

**ENVIRONMENTAL ASSESSMENT  
LIVESTOCK GRAZING AUTHORIZATION**

**CA-680-04-29**

**Allotment Name(s): Pahrump Valley, Cady Mountain, Cronese Lake, Harper Lake,  
Rattlesnake Canyon, Ord Mountain, Valley Well, Round Mountain**

**BARSTOW FIELD OFFICE  
SEPTEMBER 2004**

**CHAPTER 1: INTRODUCTION**

## **Background**

In 2000, seven grazing leases (eight grazing allotments) for cattle and cattle/horses operations expired at the end of the 1999 grazing year (2/28/00). These seven grazing leases were renewed under the authority of Public Law 106-113. The duration of the grazing leases renewal varied by allotment based on factors that included rangeland health condition. Grazing leases ranged from three-year to ten-year terms, and contained the same terms and conditions as the expiring grazing leases. Public Law 106-113 required compliance with all applicable laws and regulations, which include the National Environmental Policy Act (NEPA) and the Endangered Species Act (ESA). Following the analysis of environmental impacts these grazing leases may be approved, canceled, suspended or modified, in whole or in part, to meet the requirements of such applicable laws and regulations.

The Washington Office Instruction Memorandum 2003-071 requires that all grazing permits and leases that expired in 1999 and 2000 be “fully processed” by the end of Fiscal Year 2004 (9/30/04). The term “fully processed” permit/lease refers to the completion of an adequate environmental analysis and issuance of a proposed grazing decision in accordance with 43 CFR 4160, and appropriate consultation in accordance with the ESA.

On January 29, 2001 the BLM and the Center for Biological Diversity et. al. enter into a stipulated agreement effective immediately, herein known as the “Settlement Agreement” for the management of livestock grazing. The Settlement Agreement prescribed areas of the Ord Mountain, Harper Lake, Cady Mountain, Cronese Lake, and Rattlesnake Canyon be excluded from cattle grazing in the spring and fall. In addition, it placed a cap on stocking rates for those allotments. Based on an April 25, 2002 amendment these stipulations are still in affect until the signing of the Record of Decision for the West Mojave Plan Amendment to the CDCA Plan.

The Bureau of Land Management (BLM) is proposing to issue a ten-year term length grazing leases on eight allotments to authorize cattle/horse grazing in the jurisdiction of the Barstow Field Office (see Map 1). The eight allotments encompass 419,939 acres of public land and 100,195 acres of private land. The allotments are located in rural San Bernardino and Inyo Counties. Elevation range is between 2,300 and 6,300 feet. Vegetation communities are a mix of Creosote Bush Scrub, Mojave Mixed Scrub, Saltbush Scrub and Pinyon-Juniper Woodland.

## **Need for the Proposed Action**

The proposed action is needed to authorize grazing in accordance with 43 CFR 4100 and is consistent with the provisions of the Taylor Grazing Act, Public Rangelands Improvement Act, and Federal Land Policy and Management Act. Actions may be required to maintain or improve resource conditions including rangeland health. The following plan conformance review summarizes the status of existing permits/leases: All seven grazing leases being analyzed in this document have been renewed for terms ranging from three years to ten-years under PL 106-113.

Continue to conform with the grazing stipulation contained in the Settlement Agreement,

effective January 29, 2001, as amended April 25, 2002.

**Plan Conformance:** Lease/permit renewals under the same terms and conditions is subject to: The California Desert Conservation Area Plan (CDCA Plan) 1980 as Amended, including the Northern and Eastern Mojave (NEMO) Plan Amendment, 2002. The proposed action has been determined to be in conformance with the CDCA Plan as required by regulation (43 CFR §1610.5-3(a)). The proposed action would occur in areas identified for livestock grazing as indicated in the Livestock Grazing Element in the CDCA Plan 1980 (1999), pages 56 to 68. The proposed action is consistent with the land use decisions, and goals and objectives listed in the CDCA Plan.

### **Relationship to Statutes, Regulations, and Plans**

#### **Endangered Species**

All but one of the grazing allotments, Round Mountain is within the range of federally listed threatened or endangered species. Pursuant to Section 7 of the Endangered Species Act (ESA), formal consultation with the U. S. Fish and Wildlife Service (USFWS) is required on all allotments for which livestock grazing may affect listed species. The terms and conditions for grazing use of any grazing lease or permit (hereafter referred to as lease) may need to be modified to conform to the protective measures (terms and conditions) specified in a FWS biological opinion (BO). The USFWS has issued a total of five BOs concerning cattle grazing in habitat for the desert tortoise. The first BO was issued in 1993, two were issued in 1994, one was issued in 1997 and on June 17, 2002 the FWS issued its latest biological opinion on desert tortoise and includes additional terms and conditions for BLM on cattle/horse grazing operations within habitat for the desert tortoise. In addition, the terms and conditions of any grazing lease may also need to be modified through subsequent land use plan amendments or revisions to conform to decisions made to achieve recovery plan objectives. The Northern and Eastern Mojave Plan Amendment (2002) addressed ESA concerns for one grazing allotment proposed for renewal herein, while the West Mojave Management Plan Amendment is currently addressing ESA concerns for the other seven grazing allotments proposed for renewal herein that may affect listed species.

Seven out of eight of the allotments also provide habitat for State listed fish, wildlife, and plant species. According to the MOU between BLM and CDFG, BLM agrees: “to notify the Department of all projects involving impacts to, or manipulation of, State-listed rare (threatened) and endangered fish, wildlife and plants and to obtain State recommendations of the project-specific management of such populations.”

#### **Cultural Resources**

California BLM has responsibility to manage cultural resources on public lands pursuant to the

1966 National Historic Preservation Act, the 1980 Rangeland Programmatic Memorandum of Agreement with the Advisory Council on Historic Places (WO IM 80-369), the 1997 Programmatic Agreement Among the Bureau of Land Management, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers Regarding the Manner in Which BLM Will Meet Its Responsibilities Under the National Historic Preservation Act, the State Protocol Agreement Between the California State Director of the Bureau of Land Management and the California State Historic Preservation Officer, the State Protocol Agreement Between the Nevada State Director of the Bureau of Land Management and the Nevada State Historic Preservation Officer, and other internal policies.

The stipulations of any grazing permit may be modified to reflect the presence of cultural resources. Background site record and literature review will be conducted as a minimum level of review as part of the permit renewal EA. Present inventory will focus on known or suspected areas of historic ground disturbing activities associated with livestock grazing such as water sources, corrals, supplemental feeding areas, bedding areas, salt block stations, cattle grates and fence lines. The results of this analysis will be used to modify grazing permits.

All cultural resources will be subject to review and evaluation for listing in the National Register of Historic Places. Pursuant to the amended California protocol (see Attachment 1) supporting documentation will be submitted to the California Office of Historic Preservation for review and concurrence to be submitted to the Keeper of the National Register. All cultural resources will be afforded protection consistent with law and policy, including appropriate mitigation measures.

### Wilderness

Wilderness and wilderness study areas are found in or adjacent to six out of the eight allotments. Grazing activities currently occur in wilderness and wilderness study areas. For the purpose of this analysis, the proposed action contains no impacts that are expected to occur beyond those impacts already occurring under current grazing management.

The proposed action is subject to Section 103.(c) of the California Desert Protection Act (P. L. 104-433, 31 Oct 1994): 'Livestock. – Within the wilderness areas designated under Section 102, the grazing of livestock, where established prior to the date of enactment of this Act, shall be permitted to continue subject to such reasonable regulations, policies, and practices as the Secretary deems necessary, as long as such regulations, policies, and practices fully conform with and implement the intent of Congress regarding grazing in such areas as such intent is expressed in the Wilderness Act and section 101(f) of Public Law 101-628.'

"Public Law 101-628 (28 Nov 1990, the Arizona Desert Wilderness Act of 1990), at Section 101(f): 'Livestock. – (1) Grazing of livestock in wilderness areas designated by this title, where established prior to the date of enactment of this Act, shall be administered in accordance with section 4(d)(4) of the Wilderness Act and the guidelines set forth in Appendix A of the Report of the Committee on Interior and Insular Affairs to accompany H. R. 2570 of the One Hundred First Congress (H. Rept. 101-405).'

Report 101-405, at pp.(41-2) states: ‘It is anticipated that the number of livestock permitted to graze in wilderness would remain at the approximate levels at the time an area enters the wilderness system. If land management plans reveal conclusively that increased livestock numbers or animal unit months (AUMs) could be made available with no adverse impacts on wilderness values such as plant communities, primitive recreation, and wildlife populations or habitat, some increases in AUMs may be permissible. This is not to imply, however, that wilderness lends itself to AUM or livestock increases and construction of substantial new facilities that might be appropriate for intensive grazing management in non-wilderness areas.’ And, at p.(42): ‘The construction [of] new improvements or replacement of deteriorated facilities in wilderness is permissible if in accordance with these guidelines and management plans governing the area involved. However, the construction of new improvements should be primarily for the purpose of resource protection and the more effective management of these resources than to accommodate increased numbers of livestock. ‘Furthermore, at p.(43): ‘‘In summary, subject to the conditions and policies outlined in this report, the general rule of thumb on grazing management in wilderness should be that activities or facilities established prior to the date of an area’s designation as wilderness should be allowed to remain in place and may be replaced when necessary for the permittee to properly administer the grazing program. Thus, if livestock grazing activities and facilities were established in an area at the time Congress determined that the area was suitable for wilderness and placed the specific area in the wilderness system, they should be allowed to continue. With respect to areas designated as wilderness prior to the date of this Act, these guidelines shall not be considered as a direction to reestablish uses where such uses have been discontinued.’

‘‘For the purposes and context of this EA, it is worth noting that, in using the term ‘established’, Congress would not be expected to envision instances of grazing use ‘establishment’ accomplished by irregular means or methods.’’

### Water Quality

Activities related to grazing livestock may degrade the quality of water for natural occurring water sources such as springs or seeps. Any changes in grazing management or soil (surface) disturbing actions would be reviewed further for potential impacts to water quality. Best management practices would be employed to mitigate or avoid these potential impacts.

### Air Quality

The proposed action would be performed within an area designated by the U.S. Environmental Protection Agency as being in non-attainment of certain Clean Air Act Standards. This designation resulted in the development of plans and strategies to protect air quality. The proposed activity is in conformance with relevant State Implementation Plans (SIPs) and Attainment Plans for protection of air quality in the area. The SIPs and attainment plans for these pollutants either have been approved or are currently under review by the U.S. Environmental Protection Agency (EPA). The project area is within the jurisdiction of the Mojave Desert Air Quality Management District (MDAQMD) which has overseen the development and implementation of local attainment plans.

The Pahrump Valley Allotment area has not been classified as a federal non-attainment/maintenance area by the USEPA. Federal actions are not subject to conformity determinations under 40 CFR 93. The Great Basin Unified Air Pollution Control District has state air quality jurisdiction over the Pahrump Valley Allotment area.

### Regulation

For livestock grazing purposes, this proposal is subject to BLM regulations at 43 CFR 4100 (grazing regulations).

### Plans

NEMO Plan: For grazing leases subject to provisions of BLM's Northern & Eastern Mojave (NEMO) Plan, lease authorization terms and conditions would be intended to maintain and achieve the rangeland health standards and guidelines recently adopted through the NEMO Plan.

Note: Until approved by the Secretary, the "Regional Standards and Guidelines" adopted through the NEMO Plan would not be incorporated in the grazing lease authorization proposed here. Upon approval by the Secretary, The Regional Standards and Guidelines would be adopted through modification of the lease authorizations proposed here.

West Mojave Plan (Proposed Habitat Conservation Plan/CDCA Plan amendment): BLM, U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Game (CDFG), county and city governments, various interest groups, the U.S. military, and a number of public lands stakeholders currently are developing this plan. Upon completion, it is intended to amend the CDCA Plan. The West Mojave Plan (WMP) is a local bio-regional planning effort addressing State and federally-listed species, specifically the desert tortoise. BLM issued the West Mojave Plan/Draft Environmental Impact Statement (WMP-DEIS) in May 2003.

Management of habitat for the tortoise and over 100 other sensitive species on public lands is being addressed, including implementation of recovery plan actions developed for the tortoise. Alternatives for the management of livestock grazing on public and interspersed private lands are an integral component of the West Mojave Plan. When approved, grazing leases would be subject to the provisions of BLM's WMP. The grazing lease authorization terms and conditions would be intended to maintain and achieve the rangeland health standards and guidelines that would be adopted through the WMP.

## **CHAPTER 2 PROPOSED ACTION AND ALTERNATIVES**

### **Introduction**

Three alternatives are carried forth for analysis in this environmental assessment: The first is the Current Management Alternative, which is the allotment management occurring under the current

interim lawsuit guidelines; the second is the Rangeland Health Alternative, which would incorporate the results of recent rangeland assessments into current grazing practices and make appropriate modifications; and the third is the No Action Alternative, which would initiate action to terminate the leases and eliminate grazing from the allotments.

### **1. Current Management**

This alternative was developed after a review of resource issues, conditions, trends and reasonably foreseeable future actions on the eight allotments. Monitoring requirements, mitigation measures, and lease terms and conditions developed in the resolution of issues will be incorporated into this alternative to minimize potential impacts to resources while continuing to provide forage for livestock grazing.

The proposed action would continue interim management as prescribed by the grazing stipulation contained in the Settlement Agreement, effective January 29, 2001 resulting from the lawsuit filed by Center for Biological Diversity (CBD) et al. Interim management shall be in effect until the WMP amendment to the CDCA Plan is approved, as per amendment to the Settlement Agreement dated April 25, 2002. When interim management is concluded the management of livestock grazing would consist of authorizing cattle/horses grazing on eight allotments, administered under seven grazing leases located in rural San Bernardino County, and one allotment located in rural Inyo County managed under the provisions of the grazing element prescribed in the CDCA Plan, as amended, and the terms and conditions of applicable biological opinions for the desert tortoise.

Interim management under the Settlement Agreement applies to every allotment being analyzed except the Pahrump Valley Allotment. Current management or interim management has been previously analyzed in EA CA-610-01-02. Under interim management a spring and fall seasonal exclusion period exists that prohibits livestock grazing from March 1 through June 15 and September 7 through November 7 for areas delineated in the allotments being analyzed for lease renewal (see Map 2). There is also a reduction in the maximum number of AUMs authorized under the permitted use for the Ord Mountain, Cronese Lake, and Rattlesnake Canyon Allotments indicated in Table 1. Table 2 indicates maximum grazing use outside of the Settlement Agreement. Grazing is prohibited on the Round Mountain Allotment until “receipt of the last biological opinion on the effects of the CDCA Plan on listed species and the implementation of any applicable terms and conditions.” The June 17, 2002 biological opinion on the affects of the CDCA Plan on the desert tortoise was vacated and remanded to the USFWS on August 3, 2004 by a federal court. This action would prohibit the resumption of cattle grazing on this allotment until a new biological opinion is issued.

For the Cronese Lake and Cady allotments, BLM proposes that the administration of both under one grazing lease be continued. In the Cady Mountain, Rattlesnake Canyon and Ord Mountain Allotments, BLM also would continue to authorize the grazing of a small number of domestic horses. This authorization would convey all prescriptions, management actions, and terms and conditions related to the management of these eight grazing allotments under seven grazing leases

for a term of ten years. With the exception of the Round Mountain Allotment, these grazing leases would continue to conform to the terms and conditions stated in the 1997 Biological Opinion for the Interim Livestock Grazing Program Proposed by the Bureau of Land Management and National Park Service in Mojave Desert Tortoise Critical Habitat (1-5-96-F-296R). As previously stated a total of four have been issued by the USFWS concerning cattle grazing in habitat for the desert tortoise. The BOs issued from 1993 through 1997 contain virtually the same terms and conditions as protective measures for this authorized activity. Grazing stipulations under interim management, and the terms and conditions stated in the 1997 BO would constitute on-the-ground stipulations for the management of livestock grazing in desert tortoise habitat. This BO contains 20 terms and conditions applicable to seven out of eight allotments, and several protective measures contained in this BO that relate directly to the achievement and maintenance of public land health (see Attachment 2).

