 1: Rangeland Health Assessments

Rangeland Health Standard	Meets Standard	Does Not Meet Standard	Impacts from Livestock Yes or No	Remarks
Soils	X	n/a	n/a	
Riparian	X	n/a	n/a	
Stream Channel	X	n/a	n/a	
Native Species	X	n/a	n/a	

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 State Director, California 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 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 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.

F. Voluntary Relinquishment

A lessee may request voluntary relinquishment of their lease at any time; however, a plan amendment would be required for subsequent designation of the allotment as unavailable for livestock grazing. If BLM determines that such an amendment is not warranted, the allotment would remain available for livestock grazing and BLM would consider new applications for lease by qualified applicants.

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 SCRM Plan including land use plan level analysis of the Beauty Mountain Allotment:

- Agua Caliente Band of Cahuilla Indians
- Barona Indian Mission
- Cahuilla Band of Mission Indians
- Campo Band of Mission Indians
- Cuyapaipe Indian Reservation
- Inaja and Cosmit Reservation
- Jamul Indian Village
- La Jolla Indian Reservation
- La Posta Band of Mission Indian
- Los Coyotes Band of Mission Indians
- Mesa Grande Band of Mission Indians
- Morongo Reservation
- Pala Indian Reservation
- Pauma Band of Mission Indians
- Pechanga Band of Mission Indians
- Ramona Indian Reservation
- Rincon Reservation
- San Pasqual Indian Reservation
- Santa Rosa Band of Mission Indians
- Sycuan Band of Mission Indians Viejas Tribal Council

ALTERNATIVES CONSIDERED FOR DETAILED ANALYSIS

Management Common to All Action Alternatives: Given the seasonal nature of vegetation production in this region, in relationship to variable climatic changes including long term drought conditions, and significantly increased fire frequency, the BLM would require onsite inspections prior to livestock turn out, in order to assess range conditions. BLM would authorize non-use for those years that range conditions are not conducive for grazing.

Rangeland Health and Biological Monitoring: The methods described in the Interagency Technical References 1734-6 series Utilization and Residue Measurement, Sampling Vegetation Attributes, and Measuring and Monitoring Plant Populations would be used for overall monitoring. Methods used would be specific to monitoring for vegetation utilization, trend, and species diversity for those specific seasons where grazing has been authorized. Rangeland health monitoring would not be conducted during years when no grazing occurs. In addition, BLM as a result of monitoring would set objectives for residual dry matter (i.e., the amount of forage left in area after cattle have been removed) for this allotment in order to protect watershed resources.

Biological monitoring would be conducted on a consistent basis according to established monitoring protocols for measuring abundance and distribution of Quino checkerspot butterfly (*Euphydryas editha quino*) (QCB) larval host plants and nectar plants, as well as Quino occurrence within the allotment.

Should monitoring studies demonstrate significant conflict with management of QCB as indicated by deterioration of rangeland health conditions or failure to meet any of the fall back guidelines and when it has been determined to be livestock caused, BLM would immediately implement alternative adaptive management strategies and re-consult with U.S. Fish and Wildlife Service (USFWS).

Alternative A: Current Year Round Use

This alternative is to re-issue the existing 10-year lease in conformance with the SCRMP and the Otay Grazing EIS.

Livestock Numbers and Season of Use

Allotment Name	Cattle Number *	AUMs**	Season of Grazing Use***	
			From	To
Beauty Mountain	121	1452	March 1	February 28

- * The number of livestock authorized to graze during the season of use.
- ** Animal Unit Month (AUM) is the amount of forage necessary for the sustenance of 1 cow or its equivalent for a period of 1 month.
- *** The period livestock typically graze forage on the allotment. The grazing period of use does not apply (NA) to ephemeral allotments because grazing use would occur when forage is available.

- Utilization of perennial forage species shall not exceed 50 percent.

No key species were identified in the Otay EIS or SCRMP but BLM will further refine key species based on newly established monitoring.

- Grazing use shall be managed according to grazing regulations, allotment management plans, the South Coast RMP as amended. Grazing use shall be curtailed to protect perennial plants during severe or prolonged drought. Grazing uses may also be modified to minimize conflict with threatened and endangered species.
- In years when weather results in extraordinary conditions the BLM may require the lessee to modify grazing to allow seed germination, seedling establishment, and reproduction of native plant species. During prolonged drought the BLM would require the lessee to reduce stocking rates.
- Submission of actual use reports would be required within 15 days after the end of the grazing authorization. Actual use reports would be required to provide detailed location and number of livestock.

Alternative B: No Action

This alternative would authorize no grazing of the allotment and the existing permit would be

cancelled.

Alternative C: Seasonal Use Modification and AUM Reduction

This alternative is to re-issue the existing 10-year lease with specific seasonal restraints as follows:

Livestock Numbers and Season of Use

Allotment Name	Cattle Number *	AUMs**	Season of Grazing Use***	
			From	To
Beauty Mountain	61	732	November 1	April 30

- * The number of livestock authorized to graze during the season of use.
- ** Animal Unit Month (AUM) is the amount of forage necessary for the sustenance of 1 cow or its equivalent for a period of 1 month.
- *** The period livestock typically graze forage on the allotment. The grazing period of use does not apply (NA) to ephemeral allotments because grazing use would occur when forage is available.

Alternative D: Ephemeral Authorized Use and Seasonal Use Modification

This alternative is to re-issue the existing 10-year lease with specific seasonal restrictions and authorized use modifications that would be determined on a yearly basis, based on pre-turn out forage monitoring:

Authorized Use:

Livestock Numbers and Season of Use

Allotment Name	Cattle Number *	AUMs**	Season of Grazing Use***	
			From	To
Beauty Mountain	Up to 61	Variable, but not to exceed 732	November 1 variable but not exceed 6months	April 30

- *The number of livestock authorized to graze during the season of use.
- **Animal Unit Month (AUM) is the amount of forage necessary for the sustenance of 1 cow or its equivalent for a period of 1 month.
- *** The period livestock typically graze forage on the allotment. The grazing period of use does not apply (NA) to ephemeral allotments because grazing use would occur when forage is available.

BLM would not allow grazing for that portion of the season where Quino larval host plant monitoring demonstrates that grazing is having a considerable effect on host plants availability needed by for QCB.

All other permit terms and conditions would continue to apply.

ENVIRONMENTAL ANALYSIS

A. Issue Identification

Significant issues are defined as those actions which may cause a direct or indirect effect to the physical or biological environment, create an unresolved conflict between uses or have the potential for significant resource degradation.

Non-significant issues that will not be addressed in detail are those outside of the scope of the proposed action, already decided by law, regulation or policy, not germane to the decision being made, or that are conjectural or lacking factual evidence.

An interdisciplinary team was used to identify potential issues to be addressed by this environmental assessment. The following table summarizes various elements of the human environment subject to requirements specified in statute, regulation, or executive order. Elements for which there are no impacts will not be discussed further in this document.

Environmental Element	Action Alternatives	No Action Alternative
Air Quality	Negligible affect	No impact
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 present	Not present
Minerals	Not affected	Not affected
T&E Animal Species	See discussion	See discussion
T&E Plant Species	See discussion	See discussion
Invasive, Non-native Species	See discussion	See discussion
Wastes (hazardous/solid)	No impact	No impact
Water Quality (surface and ground)	See discussion	See discussion
Wetlands/Riparian Zones	See discussion	See discussion

Wildlife	See discussion	See discussion
Wild and Scenic Rivers	Not present	Not present
Wilderness	See discussion	See discussion
Environmental Justice	No issues identified	No issues identified
Vegetative Condition	See discussion	See discussion
Visual Resource Mgmt.	Not impacted	Not impacted

B. Environmental Consequences:

1. AIR QUALITY

Affected Environment

The South Coast Air Basin, 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. However there are times that the area does not meet air quality standards due to locally generated and/or wind transported pollutants. The vicinity in which all subject grazing allotments are located is currently classified as a federal non-attainment area for ozone and particulate matter less than 10 microns in diameter (PM-10) under national standards. The area is within the South Coast PM-10 Planning Area and the San Diego Air Pollution control District (SDAPCD) non-attainment area. The State Implementation Plan (SIP) identifies sources of PM-10 emissions and control measures to reduce emissions. The SIP emphasizes controls and management.

a. Impacts of All Action Alternatives

In general, 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 exceed standards. PM-10 and ozone emissions within this allotment are de minimus and no further conformity determination is required.

b. Impacts of No Action Alternative

No soil disturbance from the trampling action of the livestock would occur and additional fugitive dust emissions would not result.

c. Cumulative Impacts of Action Alternatives

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.

2. CULTURAL RESOURCES

Affected Environment

Cultural resources are definite locations of human activity, occupation, or use identifiable through field inventory (survey), historical documentation, or oral evidence. The term includes archaeological and historic or architectural sites, structures, districts, or places, and may include locations of traditional cultural or religious importance to specified social and/or cultural groups. Significant cultural resources are those that meet one or more criteria for inclusion in the National Register of Historic Places (NRHP). The responsibilities of federal agencies with respect to these resources are identified in several regulations, including the National Historic Preservation Act (16 U.S.C. § 470), the Archaeological Resources Protection Act (16 U.S.C. §470aa), and the Native American Graves Protection and Repatriation Act (25 U.S.C. § 3001).

Domestic Livestock Grazing Impacts on Cultural Resources

Experimental studies designed to address the impacts of domestic livestock grazing on archaeological resources have demonstrated that intensive trampling may have an adverse impact (ASPNN 1990: Osborn et al. 1987; Roney 1977; and Nielson 1991). Intensive trampling may result in artifact breakage and disruption of features, stratigraphy, and spatial patterning of archaeological materials. Removal of vegetation or loosening of surface soils may lead to erosion. Halford (1999: np) notes: “Intensity of grazing, soil hardness, moisture, vegetation cover, and type are factors influencing the level and types of impacts. The areas of greatest concern are those locations where livestock congregate and tend to spend a large percentage of their time (field observations 1999).” Based on these observations, cultural resources surveys should be focused on areas where cattle tend to congregate (man-made and natural water sources, meadows, salt licks, and range improvement areas).

Records Search Results

In October 2009, BLM Archaeologist Chris Dalu conducted a records search of cultural program report files, site records, base maps, GLO maps and land patent records as part of the cultural resources compliance for this EA. Records indicate that seven Class III-level cultural resources inventories were previously conducted within portions of the Beauty Mountain Grazing Allotment (Advanced Planning and Research Associates 1979, Bholat et al. 2008, Chandler et al. 2002, Scientific Resource Surveys 1980, Smith et al. 1979, Underwood et al. 2009, Wentworth 1985). As a result of the surveys, approximately 783 acres within the allotment were subject to Class III survey, 363 acres of which are located within grazable areas of the allotment. Areas subject to grazing were determined relative to vegetation density and slope, and in consultation with Kevin Doran, BLM Natural Resources Specialist.

Allotment area	Grazable acres within allotment	Allotment area subject to Class III Survey	Grazable area within allotment subject to Class III Survey	Percentage of total allotment surveyed	Percentage of grazable acres inventoried within surveyed area
18,754 acres	5,496 acres	783 acres	363 acres	4.1%	6.6%

Records also indicate that 15 archaeological sites and 4 isolates have been recorded within the allotment. Five of the sites and two of the isolates are located in grazable areas within the allotment. Resources identified to date within the allotment are provided in the following table, along with brief descriptions and NRHP evaluation status of each resource.