BLM anticipates that continued management under the stipulations contained in the Settlement Agreement and conformance with these terms and conditions will minimize livestock grazing impacts on the desert tortoise and its habitat. In addition to interim management and the above cited BO, the current season of use and permitted use, including management actions and stipulations stated in an approved AMP, if applicable, or stipulations directed by existing decision or through an existing agreement would also be included in this grazing lease. Conformance with the achievement of fallback standards and guidelines stated in the grazing regulations (43 CFR 4180.2) would also be required to the extent possible.

On all eight allotments cattle/horses would continue to be actively managed by the lessees, who use located developed/undeveloped water sources and herding to manage livestock consistent with forage availability.

The Pahrump Valley Allotment contains four reservoir located in the Nopah Range Wilderness Area. The need to authorize vehicular use in wilderness for maintenance of these reservoirs is being identified in this document. However, a site specific EA would be prepared for this action prior to the authorization of vehicular use in wilderness.

Under this alternative, the other requirements discussed and analyzed in this document would also be included. This includes, but is not limited to the requirement for a Section 106 cultural inventory in all of the allotments contained in this document. To the extent possible, conformance with fallback standards and guidelines would also be required under this alternative.

A. Livestock Numbers and Season of Use \*

**Table 1. Under Interim Management**

Allotment	From	To	Maximum AUMs
Cady Mountain	March 1	February 28	2,059
CroneseLake	March 1	February 28	444
Round Mountain	December 1	March 31	880

Valley Well	March 1	February 28	24
Ord Mountain	March 1	February 28	2,066
Harper Lake	March 1	February 28	560
Rattlesnake Canyon	March 1	February 28	541

**Table 2. Outside Interim Management**

Allotment	Number	Kind	From	To	AUMs
Cady Mountain	171	Cattle/Horse	March 1	February 28	2,059
Cronese Lake	42	Cattle	March 1	February 28	500
Round Mountain	221	Cattle	December 1	March 31	880
Valley Well	2	Horses	March 1	February 28	24
Ord Mountain	315	Cattle/Horses	March 1	February 28	3,632
Harper Lake	50	Cattle	March 1	February 28	600
Rattlesnake Canyon	87	Cattle	March 1	February 28	1,044
Pahrump Valley	175	Cattle	February 15	April 15	353

\* See Appendix 1 for allotment descriptions

**B. Range Improvements**

Table 3 (below) presents new range improvement projects BLM expects to propose formally in the reasonably foreseeable future. These projects make an appearance here for informational and cumulative analysis purposes only. They would not be enabled in any sense of that term by the lease authorization proposed here, nor would this EA serve in any way to discharge BLM’s requirements under NEPA regarding those improvements. The purpose of such improvements would be to maintain or achieve rangeland health. A complete list of existing range improvements that would continue to be maintained under this alternative is included in Appendix 2.

**Table 3. Proposed Range Improvements**

Project Name/No.	Location Township/Range/ Section	Comments eg. General condition	Mitigation Description (indicate resource benefit of improvement)

Northwest Rattlesnake Boundary Fence # 8500	T.3N., R.2E., Sec. 11&12	Proposed boundary/T&E protection fence. Scheduled for construction in June 2004.	This four mile fence would protect the federally listed Parish's daisy from impacts by cattle, and also protect riparian habitat at Terrace Spring.
Southwest Rattlesnake Fence # 8501	T.2N., R.3E., Sec. 22	Proposed boundary fence incorporating Section 22.	This two mile fence would enhance cattle distribution in the Upper Pasture and reduce drift onto the SBNF.
Canyon Spring # 8036	T.3N., R.3E., Sec 34	Proposed spring development in Rattlesnake Canyon.	This proposed spring development would provide water to cattle and wildlife in the "heart" of Rattlesnake Canyon, and reduce grazing pressure on Upper Rattle Spring located on private land.
Arrastre Spring/Well	T.3N.,R.3E., Sec. 13	Proposed spring or well development to provide water to portions of the allotment located between Dove Spring and Rattlesnake Spring.	This proposal would allow for enhanced livestock distribution. This portion of the allotment is relatively unused. Reduce grazing pressure in the Dove and Rattlesnake Spring areas.
East Ord Well # 8224	T.6N., R.4E., Sec. 7	Proposed water well, with up to three trough locations.	This water development would enhance livestock distribution and reduce grazing pressure in DT critical habitat.
East Harper Fence Phase II # 8502	T.11N., R.3W., Sec 10	Proposed continuation of # 8434	The proposed three miles of boundary fence would enhance

			cattle distribution in the North Pasture.
Round Mountain South Boundary Fence # 8503	T.3N., R.3W., Sec 9 & 10	Proposed extension to existing BLM/FS boundary fence.	This proposed one mile of fence would prevent cattle drift into sensitive riparian habitat on the San Bernardino NF.

C. Measures to Maintain or Achieve Standards (Terms and Conditions of Lease) by Allotment:

With the exception of the Round Mountain Allotment, all of the allotments included in this analysis are within habitat, both critical and/or non-critical of the desert tortoise, a federally listed species. Listed below in Table 4 are the acreages of public land, by allotment of desert tortoise habitat within each allotment.

<b>Table 4. Desert Tortoise Habitat by Allotment</b>		
Allotment	Acres of Desert Tortoise Critical Habitat	Acres of Desert Tortoise Non-Critical Habitat
Pahrump Valley		26,224
Valley Well	520	
Rattlesnake Canyon		12,800
Harper Lake	12,225	5,120
Ord Mountain	102,141	30,047
Cady Mountain		177,299
Cronese Lake	29,460	24,103
Round Mountain	0	0

The allotments included in this analysis are currently being managed under interim stipulations to achieve and maintain the fallback standards and guidelines cited under 43 CFR 4180.2(f)(1). The fallback standard IV, Native Species would apply to desert tortoise habitat and populations. The achievement of this standard is indirectly related to conformance with the terms and conditions listed in the biological opinions issued by the FWS for livestock grazing in habitat for the desert tortoise. This standard is currently not being achieved on portions of the Ord Mountain, Harper Lake, and Rattlesnake Canyon Allotments (see Table 5).

Under the proposed action, grazing requirements under interim management are inconsistent with the recommendations stated in the Determination of Rangeland Health for the Ord Mountain and Harper Lake Allotments. When interim management is concluded, implementation of those recommendations would be considered.

**Table 5. Status of Rangeland Health on Cattle/Horse Allotments**

Allotment Name	Rangeland Health Standard Issues	Trend	% Not Meeting Standard	Impacts from Livestock Yes or No	Assessment Schedule
Pahrump Valley				Unknown	Not Yet Assessed Scheduled for 2005
Valley Well				Unknown	Not Yet Assessed Scheduled for 2005
Round Mountain				Unknown	Not Yet Assessed Scheduled for 2005
Rattlesnake Canyon	Native Species	Other standards met	Not meet on approx. 15% of allotment	Yes	Assessed in 1999, needs re-assessment in 2006
Harper Lake	Native Species	Other standards met	Not meet on approx. 21% of allotment	Yes	Assessed in 1999, needs re-assessment in 2006
Ord Mountain	Native Species	Other standards met	Not meet on approx. 10% of allotment	Yes	Assessed in 1999, needs re-assessment in 2006
Cronese Lake		Meets all standards		N/A	Assessed in 1999, needs re-assessment in 2006
Cady Mountain	Native Species	Other standards met	Not meet on approx. 1% of allotment	Yes	Assessed in 1999, needs re-assessment in 2006

Pahrump Valley - This grazing leases would conform with the terms and conditions stated in the 1997 Biological Opinion for the Interim Livestock Grazing Program Proposed by the Bureau of Lane Management and National Park Service in Mojave Desert Tortoise Critical Habitat (1-5-96-F-296R). The 1997 BO would constitute on-the-ground stipulations for the management of livestock grazing in desert tortoise habitat. Although the 20 terms and conditions are formulated to minimize impacts from livestock grazing on the desert tortoise and its habitat, they also contain several protective measures that have a direct, positive effect on the achievement and maintenance of fallback rangeland health standards and guidelines contained in 43 CFR 4180.2(f)(1). The NEMO Plan Amendment to the CDCA Plan contains no changes in grazing use for this allotment. However, the terms and conditions for this grazing lease would not include the Regional Standards and Guideline adopted in the NEMO Plan unless and until they are approved by the Secretary (see Map 3).

The current season of use and permitted use, including management actions and stipulations stated in an approved AMP, if applicable, or stipulations directed by existing decisions or through existing agreements would also be included in this grazing lease. Conformance with the achievement of fallback standards and guidelines stated in the grazing regulations (43 CFR 4180.2) would also be required to the extent possible under interim management.

Valley Well - This grazing leases would conform with the terms and conditions stated in the 1997 Biological Opinion for the Interim Livestock Grazing Program Proposed by the Bureau of Lane Management and National Park Service in Mojave Desert Tortoise Critical Habitat (1-5-96-F-296R). The 1997 BO would constitute on-the-ground stipulations for the management of livestock grazing in desert tortoise habitat. Although the 20 terms and conditions are formulated to minimize impacts from livestock grazing on the desert tortoise and its habitat, it also contains several protective measures that have a positive effect on the achievement and maintenance of fallback rangeland health standards and guidelines contained in 43 CFR 4180.2(f)(1) (see Map 4).

The current season of use and permitted use, including management actions and stipulations stated in an approved AMP, if applicable, or stipulations directed by an existing decisions or through existing agreements would also be included in this grazing lease. Conformance with the achievement of fallback standards and guidelines stated in the grazing regulations (43 CFR 4180.2) would also be required to the extent possible under interim management.

Rattlesnake Canyon - This grazing leases would conform with the 1997 Biological Opinion for the Interim Livestock Grazing Program Proposed by the Bureau of Lane Management and National Park Service in Mojave Desert Tortoise Critical Habitat (1-5-96-F-296R). Grazing stipulations under interim management, and the terms and conditions stated in the 1997 BO would constitute on-the-ground stipulations for the management of livestock grazing in desert tortoise habitat. Although the 20 terms and conditions are formulated to minimize impacts from livestock grazing on the desert tortoise and its habitat, combined with interim stipulations have a positive effect on the achievement and maintenance of fallback rangeland health standards and guidelines contained in 43 CFR 4180.2(f)(1) (see Map 5).

The current season of use and permitted use, including management actions and stipulations

stated in an approved AMP, if applicable, or stipulations directed by an existing decision or through an existing agreement would also be included in this grazing lease. Conformance with the achievement of fallback standards and guidelines stated in the grazing regulations (43 CFR 4180.2) would also be required to the extent possible under interim management.

Harper Lake - This grazing leases would conform with the 1997 Biological Opinion for the Interim Livestock Grazing Program Proposed by the Bureau of Lane Management and National Park Service in Mojave Desert Tortoise Critical Habitat (1-5-96-F-296R). Grazing stipulations under interim management, and the terms and conditions stated in the 1997 BO would constitute on-the-ground stipulations for the management of livestock grazing in desert tortoise habitat. Although the 20 terms and conditions are formulated to minimize impacts from livestock grazing on the desert tortoise and its habitat, combined with interim stipulations have a positive effect on the achievement and maintenance of fallback rangeland health standards and guidelines contained in 43 CFR 4180.2(f)(1) (see Map 6). This BO also includes the creation of a two pasture grazing system.

The current season of use and permitted use, including management actions and stipulations stated in an approved AMP, if applicable, or stipulations directed by an existing decision or through an existing agreement would also be included in this grazing lease. Conformance with the achievement of fallback standards and guidelines stated in the grazing regulations (43 CFR 4180.2) would also be required to the extent possible under interim management.

Ord Mountain - This grazing leases would conform with the 1997 Biological Opinion for the Interim Livestock Grazing Program Proposed by the Bureau of Lane Management and National Park Service in Mojave Desert Tortoise Critical Habitat (1-5-96-F-296R). Grazing stipulations under interim management, and the terms and conditions stated in the 1997 BO would constitute on-the-ground stipulations for the management of livestock grazing in desert tortoise habitat. Although the 20 terms and conditions are formulated to minimize impacts from livestock grazing on the desert tortoise and its habitat, combined with interim stipulations have a positive effect on the achievement and maintenance of fallback rangeland health standards and guidelines contained in 43 CFR 4180.2(f)(1) (see Map 7).

In addition, the current season of use and permitted use, including management actions and stipulations stated in an approved AMP, if applicable, or stipulations directed by an existing decision or through an existing agreement would also be included in this grazing lease. Conformance with the achievement of fallback standards and guidelines stated in the grazing regulations (43 CFR 4180.2) would also be required to the extent possible under interim management.

Cady Mountain - This grazing leases would conform with the 1997 Biological Opinion for the Interim Livestock Grazing Program Proposed by the Bureau of Lane Management and National Park Service in Mojave Desert Tortoise Critical Habitat (1-5-96-F-296R). Grazing stipulations under interim management, and the terms and conditions stated in the 1997 BO would constitute on-the-ground stipulations for the management of livestock grazing in desert tortoise habitat. Although the 20 terms and conditions are formulated to minimize impacts from livestock grazing

on the desert tortoise and its habitat, combined with interim stipulations have a positive effect on the achievement and maintenance of fallback rangeland health standards and guidelines contained in 43 CFR 4180.2(f)(1) (see Map 8).

In addition, the current season of use and permitted use, including management actions and stipulations stated in an approved AMP, if applicable, or stipulations directed by an existing decision or through an existing agreement would also be included in this grazing lease. Conformance with the achievement of fallback standards and guidelines stated in the grazing regulations (43 CFR 4180.2) would also be required to the extent possible under interim management.

Cronese Lake - This grazing leases would conform with the 1997 Biological Opinion for the Interim Livestock Grazing Program Proposed by the Bureau of Lane Management and National Park Service in Mojave Desert Tortoise Critical Habitat (1-5-96-F-296R). Grazing stipulations under interim management, and the terms and conditions stated in the 1997 BO would constitute on-the-ground stipulations for the management of livestock grazing in desert tortoise habitat. Although the 20 terms and conditions are formulated to minimize impacts from livestock grazing on the desert tortoise and its habitat, combined with interim stipulations have a positive effect on the achievement and maintenance of fallback rangeland health standards and guidelines contained in 43 CFR 4180.2(f)(1) (see Map 9).

In addition, the current season of use and permitted use, including management actions and stipulations stated in an approved AMP, if applicable, or stipulations directed by an existing decision or through an existing agreement would also be included in this grazing lease. Conformance with the achievement of fallback standards and guidelines stated in the grazing regulations (43 CFR 4180.2) would also be required to the extent possible under interim management.

Round Mountain - This grazing lease (see Map 10) would incorporate the current season of use and permitted use, including management actions and stipulations stated in an approved AMP, if applicable, or stipulations directed by decision or through agreement would also be included in this grazing lease as terms and conditions. Conformance with the achievement of fallback standards and guidelines stated in the grazing regulations (43 CFR 4180.2) would also be required to the extent possible under interim management.

#### D. Monitoring

Under interim or current management compliance monitoring related to seasonal exclusion areas would continue until interim management is concluded.

The rangeland monitoring of the eight allotments would be conducted as it is currently in three categories. These categories would be 1) short term monitoring, 2) long term monitoring, and 3) interpreting the indicators of rangeland health through an allotment assessment.

The use of short term monitoring is a tool to gauge the cause and effect of the current

authorization. This type of monitoring consists of actual use, current climatic conditions and the collection of utilization data. This type of data would be collected on a yearly basis at minimum. The collection of utilization data should be triggered by the growing season of key species and should correlate with the phenology of key species.

The collection of long term monitoring data typically occurs every two to three years. The collection of trend data, both photo and measured trend is used to determine cause and effect of long-term grazing strategies. The collection of measured trend has typically been accomplished through the collection of frequency data at key areas. The collection of this type of data has not been consistent and has not occurred in several years. A renewed effort to collect this type of data would be an important goal during this ten year lease cycle.

The assessment of indicators of rangeland health information is a qualitative method that requires the formation of an interdisciplinary team that makes observations of various indicators to determine the health of rangelands and the achievement of fallback or regional standards of rangeland health. This process is also considered a long term process, and typically occurs every five to six years. The re-assessment of cattle allotments is scheduled for 2005 and 2006 using *Indicators of Rangeland Health* (BLM Technical Reference 1734-6 Version 4).