Temp Cultural Resource #	Permanent Primary and/or Trinomial #	Resource Description	Year Recorded	NRHP Evaluation Status
	CA-SDI-6031	Prehistoric - Single bedrock mortar in streambed. No associated artifacts identified.	1978	Not evaluated
	<u>CA-SDI-10212</u>	<u>Prehistoric - Bedrock milling feature with 7 mortars& several pot sherds.</u>	<u>1985</u>	<u>Not evaluated</u>
BLM-SC-116		Historic - 1 prospect pit, 2 possible prospect pits.	2008	Consultant recommended not eligible; not evaluated by BLM.
BLM-SC-117		Historic - 3 sets of concrete footings that appear to be associated with a past water conveyance system.	2008	Consultant recommended not eligible; not evaluated by BLM.
BLM-SC-125		Historic - 1 mine shaft with opening shared with wood, & a pair of steel-pipe gate posts.	2008	Consultant recommended eligible; not evaluated by BLM.
BLM-SC-128		Historic - Three 1942 USGLO (U.S. General Land Office) survey markers, a concrete water collection basin with a stone retaining wall, a concrete foundation slab, six concrete structure footings, an unmortared stone retaining wall, and a sparse scatter of historic cans and glass.	2008	Consultant recommended not eligible; not evaluated by BLM.

Temp Cultural Resource #	Permanent Primary and/or Trinomial #	Resource Description	Year Recorded	NRHP Evaluation Status
BLM-SC-129		Historic - 1 well, 1 collapsed windmill, and two round galvanized steel water troughs. It appears that the well/windmill and troughs were once connected by a steel water pipe.	2008	Consultant recommended not eligible; not evaluated by BLM.
BLM-SC-130		Prehistoric - 1 bedrock mortar start on granitic outcrop near spring. No associated artifacts identified.	2008	Consultant recommended eligible; not evaluated by BLM.
BLM-SC-131		Prehistoric - 3 bedrock milling features containing 6 milling slick surfaces, 5 mortars, and 2 basin surfaces. No artifacts were observed within site.	2008	Consultant recommended eligible; not evaluated by BLM.
BLM-SC-136		Historic - 2 mine shafts. 1 shaft may include an adit, but is difficult to see.	2008	Consultant recommended eligible; not evaluated by BLM.
BLM-SC-1002		Isolate, Prehistoric – 1 plain brownware ceramic sherd.	2008	Not eligible.
BLM-SC-1003		Isolate, Historic – 1 brown beer bottle, manufactured 1951.	2008	Not eligible.
BLM-SC-1004		Isolate, Prehistoric – 1 mano and 2 pieces of broken metate.	2008	Not eligible.
BLM-SC-1005		Isolate, Historic – metal and wood sled.	2008	Not eligible.
4667-RDS-002	37-029829	Historic – 2 oval rock features that may be the remains of historic hearths.	2009	BLM (WRR) determined not eligible (660-08-41).
4667-RDS-004-A	33-17241	Historic - 2 mining prospect trenches, no associated artifacts noted.	2009	BLM (WRR) determined not eligible (660-08-41).
4667-RDS-005-A	33-17242	Historic - 3 circular stacked stone features that appear to be the remains of historic-hearth.	2009	BLM (WRR) determined not eligible (660-08-41).
4667-RDS-006-A	33-17243	Historic – 1 shallow prospect pit with 2 small tailing piles.	2009	BLM (WRR) determined not eligible (660-08-41).
4667-RDS-007	CA-RIV-8974	Prehistoric – Lithic scatter (7 quartz, 1 basalt, 2 chert flakes; 1 chert biface fragment; 1 basalt projectile point tip; 1 quartz hammer/chopper; 1 tested quartz nodule.	2009	Not evaluated.

* **Bolded resources indicate those resources located in grazable areas within the allotment.**

** **Bolded & underlined indicates those resources most sensitive to impacts from grazing within the allotment.**

A review of the site records for resources recorded within the allotment does not indicate that any of the resources have been impacted by grazing activities.

General Land Office (GLO) rectangular survey maps of the areas that incorporate the Beauty Mountain Grazing Allotment indicate that portions of the allotment area were subject to GLO

surveys in 1857, 1880, 1895, 1907, 1933 and 1945. It was during these surveys that a majority of the existing trails and roads within the allotment were originally mapped. Research of GLO records indicates the following land patents and grants were issued within and immediately adjacent to the allotment between 1894 and 1965, with an overwhelming majority issued between 1920 and 1950:

Homestead Entry-Stock Raising:	11,089 acres, 26 patents
Homestead Entry:	2,937 acres, 21 patents
Swamp Land Grant:	80 acres, 1 patent
Railroad:	960 acres, 2 grants
Sale-Cash Entry:	658 acres, 2 sales
Sale-Title 32, Chapter 7:	265 acres, 1 sale

Environmental Consequences of the Action Alternatives:

a. Impacts of the Action Alternatives

Cultural resources were reviewed within the grazing allotment, as previously noted. According to site records and associated archaeological reports, none of those resources have been impacted by grazing; however, this has not been verified in the field by the BLM, and past surveys by consultants were not specifically designed to identify impacts from grazing. There appears to be little to no potential for the proposed grazing activities associated with this EA to impact any of the historic-age resources or those prehistoric-age resources where only bedrock milling features (with an absence of artifacts or ecofacts) are present. However, one of the prehistoric sites within the grazable portion of the allotment contains bedrock milling features in addition to ceramics (CA-SDI-10212). It is imperative that the BLM visit this site during the grazing season to determine the content and extent of the site, and whether it is or is not being impacted by grazing activities. If it is determined that this, or any other site within the allotment is being impacted by grazing activities, then BLM will terminate the use of those areas for grazing. A program to monitor the condition of cultural resources within the allotment will also be undertaken, as will more precise mapping of cattle congregation areas. There is the potential that grazing within the allotment could be impacting CA-SDI-10212, or any other site that contains artifacts on the ground and potential subsurface deposits. It is essential to identify cattle congregation areas relative to those places within the allotment that exhibit physiographic characteristics conducive to prehistoric use, and continue to conduct archaeological surveys in these areas.

The Action Alternatives should not adversely impact historic properties so long as the above monitoring, survey plans, and any recommended avoidance measures (as determined after additional survey and monitoring of the allotment has been conducted) are executed.

b. Impacts of No Action Alternative

The No Action Alternative will have no effect to historic properties as livestock use

would not be authorized.

c. Cumulative Impacts of the Action Alternative

Based upon current information, no impacts to cultural resources as a result of grazing have been identified thus far. Therefore, there should be no cumulative impacts to cultural resources as a result of permit renewal.

Maps: Locations of cultural resources are not included in this EA due to the proprietary nature of the information; however, the maps and records search data are stored within the cultural resources data files.

References:

Advanced Planning & Research Associates

1979 *Trumbull Lot Split Archaeological and Biological Survey TMP 15125, EAD Log #78-4-3.* Report on file, San Diego CHRIS Information Center.

ASPPN

1990 *Impacts of Domestic Livestock Grazing on Archaeological Resources Archaeological Sites Protection and Preservation Notebook, Technical Notes I-15.* U.S. Army Engineer Waterways Experiment Station, Vicksburg MS.

Bholat, Sara, Evelyn Chandler and Roger Mason

2008 *Cultural Resources Inventory of Selected Routes within the South Coast Management Area, Los Angeles, Riverside and San Diego Counties, California.* Report on File: BLM Palm Springs-South Coast Field Office.

Chandler, Luhnnow, Cotterman, Mason and Hemelryck

2002 *Cultural Resources Inventory of the Beauty Mountain Fuel Break Riverside and San Diego Counties, California.* Report on File: BLM Palm Springs-South Coast Field Office.

Halford, F. Kirk

1999 *A Research Design for the Bishop Field Office Grazing Allotment Lease Renewal Assessments. Cultural Resource Project: CA-170-99-04.* On file at the Department of the Interior, Bureau of Land Management, Bishop Field Office, Bishop, CA.

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Nielsen, Axel E.

1991 *Trampling the Archaeological Record: an Experimental Study.* American Antiquity 56(3):483-503

Osborn, Alan, Susan Vetter, Ralph Hartley, Laurie Walsh, and Jesslyn Brown

1987 *Impacts of Domestic Livestock Grazing on the Archaeological Resources of Capitol Reef National Park, Utah.* Midwest Archaeological Center Occasional Studies in Anthropology No. 20. National Park Service.

Roney, John

1977 *Livestock And Lithics: The Effects Of Trampling.* Manuscript on file at the Bureau of Land Management, Winnemucca District Office, Winnemucca, NV.

Scientific Resource Surveys, Inc

1980 *Archaeological Assessment of Pm 15951*. Report on file, San Diego CHRIS Information Center.

Smith, Brian F., James Moriarty III and James Moriarty IV.

1979 *First Level Mitigation of Sites W-1959, W-1960, W-1961 at the Trumbull Lot Split Project, San Diego*. Report on file, San Diego CHRIS Information Center.

Underwood, Jackson, Carmen Zepeda-Herman and Harry Price, Jr.

2009 *Draft Intensive Cultural Resources Survey for Beauty Mountain Management Area, San Diego and Riverside Counties, California*. Draft report on File: BLM Palm Springs-South Coast Field Office.

Wentworth, John

1985 *Archaeological Reconnaissance Report: Agri Empire Culp Valley Road North Construction*. Report on file, USDA Forest Service, Cleveland National Forest.

3. ENVIRONMENTAL JUSTICE

Affected Environment:

The grazing allotment being analyzed is located in rural Riverside and San Diego County. The rural areas of this county are typically occupied by moderate to low-income households. No minority communities or low-income communities are located within or adjacent to the proposed project area. Further, the proposed action would not impact the Native American's distinct cultural practices or result in disproportionately high or adverse human health or environmental effects on minority communities.

Environmental Consequences:

a. Impacts of Action Alternatives

The implementation of the action alternatives would not affect minority or low income populations. Continued grazing in this allotment under the action alternatives would have an economic benefit to the lessee. This benefit would have a slight direct and indirect benefit on the local Oak Grove, Chihuahua Valley economy.

b. No Action Alternative

Cancellation of the current grazing permit would not affect minority or low income populations. Under this alternative there would be no economic benefit to the lessee and no direct or indirect benefits would accrue to the local economy of the community of Oak Grove and Chihuahua Valley.

c. Cumulative Impacts

All of the action alternatives would result in minimal accrual of economic benefits to the local economy.

Consultation: None
Maps: None
References: None

4. HEALTH AND SAFETY

Affected Environment:

Public use of this rural area consists of occasional through traffic on the Cooper Cienega Road and low numbers of recreationists engaged in hunting and touring. The potential for public visitation proximal to grazing operations and occasional herding present limited potential hazards to the public. Most of the grazable portions of the allotment are oblique from direct public vision and fenced, limiting public contact with livestock operations.

BLM would retain its responsibility to inspect the allotment for health, safety, and environmental issues.