## **2. Rangeland Health Assessment**

In 1999 and 2000 the Ord Mountain, Harper Lake, Rattlesnake Canyon, Cady Mountain, and Cronese Lake Allotments were assessed for achievement of the fallback standards and conformance with guidelines cited under 43 CFR 4180 in the grazing regulations. A rangeland health assessment was not conducted for the Valley Well, Round Mountain, and Pahrump Allotments. These first assessments were conducted using an earlier version of Indicators of Rangeland Health than the version cited above. A Determination of Rangeland Health was prepared for the allotments assessed. The determinations recommended changes in grazing management for the Ord Mountain, Harper Lake, Cady Mountain, and Rattlesnake Canyon Allotments. In these four allotments changes to grazing management was recommended in the Determination of Rangeland Health because one or more of the fall back standards were not being achieved on portions of the allotment being assessed. In all four allotments the native species and riparian standards were not being achieved in varying proportion by allotment, and fallback guidelines were not being conformed with on these allotments.

Under this alternative the eight allotments would continue to be managed the CDCA Plan, as amended, and conformance with the 35 terms and conditions contained in the 1994 BO. In addition, the recommendations contained in the Determination of Rangeland Health for the Ord Mountain, Cady Mountain, Harper Lake, and Rattlesnake Canyon Allotments would be implemented to the extent feasible in the short term based on funding, but fully implemented over the next four to six years.

The recommended changes documented in the Determination of Rangeland Health for the Ord Mountain, Cady Mountain, Harper Lake, and Rattlesnake Canyon Allotments are as follows:

## Ord Mountain

The native species standard was not achieved on approximately 10,000 acres or 9% of the allotment, as well as non-conformance with fallback guidelines iii, vi, vii, viii, xi, and xii in these same areas. The riparian standard was not achieved at three springs. Non-achievement of these standards were principally detected in the western half of the allotment. The following changes would be implemented on the Ord Mountain Allotment:

- 1) Implement a seasonal closure to livestock from March 15 to June 15 and from September 15 to November 1. This seasonal closure would occur in the southwestern portion of the allotment, referred to as Polygon 3, in T.6N., R.1E., Sections 2, 3, 10, 11, 12, 14, 15, and T.7N., R.1E., Sections 34 and 35. Displaced livestock would be evenly distributed to other areas of use within the allotment.
- 2) Implement a seasonal closure to livestock from March 15 to June 15 and from September 15 to November 1. This seasonal closure would occur in the western portion of the allotment, referred to as Polygon 4, in T.7N., R.1E., Section 24 and T.7N., R.2E., Sections 18, 19, 20, 30, 31. Construct a one hectare monitoring enclosure. Displaced livestock would be evenly distributed to other areas of use within the allotment.
- 3) Increase rangeland monitoring to a minimum of four times per year to better assess rangeland conditions.
- 4) Modify Willow, Kane, and Quill Springs to enhance riparian values. These modifications would include fencing, adding additional troughs, re-routing pipelines systems and placing shut-off devices (floats) within the water delivery system. The placement of salt and/or mineral blocks would be prohibited within one-quarter mile of these springs. Quill Spring needs re-construction. If re-constructed, this spring source would be developed to minimize resource impacts.

## Cady Mountain

The native species standard was not achieved on approximately 1,000 acres or <1% of the allotment, as well as non-conformance with fallback guidelines vi, vii, viii, xi, and xii in this same area. Non-achievement of this standard was detected on the rangelands in the vicinity of Hidden Valley Well. The following change would be implemented on the Cady Mountain Allotment:

- 1) Implement seasonal deferment of livestock grazing from March 15 to June 15 on rangelands within the vicinity of Hidden Valley Well. This would include the following public lands: T. 9N., R. 6E., Sections 28, 30, 31, 32.

## Harper Lake

The native species standard was not achieved on approximately 3,560 acres or 21% of the allotment, as well as non-conformance with fallback guidelines vi, vii, viii, xi, and xii in these same areas. Non-achievement of this standard were livestock grazing is the primary cause was

principally detected in the southern pasture of the allotment. The following change would be implemented on the Harper Lake Allotment:

1) Implement a rotational, two-pasture grazing system upon completion of the East Harper Boundary Fence, phases I & II. This grazing system would defer grazing during the growing season for the north pasture two years out of three. In year three the south pasture would be rested during the growing season. The growing season is typically March 15 thru June 15.

### Rattlesnake Canyon

The native species standard was not achieved on approximately 4,000 acres or 15% of the allotment, as well as non-conformance with fallback guidelines iii, vi, vii, viii, xi, and xii in these same areas. The riparian standard was not achieved at three springs. Non-achievement of these standards were principally detected in the western half of the allotment. The following changes would be implemented on the Rattlesnake Canyon Allotment:

1) There are three areas within the Rattlesnake Canyon Allotment that were identified as polygons 1, 5 & 6. In polygon 1, T.2N., R.3E., Sections 10, 14, 15, mountain pasture. Defer all livestock grazing until after June 15<sup>th</sup>, or until seed dissemination on key species has occurred as determined by BLM. In polygon 5, T.3N., R.3E., Sections 16, 17, 18, 20, 21, desert pasture. Provide for complete rest from any grazing use one year out of three. In those years where grazing use is allowed, grazing use would not be permitted between March 15 and June 15. In polygon 6, T. 3N., R.3E., Sections 14, 15, 22, 23, desert pasture. Implement the same management prescriptions as stated for polygon 5. When livestock are permitted to use polygon 5, polygon 6 would be rested, and when grazing use is permitted in polygon 6, polygon 5 would be rested. Both polygons are subject to deferment between March 15 and June 15. The displaced livestock from polygons 1, 5, & 6 would be re-located to other portions of the allotment. At least one additional water source need to be developed to enhance livestock distribution in the desert pasture.

2) Modify Kynna, Bighorn Seeps 1 & 2, and Lower Rattle Springs to enhance riparian values and minimize resource impacts. These modifications would include fencing, adding additional troughs, re-routing pipelines systems and placing shut-off devices (floats) within the water delivery system. The placement of salt and/or mineral blocks would be prohibited within one-quarter mile of these springs.

Under the proposed action, grazing requirements under interim management are inconsistent with the recommendations stated in the Determination of Rangeland Health for the Ord Mountain and Harper Lake Allotments. When interim management is concluded, implementation of those recommendations would be considered.

### 3. No Grazing

Under this alternative, BLM would discontinue grazing on all cattle/horse grazing leases concerned. As a result, grazing would cease on the allotments affected, and the agency would

initiate a process to retire those allotments under provisions of administrative instruments appropriate to the task.

### **Alternative Considered but Dismissed**

Under this alternative all of the allotments considered under this analysis, except for the Pahrump Valley Allotment would incorporate the livestock management prescriptions stated in the West Mojave Plan DEIS for livestock grazing in those allotments. However, this alternative is dismissed from further analysis in this document because those livestock management prescriptions are being analyzed in a separate EIS which has been substantially completed as a Final EIS. The Final West Mojave Plan/FEIS is anticipated for release in the near future. The BLM has received a draft biological opinion for the plan. Upon integration of FWS terms and conditions with public response on the DEIS, the Final Plan will be released for public review.

When the West Mojave Plan is approved, the livestock management prescriptions contained in the approved plan amendment would be incorporated into the terms and conditions of the grazing leases for the Valley Well, Rattlesnake Canyon, Harper Lake, Ord Mountain, Cady Mountain, Cronese Lake, and Round Mountain Allotments by decision.

## **CHAPTER 3 ENVIRONMENTAL ANALYSIS**

This chapter addresses, by resource, the affected environment, environmental consequences, and consultation sections of the EA for 19 resource elements. These elements include the standard critical elements of the human environment (H-1790-1, appendix 5, BLM NEPA Handbook, as amended) and several other resource elements commonly affected by livestock grazing. If a resource is not present or not affected, a negative declaration statement will be included in the Affected Environment section, and the resource element will not be further addressed in the Chapter.

### **Required Elements:**

1. Air Quality
2. Areas of Critical Environmental Concern (ACEC)
3. Cultural Resources
4. Environmental Justice
5. Farmlands, Prime or Unique
6. Flood plains
7. Invasive, Non-native Species
8. Native American Concerns
9. Recreation
10. Social and Economic

11. Soil
12. Waste, Hazardous or Solid
13. Water Quality, Surface and Ground
14. Wetlands/Riparian Zones
15. Wild and Scenic Rivers
16. Wilderness
17. Wildlife
  - Threatened or Endangered Species
18. Wild Horses and Burros
19. Vegetation
  - Threatened or Endangered Species

## AIR QUALITY

### A. Affected Environment

The project area for the purpose of this analysis is the seven grazing allotments located in rural San Bernardino County.

Air quality throughout the project area, is good much of the time. There are, however, times that the area has not met air quality standards due to pollutants that are either locally generated and/or transported into the county. This has resulted in the current classification of the area as a federal non-attainment areas for ozone and PM<sub>10</sub> under the National Ambient Air Quality Standards. The project area is within the Mojave Desert Planning Area. A state implementation plan (SIP) has been prepared for the planning area which identifies sources of emissions and control measures to reduce emissions. The Mojave Desert Air Quality Management District (MDAQMD) has state air quality jurisdiction over San Bernardino County

The project area for the purpose of this analysis is the Pahrump Valley Allotment located in rural Inyo County.

Air quality throughout the project area is good much of the time. The site has not been classified as a federal non-attainment/maintenance area by the USEPA. Unlike San Bernardino County, federal actions in rural Inyo County are not subject to conformity determinations under 40 CFR 93. The Great Basin Unified Air Pollution Control District has state air quality jurisdiction over the project area.

### B. Environmental Consequences

#### 1. Impacts of Current Management

Under the proposed action, fugitive dust emissions could occur due to the soil disturbance as a result of the trampling action of the livestock when soil moisture levels are low. Support vehicle use on the access roads will generate small amounts of PM<sub>10</sub> emissions throughout the grazing area and could carry soils onto the paved roads which would increase entrainment PM<sub>10</sub> emissions. Ruminant animals emit methane gas which is a precursor emission for ozone. The support vehicles emit various precursor emissions for ozone. Actual emissions amounts from this grazing activity are negligible. No significant offsite impacts are anticipated. The proposed project does not exceed the de minimus emission levels and is exempt from conformity determination {(40 CFR Part 93.153 ( iii ))} which exempts continuing and recurring activities such as grazing lease renewals where activities will be similar in scope and operation to activities currently being conducted. As a result no further conformity analysis or determination is necessary.

## 2. Impacts of Rangeland Health

Same as current management.

## 3. Impacts of No Grazing

Under the no grazing alternative, minimal long-term fugitive dust or ozone precursors would be generated because there would be no active livestock grazing operations. Some fugitive dust generation would continue at susceptible corrals and staging areas no longer in use, until sites are re-vegetated or soils are otherwise stabilized and there would be short term dust generation associated with the removal of some of the range improvements.

Under the no grazing alternative, no fugitive dust or ozone precursors would be generated because there would be no active livestock grazing operations.

## 4. Cumulative Impacts

The cumulative effect area for air resources for the proposed action is the Mojave Desert PM<sub>10</sub> planning areas and the Mojave Desert Ozone non-attainment area. The expected emission levels are within the levels in the attainment demonstrations in the SIPs and the cumulative NAAQS 24 hour and one year PM<sub>10</sub> emission standards and the one hour ozone emission standards and are not likely to result in or contribute to exceedence of the National Ambient Air Quality Standards. Likewise, the decreases in emissions from elimination of cattle grazing would be negligible relative to total emissions in the Mojave Desert for PM<sub>10</sub> and ozone.

## **C. Consultation**

The MDAQMD, and the other interested publics will be consulted concerning this analysis.

## **D. Maps**

N/A

## **E. References:**

BLM, Barstow Field Office. February, 1997. Fugitive Dust/PM10 Emissions Control Strategy for the Mojave Desert Planning Area.

## AREA OF CRITICAL ENVIRONMENTAL CONCERN (ACEC)

### A. Affected Environment

#### Afton Canyon Natural Area

The Afton Canyon Natural Area ACEC was created to protect the riparian community of the Mojave River, the scenic values of the canyon, and the adjacent desert habitat in the Cady Mountains, which is occupied habitat for bighorn sheep and contains nest sites for prairie falcon and golden eagle. The Afton Canyon ACEC was established in 1989 and encompasses 4,726 acres. Alternative A of the West Mojave Draft Management Plan/EIS would expand the Afton Canyon ACEC to 8,160 acres. A portion of the Cady Mountain Allotment overlaps the southern half of the Afton Canyon ACEC. Cattle have been excluded from riparian rehabilitation areas within the canyon.

#### Manix ACEC

The Manix ACEC includes 2,897 acres and was established in 1993 for paleontological and cultural resources. This ACEC is located in Manix Wash within the Cady Mountain Allotment and includes a portion of the Mojave River. Alternative A of the West Mojave Draft Management Plan/EIS would amend the ACEC management plan to include public lands along the Mojave River within the ACEC as a conservation area for the Mojave fringed-toed lizard.

#### Cronese Lakes ACEC

The Cronese Lake allotment includes portions of the Cronese Lakes ACEC. This ACEC includes 10, 226 acres and encompasses the Cronese dry lakes. The ACEC was designated in 1980 to protect cultural and natural resources, including the ephemeral wetlands present on the lakes. Alternative A of West Mojave Draft Management Plan/EIS would amend the ACEC management plan to incorporate protection of blow-sand areas for fringe-toed lizard.

#### Rodman Mountain Cultural ACEC

The Ord Mountain allotment overlaps a small portion of the Rodman Mountain Cultural Area ACEC. The Rodman Cultural Area was designated in 1989 to protect cultural resources and included 6,204 acres mostly within the Rodman Mountain Wilderness.

#### Juniper Flats Cultural ACEC

The Juniper Flats Cultural Area ACEC occurs within the Round Mountain allotment. The cultural area was designated in 1980 by the CDCA plan and encompasses 2,528 acres. The ACEC also includes habitat for the San Diego horned lizard (*Phrynosoma coronatum*) and the gray vireo (*Vireo vicinior*).

### B. Environmental Consequences

#### 1. Impacts of Current Management

ACECs were designated to protect cultural, scenic, or natural resource values that are uncommon in the desert. Some of these resources are more durable than others. For instance,

vegetation can be damaged much easier than rock art. Livestock grazing can potentially impact wildlife by degrading habitat (assuming that degradation occurs over a large area). Impacts caused by cattle typically are restricted to localized areas such as, watering holes and salt licks.

## 2. Impacts of Rangeland Health

Same as current management.

## 3. No Grazing

Under this alternative, any on-going or future impacts to important and relevant ACEC resource values from livestock grazing would eventually cease, or would not occur. This includes potential effects to the riparian areas of Afton Canyon Natural Area ACEC and upstream from Juniper Flats ACEC, ephemeral wetlands of Cronese Lakes ACEC, and cultural resources within Juniper Flats, Rodman and Manix ACEC.

## 4. Cumulative Impacts

Cumulative impacts to ACECs can occur from multiple uses within the boundaries of individual ACECs and from impacts to a single resource value that is regional in nature. All of the ACECs within the project area are managed under specific activity plans that identify goals for the sensitive resource values within each of the ACECs, promote uses that facilitate the accomplishment of ACEC Plan goals, and set parameters on other uses that may conflict with the accomplishment of ACEC goals. These ACEC Plans are currently undergoing evaluation through the West Mojave bioregional plan to review progress that has been made to accomplish some of the goals in these ACEC activity plans. Cumulative impacts from livestock grazing have been analyzed in the previous activity plans in the context of the variety of other activities that are occurring in these sensitive areas and any additional restrictions or strategies necessary to avoid cumulative impacts. Other activities that may overlap grazing allotments and ACECs include: general recreation (i. e. picnicking, camping, equestrian activities, and rock hounding), small mining claims, and off-highway vehicle (OHV) activities (on designated routes).

Cumulative impacts are occurring to certain ACEC values that are unrelated to grazing practices, as there is minimal effect from grazing to those ACEC values (e.g., landforms, casual use recreation opportunities). Riparian values have been affected by grazing practices and by other uses, both on public lands within ACECs and outside ACECs. Over time, riparian area impacts have cumulatively decreased as a result of implementation of management actions in ACEC Plans and associated actions in grazing allotment management plans. These actions have not totally eliminated impacts on riparian areas in ACECs. However, substantial localized benefits in the Western Mojave Desert have resulted from their implementation, and as a result grazing in the West Mojave does not contribute to overall cumulative impacts in Southern California.

## **C. Consultation**

Consultation on federally listed species is addressed in the wildlife and vegetation critical

elements.