Environmental Consequences:

a. Impacts of Proposed Action and No Action Alternatives

The impact of livestock grazing on public health and safety is minimal. The facilities required for grazing, such as existing fences and watering troughs, are minimal and pose little or no risk to the public.

b. Cumulative Impacts

There are no known cumulative impacts to health and safety associated with livestock grazing operations.

Consultation: None
Maps: None
References:

Federal Land Policy and Management Act of 1976, Titles I – III; Department of Interior, Part 485, Safety and Occupational Safety & Health Program, Chapter 23 Public Safety and Health.

5. NATIVE AMERICAN CONCERNS

Affected Environment:

The following Native American Tribes were consulted during formulation of the SCRMP and the Otay Grazing EIS, which identified the allotment as available for continued domestic cattle use.

- Agua Caliente Band of Cahuilla Indians
- Barona Indian Mission
- Cahuilla Band of Mission Indians
- Campo Band of Mission Indians
- Cuyapaipe Indian Reservation
- Inaja and Cosmit Reservation
- Jamul Indian Village
- La Jolla Indian Reservation
- La Posta Band of Mission Indian
- Los Coyotes Band of Mission Indians
- Mesa Grande Band of Mission Indians
- Morongo Reservation
- Pala Indian Reservation
- Pauma Band of Mission Indians
- Pechanga Band of Mission Indians
- Ramona Indian Reservation
- Rincon Reservation
- San Pasqual Indian Reservation
- Santa Rosa Band of Mission Indians
- Sycuan Band of Mission Indians Viejas Tribal Council

None of the tribes have identified any concerns over the grazing authorizations for this area, which has been grazed since 1948.

6. RECREATION

Affected Environment:

The Beauty Mountain Allotment receives limited or light recreational use. Recreation is essentially limited due to challenging access, limited water, dense chaparral vegetation, and undulating topography. Most activity, including hunting, biking, and site seeing, occurs in the eastern portion of the Allotment along or adjacent to the Cooper Cienega Truck Trail which presents a few opportunities for hunting, bird watching, or hiking. The western and southern portions of the allotment have various two-track roads but are minimally maintained, rendering difficult motorized access.

Environmental Consequences:

a. Impacts of Action Alternatives

Impact of cattle grazing on recreation would not be substantial given the low numbers of recreationists using this area. However, this use increases during fall hunting seasons when quail and deer hunters utilize the resources along the truck trail that are the most prevalent and cattle grazing is not occurring. Grazing may disturb some areas sought by

recreational hunters; however, a positive impact of grazing would be a reduction of dense vegetation that impedes forage plants for game species.

b. Impacts of the No Action Alternative

Under this alternative, no disturbance to hunting areas sought by recreationists would occur. Over time, chaparral could re-invade open areas creating monotype communities, reducing opportunities for forage plant establishment and / or expansion and subsequent related hunting recreation.

c. Cumulative Impacts

There are no known cumulative impacts to recreation associated with this perennial cattle grazing allotment given the low levels of human activity in the general area.

Consultation: None

Maps: None

References: None

7. SOCIAL AND ECONOMIC

Affected Environment:

The lessee for the Beauty Mountain Allotment lives and operates his livestock operations from his ranches in Oak Grove, California and San Jacinto, California and has grazed this area since the 1960's. Although grazing has been authorized year round, the allotment has been grazed far less than the allowable use that is currently authorized. Given long term drought and small fires on the allotment, it has not been grazed in recent years. Warmer dryer climate trends have resulted in an essentially ephemeral or seasonal use of the allotment. Cattle now utilize private fields near Oak Grove, and at some point in late winter or early spring, the cattle are removed from these pastures in preparation for developing the summer hay crop. Livestock are then gathered and transported to the allotment.

It is unknown what percentage of the lessee's income is derived from cattle operations or to what degree that percentage of income is maintained by the lessee's dependence on grazing this allotment. Local ranchers in Oak Grove, San Jacinto and Hemet realize income from rental of pasture for the lessee's livestock. Other support services such as transport, veterinary, and equipment suppliers realize economic gains related to the lessee's operations.

Overall, the lessee's economic contributions to the economy of Western Riverside County and Northern San Diego County are relatively small. This region's economy is primarily based upon other investments, small businesses, farming, State Prison, Military operations and Interstate 215 related businesses.

Environmental Consequences:

a. Impacts of the Action Alternatives

Under these alternatives grazing would continue at current or seasonally reduced levels resulting in a nominal influence on the local and regional economy of Western Riverside County and Northern San Diego County.

b. No Action Alternative

No economic benefits would accrue to the local or regional economy.

c. Cumulative Impacts

There would be no meaningful, cumulative impacts to the local or regional economies of Riverside County and San Diego County from the implementation of either the proposed action, or the no action alternative. The past, present, or future contributions of these operations to the local or regional economy would be nominal.

Consultation: None

Maps: None

References: None

8. SOIL

Affected Environment:

Soils in the Beauty Mountain area are of granitic origins consisting of Mottsville-Calpine and the Tollhouse-La Posta Rock land association. The Mottsville series is a deep, loamy coarse sand, occurring in valleys and on alluvial fans. The Calpine series is also granitic and on alluvial fans, but it is on very deep coarse sandy loams. Tollhouse soils are excessively drained, shallow or very shallow coarse sandy loams. About 10 percent of the surface is typically covered with rock outcrops and 20 percent with boulders. Permeability of these soils is rapid, runoff is medium to rapid, and the erosion hazard is moderate to high. The La Posta series consists of somewhat excessively drained loamy coarse sands. Rock outcrops cover 5 to 10 percent of the surface in some areas.

Observed erosion appears to be a typical condition of this area and has not been aggravated by current grazing practices that have up until 1999 been continuous. Historical records indicate that while grazing was authorized on a year round basis, grazing was never conducted in that manner. Records indicate that grazing generally was taking place in the early spring and late fall given that the allotment waters generally dried up during hot summer months.

The Rangeland Health Assessments have not been conducted but in 2002 an interdisciplinary team, in their professional judgment, identified the allotment to be within proper functioning

condition during a vegetation review. In addition, an extensive biological assessment was completed in 2008 for the fuels management program that traverses the allotment.

The elevation of the project area ranges from approximately 3,200 to 4,800 feet above mean sea level (MSL) (USGS 1975a, 1975b, 1988a, 1988b). Topography within the allotment footprint ranges from flat to steep slopes. Several blue-line drainages traverse the fuel break, including portions of Cooper Canyon Creek, Chihuahua Valley Creek, and Iron Springs Creek (see Figure 2).

Ten soil series are mapped within the project area: acid igneous rock land, Bancas, Bull Trail, La Posta, loamy alluvial land, Mottsville, rough broken land, Sheephead, Tollhouse, and Tujung. Characteristics of these soils are summarized below from the *Soil Survey of San Diego Area, California* (U.S. Department of Agriculture [USDA] 1973) and the *Soil Survey of Western Riverside Area, California* (USDA 1971).

Acid igneous rock land (AcG) is rough broken terrain. Large boulders and rock outcrops of granite, granodiorite, tonalite, quartz diorite, gabbro, basalt, or gabbro diorite cover 50 to 90 percent of the total area of this soil type in San Diego County. The soil material is loamy to coarse sand in texture and is very shallow over decomposed granite or basic igneous rock.

Bancas stony loam, 5- to 30-percent slopes (BbE) consists of well-drained stony loam with a clay loam subsoil. The soils are underlain by quartz diorite and mica schist.

Bull Trail sandy loam, 15- to 30-percent slopes, eroded (BuE2); 5- to 9-percent slopes (BuC), and 9- to 15-percent slopes (BuD2) consist of well-drained sandy loams with a sandy clay loam subsoil. The soils within the series on-site range from low to high erosion hazard and can range in surface depth. These soil types occur in old alluvial basins and can range from undulating to hilly.

La Posta rocky loamy coarse sand, 30- to 50-percent slopes, eroded (LcF2) consists of somewhat excessively drained loamy coarse sands that formed in material weathered from granodiorite.

Loamy alluvial land (Lu) consists of somewhat poorly drained, very deep, very dark brown-to-black silt loams and sandy loams.

Mottsville loamy coarse sand, 2- to 9-percent slopes (MvC) and 9- to 15-percent slopes (MvD) and Mottsville loamy sand, 8- to 15-percent slopes (MoD) consist of excessively drained, very deep, loamy coarse sands that in some areas formed in sandy sediments transported from granitic rock and in others in material weathered in place from granitic rock.

Rough broken land (RuG) is made up of well-drained to excessively drained, steep, and very steep land dissected by many narrow V-shaped valleys and sharp tortuous divides. Areas of exposed raw sediments are common, and there are a few areas of very shallow soils. Runoff is rapid to very rapid, and erosion is very high. The vegetation is a sparse cover of low woody shrubs.

Sheephead rocky fine sandy loam, 15- to 75-percent slopes eroded (SpG2) and 9- to 30-percent slopes, eroded (SpE2) consist of well-drained, shallow fine sandy loams that formed in material weathered from micaceous schist and gneiss. Rock outcrop covers about 10 percent of the area.

Tollhouse rocky coarse sandy loam, 30- to 65-percent slopes (ToG), 5- to 30-percent slopes, eroded (ToE2), and 8- to 50-percent slopes, eroded (ThD2) consist of excessively drained, shallow-to-very-shallow coarse sandy loams that formed in material weathered from granodiorite.

Tujung sand, 0- to 5-percent slopes (TuB) is derived from granitic parent material and occurs on alluvial fans and floodplains. Typical soils have dark grayish brown sand in the upper 14 inches of soil with pale brown sand and coarse sand extending over 60 inches deep, but soil color may vary from very pale brown to brown and texture may vary from coarse sand to loamy fine sand. This soil has very rapid permeability and slow runoff. It is excessively drained, but short periods of flooding are probable.

Environmental Consequences:

a. Impacts of Action Alternatives

Due to the occasional and minimal nature of seasonal use of this allotment, there is no reason to expect that continued cattle grazing would create any downward trends in soil stability, compaction or erosion.

b. No Action Alternative

Under the No Action Alternative, livestock would be permanently removed and livestock related soil impacts would not occur.

c. Cumulative Impacts

The primary impacts to soils on this allotment are low levels of vehicular use on existing access, and given the minimal use on the allotment adverse cumulative impacts to soils throughout the area are not expected.

Consultation: None

Maps: None

References: None

9. WASTE, HAZARDOUS OR SOLID

Affected Environment:

Hazardous materials within the project area consist of materials within municipal and informal dumping sites, or mining-related hazardous materials. The BLM has no records of solid waste

dumping; reportable spills of fuel or other petroleum products; or the dumping of cattle carcasses associated with cattle grazing in this allotment. There is an orchard with evidence of irrigation in eastern portion of the allotment. The orchard is not commercial and there were no chemical drums on the property within the allotment. Although there is no current hazard within the project area, local law enforcement is responsible for enforcing laws and regulations that prohibit illegal dumping in landfills found on lands that are not managed by BLM to curtail potential hazards, should they arise in the future.

Environmental Consequences:

a. Impacts of Action Alternatives

There is very limited potential for grazing-related releases of hazardous and/or solid waste including dumping of cattle carcasses and/or releases of fuel or other petroleum products from haul and service trucks. There is no anticipated risk to the public.

b. No Action Alternative

Under this alternative, there would be no potential for grazing related hazardous materials release.

c. Cumulative Impacts

There is no anticipated cumulative effect regarding hazardous materials resulting from grazing under the action alternatives.

Consultation: None

Maps: None

References:

40CFR Part 300, National Oil and Hazardous Substance Pollution Contingency Plan;
Department of Interior, Part 485, Safety and Occupational Safety & Health Program, Chapter 23
Public Safety and Health.

10. WATER QUALITY, SURFACE AND GROUND

Affected Environment:

Composed of steep, naturally erosive mountains formed by dynamic geologic forces, the watersheds surrounding the Proposed Action area provide a relatively direct delivery system for precipitation and sediment to reach streams. The allotment's hydrology is influenced by several factors, including those that are natural (topographic, geologic, climatic, etc.) and human influenced (land use, etc.). Proper management and stewardship of water resources are fundamental to natural resource and land use sustainability.

Runoff from most of the Beauty Mountain Management Area provides recharge to the alluvial groundwater basin of the Temecula Valley. Numerous springs and intermittent streams are present within the canyons in the project area, and are valuable for wildlife and recreation. The project area is part of two major watersheds: San Luis Rey and Santa Margarita, into which Temecula Creek flows. Some of the named water bodies that may be affected by the project are Chihuahua Creek, Iron Springs Creek, Adobe Spring, and Dick Spring (See Map).

Chihuahua Creek flows west from Johnson Canyon ACEC into the Chihuahua Valley and then flows north within the allotment. Adobe Spring is close to where Chihuahua Creek crosses the fuel break. The creek then continues northwest until it meets Iron Spring and another of its own tributaries that flow out of Johnson Canyon ACEC. Iron Spring flows from north to south along the north segment of the allotment before it turns west where it converges with the main channel of Chihuahua Creek. At this confluence, Chihuahua Creek flows westward and past the terminus of the fuel break within the allotment.

A tributary of the San Luis Rey River, whose headwaters flow from Johnson Canyon ACEC, joins it after flowing southeast parallel to the east end of the allotment. Another tributary of the San Luis Rey River flows southwest and parallel to the west portion of the allotment. Additional tributaries flow from near the west and meet near the confluence of the San Luis Rey with Temecula Creek.

Groundwater quality in the Proposed Action area is generally good.

Environmental Consequences:

a. Impacts of Action Alternatives

Although authorized for year round use, cattle grazing in this allotment now only coincide with periods of rainfall and the resultant growth of perennial vegetation in late winter and early spring. However, the impacts of cattle on water quality in the area is very low given that any surface water quickly infiltrates into the sandy loam soil. Since no ground water testing has been done on the allotment, it is not known whether cattle have caused any introduction of pollutants to the ground water. However, it is very unlikely that cattle grazing would cause adverse impacts due to the occasional nature of cattle use, a lack of long term concentrations of cattle in localized areas and the Mediterranean vegetative community type of the allotment.

b. No Action Alternative

Under the No Action Alternative, there would be no potential for livestock related surface or ground water impacts.

c. Cumulative Impacts

There is a low potential for water quality issues associated with grazing use or the abandon mines that traverses the area, however, there are no known records of such

contamination in the area.

Consultation: None

Maps: None

References: None

11. WILDLIFE HABITAT

Wildlife (General)

The allotment area is located along the Riverside and San Diego County line. It is west of Anza Borrego State Park, and northeast of the Cleveland National Forest, and south of Anza. Wildlife habitats in the Beauty Mountain Allotment include rock boulder, riparian, meadow, grassland and scrub habitats. These habitats provide wildlife species thermal protection, cover and foraging opportunities. These may occur as a subset of a single vegetation community, or a single habitat may include more than one vegetation community.

The wide range of habitats in the area supports a great diversity of wildlife. Desert transitional/desert scrub, mountain, and coastal species may be found throughout the area. The area supports populations of representative common mammal species either observed directly or detected indirectly by sign (e.g., tracks, scat, or fur) within the project area. Those species include numerous small mammals, mountain lion (*Felis concolor*), bobcat (*Felis rufus*), coyote (*Canis latrans*), and mule deer (*Odocoileus hemionus*).

Wildlife identified by BLM for management includes raptors, non-game migratory birds, bats, and game animals. The following provides a brief description of the basic needs of these wildlife categories.

Raptors. Raptors require a variety of foraging and nesting/roosting habitat. Most raptor species present or with the potential to occur on the allotment require large open primarily grassland areas in which to hunt for small mammals. Most raptors nest in tall trees, though some raptor species nest on cliffs or on the ground in grasslands.

Bats. Bats have specialized roosting and breeding habitat requirements, often establishing colonies in caves/mines, rock outcrops, bridges, tree cavities, abandoned buildings, or other enclosed protected places. These species are nocturnal and would exit the roosting location in the evenings to forage for food within the vicinity of the colony.

Game animals. BLM is required to manage for the habitat of all game animals that occur on their administered lands. Habitat features include ensuring there is sufficient food/forage, water, and cover/nesting locations. Hunting is popular in the areas where these species occur.

Migratory birds. Migratory bird species on the Beauty Mountain Allotment use the natural open space within the study area as a temporary stopover point during the winter or summer

seasons, while other migratory species, such as the western wood-pewee (*Contopus sordidulus*) and the yellow-rumped warbler (*Dendroica coronata*), likely nest within the local area.

Threatened and Endangered Species:

Seven federally listed wildlife species were evaluated based on their presence on the BLM sensitive list within the Palm Springs-South Coast Field Offices QCB (*Euphydryas editha quino*), ARTO (*Bufo californicus*), golden eagle (*Aquila chrysaetos*) southwestern willow flycatcher (*Empidonax traillii extimus*), coastal California gnatcatcher (*Polioptila californica californica*), least Bell's vireo (*Vireo bellii pusillus*), and SKR (*Dipodomys stephensi*). Two of these species, Quino checkerspot butterfly and Stephens' kangaroo rat, are known or have potential to occur within the allotment boundary.

Quino Checkerspot Butterfly.

Species Background

The QCB was listed as an endangered species in January 1997 in response to population declines. Historically, the geographic range of the QCB extended from Point Dume in Los Angeles County to northern Baja California. The surviving U.S. populations at the time of listing occurred in southwestern Riverside and north-central San Diego counties. As stated in the recovery plan (USFWS 2003), the reasons for the decline and current threats to the species may include: 1) urban and agricultural development; 2) invasion by non-natives species; 3) off-road vehicle use; 4) grazing; 5) fire management practices; 6) enhanced nitrogen deposition; 7) elevated atmospheric carbon dioxide concentrations; and 8) climate change.

Approximately 34,025 acres is designated as QCB Critical Habitat in San Diego and Riverside counties in California (USFWS 202). Critical habitat, as previously designated by USFWS, is present along portions of the allotment. This includes the area of the 1998 sighting. In 2008, USFWS proposed a revised QCB Critical Habitat which removes the portion of critical habitat that overlays the allotment.

Critical habitat for the QCB was designated in April 2002 and includes 121,819 hectares (301,010 acres) in four areas in Riverside and San Diego counties. The critical habitat area closest to the project location is located approximately 19 kilometers (11.5 miles) to the east. The QCB is the southwestern-most subspecies of *Euphydryas editha* (Mattoni et al. 1997). The QCB is known to occur in association with a variety of plant communities, soil types, and elevations (up to 1,522.84 meters [5,000 feet]). The QCB is generally found in clay soil meadows, open grasslands, coastal sage scrub, chamise chaparral, red shank chaparral, juniper woodlands, and semi-desert scrub where high densities of host plant species occur (Ballmer et al. 2001; USFWS 1997). The QCB is also associated with clay soils that possess cryptogamic crusts and vernal pools (USFWS 2002a).

QCB adults have one flight period per year, which generally occurs between late January and mid-May, with peak activity between March and April. This active period may vary depending upon weather conditions (Ballmer et al. 2001). The adult butterfly feeds on nectar, which it

obtains from spring annuals such as goldfields (*Lasthenia* sp.), fiddleneck (*Amsinckia* sp.), cryptantha (*Cryptantha* sp.), yerba santa (*Eriodictyon crassifolium*), wild mustard (*Brassica* sp.), California buckwheat, and blue dicks (*Dichelostemma capitatum*).

Adult males patrol suitable habitat for females, perching intermittently on the ground or vegetation. They also engage in hill-topping activity, during which hilltops or ridges are guarded against other males. Females lay egg masses on host plants, typically between mid-February and April. A female may lay 20 to 75 eggs at one time and may produce up to 1,200 eggs in her lifetime. Eggs hatch in about 10 days in favorable weather conditions, and the larvae begin to feed upon host plants immediately. One of the most common larval host plant species for the QCB in the majority of San Diego County is dwarf plantain (*Plantago erecta*) (USFWS 2002b). Field observations and laboratory studies indicate several other host plants may be used for egg deposit and larval feeding, including white snapdragon, owl's clover (*Castilleja exserta*), southern Chinese houses (*Collinsia concolor*), and bird's beak (*Cordylanthus rigidus*). White snapdragon is thought to be a primary larval host plant species for the QCB in parts of Riverside County and eastern San Diego County where dwarf plantain is absent (Pratt 2004). Larvae also have been found in the field using woolly plantain (*Plantago patagonica*) and nest-straw (*Stylocline* sp.), and it is likely that they use other plantain species occurring in native habitats (e.g., *P. ovata*, *P. bigelovii*). After feeding, the early larval stages undergo an obligatory aestival diapause (dormant stage), which may be broken after fall or winter rains (Murphy and White 1984; Osborne 1998). Post diapauses, larvae feed on host plants, develop to pupae, and emerge as adults, usually within 2 weeks in late February and March. Winter rainfall and temperature influence host plant germination, growth, and senescence, which in turn affect developmental rate and survivorship of larvae. Substantial population decline has been observed after extended periods of drought. If adverse weather conditions such as drought occur, the emergent larva may reenter a diapause stage repeatedly, for up to 5 or 6 years, until favorable weather conditions permit enough growth of its host plant to occur. The multiple life stages of the QCB make them prone to being disturbed, harmed, harassed, and/or killed, throughout the year, independent of season.

Survey Results

Habitat Assessment and Focused Host Plant Surveys

The only known extant QCB sighting was made in 1998 along a portion of the surveyed fuel breaks within the allotment. (State of California 2008a) Surveys were conducted by Chambers Group, Inc (2002a) along other portions of the fuels breaks throughout the allotment with negative results.

A focused adult flight season survey was conducted last season on portions of the fuel breaks within the allotment boundary (western arm) and unit 5 (Chihuahua Valley). See BA for Beauty Mountain Fuel Break 2008 and 2009 for results of the survey detailing the included and excluded areas as well as the host plants present at the time of the survey. A number of primary, secondary, and potential host plants were identified and mapped: woolly plantain (*Plantago patagonica*), purple owl's clover (*Castilleja exserta*), Chinese houses (*Collinsia concolor*), Coulter's snapdragon (*Antirrhinum coulterianum*), and thread-leaved bird's-beak (*Cordylanthus*

rigidus ssp. Setigerus). The thread-leaved bird's-beak was fairly common along the access road throughout the survey area. The area mapped does not represent the entire population of this plant. It depicts patches of goldfields (*Lasthenia gracilis*), a commonly referenced nectar source for this species.