**D. Maps**

N/A

**E. References –**

BLM's ACEC Management Plans for the Afton Canyon Natural Area ACEC, Manix ACEC, Cronese Basin ACEC, Rodman Cultural Area ACEC, and the Juniper Flats Cultural Area ACEC are available for public review at the Barstow Field Office.

## CULTURAL RESOURCES

### A. Affected Environment

#### 1. Summary

There are 281 prehistoric and historic sites within the 8 cattle grazing allotments managed by the Barstow Field Office. Of 12 historic sites, 4% of the total sites, 4 are comprised of mining debris while the remainder are various can dumps and house hold debris from early homesteading and railroad activity. One historic grave is representative of early 1900s military activity. CA-SBR2152 is the grave of a army paymaster killed in transit to Fort Cady around 1910.

The majority of cultural resources (69%) are lithic sites. Of 193 lithic sites, 27 contained variable combinations of lithics, pottery, petroglyphs, ground stone, and rock shelters. Of these 27 lithic sites, 5 contained bedrock mortars or milling slicks, manos, and/or metates, 17 contained pottery sherds, 2 were associated with petroglyphs, 2 were associated with a rock shelter, and 1 site contained pottery sherds and ground stone features.

Of the 21 rock features, 6 were cairns while the remainder were linear or circular rock alignments. All of these sites are of either prehistoric or historic origin. The last four categories of sites include 13 rock shelters, 18 sites composed of pottery sherds, 5 ground stone locations, and 18 petroglyph sites.

Two grazing allotments, Round Mountain and Cronese Lake, are located in Cultural Areas of Critical Environmental Concern. Only 10 recorded sites occur within the Round Mountain allotment while the Cronese Lake allotment has 110 known sites. Recorded cultural resources within the remaining ten allotments range from 2 to 89. The different frequencies of cultural resources may indicate higher and lower areas of potential occurrence; however, it also may be indicative of differential inventory intensities.

**Table 6. Cultural Resource Summary for Cattle Allotments in the Barstow Field Office.**

Grazing Allotment	Historic	Grave	Lithic	Rock Feature	Rock Shelter	Sherds	Ground Stone	Petroglyphs	Total Sites
Cady Mountain	3	1	67	17	1				89
Cronese Lake	2		86	1		17	4		110
Harper Dry Lake			18					10	28
Ord Mountain	5		11	1	9			8	34
Pahrump Valley			2						2
Rattlesnake Canyon						1	1		2
Round Mountain	2		5	2	1				10
Valley Wells			4		2				6
<b>Totals</b>	<b>12</b>	<b>1</b>	<b>193</b>	<b>21</b>	<b>13</b>	<b>18</b>	<b>5</b>	<b>18</b>	<b>281</b>

## 2. Prehistoric Sites

An excellent overview for prehistoric cultures in the Mojave Desert region is found in Warren and Crabtree (1986), who provide one of the most current syntheses. It is summarized in the proposed West Mojave Plan/Final EIS (Bureau of Land Management, California Desert District, August, 2004) which is currently available for public review.

The major groups occupying the project area within the western Mojave Desert include the Serrano, Kitanemuk, and Kawaiisu, and the Vanyume.. Occupation is believed to have begun approximately 12,000 BP (before present). Southern Paiute people occupied the Amargosa River region. Kawaiisu and Serrano (Vanyume) groups were immediate neighbors and probably utilized the area as well (Warren *et al.* 1980:141). Some Mohave, Chemehuevi, and desert Cahuilla may have also traveled through the area for trade or other purposes, though whether they settled is controversial (Stickel and Weinman-Roberts 1980:93-94). Ethnographic and ethnohistoric accounts indicate that the original inhabitants had efficient foraging strategies, some of which were semi-agricultural.

Major site concentrations are found along valley floors in the salt bush-sand dune zone, especially near past and/or present water sources. A second area of site concentration occurs at higher elevations in the black bush, Joshua tree piñon-juniper zone not necessarily near existing water. Within grazing allotments, current or ephemeral water sources are likely to be areas of higher cattle use.

Sites on the valley bottom are concentrated along lake margins and springs and may cover several acres. A wide range of artifacts are found here, suggesting many different activities. The same or different groups of people may have used these same sites repeatedly (Warren *et al.* 1980:68). The site distribution suggests small bands dispersed across the countryside to exploit scattered resources. The pattern of sites suggests seasonal movement from valley bottoms to higher elevations in search of pine nuts, agave, deer, mountain sheep, etc. The pattern is one in which bands gathered in the valley bottoms and dispersed in small task groups at higher elevations (Warren *et al.* 1980:70).

Around 4,000 years ago, the Little Pluvial began and corresponding flora and fauna essentially assumed its present form and distribution. This period is initially characterized by intense occupation of the desert, broadening economic activities, and increased contact with the California coast and Southwest. It is presumed that a flexible “band” organization was still operative as people exploited food resources across the landscape (Warren and Crabtree 1986:189; Warren *et al.* 1980:46).

Other defining features of the material culture include blades, drills, flake scrapers, slate pendants, introduction of mortars and pestles, and an increase in manos and metates (Stickel and Weinman-Roberts 1980:70). Transition from atlatl to bow and arrow technology is also apparent. Pottery and split twig figurines reminiscent of Southwest cultures suggest additional relations with Mojave Desert inhabitants (Warren and Crabtree 1986:189).

One of the most important sites of this period is Newberry Cave (Smith *et al.* 1957; Davis and Smith 1981; Davis, Taylor, and Smith 1981) northeast of Barstow, California. It was discovered by Gerald Smith in 1933 (1957, 1963b). The dry caved contained an array of perishable and non-perishable artifacts as well as pictographs. Excavation in the 1950s focused on the four “rooms” distinguished within the cave. A variety of stone, bone, wood, and fiber artifacts were recovered, including a mano, quartz crystals, a chopper, scrapers, bone awls, a bone atlatl hook, wooded atlatl butts, shafts, and fore shafts, fragments of abalone, sandal fragments, pigments, painted animal skin, and feathers (Smith *et al.* 1957; Stickel and Weinman-Roberts 1980:72). Projectile points included Elko Eared, Elko Corner-notched, and Gypsum Cave points. A series of radiocarbon dates range from 3000 BP to 3800 BP. The authors suggest that cultural material may have been deposited over a 500-year period (Warren and Crabtree 1986:188). Remains of bighorn sheep, weapons and figurines, paint, quartz crystals, small painted stones, and pictographs suggest hunting ceremonial activities rather than occupation (Warren and Crabtree 1986:189). This site is listed on the National Register of Historic Places and is one of the best known sites that characterizes the time period.

Increased numbers of habitation sites suggest a general population increase in the Mojave Desert from 1,200 BP until contact with non-native peoples. This period is also characterized by a wet climatic regime between about 800 and 900 BP. This moist episode is suggested by the shell middens surrounding the Cronise Lakes (Rogers 1933). Most of the material culture at Cronise Lakes seems best compared with prehistoric “Yuman” (Patayan) occupations (Davis 1962; Donnan 1962, 1964; True, Davis, and Sterud 1966; Kroeber 1959) (Warren *et al.* 1980:54). The Cronese Lakes is an Area of Critical Environmental Concern (ACEC) that is managed to protect the scientifically valuable resources.

Assemblages reported along the length of the Mojave River to the Mojave Sinks (G. A. Smith 1963; M. G. Rogers 1929; Drover 1979) include brown, buff, and red-on-buff pottery (paddle and anvil method) apparently derived from the Colorado River, as well as Desert Side-notched and Cottonwood Triangular points. The sites on the upper Mojave River appear more elaborate with house pits, more abundant shell beads, ornaments, and polychrome painted utilitarian items like metates (G. A. Smith 1963) (Warren and Crabtree 1986:191-192). Bedrock mortars, metate and mano fragments, and pottery sherds have been documented within the Juniper Flats ACEC, which coincides with the Round Mountain cattle allotment. Cultural resources are managed to protect their scientific value.

### 3. Historic Sites

As with most regions of the American west, the topography, climate, and geography played a direct role in how development unfolded. Exploration and early settlement of the Mojave Desert region was begun by the Spanish in the mid-1700s. Francisco Garces, a Spanish Franciscan priest, was one of the first people to go looking for a practical route from Arizona to northern California. Subsequent Spanish contact with native people became increasingly hostile, involving reciprocating and massacres (Stickel and Weinman-Roberts 1980:119) and settlement in the Mojave Desert was slow to be established. Mexican control of the Mojave Desert and the

Spanish missions and ranches resulted in secularizing ownership by 1836. Settlement by white colonists, mostly trappers like Jedediah Strong Smith, soon followed (Stickel and Weinman-Roberts 1980:122). During this period, the Mojave Desert served first as a point of entry for westward bound American fur trappers. By the 1840s, these trappers had joined forces with native tribes to attack cattle ranches, which were the economic mainstay of California under Mexican rule.

Historic sites associated with American settlement and commerce across the Mojave desert relate to ranches/homesteads, trails and landmarks, military presence, and mining (Stickel and Weinman-Roberts 1980:177). Other early activity in the area consisted of exploration and scientific expeditions. In 1844, John C. Fremont's second and third western expeditions followed the Old Spanish Trail from the southern Mojave River to Las Vegas, Nevada (Von Till Warren *et al.* 1981:II-2). In the Spring of 1855, Lieutenant Sylvester Mowry and a military detachment marched from Salt Lake City to Fort Tejon by way of Resting Springs. They traveled through Cedar City, Santa Clara, Las Vegas, and the Mojave River (Von Till Warren *et al.* 1981:II-63). Coming from the east, Edward F. Beales' first trans-continental expedition explored a central route for a proposed railroad from May 10, 1853 to August 22, 1853. While passing through Utah, he intersected the Old Spanish Trail before reaching the Green River. He survey passed by Stump Spring, Resting Springs, the Amargosa Desert, and Bitter Spring to the Mojave River (Von Till Warren *et al.* 1981:II-72).

Like other major east-west trails across the Mojave Desert, the North Fork route of the Old Spanish Trail and Salt Lake (Mormon) Road was first developed by Indian traders. Between 1829 and 1830, a trail was established from Santa Fe, New Mexico and Los Angeles, California following this route. Jedediah Smith led the way, followed by other mountain men, like Ewing Young in 1829. Antonio Armijo is credited with leading the first caravan of pack animals across the Mojave in 1830. Other trails arising from commerce in California include the Mojave Trail and Salt Lake Trail, both of which run through present day Barstow. After 1848, Mormon converts used the trail, later followed by Mormon freighting companies carrying goods between Salt Lake City and San Pedro Harbor (Von Till Warren *et al.* 1981:21). Another cut-off from the Salt Lake trail was developed in the 1860's. Known as the Cox-Cut-Off, this route left the trail and looped through Mesquite Wells to the Potosi town site, Nevada and back to the Salt Lake Trail at Cottonwood Springs. Silas C. Cox was an active freighter between San Bernardino and Salt Lake City and is the likely name-sake for this road (Beattie 1925). Two stages served Potosi in 1860-1861 (Von Till Warren *et al.* 1981:29). The Old Spanish Trail is a designated National Historic Trail, which is overlapped in many places by the Salt Lake (Mormon) Road. Portions of the early trail and road are still visible or in current use, such as the Cox Truck Trail at Juniper Flats.

Later, the region was mainly used as a corridor for native traders and couriers, Mexican caravans, followed by railroads, telegraph, telephone lines, and power lines. Ephemeral towns and mining camps were linked to these routes of travel and stimulated by their development. Railroad lines and other roads often died when the towns died (Warren *et al.* 1980:195).

Settlement by Americans and the growth of coastal and inland trade did culminate in annexation

of California by the United States in 1848. In that same year, gold was discovered and the California gold rush began (Stickel and Weinman-Roberts 1980:128). Gold and silver mining in the western Mojave developed during the 1880s (Stickel and Weinman-Roberts 1980:144). Silver mining was concentrated in the Calico and Grapevine mining districts. In addition to the precious metals, borax, copper, tungsten, iron, and nonmetal mining continued in the western Mojave Desert as a major contributor to California's mining industry in the first decades of the twentieth century (Stickel and Weinman-Roberts 1980:144). Numerous historic mine workings are located throughout the grazing allotments.

The ultimate culmination of railroad surveys and commercial interests of the Atlantic, Pacific, and Southern Pacific resulted in railroad construction in southern California. In the 1860s, the first transcontinental railroad was under construction and destined for completion at Promontory, Utah. At the same time, the Union Pacific Railroad, Eastern Division, scouted a route south along the 32<sup>nd</sup> or 35<sup>th</sup> parallels. Surveyors found a good bed south of the Mojave Trail (Road) that crossed the Mojave River, and took their line directly to Tehachapi Pass. The Southern Pacific Railroad later used most of this route for their line between Daggett and Needles (Stickel and Weinman-Roberts 1980:133). This line is still operative and runs through the Cronese and Cady Allotments.

During the late 1850s and early 1860s, various tribes repeatedly raided merchants and traders in the Mojave region. In response to their demands to protect overland routes, General Clarke, Commander of the Pacific Military Division, began a series of forts in the desert. In 1860, Major James H. Carleton, Company K of the First Dragoons, established Fort Cady at Forks-in-the-Road east of present day Barstow (Stickel and Weinman-Roberts 1980:177). Fort Cady is listed on the National Register of Historic Places.

Another historic landmark located within a grazing allotment is Black Canyon, a well-defined sandy wash with historic petroglyphs made by A. Tillman in 1872. A stage road once passed through the canyon after 1873, when silver was discovered in the Panamint Mountains to the north. It ran between Surprise Canyon and San Bernardino (Stickel and Weinman-Roberts 1980:187). Additionally, prehistoric petroglyphs are also located in this area.

## **B. Environmental Consequences**

### **1. Impacts of Current Management**

Through previous research (ASPPN) I-15, 1990; Nielson 1991; Osborn et al. 1987; Roney 1977) and personal experience it has been determined that the areas of highest potential impact will be located around springs, troughs, water courses, and salt licks. These are high-use grazing areas and the former are also areas that tend to have concentrations of cultural sites. Impacts may include disturbance to the horizontal distribution of artifacts and may obscure patterns existing in their original deposition, and eventually can introduce new trends in their spatial arrangement. Vertical migration of materials, resulting from grazing, can move artifacts across stratigraphic units and cause the mixing of deposits obscuring the stratigraphic integrity of separate occupational periods. Trodden, artifacts can undergo several types of damage, including

breakage, micro-chipping and abrasion (Nielson 1991:483-484). Collective grazing activity can cause spatial, chronological and functional information to become obscured, causing erroneous temporal, spatial and functional interpretations. The result can be damaged and diminished integrity of a site adversely affecting its potential to meet National Register criteria. These analyses will assess the degree of impact that the grazing has had to cultural properties within the Barstow Field Area and will provide recommendations to mitigate further negative effects to cultural properties potentially eligible to or listed on the National Register of Historic Places.

To address the impacts of grazing on cultural resources within the Barstow Field Area, a sampling strategy has been devised which focuses efforts on congregation areas where it has been shown that the greatest levels of impact occur (e.g., springs, perennial water courses, troughs, and salt licks). Cultural assessments of allotments will be prioritized by 1) the number of eligible properties to be relocated, 2) sites occurring at or near water sources, and 3) sites located at or near salt licks. These investigations will only address public lands, and will occur over the next five years, beginning in 2005. Private, State, and County in-holdings will not be evaluated. Though cattle trailing occurs along fence-lines, the area of impact is limited to a one meter wide swath and impacts to cultural resources are generally restricted to this corridor. Therefore, linear improvements will not be analyzed for this analysis. Salt lick use areas may change from season to season making locating these areas problematic. Lessees will be asked to provide a map designating salt lick areas on public land and these locations will be evaluated should they occur in areas where the probability for the occurrence of cultural resources is high.

A Class I records search will be conducted for each allotment to ascertain previously recorded site locations. Sites located within congregation areas and sites previously determined eligible will be visited to evaluate grazing impacts. Trough locations which have not been surveyed will be completely inventoried within a 100 meter diameter area of the trough. Perennial spring locations will also be fully inventoried within a 100 meter diameter of the spring. A sample survey will be conducted along all perennial water courses. A 100 meter corridor on each side of the water course will be evaluated utilizing zig zag transects. Water courses over one mile long will be sampled along a minimum of 50% of the stream course. The water course will be segmented into 1/2 to 3/4 mile sample areas and a 100 meter corridor as described above will be inventoried.