A focus habitat assessment was conducted on the rest of the fuel break area within the allotment boundary. The results are presented in the BA. The polygons identify areas supporting QCB host plants and represent areas that could potentially support this species.

Given the host and nectaring plants and adult QCBs observed in the area, it is assumed that the QCB is using portions of the allotment for its entire life cycle.

Arroyo Toad

Species Background

The arroyo toad was listed as an endangered species December 1994 in response to population declines associated with urbanization, stream channelization, water development, predation, habitat fragmentation, and other human influences (USFWS 1994a). Historically this species was found in many coastal drainages from Monterey County to San Diego County and at a few inland sites in Los Angeles, San Bernardino, Riverside, San Diego, and Imperial counties. They have been extirpated from approximately 75 percent of their historic range and now survive as small isolated headwater populations in only a score or so the watersheds they once occupied (USFWS 1999b). At the time of listing only eight of the surviving populations were considered to be viable.

A total of approximately 11,695 acres is designated as critical habitat in Santa Barbara, Ventura, Los Angeles, San Bernardino, and Riverside counties in California (USFWS 2005a). The Arroyo Toad Recovery Plan identifies three recovery units: northern, southern and desert (USFWS 1999). Chihuahua Valley of the project area falls within the southern recovery unit; however, none of the critical habitat units are located within the allotment. In addition, USFWS has identified essential habitat for the recovery of this species along the San Luis Rey River south of the allotment; however, this habitat was not included in the designated critical habitat.

Habitat Assessment and Potential for Species Occurrence On-Site

A focused survey was conducted on potential habitat within areas of the allotment. No arroyo toads were detected. A search of the California Natural Diversity Database (State of California 2008a) revealed no occurrence records for ARTO on the allotment; however, there are ARTOs known from the San Luis Rey River southeast and downstream of the tributary present on the Chihuahua Valley (see BA).

Golden Eagle

Species Background

The golden eagle is a federally protected species under the Bald and Golden Eagle Protection

Act, is a California Department of Fish and Game (CDFG) species of special concern, and is fully protected by the State of California. This eagle occurs throughout the United States and is a rare resident in San Diego County. The nesting population in San Diego County is concentrated in the foothill zone and coastal lowlands. Golden eagles nest on cliffs or in large trees. This species forages over large areas of grassland and open chaparral or sage scrub where they primarily prey upon rabbits and ground squirrels.

Habitat Assessment and Potential for Species Occurrence On-Site

The allotment has the potential to support foraging by golden eagles; however, there is no suitable nesting habitat. California Natural Diversity Database (CNDDB) does not identify any known locations of this species within a 1 mile buffer surrounding the grazable portions of the allotment. (State of California 2009a)

Southwestern Willow Flycatcher

Species Background

The southwestern willow flycatcher (*Empidonax traillii extimus*) was listed as an endangered species in February 1995 in response to population declines associated with habitat loss (USFWS 1995). The State of California listed it as endangered in 1990 (CDFG 2005). The breeding range of this species extends from southern California to western Texas, including portions of southernmost Nevada and Utah, and northernmost Sonora and Baja California.

Critical habitat was originally designated for the southwestern willow flycatcher in July 1997. As a result of a lawsuit, this was set aside in 2001 by the 10th Circuit Court of Appeals. Critical habitat was subsequently reevaluated and redesignated in 2005 (USFWS 2005). Five Recovery and 15 Management Units were designated in California, Arizona, New Mexico, Nevada, Colorado, and Utah. Of the 737 miles of stream and river corridors designated as critical habitat, about 195 miles are in California.

Habitat Assessment and Potential for Species Occurrence On-Site

This species has not been observed in the Allotment (State of California 2008a) and is not expected to occur based on limited suitable habitat.

Coastal California Gnatcatcher

Species Background

On March 30, 1993, the USFWS listed the coastal California gnatcatcher as threatened (USFWS 1993) pursuant to the federal Endangered Species Act (ESA) of 1973 as amended.

Habitat Assessment and Potential for Species Occurrence On-Site

This species is not known to occur in the vicinity of the allotment (State of California 2009a) and

not expected to occur based on lack of suitable habitat and elevation. Critical habitat was designated for the coastal California gnatcatcher on October 2, 2000 (USFWS 2000); however, critical habitat is not present within the allotment.

Least Bell's Vireo

Species Background

The least Bell's vireo (*Vireo bellii pusillus*) was listed by the federal government as an endangered species in May 1986. The historical distribution of this species extended from Tehama County, California, to northern Baja California, Mexico. At the time of listing, there were approximately 300 breeding pairs in the United States. The distribution and abundance of the bird have increased somewhat in recent years in response to brown-headed cowbird control programs and riparian habitat restoration efforts. The overall population estimate for 1997 was 2,000 pairs, about half of which occurred at Camp Pendleton (Unit 2004).

Critical habitat was designated for the least Bell's vireo in February 1994 (USFWS 1994b). It consists of ten separate stream reaches in southern California encompassing about 38,000 acres in Santa Barbara, Ventura, Los Angeles, and Riverside, San Bernardino, and San Diego counties (Unit 2004).

Habitat Assessment and Potential for Species Occurrence On-Site

This species has not been observed in the Allotment (State of California 2009a) and is not expected to occur based on limited suitable habitat.

Stephens' Kangaroo Rat

Species Background

The SKR was federally listed as endangered on September 30, 1988 (USFWS1988). Critical habitat has not been designated for this species; however, a draft recovery plan for the SKR was published in April of 1997. SKR historically ranged from southwestern San Bernardino County south through Riverside County into San Diego County. SKR may no longer be extant in San Bernardino County (USFWS 1997). The entire range of SKR is estimated to encompass 1,108 square miles, which is considered small when compared to range distributions of other rodents and species of kangaroo rats (USFWS 1997). Currently, there are three distinct regions that support SKR populations: western Riverside County, and western and central San Diego County.

Habitat Assessment and Potential for Species Occurrence On-Site

A focused habitat assessment of SKR was conducted in 2008. (See BA for Beauty Mountain FB). Locations with gentle slope, open vegetation (generally including scattered shrubs), suitable soils, and kangaroo rat burrows and scat were identified as potential SKR habitat. Three sites were surveyed more intensely; two were identified as having potential suitable SKR habitat

having relatively abundant burrows and kangaroo rat scat. One of these sites was the same as that identified by Davenport (2003a), and the other was in close proximity. The third site was a small, open relatively flat area with a few possible kangaroo rat burrows but without other sign; this was identified as having low potential to support SKR. The two SKR sites with high potential are approximately 7 miles southeast of the recorded SKR populations in Anza and approximately 9 miles northeast of the populations in Aguanga (USFWS 2000) (See BA for Beauty Mountain FB).

State Listed Species

Seven state-listed wildlife species were evaluated based on their presence on the BLM sensitive list within the Palm Springs South Coast field Office: Barefoot gecko (*Coleonyx switaki*), southern rubber boa (*Lichanura umbratica*), mountain lion (*felis concolor*), golden eagle, southwestern willow flycatcher, least Bell's vireo, and Stephens' kangaroo rat. The latter four are also federally listed species and discussed above. The remaining species are discussed below. One of these species, mountain lion, has been observed within the allotment.

Barefoot Gecko

Species Background

The barefoot gecko was state-listed as threatened in 1980 (CDF 2005). Its known range occurs along the eastern face of the Peninsular Ranges in San Diego and Imperial counties, and little information is known about its extended range or abundance. Habitat for the barefoot gecko is found in rock cracks and crevices in areas of massive rock formations and outcrops at canyon heads (Murphy 1974). The barefoot gecko is insectivorous; little else regarding the life history of the barefoot gecko is known.

Habitat Assessment and Potential for Species Occurrence On-Site

Suitable habitat is present within the allotment for this species.

Southern Rubber Boa

Species Background

The southern rubber boa is state-listed as threatened. The southern rubber boa's range is restricted to San Bernardino and Riverside counties in the San Bernardino and San Jacinto mountain ranges. The southern rubber boa frequents grasslands, chaparral, woodlands, and coniferous forests, often seeking refuge beneath rotting logs or in rock piles. Breeding occurs between the months of August and November. The diet of the southern rubber boa consists of small mammals, birds, salamanders, and snakes. The southern rubber boa is threatened by development and increased recreational activities in the forested areas it inhabits.

Habitat Assessment and Potential for Species Occurrence On-Site

Suitable habitat is present on the allotment for this species.

Mountain Lion

Species Background

The mountain lion is a California fully protected species. Mountain lions are widespread but uncommon in California, ranging from sea level to alpine meadow. This large mammal is most abundant in riparian and bushy habitats, as long as mule deer (their primary food source) are present. Home ranges for adult animals range from 8 to 40 square kilometers; males have larger home ranges than females. The mountain lion breeding season is year-round. The main threat to the mountain lion is human encroachment into habitat and habitat fragmentation. The mountain lion has shown a dramatic decline in southern California due to habitat fragmentation, restriction of movement, and increased encounters with humans (Zeiner et al. 1990).

Local residents have indicated that mountain lions were observed along southern portion of allotment as recently as 2008 (local resident, pers. Comm. 2009).

Sensitive Species

Seven sensitive wildlife species by BLM with potential to occur on the allotment are: gray vireo (*Vireo vicinior*), western burrowing owl (*Speotyto cunicularia hypugaea*), two-striped garter snake (*Thamnophis hammondi*), western spadefoot (*Spea hammondi*), coast horned lizard (*Phrynosoma coronatum*), barefoot gecko, and golden eagle. The latter two are also federally or state-listed species and discussed above.

Gray Vireo

Species Background

Gray vireos breed in chaparral and pinyon-juniper woodland habitats in the mountains of Southern California. They depend on dense stands of mature chemise or redshank (CalPIF 2004). It is the rarest breeding bird of the chaparral habitat of San Diego County. The southern population of the vireo is most dense south of Laguna Mountain near Buckman Springs; scattered individuals have been found in McCain Valley near Sacatone Springs. Historical range data are incomplete but it is suspected that brown-headed cowbird nest parasitism has limited the vireo to large, undisturbed tracts of mature chaparral, away from cowbird foraging habitat. Because gray vireo populations are so localized, they are very susceptible to fire. The vireo is likely to avoid low chaparral from frequent fires; likewise catastrophic fires resulting from fire suppression can also eliminate large tracts of habitat (Unit 2004).

Habitat Assessment and Potential for Species Occurrence On-Site

Marginal habitat is present on the allotment and there is a low potential for this species to be present.

Burrowing Owl

Species Background

The burrowing owl is a CDFG species of special concern and is a BLM sensitive species. Western burrowing owl is primarily restricted to the western United States and Mexico. Habitat for the western burrowing owl includes dry, open, short-grass areas often associated with burrowing mammals (Haug et al. 1993) found in desert scrub, grassland and agricultural areas, where it digs its own or occupies existing burrows. The burrowing owl is nocturnal and perches during daylight at the entrance to its burrow or on low posts. Nesting occurs from March through August. Burrowing owls form a pair-bond for more than one year and exhibit high site fidelity, reusing the same burrow year after year (Haug et al 1933). The female remains inside the burrow dug in most of the egg laying and incubation period, and is fed by the male throughout brooding. Western burrowing owls are opportunistic feeders, consuming a diet that includes arthropods, small mammals, and birds, and occasionally amphibians and reptiles (Haug et al 1993). Urbanization has greatly reduced the amount of suitable habitat for this species. Other contributions to the decline of this species include the poisoning of squirrels and prairie dogs and collisions with automobiles. A year-round resident in San Diego County, breeding burrowing owls remain in only five primary areas in San Diego County including Otay Mesa, Imperial Beach, North Island Naval Air Station, Warner Valley and Borrego Valley (Unit 2004)

Habitat Assessment and Potential for Species Occurrence On-Site

Marginal habitat is present in portions of the allotment and there is a low potential for this species to be present.

Two-striped Garter Snake

Species Background

The two-striped garter snake is a CDFG species of special concern and a BLM sensitive species. The two-striped garter snake ranges from San Luis Obispo County south to El Rosario in Baja California, Mexico; from seas level to 8,000 feet (Jennings and Hayes 1994). They are normally found in or near permanent fresh water, inhabiting streams, ponds, and lakes throughout their range (Stebbins 1985) and can be found in temporary bodies of water such as vernal pools. The two-striped garter snake inhabits riparian areas during summer months and occupies adjacent coastal sage scrub and grasslands during the winter (Jennings and Hayes 1994). The two-striped garter begins breeding in April and continues throughout the summer months. Adults feed on tadpoles, toads, insects, larvae, fish, fish eggs, and earthworms. Population declines in the two-striped garter snake are generally attributable to impacts related to the loss of natural wetlands and increased development near and in suitable habitat.

Habitat Assessment and Potential for Species Occurrence On-Site

Suitable habitat is present on the allotment for this species.

Western Spadefoot Toad

Species Background

The western spadefoot toad is a CDFG species of special concern and a BLM sensitive species. This species ranges from central northern California through the Coast Ranges from San Francisco and south into Baja California, Mexico; at elevations from sea level to 4,500 feet (Stebbins 1985; Zeiner et al 1988). Habitat for the western spadefoot includes lowlands, washes, floodplains of rivers, alluvial fans, alkali flats, temporary ponds, and vernal pools. Although this species is generally found in areas of open vegetation with sandy or gravelly soil (Stebbins 1985), it has been observed in vernal pools containing clay soils. Surface activity can occur from October through April depending on rainfall, and oviposition occurs between late February and May (Jennings and Hayes 1994). The western spadefoot diet consists of crickets, butterflies, ants, flies, and earthworms (Morey and Gullin, as cited in Jennings and Hayes 1994). Decline in western spadefoot populations is primarily due to habitat loss and fragmentation and possibly pesticide use.

Habitat Assessment and Potential for Species Occurrence On-Site

Suitable habitat is present within the allotment.

Coast Horned Lizard

Species Background

The coast horned lizard is a CDFG species of special concern and a BLM Sensitive species. This lizard ranges from coastal southern California to the desert foothills and into Baja California. In San Diego County, it has a wide range but spotty distribution. It is often associated with coastal sage scrub, especially areas of level to gently sloping ground, with well-drained loose or sandy soil, but can also be found in annual grasslands, chaparral, oak woodland, riparian woodland, and coniferous forest between 30 and 7,030 feet (Mills 1991; Jennins and Hayes 1994). This animal usually avoids dense vegetation, preferring 20 to 40 percent bare ground in its habitat. Where it can be found, the coast horned lizard can be locally abundant, with densities near 20 adults per acre. Adults are active from late March to late August; young are active from August to November or December. They are largely dependent upon native harvester ants (*Pogonomyrmex sp.*) for food. Populations along the coast and inland have been severely reduced by loss of habitat.

Habitat Assessment and Potential for Species Occurrence On-Site

This species was observed during fuels resource inventory within the allotment boundary (K. Allison, pers. Comm. 2008).

Environmental Consequences:

a. Impacts of Action Alternatives

In general, grazing of cattle could adversely affect wildlife in several ways. Cattle may trample small animals, such as juvenile, lizards, or rodents and their burrows. The presence of cattle and herders in an area may also disturb wildlife and deter their use of the area.

Under Alternative A, 121 cattle would be authorized year round or seasonally. Alternative A would present the greatest opportunity to provide conflict with wildlife in that cattle could be present year round if forage were available. The potential for year round utilization of vegetation during dryer months would also increase competition for dwindling forage.

Alternative C would provide for less forage competition with wildlife by seasonally limiting forage utilization to wetter months when forage competition would be of less concern. It also represents a reduction of forage utilization of approximately 59% over utilization of forage that would occur under Alternative A.

Alternative D would offer the greatest opportunity to eliminate forage competition concerns and conflicts with wildlife. Livestock authorization would only occur if sufficient precipitation exists to produce suitable forage. Given the expected drying trends, it is expected that non-use or minimal use would continue to be the norm on this allotment.

The primary effects of cattle grazing on QCB are soil compaction, removal of forage and cover, and direct mortality through trampling or potential grazing on host plants or plants that have eggs. Improperly high stocking rates and long seasons of use can exacerbate these impacts. Alternative A provides the greatest opportunity to adversely affect QCB by authorizing year round grazing, increasing the potential for conflict with QCB. Alternative C would reduce impacts to QCB by reducing season of use and reducing authorized use to 732 AUMs from the 1452 AUMs authorized in Alternative A.

Under all of the Action Alternatives, monitoring the use of perennial plants by cattle will ensure that the grazing season does not last beyond the proper season of use as indicated by cattle switching from ephemeral to perennial forage.

Since this allotment has been lightly used (not grazed in six years due to fire and prolonged drought), impacts to QCB habitat have been very light. The lack of past monitoring data coupled with the difficulty of predicting levels of use for any one year over the long term on an allotment makes prediction of the precise impacts of the Action Alternatives difficult. The impacts to QCB habitat resulting from future seasonal grazing period that would be authorized under Alternative D should be monitored to determine the effectiveness of the proposed action's terms and conditions in ensuring that there are no significant adverse impacts to QCB habitat.

b. Impacts of No Action Alternative

Under the No Action Alternative, livestock use of the allotment would be eliminated and no impacts from grazing would occur.

c. Cumulative Impacts

Quino Checkerspot Butterfly:

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 include 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. These activities may indirectly impact wildlife by degrading vegetation at various intensities in localized areas for parking, camping or construction work areas.

Present activities within the Beauty Mountain Recovery Unit include grazing, mineral exploration, operation and maintenance of utility facilities and corridors, dispersed and permitted recreation (e.g., hunting, picnicking, camping, dual sport events, and rock hounding), scientific study, and OHV activities. These activities impact the recovery unit to varying degrees through degradation and loss of wildlife habitat. However, the SCRMP land use plan, tiered to Otay Grazing EIS, implemented Standards and Guidelines designed to improve habitat conditions and reduce impacts to the recovery unit from surface disturbing activities such as mining, OHV activities, and maintenance of utility facilities and corridors. Consequently, the impacts to the recovery unit resulting from present activities would be minimized.

Past, present, and potential future impacts, along with the negative impacts from proposed action, cumulatively impact the San Diego Multi Species Recovery Unit to varying degrees. However, the adherence to the provisions of the SCRMP, the CDCA plan, the 2005 Biological Opinion for the CDCA plan (1-8-04-F-43R) (U.S. Fish and Wildlife Service 2005), and the stipulations of the grazing lease renewal for the Beauty Mountain Allotments would, to some extent, offset the cumulative impacts to the recovery unit caused by past, present and reasonably foreseeable future activities.

Arroyo Toad:

No habitat suitable for breeding arroyo toads was detected within or adjacent to the Proposed Action area. Based on the lack of potential for the species to occur on-site, it has been determined that no permanent or temporary direct loss of suitable or occupied breeding habitat for the arroyo toad would occur through implementation of the Proposed Action. Given this lack of suitable habitat for the arroyo toad, no indirect temporary or permanent impacts are expected through implementation of the Proposed Action.

Consultation: Preliminary informal discussions were conducted with USFWS beginning May 2009 with the understanding that base line vegetation data would be collected before turn-out. Recommendations were to incorporate language to be part of the lease terms and conditions to address mitigations and/or avoidance measures.

Maps: See Appendix

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12. VEGETATION INCLUDING INVASIVE/NON-NATIVE SPECIES

Affected Environment:

Generally, the Proposed Action area consists of four natural vegetation communities that were mapped within the Beauty Mountain Allotment: red shank chaparral, big sagebrush scrub, oak woodland and riparian scrub. One non-native vegetation community, non-native grassland, is also present. The vegetation mapping was conducted at a broad scale, and the communities' mapped are fairly general in their coverage. In addition, the access roads and major trails were not distinguished and are included within the vegetation community classification that surrounds the road. Chambers Group, Inc., (2002b), identified several additional vegetation communities that are related to or are subsets of the vegetation communities, such as southern willow scrub or mule fat scrub; however, the report did not include a map or breakdown of acreages, and therefore these data were not available for field verification during the current vegetation mapping efforts.

Red Shank Chaparral (Holland Code 37300)

Red shank chaparral is generally dominated by and often consists almost exclusively of stands of red shank (*Adenostoma sparsifolium*), which stand two to four meters tall and flower in mid-summer. Other species characteristic of this vegetation community are chamise (*A. fasciculatum*), Manzanita (*Arctostaphylos spp.*), ceanothus (*Ceanothus spp.*), scrub oak (*Quercus berberidifolia*), and sugar bush (*Rhus ovate*). The relative distribution and density of other constituent species can vary by location depending on environmental factors. This vegetation community is usually confined to granitic soils at higher elevations with more precipitation and colder winters than another, similar chaparral community, chamise chaparral (Holland 1986).

Approximately half of the allotment supports red shank chaparral. The vegetation generally forms a dense canopy that varies from a monoculture of red shank to a more heterogeneous mixture of red shank with other chaparral shrubs. Patches of vegetation dominated by chamise are also present; however, red shank is generally the dominant species throughout.

Big Sagebrush Scrub (Holland Code 35210)

Big sagebrush scrub is a vegetation community that consists of soft woody shrubs and is typically dominated by big sagebrush (*Artemisia tridentate* ssp. *Tridentate*). This community typically occurs on a wide variety of soils and terrains, and is often associated with pinyon juniper woodland. Growth typically occurs in the late spring and early summer. Big sagebrush scrub occurs between 4,000 and 9,000 feet (Holland 1986).

Approximately half of the allotment (9,000 acres) supports big sagebrush scrub. This vegetation community ranges from open land with scattered shrubs to areas more densely vegetated. The majority of this vegetation community is located within the areas that have received previous grazing or other activities associated with fuels treatments. Some areas support species that are more typically associated with coastal sage scrub, such as California sagebrush (*Artemisia californica*) and California buckwheat (*Eriogonum fasciculatum*). However, as the mapping was done at a broader scale, this was not mapped as a separate sage scrub community. Big sagebrush scrub occurs along almost all of the Units of the fuel breaks and a few scattered locations within the allotment.

Coast Live Oak Woodland (Holland Code 71160)

Coast live oak woodland is dominated by the evergreen coast live oak tree (*Quercus agrifolia*). Coast live oak woodlands are present in the coastal slopes of southern California and typically occur below 4,000 feet on either north-facing or south-facing slopes depending on location within its range (Holland 1986).