All unrecorded site locations will be recorded. An exception will be instances where numerous sites occur in a sample area which is not receiving noticeable grazing impacts. In these cases a sample of sites will be fully recorded and evaluated. The unrecorded site (URS) locations will be mapped using a GPS and a brief description of each site will be provided in the allotment report. URS locations will be maintained in the data base for future recordation. A full report of findings for each allotment will be completed and mitigation measures, if needed, recommended.

This approach addresses the potential affects of livestock grazing to cultural properties and the strategies to evaluate on the ground effects of eight allotment renewals, encompassing 450,000 acres of public land administered by the BLM, Barstow Field Office. Livestock grazing is determined a federal undertaking, as such, the BLM is taxed with determining the potential effects of this action (i.e., renewal of grazing leases) to historic properties that are eligible to or are listed on the National Register of Historic places. Due to the immense scope of this project a

sampling strategy has been presented here that focuses on areas where livestock congregation occurs and where, subsequently, the greatest impacts to cultural properties are predicted to occur.

In general, mitigation will address grazing congregation areas and the primary and secondary impacts to cultural properties resulting from the intensive use of specific areas (e.g., troughs, springs, etc.). Mitigation measures will vary from location to location, designed for site specific and potentially larger scale habitat wide impacts (e.g., fencing an entire stream corridor where a high density of cultural properties are known to occur). Actions may take the form of trough removal and/or placement to disperse grazing from known cultural properties. Riparian or spring/stream corridor fencing or extensions to incorporate cultural properties within the protected zone. Fencing of individual cultural properties if dispersal of grazing from an impacted site is untenable. Placement of salt licks away from known sites and high probability areas. The desired future condition is for a viable grazing program which minimizes impacts by recognizing use patterns and adjusting these trends to address the negative affects to cultural properties potentially eligible to, or listed on, the National Register of Historic Places.

## 2. Rangeland Health

Same as current management.

## 3. No Grazing

Under this alternative, any on-going or future impacts to cultural resources from livestock grazing would cease, or would not occur.

## 4. Cumulative Impacts

Sensitive historic and prehistoric cultural resources within the California Desert District would continue to be impacted by grazing and associated activities. Grazing involves herding, loading, and transport of animals as well as maintenance of existing range improvements (fences, corrals, and water facilities), congregation at developed watering facilities and corrals, and travel along existing routes by the lessee. There would be an incremental loss of cultural resources from these activities. Loss of cultural resources would continue due to inadvertent and authorized actions when mitigation measures result in data collection. Overall, grazing would have a negligible cumulative effect on cultural resources on public lands within the California desert.

## **C. Consultation**

Consultation with SHPO is on-going.

## **D. Maps**

N/A

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## ENVIRONMENTAL JUSTICE

### A. Affected Environment

The grazing allotments being analyzed are located in rural San Bernardino and Inyo counties. The rural areas of these counties are typically occupied by moderate to low-income households. The lessees that hold the grazing leases for the allotments being analyzed typically have moderate incomes. Seasonal laborers that may be hired by the lessees generally come from low-income households.

### B. Environmental Consequences

#### 1. Impacts of Current Management

The implementation of the proposed action would have an affect but not a disproportionate affect on low-income or minority populations living on or near the allotments being analyzed.

The grazing of livestock in rural San Bernardino and Inyo counties has been a common practice for over 100 years. Ranching has been typically performed by persons of low to moderate income, and is not an industry that has a predominantly high minority population. There are no Native American communities on or near any of the allotments being analyzed.

#### 2. Rangeland Health

Same as current management.

#### 3. No Grazing

Under the no grazing alternative there would be an affect, but not a disproportionate affect with respect to low-income or minority populations due to the loss of seasonal employment to a small number of low-income or minority populations in rural San Bernardino County.

#### 4. Cumulative Impacts

There are no known cumulative impacts to low-income or minority populations as a result of any of the alternatives. Present and future seasonal jobs associated with the cattle industry do not appreciably affect the overall regional economy of low-income or minority populations in rural San Bernardino County.

### C. Consultation

All affect Native American tribes with traditional ties to the lands within the allotments being analyzed would be consulted. San Bernardino and Into Counties would also be consulted.

### D. Maps

N/A

**E. References** – N/A

## **FARMLANDS, PRIME OR UNIQUE**

### **A. Affected Environment**

The proposed action, or any alternative would have no affect on farmlands, prime or unique because no farmlands, prime or unique are present in or adjacent to the allotments.

### **B. Environmental Consequences**

#### 1. Impacts of Current Management

There would be no impacts from current management.

#### 2. Rangeland Health

There would be no impacts from this alternative.

#### 3. No Grazing

Same as above.

#### 4. Cumulative Impacts

There would be no cumulative impacts from the proposed action, or any alternative.

### **C. Consultation**

N/A

### **D. Maps**

N/A

### **E. References – N/A**

## FLOOD PLAINS

### A. Affected Environment

Floodplains are present in the Cady Mountain Allotment. Approximately 15 linear miles of the Mojave River and its floodplain are within the allotment boundaries. There are three range improvements that are located within the floodplain of the Mojave River. The Afton Canyon Riparian Fence and the Afton Canyon Gap Fences would be susceptible to damage resulting from a future flood event. The Nine Mile Well may be susceptible to damage resulting from a future flood event. This project is located just outside the actual floodplain, but could be damaged in a 100 year event.

### B. Environmental Consequences

#### 1. Impacts of Proposed Action

There would be nominal impacts resulting from the proposed action on floodplain habitat. The implementation of the proposed action would not increase the flood hazard along the Mojave River because most of the river channel through the allotment is dry, and the soils are primarily sand. The only concentration of livestock outside of Afton Canyon occurs in the vicinity of the Nine Mile Well. As previously stated, this project is adjacent to the floodplain, however cattle do forage in the floodplain. This area is relatively small and represents less than a mile of the river channel within the allotment.

Surface flows do occur in Afton Canyon, and the river channel is relatively narrow along this stretch of the river, however livestock has been excluded from this portion of the river and associated floodplain through gap fencing. This area is densely vegetated and better suited to withstand the impacts from a flood event. The proposed action would not impact the floodplain habitat, or increase the flood hazard in the Afton Canyon area.

#### 2. Rangeland Health

Same as current management.

#### 3. No Grazing

There would be no impacts to the floodplain habitat, or the flood hazard under the no grazing alternative.

#### 4. Cumulative Impacts

There would be no cumulative impacts to the floodplain habitat, or the flood hazard under any of the alternatives. Impacts from Nine Mile Well are localized, and do not affect overall Mojave River flows; do not contribute substantially to water quality degradation in the River because of the small size, low usage, and soils in the area; and floodplain habitat is not substantially affected

in the area and therefore does not contribute to cumulative floodplain habitat changes.

**C. Consultation**

Consultation would occur with all lessees, interested publics, county governments, and Native American tribes with traditional ties to the lands within the allotments being analyzed.

**D. Maps**

N/A

**E. References – N/A**

## INVASIVE, NON-NATIVE SPECIES

### A. Affected Environment

Most of the allotments that are analyzed in this document contain varying densities of invasive and non-native species. Red brome (*Bromus madritensis* ssp. *rubens*), schismus (*Schismus arabicus*), filaree (*Erodium cicutarium*), and several mustard species are the four most widespread invasive species present in the allotments. The invasive and non-native species compete with native herbaceous species, especially annual species, for available moisture, nutrients, and spatial occupation of available upland habitat. Species densities vary widely. For example, these species are most widespread in the western and central portion of the Ord Mountain Allotment. Improper grazing practices, which include year-long continuous use, often grazing the same area at the same time year after year has contributed to a transition of the herbaceous ground cover to these four invasive and non-native species over a substantial portion of the western portion of the Ord Mountain Allotment.

Salt cedar (*Tamarisk ramosissima*) has invaded portions of the Mojave River within the boundaries of the Cady Mountain Allotment. Eradication efforts have been on-going since 1992. The vast majority of these populations have been eliminated and replaced with native species. A smaller infestation of approximately 50 acres has been identified on the Cronese Lake Allotment. Small infestations (< 1 acre) may occur at isolated springs with the allotment boundaries of the other allotments.

### B. Environmental Consequences

#### 1. Impacts of Proposed Action

The presence of livestock can spread the seeds of invasive species through seeds sticking to their hide, or deposition of seed through their digestive system (Belsky 2000). It is not known the extent to which improper grazing practices contribute to the spread of non-native invasive species in the allotments being analyzed in this document. However, improper grazing practices do reduce the diversity, and reproductive abilities of these native, desert plant communities (Boarman 1999). 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. Under the proposed action, strict compliance with the terms and conditions of the 1994 BO would aid in sustaining native plant communities and reduce the spread of non-native invasive species because of lowered utilization thresholds on key forage plants and other requirements to improve trend.

Overall, the current densities of non-native invasive species on the allotments being analyzed in this document is considerate moderate. Annual fluctuations in densities is directly influenced by the amounts of late winter, early spring precipitation, however the populations of these species is concentrated in the seed bank which only increases with flowering non-native plants.

## 2. Rangeland Health

Same as current management.

## 3. No Grazing

Under the no grazing alternative, native plant communities would always have the opportunity for recruitment events, even under less than optimum conditions. By and large, the spread of non-native species would probably remain static, and in areas with moderate to light infestations eventually decrease over time in many areas, with the exception of areas infested with salt cedar ( *Tamarisk ramosissima* ). Salt cedar areas generally need active management.

## 4. Cumulative Impacts

The spread and establishment of non-native invasive species occurs through a variety of mechanisms. The BLM's multiple use mission typically results in a variety of casual uses and activities that may be authorized to occur on the same lands. Other activities that may overlap grazing allotments include: utility corridors (including electrical towers and natural gas pipelines), casual recreation use (i.e., hunting, picnicking, vehicle touring, horseback riding, hiking in remote areas, camping, rock hounding, etc.), organized recreation activities (i. e. dualsports, competitive activities in off-highway vehicle open areas), communication sites, scientific study, and mining activities. All of these activities, past, present, and future contribute to the spread and establishment of non-native invasive plant species.

## **C. Consultation**

Consultation would occur with all lessees, interested publics, county governments, and Native American tribes with traditional ties to the lands within the allotments being analyzed.

## **D. Maps**

N/A

## **E. References –**

Belsky, A. J. and J.L. Gelbard. 2000. Livestock Grazing and Weed Invasions in the Arid West. Oregon Natural Desert Association. Bend OR.

Boarman, W. I. 2002. Threats to desert tortoise populations: A critical review of the literature. Unpublished report prepared for the West Mojave Planning Team, Bureau of Land Management. U. S. Geological Survey, Western Ecological Research Center. San Diego, CA.

## NATIVE AMERICAN CONCERNS

### A. Affected Environment

Six Native American tribes live near, or have interests in, one or more of the eight grazing allotments within the Barstow Field Area (see Table 7).

**Table 7. Contacts for Section 106 Consultation.**

Name	Tribal Affiliation	Address
Edward Tito Smith	Chemehuevi	1990 Palo Verde Road, P.O. Box 1976, Havasu Lake, CA 92363
Daniel Eddie, Jr.	Colorado River Indian Tribes	Route 1, Box 23B, Parker, AZ 85344
Elda Butler	Fort Mojave	P.O. Box 5990, Mohave Valley, AZ 86440
Chad Smith	Fort Mojave	P.O. Box 5990, Mohave Valley, AZ 86440
Nora Helton	Fort Mojave	500 Merriman Avenue, Needles, CA 92363-2229
Curtis Anderson	Las Vegas Piute	1 Piute Drive, Las Vegas, NV 89106
Georgia Kennedy	Timbisha Shoshone	P.O. Box 206, Death Valley, CA 92328
Shirley Summers	Timbisha Shoshone	P. O. Box 786, Bishop, CA 93515
Ann Brierty	San Manuel	P.O. Box 266, Patton, CA 92369

Currently, tribes are within allotment lands primarily for ceremonial purposes and collection of traditional herbs and plants, as well as the same uses as other casual land visitors. As with other native species, traditional herbs and plants may be adversely affected in areas where invasive species have become widespread.

### B. Environmental Consequences

#### 1. Impacts of Proposed Action

Impacts to Native American values from grazing would primarily be from the contribution of grazing practices to invasive species maintenance and spread in various allotments, and resulting reduced availability of native herbs and plants. Additional impacts may be identified during site-specific surveys of allotments.

#### 2. Rangeland Health

Same as current management.

#### 3. No Grazing

Impacts to Native American values as a result of future grazing use would be eliminated if this alternative is selected.

#### 4. Cumulative Impacts

Cumulative impacts would be similar to those anticipated for invasive species, except that the effects on Native American values would result indirectly from loss of traditionally used native herbs and plants.

#### **C. Consultation**

Section 106 of the proposed lease renewals for these allotments with the six tribes identified above was initiated in September, 2004. Comments and concerns regarding cultural and religious values within the allotments that may be affected by livestock grazing will also be solicited and incorporated into follow-up site-specific cultural evaluations for allotments when visited.

#### D. Maps

N/A

#### **E. References –**

N/A

## RECREATION

### A. Affected Environment

Part of the Cady Mountain Allotment lies within the Afton Canyon Special Recreation Management Area (SRMA) and there are a number of nearby important recreation areas and opportunities. The Afton Canyon Watchable Wildlife Area is on the north side of the allotment. Afton Canyon is also a very important recreation area for a number of other reasons. The Canyon is toured regularly and the Mojave Road goes through the bottom of the canyon. This portion of the Mojave Road is part of the Old Spanish Trail that was designated in February of 2004 as a National Historic Trail by Congress. The Razor Off-Highway Vehicle Recreation Area lies just to the northeast of the allotment. The Cady Mountains contain some of the best rockhounding in the United States. The variety of agate and other stones is truly remarkable.

Route designation was completed in the Afton Canyon Management Plan in 1989 and some updates were made in the West Mojave Route Designation EA (2003). The canyon has a BLM developed campground and casual use of the area by individuals and family groups is common, particularly on weekends. The most common recreation activities are wildlife watching, hiking, photography, equestrian use, upland game hunting (in season), rockhounding, and general touring around the area. In the area covered by the allotment the most prevalent recreation activity is rockhounding. In cool weather, hundreds of visitors come out on weekends.

The Cronese Lake allotment does not lie within any Special Recreation Management Area (SRMA). The Afton Canyon SRMA does however lie just to the south of Interstate 15, while the allotment lies to the north. The area of the allotment does not have a great deal of recreation use. The Soda Mountains Wilderness Study Area is east of the allotment and there are some interesting old mines in the allotment which attraction the attention of those who are interested in that type of history.

A number of routes designated as open in the West Mojave Route Designation EA (2003) pass through the area and one of these the Boulder Corridor is a major desert transportation link. Casual use of the area by individuals and family groups is modest, even on weekends. The most common recreation activities are equestrian use, shooting, rockhounding, and general touring around the areas.

The Harper Lake Allotment does not lie within any Special Recreation Management Area (SRMA). There are however a number of nearby important recreation areas and opportunities. The Harper Lake Watchable Wildlife Area is southwest of the allotment. Rainbow Basin National Natural Landmark is six miles east, and a few miles north is Opal Mountain, a popular rockhounding area. Also to the north is Inscription Canyon, a popular and well known area to view Native American petroglyphs or rock carvings

A number of routes designated as open in the West Mojave Route Designation EA (2003)

pass through the area and it is an important “gateway” to provide access to other desert points of interest north of Highway 58. Casual use of the area by individuals and family groups is common, particularly on weekends. The most common recreation activities are bird watching, hiking, photography, equestrian use, upland game hunting (in season), rockhounding, and general motor vehicle touring. There is a modest amount of camping that takes place throughout the area.

The Ord Mountain and Valley Well Allotments are within the Johnson-Stoddard Special Recreation Management Area (SRMA). This SRMA contains the Johnson and Stoddard Valley Off-Highway Vehicle Recreation Areas (OHV Areas) and the Ord Mountain Area that lies between them. The SRMA was established because of the historic high recreation opportunity and use in the OHV Areas and the additional recreation values and uses found in the Ord Mountain area. Both Johnson and Stoddard have management plans that identify how the areas will be managed with the emphasis being on off-highway vehicle uses and recreation.

Johnson and Stoddard Valleys receive over 100,000 off-highway vehicle visits per year. These visitors are involved in a large number of organized activities including over 50 events that are issued Special Recreation Permits. The permitted events include twelve car/truck races, thirty-five + motorcycle races, six rock crawling events, and other assorted events from time to time. The number of Special Recreation Permits is fairly stable, except for an increased interest in rock crawling.

Casual use of the OHV areas by individuals and family groups is widespread, particularly on weekends. The OHV areas also receive some use for non-OHV recreation. The most common of these is upland game hunting (in season), rockhounding, and general motor vehicle touring. There is a great deal of camping that takes place associated with OHV use.

Recreation opportunity and use in the Ord Mountain area is different than that found in Johnson and Stoddard. Use includes mostly non-OHV related activities like hunting, hiking, equestrian use, camping, picnicking, and photography. Some visitors use the area to cross from one OHV area to the other and return.

The Pahrump Valley allotment does not lie within any Special Recreation Management Area (SRMA). The area of the allotment has seen increased recreational use as the City of Pahrump continues to grow. The northern half of the allotment lies within the Nopah Range Wilderness Area and therefore is closed to vehicle and mechanical use. There are some interesting old mines in the area that attract the attention of those who are interested in that type of history.

A number of routes designated as open in the Northern and Eastern Mojave Routes of Travel Plan (2004) pass through the area. Casual use of the area by individuals and family groups is modest, even on weekends. The most common recreation activities are equestrian use, shooting, motorcycle and ATV use, and general motor vehicle touring. Most recreation activity takes place around the Pahrump Dry Lake (the eastern half of the lake is not

wilderness) and the roughly fifteen public land sections to the south and east of the lake.

The Rattlesnake Canyon Allotment does not lie within any Special Recreation Management Area (SRMA). It does lie in a popular transition area between desert and mountains and provides a link to the SBNF recreational trail network. A number of routes designated as open in the West Mojave Route Designation EA (2003) pass through the area and it is an important “gateway” to provide access to points of interest west of Highway 247. Casual use of the area by individuals and family groups is common, particularly on weekends. The most common recreation activities are jeep tours down Rattlesnake Canyon, bird watching, hiking, photography, equestrian use, upland game hunting (in season), and general touring. There is a modest amount of camping that takes place throughout the area.

The Round Mountain Allotment does not lie within any Special Recreation Management Area (SRMA). It does lie within a popular transition area with diverse recreation opportunities. The allotment extends from the Deep Creek spillway area across the Juniper Flats Cultural ACEC to about a mile east of the Grapevine Canyon Road. This entire allotment fronts against the San Bernardino National Forest and people use it for access to the forest from below and to the Public Lands from above.

A number of routes designated as open in the West Mojave Route Designation EA (2003) pass through the area and it a different type of recreation than found over most of the desert because of the presence of trees and greater amounts of vegetation in general. Casual use of the area by individuals and family groups is common, particularly on weekends. The most common recreation activities are motorcycle riding, bird watching, hiking, photography, equestrian use, upland game hunting (in season), and general motor vehicle touring. There is a modest amount of camping that takes place throughout the area. Many visitors use the area to access the Deep Creek Hot Springs on the forest. This hot springs is a popular destination that has visitation from around the world.

## **B. Environmental Consequences**

### **1. Impacts of Proposed Action**

While visitors using the north end of the Johnson Valley OHV Recreation Area and the east-central portion of the Ord Mountains would see cattle on occasion, there are no major conflicts between grazing and recreation. The overlap area in the northern end of Johnson Valley OHV Area and the Ord Mountain Allotment known as the “dog ears” which receives the lowest amount of overall use, but does contain the northern portion of a current route where racing takes place located in it.

There are localized conflicts between recreationalist and campers related to the presence of cattle dung, especially near watering or corral facilities.

In the Pahrump Valley Allotment, recreational use of the dry lake bed by OHV and wind sailing has increased substantially over the last six years. The lessee has expressed concerns about potential cattle/OHV conflicts on any given weekend. The livestock watering sources for this

allotment consists of four reservoirs located on the dry lake bed. On the weekend the density of OHV on the dry lake bed can be heavy. Approximately half the dry lake bed is located within the Nopah Range Wilderness Area.

The Mojave Road runs through the northern portion of the Cady Mountain Allotment, within the Afton Canyon Natural Area. Due to recent fencing in this area any potential conflicts between cattle grazing and OHV use has been greatly reduced.

## 2. Rangeland Health

Same as current management.

## 3. No Grazing

Elimination of grazing would have a minimal effect on recreation.

## 4. Cumulative Impacts

Since grazing has not affected overall recreational access, and impacts are often subjective, any cumulative affects from the proposed action on recreation would be nominal.

## **C. Consultation**

None.

## **D. Maps**

N/A

## **E. References – N/A**

## SOCIAL AND ECONOMIC VALUES

### A. Affected Environment

The allotments being analyzed under the proposed action are located in rural San Bernardino and Inyo Counties. All of the allotments are primarily operated by the lessee, who may hire local labor on a seasonal basis. This labor typically consists of one to three persons.

The contribution of these allotments to the goods and services of the area is nominal. The sale of calves at the stock yard by the lessee benefits the financial needs of the lessee, as any small business would, and allows them to purchase goods and services for their grazing operation and personal household. These operations are generally small and their affect on the general economy is minor.

### B. Environmental Consequences

#### 1. Impacts of Proposed Action

Under the proposed action, grazing would continue at current levels. These levels are at their lowest point when compared to historic levels, and are expected to continue to decrease. These grazing operations would continue to have a nominal influence on the local and regional economy of both San Bernardino and Inyo Counties.

#### 2. Rangeland Health

Same as current management.

#### 3. No Grazing

Under this alternative, there would be a nominal negative affect to the economy of rural San Bernardino County resulting from the loss of the existing cattle operations.

#### 4. Cumulative Impacts

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

### C. Consultation

Consultation would occur with all lessees, interested publics, county governments, and Native American tribes with traditional ties to the lands within the allotments being analyzed.

### D. Maps

N/A

**E. References –**

USDI, Office of Hearings and Appeal. 2001. Richard Blincoe and Blinco Farms, Inc. et al v Bureau of Land Management. CA-690-01-01. Administrative Law Judge Sweitzer.

## SOILS

### A. Affected Environment

Of the eight allotments being analyzed in this document, two allotments, Round Mountain and Valley Well have had an Order III soils survey conducted by the NRCS. The soil classification of the other six allotments has not been mapped in detail.

The Round Mountain Allotment is dominated by four complexes and associations: 1) The Arrastre-Rock Outcrop Complex is primarily a sandy loam, deep and well drained, with a moderate erosion potential; 2) The Bryman-Cajon Association is dominated by stone to gravelly sand, very deep and well drained, with a low to moderate erosion potential; 3) Crafton-Sheephead-Rock Outcrop Association is dominated by sandy loam to gravelly sandy loam, moderately deep and well drained to shallow and somewhat excessively drained, with a moderate erosion potential; and 4) Cushenbury-Crafton- Rock Outcrop Complex has a soil texture that is loamy sand to sandy loam, moderately deep and well drained, with a moderate erosion potential.

The Valley Well Allotment is mapped containing one soil association. The Helendale-Bryman Loamy Sand Association consists of a loamy sand texture, is deep and well drained, and has a slight erosion potential.

The Pahrump Valley Allotment is dominated by the following six soils and associations: 1) The Commski-Tanazza Association consists of very gravelly fine sandy loam to gravelly sandy loam, well drained, with a low erosion potential; 2) The Besherm-Tanazza Association consists of clay loam to silt loam, well drained, with a medium to high erosion potential; 3) Besherm clay loam, well drained, with high erosion potential; 4) The Wechech-Nopah-Yermo Association consists of gravelly loam to very gravelly sandy loam, well drained, with a very to high erosion potential; 5) Haymont very fine sandy loam, well drained, with a low erosion potential; and 6) Rumpah clay, well drained, with a very high erosion potential.

The soil classification of the other six allotments has not been mapped in detail. Based on general soils mapping by NRCS, soils associations in the Harper Lake Allotment includes the Dune Land Association (well to excessively well drained, sands and loamy sand, susceptible to wind erosion), Rock Land Association (dominantly exposed bedrock and very large boulders), Arizo-Daggett Association (excessively drained and some what excessively drained, very deep, gravelly sands), and the Rosamond-Oban Association ( somewhat poorly drained to moderately well drained, deep to very deep, silty clay loam and silty clays). The Ord Mountain Allotment includes the Rock Land Association (dominantly exposed bedrock and very large boulders), Lava Flows Association (lava bedrock with small pockets of sand to loamy sand), Cajon Association (excessively drained, very deep, fine sands), Adelanto-Mohave Association (well drained, very deep, sandy loams), Mohave-Adelanto Varients Association (well drained, sandy loams, moderately deep to deep to caliche), Mohave Variet - Sunrise Association (moderately well drained and well drained, loamy fine sands, shallow to deep to caliche). The Rattlesnake Canyon Allotment includes the Ramona Association (well drained, very deep, coarse sandy loam), the Arizo-Daggett Association (excessively drained and some what excessively drained, very deep,

gravely sands), and the Rock Land Association (dominantly exposed bedrock and very large boulders). Approximately 90 percent of the Cronese Lake and Cady Mountain Allotments are unclassified.

Erosion potential of these soils ranges from slight to moderate. There are no identified erosion problems on the allotment.

BLM assessed the Cronese Lake, Cady Mountain, Harper Lake, Ord Mountain, and Rattlesnake Canyon Allotments in 1999 and 2000 to determine if the rangeland health standards were being met. Specific soils standards relate to permeability and infiltration. All sites examined were found to meet the standards for soils.

## **B. Environmental Consequences**

### 1. Impacts of Proposed Action

Under the proposed action, livestock grazing in the eight allotments would continue to have a negative affect on soils associated with congregation areas such as watering sites, and corrals through compaction. The vast majority of soils in these allotments would continue to achieve the soils standard.

### 2. Rangeland Health

Same as current management.

### 3. No Grazing

Under the no grazing alternative, soils in areas formally used as a congregation areas would begin the very slow de-compaction process.

### 4. Cumulative Impacts

Under the proposed action, past present and future cattle grazing operations will continue to have a cumulative impact on soils in congregations areas such as water sources and corrals.

## **C. Consultation**

The Carson City, Nevada NRCS Office was consulted concerning the Nye County, NV, soil survey.

## **D. Maps**

See the soils map contained in the Soil Survey of San Bernardino County California, Mojave River Area, the Southwest Desert Area Report and General Soils Map, and the Soil Survey of Nye County, Nevada, Southwest Part.

## **E. References –**

National Resource Conservation Service. 2004. Soil Survey of Nye County, Nevada, Southwest Part.

National Resource Conservation Service. 1986. Soil Survey of San Bernardino County, California, Mojave River Area.

Soil Conservation Service. 1970. Southwestern Desert Area Report and General Soil Map, San Bernardino County, California.

## WASTE, HAZARDOUS OR SOLID

### A. Affected Environment

Detailed surveys of hazardous or solid wastes have not been undertaken on these allotments. BLM maintains records of reportable spills on public lands, but these records are not yet entered into a searchable database. Some previous sites and current sites that are awaiting cleanup are known to exist within the allotments. These are primarily associated with historic mining activities, illegal disposals on public lands, occupancy trespass, wire burns, and drug production activities. No sites are specifically associated with livestock operations, although use of motorized vehicles and equipment by the livestock operator may have resulted in low volume, periodic and scattered spills or releases of fuel and petroleum products in the allotment. None have been documented that have exceeded de minimus levels to be considered a release.

### B. Environmental Consequences

#### 1. Impacts of Proposed Action

As a result of implementing the proposed action low volume, periodic and scattered spills or releases of fuel and petroleum products in the allotments would continue. These spills and releases are more likely to occur at wells and corral sites on public land where facilities and vehicles used in the livestock operations most often congregate. Fencing adjacent to valued springs and riparian areas would continue to prevent large releases into natural water sources. No increases in low volume, periodic and scattered spills or releases of fuel and petroleum products above what has been discussed is anticipated in the allotments being analyzed.

#### 2. Rangeland Health

Same as current management.

#### 3. No Grazing

Under the no grazing alternative, there would be no low volume, periodic and scattered spills or releases of fuel and petroleum products in the allotments resulting from livestock operations.

#### 4. Cumulative Impacts

Localized cumulative impacts to ground water may have occurred and may continue to occur at well and corral sites on public land from 20 to 60 years of presence. The congregation of facilities at these sites may be a point sources for very low levels of ground water pollution on a very localized scale, depending on the types of fuels used by lessees.

### C. Consultation

Consultation would occur with all lessees, interested publics, county governments, and Native

American tribes with traditional ties to the lands within the allotments being analyzed.

**D. Maps**

N/A

**E. References – N/A**

## **WATER QUALITY, SURFACE AND GROUND WATER**

### **A. Affected Environment**

Approximately 15 miles of the Mojave River flows along the northern boundary of the Cady Mountain Allotment. Approximately four mile of the river channel has an above ground flow. This river is on the State's 303d list, which means that the river is classified an impaired water body due to presence of pollutants. General water quality monitoring has not been conducted along the four mile of above ground flow. Water quality monitoring has been conducted in association with herbicide applications for the treatment of salt cedar. This monitoring has been specific for the presence of the active ingredient in the herbicides used. All water quality monitoring for this purpose has concluded that there was none of the herbicide's active ingredients detected. This segment of the river has traditional been used to water livestock. Although most of the riparian habitat has been fenced from livestock and OHV since the early 1990's, water gaps were erected to continue this practice in two locations. In 2001, as a result of the Settlement Agreement with CBD fencing was erected to preclude livestock use of the water gaps.

There are eighteen developed and undeveloped water sources that provide surface water to livestock in four of the eight allotments being analyzed in this document. The vast majority of these sources are developed springs. Most, but not all of the developed spring sources have been fenced to protect water quality and riparian habitat. At all of the developed springs, water has been piped away from the source to troughs for consumption by livestock and wildlife. Very limited water quality and flow data has been collected at any of these sources. None of the spring sources are associated with human consumption, or are required to meet drinking water standards. None of the spring sources provide habitat for any federally listed species. The Mojave River and Arrastre Creek both provide migratory habitat for two federally listed neo-tropical bird species.

There are at least 12 water wells on both public and private land associated with livestock grazing within the boundaries of the eight allotments. All of these wells are under the jurisdiction of the San Bernardino County Environmental Health Department and must comply with strict standards to prevent ground water contamination. The Mojave Water Agency considers all of these well as "minimum consumers" of ground water, which means they consume less than ten acre feet/year.

### **B. Environmental Consequences**

#### **1. Impacts of Proposed Action**

Since livestock use has been precluded from the water gaps along the Mojave River, any contamination from such usage has ceased. Negative affects to water quality at the other water sources available to livestock are unknown, however most of the sources are protected from contamination from livestock by fencing or natural features. Livestock still have limited access to the Mojave River and Arrastre Creek. The levels of surface water contamination resulting from this access are unknown, however unknown levels of fecal coliform contamination are suspected.

There may be some level of “de-watering” associated with providing drinking water to livestock from springs with finite sources.

A program-wide water quality monitoring strategy has yet to be adopted for the Barstow Field Office, and may be unnecessary. Best Management Practices (BMP) have also not been adopted for public lands in the California Desert District (CDD). Regional Rangeland Health Standards have been approved by the State Director for portions of the CDD, including for one of the allotments being evaluated herein (Pahrump Valley), and are awaiting concurrence by the Secretary of the Interior. No Regional Rangeland Health Standards have been approved for the West Mojave area, which includes the other seven allotments being addressed in this assessment, but Regional Rangeland Health Standards are included in the proposed West Mojave Final Plan/EIS that is currently out for public review. The fallback standards contained in the grazing regulations do not include a water quality standard, but the regional rangeland health standards do contain water quality standards and guidelines for grazing.

Under the proposed action, spring sources available to livestock will be evaluated for threats to water quality and riparian values. The appropriate management action(s) would be implemented based on the specifics of the situation, including, but not limited to, actions such as fencing, placement of additional troughs and re-design of the facility.

## 2. Rangeland Health

Same as current management.

## 3. No Grazing

Under this alternative there would be no future contamination of surface water from livestock. Any current or past contamination would quickly dissipate. Some local sedimentation of riparian waters may occur adjacent to previously used congregation areas from compacted soils that would continue until re-vegetation takes place.