Coast live oak woodland is present along several of the drainage courses within the allotment. This community is dominated by a variable canopy of coast live oak. The understory consists primarily of both native and non-native grasses, such as needlegrass (*Nasella* spp.), bromes (*Bromus* spp.), and wild oats (*Avena* spp.) with scattered native and non-native shrubs and annuals. Coast live oak woodland is present along Chihuahua Creek within the allotment boundary. Another large patch is present along the eastern end of the allotment along a tributary to the San Luis Rey River.

There are approximately 10.2 acres of coast live oak woodland on the CNF lands included in the rare plant survey. This woodland is contiguous with the woodland along the tributary of the San Luis Rey referenced above.

Non-native Grassland (Holland Code 42200)

Non-native grassland is characterized by a sparse-to-dense cover of annual grasses reaching up to three feet high, which may include numerous native wildflowers, particularly in years of high rainfall. Annual species germinate with the on-set of the rainy season and set seeds in the late winter or spring. With a few exceptions, the plants are dead through the summer-fall dry season, persisting as seeds. Non-native grassland is usually found in areas that range from being moist or waterlogged in the winter to being very dry during the summer and fall (Holland 1986).

Large patches of non-native grassland are present within the allotment particularly along the southern boundary adjacent to private dry land agriculture.

Riparian Scrub (Holland Code 63000)

Riparian scrub is a riparian community dominated by broad-leaved, winter-deciduous trees. The representative species typically grow in loose, sandy, or fine gravelly alluvium deposited near stream channels during flood flows.

There are a few isolated areas mapped as riparian scrub throughout the allotment and portions of the fuel break. One is characterized by scattered Fremont’s cottonwood (*Populus fremontii*), and the other is adjacent to a lake and consists of mule fat (*Baccharis salicifolia*) and willows (*Salix* spp.) with a few understory patches of cattails (*Typha* spp.)

Native Grassland (Holland Code 42100)

A small native grassland was identified on the eastern CNF project area on a total of .5 acres. This area was adjacent to a tributary of the San Luis Rey River and seemed to have a small berm at one end that appeared to allow water to saturate the soil for longer periods than the surrounding land. Deergrass (*Muhlenbergia rigens*), a large native bunchgrass, was a dominant species in this area. A number of native wildflowers were also present, including windmill pink (*Selene gallica*).

Priority Plant species

Priority plant species are rare, unusual, or key species that are not sensitive by BLM or listed as threatened and endangered. They are worthy of special treatment and indicate ecological health, biological diversity, and unique habitats. A number of priority plant species have the potential to occur on BLM-administered lands within the allotment area based on the presence of the species within the vicinity of the allotment (State of California 2008a) or based on the presence of suitable habitat. One species, Payson’s jewel-flower (*Caulanthus simulans*) was observed within a fuel break during surveys conducted in 2008. These species are included in the following table.

Invasive and Noxious Weed Species

Throughout southern California, native vegetation has been altered and in many cases dominated by the introductions of non-native plant species. Invasive and noxious weed species may change ecosystem dynamics dramatically through several mechanisms. They may out-compete natives for water, nutrients, or sun; disrupt processes such as soil nitrogen cycling or pollination relationship; or predispose an area to wildfire by providing excess fuel in areas that would normally have supported lower fuel loads. Several non-native species have the ability to completely change the structure of the vegetation, making it unsuitable to most native wildlife species. Special status wildlife and plant species are particularly at risk from these invasive weed species.

PRIORITY PLANT SPECIES OBSERVED OR WITH THE POTENTIAL FOR OCCURRENCE ON THE BEAUTY MOUNTAIN ALLOTMENT

Species	Family	CNPS List	Occurrence Known or Potential
<i>Abronia vilosa</i> var. <i>aurita</i> chaparral sand-verbena	Nyctaginaceae	1B	Potential
<i>Caulanthus simulans</i> Payson’s jewel-flower	Brassicaceae	4	Observed

<i>Chaenactis parishii</i> Parish's chaenactis	Asteraceae	1B	Potential
<i>Eriogonum foliosum</i> Leafy buckwheat	Polygonaceae	1B	Potential
<i>Hulsea Mexicana</i> Mexican hulsea	Asteraceae	2	Potential
<i>Lessingia glandulifera</i> var. <i>tomentosa</i> Warner Springs lessingia	Asteraceae	1B	Potential
<i>Linanthus bellus</i> desert beauty	Polemmoniaceae	2	Potential
<i>Monardella macrantha</i> ssp. <i>hallii</i> Hall's monardella	Lamiaceae	1B	Potential
<i>Monardella nana</i> ssp. <i>leptosiphon</i> San Felipe monardella	Lamiaceae	1B	Potential
<i>Penstemon clevelandii</i> ssp. <i>conatus</i> San Jacinto beardtongue	Scrophulariaceae	4	Potential
<i>Streptanthus campestris</i> southern jewel-flower	Brassicaceae	1B	Potential

CALIFORNIA NATIVE PLANT SOCIETY LISTS

- 1A Species presumed extinct.
- 1B Species rare, threatened, or endangered in California and elsewhere. These species are eligible for state listing.
- 2 Species rare, threatened, or endangered in California but more common elsewhere. The species are eligible for state listing.
- 3 Species for which more information is needed. Distribution, endangerment, and/or taxonomic information are needed.
- 4 A watch list of species of limited distribution. These species need to be monitored for changes in the status of their populations.

Some non-native plants that occur in very low numbers or seem innocuous for years may expand their range dramatically and become a difficult pest weed under the right environmental conditions. These conditions might be brought about by a year with very late rains or a flood that results in heavy sedimentation of drainages leading to the establishment of riparian weeds.

Executive Order 13112 was signed in February 1999 directing federal agencies to identify and manage invasive species. The order stipulates that actions would be taken to prevent the introduction of invasive species, monitor for their presence, and respond rapidly to eliminate them.

An effective way to implement these actions is through the Federal Noxious Weed Act of 1975 that requires federal land managers to develop a management program to control undesirable plants on federal lands under the agency's jurisdiction and to cooperate with state and federal agencies to manage undesirable plants.

BLM maintains a federal list of noxious weeds of concern. In addition, the State of California and California Invasive Plant Council (Cal-IPC) also maintains lists that focus particular on California. These lists would be consulted in making decisions regarding which noxious weeds to target on the allotment.

Special Status Species

There are a number of special status plants and wildlife species that are known in the vicinity of the Beauty Mountain Management Area. The following table lists all species that are listed by the federal or state government as threatened or endangered or are listed as sensitive by BLM. The table also provides an assessment regarding the occurrence or potential to occur on the allotment. Rare plant surveys were conducted in the summer 2008, and Mojave tarplant and Orcutt's brodiaea were detected (see Beauty Mountain Fuel Break Biological report).

Federally Listed Species

Three federally listed plant species were evaluated based on their presence on the BLM sensitive list with the Palm Springs South Coast Field Offices jurisdiction: San Diego ambrosia (*Ambrosia pumila*), Nevin's barberry (*Berberis nevinii*), and Orcutt's hazardia (*Hazardia orcuttii*). None of these species is expected to occur based on elevation and range restrictions.

SPECIAL STATUS SPECIES

Species	Federal Status	State Status	BLM Sensitive	Occurrence Known or Potential
<i>Astragalus deanei</i> Dean's milk-vetch			Sensitive	Not Expected
<i>Astragalus douglasii</i> var. <i>perstrictus</i> Jacumba milk-vetch			Sensitive	Not Expected
<i>Astragalus oocarpus</i> Descanso milk-vetch			Sensitive	Potential
<i>Berberis</i> [<i>Mahonia</i>] <i>nevinii</i> Nevin's barberry	FE	SE		Not Expected
<i>Brodiaea orcuttii</i> Orcutt's brodiaea			Sensitive	Observed
<i>Ceanothus cyaneus</i> Lakeside ceanothus			Sensitive	Not Expected
<i>Chamaesyce platysperma</i> Flat-seeded spurge			Sensitive	Not Expected
<i>Cryptantha gander</i> Gander's cryptantha			Sensitive	Not Expected
<i>Deinandra</i> [<i>Hemizonia</i>] <i>floribunda</i> Tecate tarplant			Sensitive	Not Expected
<i>Deinandra</i> [<i>Hemizonia</i>] <i>mohavensis</i> Mojave tarplant		SE		Observed
<i>Dudleya multicaulis</i> Many-stemmed dudleya			Sensitive	Not Expected
<i>Dudleya variegata</i> Variegated dudleya			Sensitive	Not Expected
<i>Lepechinia gander</i> Gander's pitcher sage			Sensitive	Not Expected
<i>Lepidium flavum</i> var. <i>felipense</i> Borrego Valley pepper-grass			Sensitive	Not Expected
<i>Linathus orcuttii</i> Orcutt's linanthus			Sensitive	Potential

Species	Federal Status	State Status	BLM Sensitive	Occurrence Known or Potential
<i>Linanthus maculatus</i> Little San Bernardino Mountains linanthus			Sensitive	Not Expected
<i>Lupinus excubitus</i> var. <i>medius</i> Mountain springs bush lupine			Sensitive	Not Expected
<i>Monardella robisonii</i> Robison's monardella			Sensitive	Not Expected
<i>Ribes canthariforme</i> Moreno currant			Sensitive	Not Expected
<i>Tetracoccus dioicus</i> Parry's tetracoccus			Sensitive	Potential
<i>Xylorhiza orcuttii</i> Orcutt's Wood-aster			Sensitive	Not Expected

State Listed Species

Three state-listed plant species were evaluated based on their presence on the BLM sensitive list within the Palm Springs-South Coast Field Office jurisdiction: Nevin's barberry (*Berberis nevinii*), Mojave tarplant (*Deinandra mohavensis*), and Orcutt's hazardia (*Hazardia orcuttii*). Nevin's barberry and Orcutt's hazardia are not expected to occur based on elevation and range restrictions. Mojave tarplant was observed in one of the fuel breaks within the allotment and is discussed below.

Mojave tarplant. Mojave tarplant was listed as an endangered species in 1981 by the State of California (2002) and as a List 1B by CNPS (2001). This aromatic annual herb in the sunflower family (Asteraceae) grows six to twelve inches tall (up to four feet tall, State of California [2000]) and bears yellow flower heads in compact clusters from July to September (Baldwin et al. 2002). Mojave tarplant has been originally found in the southwestern edge of the Mojave Desert, but it has been extirpated from San Bernardino County. Mojave tarplant grows along drainages in relatively arid locations in chaparral or riparian scrub habitats between 2,800 and 4,300 feet (Baldwin et al. 2002, CNPS 2001, Reiser 2001). Typically it occurs in meadow, grassy swales and seeps on low-gradient stretches of intermittent streams, in seasonally saturated clay, silt, or gravelly soils. In San Diego County it occurs on two sites in the Cutca Valley east of Eagle Craig Summit in vernal moist grassy areas (State of California 2000).

In San Diego County the species has been observed in the CNF and other areas adjacent or near the Beauty Mountain fuel break area (State of California 2008e). The Species was observed in the Chihuahua Valley area during rare plant surveys conducted in 2008 by RECON.