## 4. Cumulative Impacts

Springs have been developed and water wells have been dug within the planning area for use by livestock for over 100 years. There may be localized cumulative impacts to water resources based on the volumes extracted over time, re-charge rates and water quality. Overall, livestock grazing operations in the planning area continue to decrease, both in numbers of animals and in the number of viable ranching operations that remain. Extractions from these same aquifers from other sources, on the other hand, have been steadily increasing to the point that the aquifers overall are in overdraft. The contribution of the livestock industry to regional water use is declining over time, is not a substantial percentage of the total water use, and existed before overdraft conditions began. It is anticipated that this trend will continue. Therefore, from a regional perspective these developments do not represent a substantial cumulative impact to water resources.

**C. Consultation**

**Lahontan Regional Water Quality Control Board.**

**D. Maps**

N/A

**E. References -**

**Lahontan Regional Water Quality Control Board. 1994. Water Quality Control Plan for the Lahontan Region.**

## WETLANDS/RIPARIAN ZONES

### A. Affected Environment

Water sources in the Mojave Desert are rare and occur as seeps and springs. Natural water sources occur on the Ord Mountain, Cady Mountain, Rattlesnake Canyon, and Round Mountain allotments. Springs are generally small and are associated with prominent mountain ranges. Vegetation associated with these springs generally consists of small herbaceous plants, but may include riparian shrubs and trees. These species include inland saltgrass (*Distichlis spicata*), sedge (*Carex spp.*), bull rushes (*Scirpus spp.*), coyotebrush (*Baccharis spp.*), and willow (*Salix spp.*). Cottonwood/willow galleries are more common along the Mojave River. Saltcedar (*Tamarix ramosissima*) is also common along the Mojave River.

Springs provide much needed water to wildlife species that require a perennial water source. Both game and non-game species routinely visit springs in the desert. Endemic micro fauna can also be found inhabiting these rare water sources.

Wetland areas (springs) that are located in allotments have been assessed using a modification of a tool that evaluates the proper functioning condition for lentic areas. The method uses a standardized, qualitative method called proper functioning condition or PFC (Prichard 1998). The PFC method separates the wetland into three major components: hydrology, soils, and vegetation. Each component is addressed according to its site potential. Together, these three components allow an interdisciplinary team to assess the functionality of the physical processes of a spring. Functionality is described using three specific terms: functional (F), functional at risk (FAR), nonfunctional (NF), and unknown (UK). These terms are defined below:

Functional (PFC) - A riparian-wetland area has adequate vegetation, landform, or large woody debris to: dissipate stream energy, capture bedload, support vegetative growth to support streambanks, to provide diverse habitat, support greater biodiversity.

Functional at Risk- Riparian-wetland areas that are in functional condition, but an existing soil, water, or vegetation attribute makes them susceptible to degradation. The functional at risk term is further defined with an indication of trend either downward or upward.

Nonfunctional- Riparian-wetland areas that clearly are not providing adequate vegetation, landform, or large woody debris to dissipate stream energy associated with high flows, and thus are not reducing erosion, improving water quality, etc.

Unknown- Riparian-wetland areas that managers lack sufficient information on to make any form of determination.

Several springs have been evaluated using PFC methodology in the Ord and Rattlesnake allotments. No information exists for springs outside these allotments. Evaluated springs have been compiled into Table 8 displayed below.

**Table 8. Proper Functioning Condition of Evaluated Waters in Cattle Allotments**

Spring	Allotment	PFC Compl.	PFC Rating	Cattle Excluded
Upper Sweetwater	Ord Mountain	N	UK	No
Lower Sweetwater	Ord Mountain	Y	FAR – Upward Trend	Yes
Willow	Ord Mountain	Y	FAR – Downward Trend	No
Quill	Ord Mountain	Y	NF	Yes
Kane	Ord Mountain	Y	FAR - Downward Trend	No
Mojave River	Cady Mountain	Y	FAR – Upward Trend	Yes
Viscera	Rattlesnake Canyon	Y	FAR – Upward Trend	Yes
Vaughn	Rattlesnake Canyon	Y	FAR – Upward Trend	Yes
Middle Rattler	Rattlesnake Canyon	N	NF	No
Mound	Rattlesnake Canyon	Y	FAR - Static	Yes
One Hole	Rattlesnake Canyon	Y	FAR – Upward Trend	Yes
Two Hole	Rattlesnake Canyon	Y	FAR - Static	Yes
Rattlesnake	Rattlesnake Canyon	Y	FAR – Upward Trend	Yes
Kynna	Rattlesnake Canyon	Y	NF	No
Bighorn Seeps	Rattlesnake Canyon	Y	NF	No
Cottonwood Creek	Round Mountain	Y	FAR – Upward Trend	Yes
Lovelace Creek	Round Mountain	N	UK	No
Arrastre Creek	Round Mountain	Y	FAR – Upward Trend	Yes
Stone	Round Mountain	Y	FAR – Upward Trend	Yes
Round Mtn.	Round Mountain	Y	UK	No

**B. Environmental Consequences**

## 1. Impacts of Current Management

If not fenced out, or modified for avoidance cattle may trample vegetation resulting in a decrease in vigor or complete elimination of vegetation from the vicinity of the spring, where otherwise vegetation would be robust and often unique to the wetter microclimate. Hoof action typically creates divots known as “punching” in wet soils, can increase erosion, and can create poor water quality at springs.

The degenerative impacts of cattle intrusion at springs can be avoided by fencing cattle out of springs. Fencing has been constructed at Lower Sweetwater spring with positive results. Impacts described above still occur at troughs but do not degrade the springs and the surrounding riparian vegetation.

The riparian areas identified in Table 8 that are currently non-functional, or functioning at risk with a downward trend must eventually conform with fallback Rangeland Health Standards. To conform with the riparian standard these spring sites may require modifications that could include fencing, adding additional troughs, re-routing pipelines systems and placing shut-off devices (floats) within the water delivery system. The placement of salt and/or mineral blocks would be prohibited within one-quarter mile of these springs.

## 2. Rangeland Health

Same as current management.

## 3. No Grazing

Impacts associated with grazing would not occur. Springs meeting proper functioning condition would continue functioning. Springs identified with a downward trend would be anticipated to improve towards a properly functioning condition.

## 4. Cumulative Impacts

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 are not anticipated to adversely impact springs since most springs cannot be accessed by motor vehicles. The Mojave River in Afton Canyon has been barricaded by post and cable to discourage driving off-road. There is foot traffic to springs to picnic and enjoy the shade, flora and fauna. Foot traffic also increases in the vicinity of some of the springs during hunting season, but has not resulted in cumulative effects to riparian vegetation. The fencing of springs has reduced impacts from both cattle and humans coming to enjoy what springs have to offer.

### **C. Consultation**

Other agency consultations were not involved in the wetland analysis.

### **D. Maps**

N/A

### **E. References –**

Prichard, Don. 2003. A User Guide to Assessing Proper Functioning Condition and the Supporting Science for Lentic Areas. TR 1737-16. Bureau of Land Management. BLM/RS/ST-03/001+1737, Denver, CO. 109 pp.

## **WILD AND SCENIC RIVERS**

### **A. Affected Environment**

The proposed action or any alternative would have no affect on wild and scenic rivers because no wild and scenic rivers are present in the allotments being analyzed.

### **B. Environmental Consequences**

1. Impacts of Proposed Action
2. Rangeland Health
3. No Grazing
4. Cumulative Impacts

There would be no cumulative impacts from the proposed action, or any alternative.

### **C. Consultation**

Other agency consultations were not involved in the Wild & Scenic Rivers analysis.

### **D. Maps – N/A**

### **E. References – N/A**

## WILDERNESS

### A. Affected Environment

#### Cady Mountain Allotment

This allotment (177,299 acres<sup>1</sup>) includes an estimated 117,516 of the **Cady Mountains WSA**'s 120,112 acres.<sup>2</sup> The WSA was established 31 October 1994, with passage of the California Desert Protection Act. Until Congress either designates this WSA as wilderness or releases it from further study, BLM does not expect to engage in wilderness management planning for the area.

In 1990, BLM described Cady Mountains WSA 'values' as follows:

Natural Conditions: "...the majority of the area appears to have been affected primarily by the forces of nature and generally retains its natural character. Most of the influences of the few man-made features within the area are screened by the varied topography."

Solitude: "The overall character of the landscape does not reflect the presence of man."

Primitive and Unconfined Recreation<sup>3</sup>: "The WSA contains vast areas of windblown sand and volcanic ridges, thus providing opportunities for primitive and unconfined types of recreation."

Special Features: Approximately 75% (32,000 acres) "of the total range used by [a desert bighorn sheep] herd is within the WSA. ... The herd size is estimated at 25 individuals."

#### Grazing Use Levels

In 1980, the CDCA Plan (1980, p.77) represented existing grazing use as 359 AUMs, "ephemeral". In 1982, Amendment #9 (CDCA Plan, 1980, as amended) changed the grazing use from ephemeral to ephemeral/perennial, and changed the AUMs from 359 to 2,059 ("temporary non-renewable" until Congress' wilderness decision), referring to field exams showing a good base of perennial grasses in the allotment. Until October 31, 1994, Congress made no wilderness decision; on that date they established the Cady Mountains area as a statutory WSA instead of a wilderness. Also in 1982, Amendment #10 (CDCA Plan, 1980, as amended) expanded the allotment to the east, referring to field exams showing a good amount of forage existed to the east of the existing allotment. Grazing was to be allowed on a temporary non-renewable basis only in years of good forage. In 1999, grazing use for the "Afton Canyon" allotment was represented as 2,059 AUMs [Livestock Renewable Forage Allocation, CDCA Plan, 17 Aug 1999 reprint, p.65]. A 37 AUM adjustment for bighorn sheep was noted.

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1 BLM-CDD GIS calculation (Zmudka).

2 BLM-BFO GIS calculation (Jackson, 9 Jul 2004).

3 Definition: "... non-motorized types of outdoor recreation activities that do not require developed facilities or mechanical transport." [43 CFR 6301.5, Final Rule 12/14/00, effective 16 Jan2001].

Under the proposed authorization, grazing use would drop to 2,052 AUMs, with the allotment identified as “Cady Mountain” and managed under the same lease, with the same lessee, as the “Cronese Lakes” allotment (see below).

“Improvements”: Two ‘range improvements’ sites are within the allotment/WSA overlap. Mid Valley Well and Hidden Valley Well each are comprised of a water well, pump, 2 storage tanks, pipelines, a trough and a corral. Three wildlife ‘improvements’ – two bighorn sheep guzzlers, and one small game guzzler – also are within the allotment/WSA overlap.

Prohibited Uses: Some OHV intrusions, cross-country included, recently have been noted in the allotment/WSA overlap. They are particularly noticeable along the way between Mid Valley Well and Hidden Valley Dry Lake, and the way between Mid Valley Well and Nine Mile Well. Private and public land surfaces have been affected.

Other Current Uses; Conflicts: 4WD touring crosses the bighorn sheep travel path between the north & south bighorn guzzlers. Rock hounding temporarily displaces bighorn sheep using the south rim of Afton Canyon. In recent years, BLM has experienced WSA boundary marker difficulties (removals, damage).

### **Cronese Lake Allotment**

This allotment (53,563 acres<sup>4</sup>) overlaps an estimated 42,208 of the **Soda Mountains WSA**’s 121,530 acres<sup>5</sup>. The WSA was established 31 October 1994, with passage of the California Desert Protection Act. Until Congress either designates this WSA as wilderness or releases it from further study, BLM does not expect to engage in wilderness management planning for the area.

In 1990, BLM described Soda Mountains WSA ‘values’ as follows:

Natural Conditions: “Excluding mining activity, the WSA has been affected primarily by natural forces with man’s imprint substantially unnoticeable.” While mining impacts are evident at the WSA’s southwest edge (i.e., the green rock quarry sites), they are not characteristic of the WSA in the Cronese Lakes vicinity, where natural conditions have been altered most noticeably by the West Cronese Well grazing improvements.

Solitude: “Outstanding opportunities for solitude are available due to the area’s large size and variation in land form. The large mountainous mass which comprises the Soda and Cronese Mountains, plus the large expansive alluvial fans, provide many canyons and washes where individuals are completely isolated from any internal or external evidence of the presence of man.”

Primitive and Unconfined Recreation: “Overall the area provides outstanding opportunities for unconfined movement and primitive types of recreation.”

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<sup>4</sup> BLM-CDD GIS calculation (Zmudka)

<sup>5</sup> BLM-BFO GIS calculation (Jackson, 7 Jul 2004)

Special Features: “The Cronese Basin contains significant cultural resources and Native American concerns. These values are currently managed and protected by the Cronese Lakes ACEC.”

### Grazing Use Levels

In 1980, the CDCA Plan (1980, p.76) represented existing grazing use as 1,019 AUMs, “ephemeral”. In 1982, Amendment #11 (CDCA Plan, 1980, as amended) changed the grazing use from ephemeral to ephemeral/perennial, and changed the AUMs from 1,019 to 1,508 (“temporary non-renewable” until Congress’ wilderness decision), referring to field exams showing the allotment to have a good base of perennial grasses. Until October 31, 1994, Congress made no wilderness decision; on that date they established the Soda Mountains area as a statutory WSA instead of a wilderness. In 1999, grazing use for the “Cronese Lake” allotment was represented as 1,508 AUMs. [Livestock Renewable Forage Allocation ,CDCA Plan, 17 Aug 1999 reprint, p. 65].

Under the proposed authorization, grazing use would drop to 504 AUMs, with the allotment managed under the same lease, with the same lessee, as the “Cady Mountain” allotment (see above).

“Improvements”: One range improvement site is within the allotment/WSA overlap. West Cronese Lake Well is comprised of a water well, windmill, 2 storage tanks, pipelines, a trough and a corral. BLM is aware of no wildlife improvements within the wilderness/WSA overlap.

Prohibited Uses: Some OHV intrusions (4-wheel & motorcycle), cross-country included, have been noted in the allotment/WSA overlap, primarily on two dry lake beds and the adjacent sandy slopes. Private and public land surfaces have been affected.

Other Current Uses; Conflicts: BLM is aware of no other conflicts of any substance within the allotment/WSA overlap.

### Harper Lake Allotment

This allotment (17,345 acres<sup>6</sup>) overlaps an estimated 7,153<sup>7</sup> of the **Black Mountain Wilderness**<sup>8</sup> 20,550 acres. The wilderness was established 31 October 1994, with passage of the California Desert Protection Act. BLM has yet to complete a wilderness management plan for this designated wilderness area.

In 1990, BLM described Black Mountain WSA ‘values’ as follows:

Natural Conditions: The northern portion of the WSA is relatively undisturbed by man. The west-central and southern portions generally retain their

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6 BLM-CDD GIS calculation (Zmudka)

7 BLM-BFO GIS calculation (Jackson, 12 July 2004)

8 [www.ca.blm.gov/pa/wilderness/wa/wa\\_lister.html](http://www.ca.blm.gov/pa/wilderness/wa/wa_lister.html)

wilderness character.

Solitude: A series of ridges and canyons provide isolation and opportunities for solitude.

Primitive and Unconfined Recreation: “The diversity and uneven surface does provide opportunities for a variety of primitive and unconfined type of recreation.”

Special Features: Approximately 13% of the WSA acreage total is within the Black Mountain ACEC (cultural resources). The desert tortoise is present over the entire area at densities of 20 to 50 per square mile.

#### Grazing Use Levels

In 1980, the CDCA Plan (1980) represented existing grazing use, after adjustment, as 406 AUMs. [Livestock Renewable Forage Allocation, CDCA Plan, 1980, p.76]. In 1999, grazing use for the Harper Lake allotment was represented as 406 AUMs [Livestock Renewable Forage Allocation, CDCA Plan, 17 Aug 1999 reprint, p.65].

Under the proposed authorization, grazing use would increase to 600 AUMs from the allocation cited in the CDCA Plan. However, the allocation for this allotment has been 600 AUMs since a planning decision approved the AMP in 1984.

“Improvements”: BLM is aware of no improvements, whether range or wildlife, within the Allotment/Wilderness Overlap.

Prohibited Uses: Some OHV intrusions (4WD), cross-country included, have been noted in the allotment/wilderness overlap, primarily along the south boundary.

Other Current Uses; Conflicts: As a matter of ongoing routine, since first installing boundary markers following wilderness designation, BLM has seen them damaged and/or removed entirely.