BLM Sensitive Species

There are four BLM sensitive plant species identified as present or having the potential to occur within the allotment: Descanso milk-vetch (*Astragalus oocarpus*), Orcutt's brodiaea (*Brodiaea orcuttii*), Orcutt's linanthus (*Linanthus orcuttii*), and Parry's tetracoccus (*Tetracoccus parryii*).

Only one, Orcutt's brodiaea, was observed during the most recent surveys. (See Biological Assessment for Beauty Mountain Fuel Break).

Orcutt's Brodiaea. Orcutt's brodiaea is a CNPS (2001) List 1B species and is a BLM sensitive plant species. This bulbiferous perennial in the lily family (Liliaceae) flowers from April through July. Its range is limited to San Diego, Riverside, and Orange counties and Baja California, Mexico at elevations up to 5,500 feet (Munz 1974). Typically it is found in chaparral and lower montane coniferous forest communities, particularly areas with vernal moist grasslands, mima mounds, or at the edge of vernal pools or streams (Reiser 2001). It is known to occur in clay, and sometimes serpentine, soils including Stockpen gravelly loam (Reiser 2001).

Orcutt's Linanthus. Orcutt's linanthus is a CNPS (2001) List 1B species and is a BLM sensitive plant species. This small annual wildflower in the phlox family (Polemoniaceae) grows about four inches tall and blooms in May and June with pink, white, or blue funnel-shaped flowers with a yellow throat (Munz 1974). Orcutt's linanthus is currently distributed in Riverside, San Bernardino and San Diego counties and Baja California, and has been extirpated from Los Angeles County. It occurs in openings in chaparral, lower montane coniferous forest, and pinyon-juniper woodlands, between 3,000 to 7,200 feet (CNPS2001).

Descanso Milk-vetch. Descanso milk-vetch is a CNPS List 1B species and is a BLM sensitive plant species. This perennial herb in the legume family (Fabaceae) grows to about one foot tall, flowering from June to August (Munz 1974). It typically is found along edges of montane meadows in chaparral, growing with chamise and manzanita species. This species is endemic to San Diego County, occurring in scattered locales from Palomar to Cuyamaca Mountains. It has been confused with the more common Douglas milk-vetch (*A. Douglasii*), but may be distinguished during late summer or fall surveys by its distinctive, egg-shaped, inflated fruit pods (Reiser 2001).

Parry's tetracoccus. Parry's tetracoccus is a CNPS (2001) List 1B species and is a BLM sensitive plant species. It is a deciduous shrub in the Euphorbiaceae family that blooms from April to May. This species is found from the Ortega Highway in southern Orange and Riverside counties through the Peninsular Range, and east to Jacumba in San Diego County, and south to Baja California (Munz 1974, CNPS 2001). Parry's tetracoccus grows on dry, rocky slopes below 3,300 feet in chaparral (Hickman 1993), particularly in moderately dense, low-growing, chamise chaparral (Reiser 2001).

Environmental Consequences:

a. Impacts of Action Alternatives.

There is a potential for cattle to bring seed onto the allotments from private lands. However, this effect will be negligible because cattle are not expected to introduce seeds not already present in the project area or introducible by a variety of other vectors. Cattle are only fed hay on the allotments in emergency situations. Hay in Riverside and San Diego Counties comes mostly from the Imperial Valley which does not have infestations of starthistle or other noxious weeds not currently in abundance on BLM South Coast

lands already. Best Management Practices calls for certified weed-free feed to be used on public land.

Cattle may cause some ground disturbance that may be colonized by noxious weeds. However, forage utilization standards will limit the amount of bare ground created by grazing. Indirectly, cattle grazing in spring in the allotment will put grazing pressure on introduced annual grasses, *schismuss spp.*, *bromus spp.*, *avens spp.*, *erodium spp.* and *brassica spp.* while they are most palatable and before seed set. This may reduce their competitiveness with native perennial grasses.

All of the Action Alternatives would result in increased monitoring by BLM personnel on the allotment as well as presence of the permittees. This should lead to an increased ability to detect new noxious weed invasions early, especially for starthistle, medusahead grass and Russian thistle.

Cattle may introduce small amounts of annual grass seed into recently burned chaparral areas. This effect is considered minor compared to the amount of seed introduced by other vectors, including wildlife. In addition, this effect is expected to be minor on these allotments because current herding practices do not require movement through chaparral areas and the proposed action does not allow increased numbers to graze increased herbaceous forage in recently burned chaparral areas.

It is thought that biological soil crusts help prevent the spread of non-native grasses into chaparral vegetation. Cattle may impact these crusts through trampling and trailing, possibly opening up a seed bed for annual grasses. This effect is expected to be minor and confined to areas already adjacent to primary rangelands and road or trails. This is due to the relative inaccessibility of mature chaparral to livestock. Livestock may enter these areas after wildfire, but herding or increasing stocking rates to use of these areas would not occur.

It is expected that by implementing the proposed action, forage utilization standards would be followed. Forage located in accessible portion of the allotment, upland forage, lower elevation in the allotment, would be subjected to light grazing pressure from domestic cattle. Forage productivity and plant diversity in these areas would be maintained.

Implementation of monitoring for forage utilization standards and enforcement of reduced season of use when standards have been met would result in an improvement in upland forage condition in the Beauty Mountain Allotment. The season of use favors utilization of non-native annual grasses and forbs. It is expected that the proposed action would result in some favorable removal of non-native annual grasses and forbs and may have a measurable impact due to nature of the grazing use.

Chaparral areas do not typically receive grazing use except after fire and in less sparse areas immediately adjacent to primary range or travel routes. Under the proposed action, use of chaparral areas is expected to be very light and incidental. No herding into these

areas would be authorized and the proposed action does not allow for increased numbers in response to fire. After fire, grazing is not expected to slow or prevent the recovery of chaparral with the minimal permitted numbers of cattle. It is undetermined how much grazing practices contribute to the introduction and/or spread of non-native invasive species. It is possible that livestock can cause the spread of invasive 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, Mediterranean plant communities. This, in turn, promotes the establishment and spread of non-native invasive species that now occupy habitat once inhabited by native species. Grazing practices that allow for periodic recruitment opportunities commonly have lower densities of non-native species and are more compatible with sustaining native plant communities.

Overall, the current densities of non-native invasive species on the allotment being analyzed in this 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 Standards and Guidelines and biological stipulations, along with grazing strategies that require proper cattle distribution and the long periods of non-grazing, would aid in sustaining native plant communities, and would ensure that cattle grazing would have only a slight risk of introducing and/or spreading non-native/ invasive species on the Beauty Mountain Allotment.

b. No Action Alternative

Not implementing a grazing program would allow for the current compositions of vegetation to remain. This action could result in an increase of the fuel load within this area and increase the risk of a catastrophic fire occurring over the allotment and adjacent open space and rural communities. A large-scale wildfire could result in the loss of native vegetation communities and increase the risk of invasion by undesirable weed species.

c. Cumulative Impacts

The allotment is adjacent to private lands and also has lightly to moderately traveled access roads into and adjacent to the allotment. There are also areas of dispersed camping and other recreational activities within the allotment boundaries. These activities act as a source for introducing noxious weed plant seed into the area and, the roads act as a potential source of ground disturbance due to unauthorized OHV use. Livestock movement in and out of the allotment adds a small amount to these already present vectors of weed transmission. Fire suppression is also a source of weed seed and disturbance into these areas during wildfires. Post fire, rehabilitation activities and noxious weed surveys are conducted. Grazing management may be altered if new infestations are detected due to these activities.

Drought and fire are also disturbances that can open growing space for noxious weeds. Range management practices such as pasture resting after fire and during drought would minimize the cumulative impacts of these disturbances.

Vegetative trend data for this allotment is sparse. Due to the lack of any large disturbances in the area and since it was last grazed in 2005, downward vegetative trends are unlikely. There are no known threatened or endangered plants on this allotment.

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.

See Beauty Mountain Fuel Break Biological Assessment.

13. WILDERNESS

Affected Environment:

The 15,621 acre Beauty Mountain Wilderness was congressionally designated in March, 2009. This area was designated as wilderness to provide for the protection and preservation of its wilderness character for the use and enjoyment for present and future generations of people. Grazing has been authorized since the 1960s. 9,824 acres of the Beauty Mountain Allotment, which predates wilderness designation, are located within the wilderness.

Livestock grazing in wilderness is in conformance with the Wilderness Act of 1964 (P.L. 88-577). Section 4 (4) of the Wilderness Act states, “the grazing of livestock, where established prior to the effective date of this Act, shall be permitted to continue subject to such reasonable regulations as are deemed necessary by the Secretary of Agriculture.” The grazing of livestock in BLM wilderness areas is regulated under 43 Code of Federal Regulations (CFR) 6304.25, and guided by BLM manual 8560.15 (G). BLM manual 8560.15 (G) states, “Congressional guidelines regarding ‘Grazing in National Forest Wilderness Areas,’ published in House Report 96-1126, dated June 24, 1980, must be implemented in all BLM-administered wilderness with pre-existing grazing.” These guidelines state, “the maintenance of supporting facilities, existing in an area prior to its classification as wilderness, is permissible in wilderness. Where practical alternatives do not exist, maintenance or other activities may be accomplished through occasional use of motorized equipment.” Although grazing is allowed to continue in areas designated as wilderness, BLM managers must perform a Minimum Tool Analysis before authorizing any actions normally prohibited by Sec. 4(C) of the Wilderness Act, including use of motorized/mechanized equipment and new facility construction.

The allotment currently impacts the undeveloped value of wilderness character through the presence of range improvement structures such as fences, corrals, and troughs. The presence of livestock, a non-native species, impacts the natural value of wilderness character. The very act

of grazing and its associated activities degrades the untrammeled value of wilderness character through surface impacts associated with livestock 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). The wilderness character of solitude or primitive and unconfined recreation would be impacted as well, but it is anticipated that any impacts would be slight due to low visitation by the public to this area.

Environmental Consequences:

a. Impacts of Action Alternatives

The herding and grazing of livestock in designated wilderness areas is permitted by Sec. 4(d)(4) of the Wilderness Act where grazing was established prior to designation of wilderness areas. While grazing activities are permitted in designated wilderness, there will be a reduction in solitude and primitive recreation opportunities when livestock and ranch hands are present. Surface impacts from these activities, although short-term in nature, would negatively affect wilderness quality by impacting a mostly natural and untrammeled wilderness environment. Restricting vehicular use, associated with herding, watering, and ranch hand activity, to access routes outside the wilderness will greatly minimize impacts to wilderness values.

b. Impacts of the No Permit Renewal

There would be no impacts on wilderness character as lease would not be renewed.

c. Cumulative Impacts

The primary cumulative impacts to wilderness quality in the area are in the form unauthorized OHV use. In addition, existing old mines and associated impacts, two track roads, borrow pits, and several structures of unknown origin or purpose are imprints of man that detract from the overall ideals of untrammeled landscapes that wilderness quality depends on. Overall, the presence of livestock grazing will detract from the natural, untrammeled, and undeveloped qualities of wilderness character by adding the existing impacts of past human activities. The quality of solitude or primitive and unconfined recreation will be negatively impacted as well, but not significantly so.

Consultation: one

Maps: one

References:

Public Law 111-11 March 30, 2009 123 STAT. 1062(1) (E)

APPENDIX I
MAPS