#### **Ord Mountain Allotment** (formerly “Newberry/Ord”)

This allotment (148,666 acres<sup>9</sup>) overlaps 23,907 acres (est.) of wilderness. Approximately 6,938 acres overlap the **Newberry Mountains Wilderness** and 16,969 acres overlap the **Rodman Mountains Wilderness**.<sup>10</sup> The Newberry Mountains Wilderness totals 20,308 acres, and the Rodman Mountains Wilderness totals 29,793 acres<sup>11</sup>. The wilderness areas were established 31 October 1994, with passage of the California Desert Protection Act. BLM has yet to complete wilderness management plans for these two designated wilderness areas.

In 1990, BLM described wilderness ‘values’ as follows:

Newberry Mountains Wilderness:

Natural Conditions: “... essentially void of human intrusions and affected

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<sup>9</sup> BLM-BFO estimate

<sup>10</sup> BLM-BFO GIS calculations (Jackson, 12 July 04)

<sup>11</sup> [www.ca.blm.gov/pa/wilderness/wa/wa\\_list.html](http://www.ca.blm.gov/pa/wilderness/wa/wa_list.html)

primarily by the forces of nature.”

Solitude: “..the area’s secluded valleys and deep canyons offer an outstanding opportunity to escape the rest of humanity.”

Primitive and Unconfined Recreation: “Opportunities are outstanding for primitive recreation.”

Special Features: Historic desert bighorn habitat, a bighorn guzzler constructed by the California DFG, and eyries/foraging area for golden eagles and prairie falcons.

#### Rodman Mountains Wilderness

Natural Conditions: “[P]redominantly natural with negligible human imprints.”

Solitude: “[E]xcellent opportunities for solitude.”

Primitive and Unconfined Recreation: “... quality opportunities for primitive and unconfined types of recreation.”

Special Features: “... significant cultural resources and Native American concerns.”

#### Grazing Use Levels

In 1980, the CDCA Plan (1980) represented existing grazing use, after adjustment, as 773 AUMs. [Livestock Renewable Forage Allocation, CDCA Plan, 1980, p.76]. In 1983 (May 16), Amendment #11 (CDCA Plan, 1980, as amended) changed the allotment name from “Newberry/Ord” to “Ord Mountain”, enlarged the allotment eastward, overlapping Rodman Mountains WSA lands BLM had recommended “suitable” for wilderness designation, and, without stating an AUMs number, provided that “Preference would not be granted until after Congress decides on wilderness status.” AUMs were to be “temporary nonrenewable” until Congress’ wilderness decision. In 1985 (18 Nov), BLM/Barstow approved a plan amendment decision (Newberry/Ord Allotment Management Plan) allocating AUMs for all three land area units viewed as comprising the “Ord Mountain Allotment”, and imbuing those ‘allocations’ with a grazing “preference” of 3,311 AUMs. In 1999, grazing use for this allotment was represented as 773 AUMs. [Livestock Renewable Forage Allocation, CDCA Plan, 17 Aug 1999 reprint, p.65].

Under the proposed authorization, grazing use would increase to 3,632 AUMs from the allocation cited in the CDCA Plan. However, the allocation for this allotment has been 3,632 AUMs since a planning decision approved the AMP in 1984.

“Improvements”: BLM is aware of no improvements, whether range or wildlife, within either of the Allotment/Wilderness overlaps.

Prohibited Uses: Motor vehicle intrusions are routine in the allotment/Rodman Mountains Wilderness overlap, particularly in the Surprise Tank vicinity, and, to a much lesser extent, in Box Canyon. These intrusions also occur, but are much less serious, in the allotment/Newberry Mountains Wilderness overlap off Camp Rock Road.

Other Current Uses; Conflicts: Removal and damage of wilderness boundary markings is a matter of routine.

## Pahrump Valley Allotment

This allotment (26,224 acres<sup>12</sup>) overlaps 15,180 acres<sup>13</sup> (est.) of the **Nopah Range Wilderness** (72,468 acres<sup>14</sup>). The wilderness was established 31 October 1994, with passage of the California Desert Protection Act. BLM has yet to complete wilderness management plans for this designated wilderness area.

In 1990, BLM described Nopah Range WSA ‘values’ as follows:

**Natural Conditions:** “The recommended suitable portion of the WSA is virtually void of all human intrusions with the following exceptions.” [3 bighorn sheep guzzlers]. “... the nonsuitable area of the WSA ... is generally void of human activity.”

**Solitude:** “Within the nonsuitable portion, there are quality opportunities for solitude. However, these opportunities are limited in specific areas by human impact. This is especially true on the northeastern bajada where the existing access routes are not screened by vegetation or topography.”

**Primitive and Unconfined Recreation:** “Where access routes impact the nonsuitable portion, opportunities for primitive recreation can be reduced.”

**Special Features:** No information specific to public lands within the current allotment.

### Grazing Use Levels

In 1980, the CDCA Plan (1980) represented existing grazing use, after adjustment, as 353 AUMs. [Livestock Renewable Forage Allocation, CDCA Plan, 1980, p.76]. In 1999, grazing use for this allotment, after adjustment, was represented as 353 AUMs [Livestock Renewable Forage Allocation, CDCA Plan, 17 Aug 1999 reprint, p. 65].

Under the proposed authorization, grazing use would remain at 353 AUMs.

**“Improvements”:** BLM is aware of range improvements in the form of water basins bulldozed in the dry lake bed within the allotment/wilderness overlap. Some are evident on the 1984 Provisional Edition USGS 7.5-minute quads. BLM is aware of no wildlife improvements within the overlap.

**Prohibited Uses:** Motor vehicle intrusions of all types are routine in the allotment/wilderness overlap, particularly on the surfaces of the wilderness portion of Pahrump Dry Lake. Such use is especially evident in association with Independence Day celebrations, when use of fireworks on the dry lakebed minimizes fire risks while sidestepping Nye County prohibitions on fireworks possession.

**Other Current Uses; Conflicts:** BLM is aware that unauthorized use of motor vehicles within the

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<sup>12</sup> BLM-CDD GIS calculation (Zmudka)

<sup>13</sup> BLM-BFO GIS calculation (Jackson, 12 July 04)

<sup>14</sup> [www.ca.blm.gov/pa/wilderness/wa/wa\\_listter.html](http://www.ca.blm.gov/pa/wilderness/wa/wa_listter.html)

allotment/wilderness overlap has been troublesome for the lessee.

### **Rattlesnake Canyon Allotment**

This allotment (26,623 acres<sup>15</sup>) includes an estimated 9,834<sup>16</sup> of the **Bighorn Mountain Wilderness**’ 26,702 acres<sup>17</sup>. The wilderness was established 31 October 1994, with passage of the California Desert Protection Act. BLM has yet to complete the wilderness management plan for this designated wilderness area.

In 1990, BLM described Bighorn Mountain WSA values as follows:

**Natural Conditions:** Lands inside the recommended “suitable” units were largely undisturbed by man and affected primarily by the forces of nature. Lands outside the units showed numerous intrusions.

**Solitude:** Topography and vegetation in the recommended “suitable” units allow ample opportunities for visitors to screen themselves from other visitors and other human sights and sounds.

**Primitive and Unconfined Recreation:** Within the suitable units, opportunities are outstanding for primitive recreation. They are lacking in the non-suitable lands because routes of travel compartmentalize the area.

**Special Features:** Desert bighorn sheep habitat (no recent sightings). Some desert tortoise habitat, population densities of < 20 tortoise per square mile. Includes the site of the marker commemorating the 1909 manhunt for “Willie Boy”.

### **Grazing Use Levels**

In 1980, the CDCA Plan (1980) represented existing grazing use, after adjustment, as 1,044 AUMs. [Livestock Renewable Forage Allocation, CDCA Plan, 1980, p.76]. In 1999, grazing use for this allotment was represented as 1,044 AUMs [Livestock Renewable Forage Allocation, CDCA Plan, 17 Aug 1999 reprint, p.65]. Under the proposed authorization, grazing use would remain unchanged at 1,044 AUMs.

**“Improvements”:** BLM is aware of no range or wildlife improvements currently within the allotment/wilderness overlap.

**Prohibited Uses:** OHV intrusions in the allotment/wilderness overlap are not unusual, primarily up-drainage in Rattlesnake Canyon washes to the east and west.

**Other Current Uses; Conflicts:** Removal and damage of wilderness boundary markings is a matter of routine.

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<sup>15</sup> BLM-CDD GIS calculation (Zmudka)

<sup>16</sup> BLM-BFO GIS calculation (Jackson, 12 July 2004)

<sup>17</sup> [www.ca.blm.gov/pa/wilderness/wa/wa\\_listter.html](http://www.ca.blm.gov/pa/wilderness/wa/wa_listter.html)

### **Round Mountain Allotment**

No wilderness or WSA overlap.

### **Valley Well Allotment**

No wilderness or WSA overlap.

## **B. Environmental Consequences**

The proposed action is a renewal of the current leases. The impacts of the proposed action include current effects as mitigated by actions that may be taken under existing leases and the fallback standards.

### **1. Impacts of Current Management**

#### **Cady Mountain Allotment**

Grazing currently affects the WSA's wilderness 'values' as follows:

*Natural Conditions:* Accessible, palatable plants are consumed while unpalatable and/or inaccessible plants are not. This causes vegetation communities to be altered repetitively in the same fashion over the term of a grazing lease or permit, and in perpetuity if renewal of such leases/permits is unresponsive to the alteration. This prevents plant communities from sustaining themselves in an untrammled (i.e., unhampered, unfettered) manner, and prevents them from evolving in that manner, particularly in heavily used areas (i.e., in the vicinity of range improvements).

Note the AUMs information set forth above, and that BLM is to have managed this WSA under the provisions of its "IMP" (Interim Management Policy for Lands under Wilderness Review):

*"Those grazing ... uses that existed on October 21, 1976, (the date FLPMA was approved) may continue in the same manner and degree as on that date, even if this could impair wilderness suitability." [BLM Manual H-8550-1, "Interim Management Policy for Lands under Wilderness Review", Rel. 8-67, 7/5/95, p.3].*

*Solitude:* If "solitude" is construed to mean seclusion from other human beings, then the current effect of grazing on this 'value' is limited to those occasions when the lessee and/or their agents are actively pursuing grazing operations in the WSA, and when BLM officials, in the performance of their administrative duties, are actively pursuing such duties in the WSA.

*Primitive & Unconfined Recreation:* The current effect of grazing on primitive and unconfined recreation may or may not be "no effect." Two bighorn sheep guzzlers now exist within the Allotment/WSA overlap. These can only be regarded as "developed facilities" that help sustain a

modest bighorn population which is a subset of the larger bighorn population in the Mojave Desert. A primary purpose of the larger population is to support big-game hunting, a recreation activity administered by the California Department of Fish & Game. As a result, grazing may be currently impacting primitive and unconfined recreation if grazing operations support the continued existence of the guzzlers.

In an additional respect, the current effect of grazing on ‘primitive and unconfined recreation’ may not be “no effect”. Both range improvements, which include open water troughs, currently exist within the allotment/WSA overlap. Supporting year-‘round grazing allotment operations, these ‘developed facilities’ may incidentally serve outdoor recreation activities, providing year-‘round water – not necessarily potable -- to WSA visitors and their animals, horses included. Grazing, then, could be viewed as currently impacting “primitive and unconfined recreation” in the WSA because the year-‘round water provided, water that would otherwise be inaccessible, may support outdoor recreation activities in the WSA at times when those activities ordinarily would not be supported by water. Per the “primitive and unconfined recreation” definition above, outdoor recreation activities appropriate for wilderness are not to require developed facilities. Though possible, it is not clear that one purpose of this definition is to allow natural water shortages to regulate levels of human activity in wilderness.

*Special Features (Bighorn Sheep):* The current effect of grazing on bighorn sheep in the area is not clear. The bighorns use guzzler water not known to be used by allotment livestock. It is unlikely that bighorn sheep and cattle compete for the same forage because bighorn sheep can access forage inaccessible to cattle. Cattle and bighorn sheep may be mutually susceptible to contagious diseases. Whether or not livestock grazing in Hidden Valley interferes with bighorn sheep travel between the two big game guzzlers is not clear, particularly in light of the possibility that the bighorns could make use of the water in the cattle troughs at Hidden Valley Well. It is not clear whether or not cattle grazing has impacts on bighorn reproduction requirements (opportunities and areas for rutting and lambing).

### **Cronese Lake Allotment**

Grazing currently affects the WSA’s wilderness ‘values’ as follows:

*Natural Conditions:* Accessible, palatable plants are consumed while unpalatable and/or inaccessible plants are not. This causes vegetation communities to be altered repetitively in the same fashion over the term of a grazing lease or permit, and in perpetuity if renewal of such leases/permits is unresponsive to the alteration. This prevents plant communities from sustaining themselves in an untrammled (i.e., unhampered, unfettered) manner, and prevents them from evolving in that manner, particularly in heavily used areas (i.e., in the vicinity of the range improvement).

Note the AUMs information set forth above, and that BLM is to have managed this WSA under the provisions of its “IMP” (Interim Management Policy for Lands under Wilderness Review):

*“Those grazing ... uses that existed on October 21, 1976, (the date FLPMA was approved) may*

*continue in the same manner and degree as on that date, even if this could impair wilderness suitability.” [BLM Manual H-8550-1, “Interim Management Policy for Lands under Wilderness Review”, Rel. 8-67, 7/5/95, p.3].*

*Solitude:* If “solitude” is construed to mean seclusion from other human beings, then the current effect of grazing on this “value” is limited to those occasions when the lessee and/or their agents are actively pursuing grazing operations in the WSA, and when BLM officials, in the performance of their administrative duties, are actively pursuing such duties in the WSA.

*Primitive & Unconfined Recreation:* The current effect of grazing on ‘primitive and unconfined recreation’ may not be “no effect”. One range improvement, which includes an open water trough, currently exists within the allotment/WSA overlap. Supporting year-‘round grazing allotment operations, this ‘developed facility’ may incidentally serve outdoor recreation activities, providing year-‘round water – not necessarily potable -- to WSA visitors and their animals, horses included. Grazing, then, could be viewed as currently impacting “primitive and unconfined recreation” in the WSA because the year-‘round water provided, water that would otherwise be inaccessible, may support outdoor recreation activities in the WSA at times when those activities ordinarily would not be supported by water. Per the “primitive and unconfined recreation” definition above, outdoor recreation activities appropriate for wilderness are not to require developed facilities. Though possible, it is not clear that one purpose of this definition is to allow natural water shortages to regulate levels of human activity in wilderness.

*Special Features:* The current effect(s) of grazing on Cronese Lakes Area of Critical Environmental Concerns (ACEC) cultural resources and Native American concerns are addressed under other Elements of this Environmental Assessment.

### **Harper Lake Allotment**

Grazing currently affects wilderness as follows:

*Natural Conditions:* Accessible, palatable plants are consumed while unpalatable and/or inaccessible plants are not. This causes vegetation communities to be altered repetitively in the same fashion over the term of a grazing lease or permit, and in perpetuity if renewal of such leases/permits is unresponsive to the alteration. This prevents plant communities from sustaining themselves in an untrammled (i.e., unhampered, unfettered) manner, and prevents them from evolving in that manner, particularly in heavily used areas (i.e., in the vicinity of ephemeral waters).

*Solitude:* If “solitude” is construed to mean seclusion from other human beings, then the current effect of grazing on this “value” is limited to those occasions when the lessee and/or their agents are actively pursuing grazing operations in the wilderness, and when BLM officials, in the performance of their administrative duties, are actively pursuing such duties in the wilderness.

*Primitive & Unconfined Recreation:* The current effect of grazing on this “value” appears to be

‘no substantive effect’. There is no developed facility within the allotment/ wilderness overlap, and mechanical transport supporting the small game guzzler in the Black Mountain Wilderness does not require use of wilderness surfaces within that overlap.

*Special Features:* The current effect(s) of grazing on the desert tortoise, and on Black Mountain ACEC cultural resources, are addressed under other Elements of this Environmental Assessment.

### **Ord Mountain Allotment** (formerly “Newberry/Ord”)

Grazing currently affects wilderness as follows:

*Natural Conditions:* Accessible, palatable plants are consumed while unpalatable and/or inaccessible plants are not. This causes vegetation communities to be altered repetitively in the same fashion over the term of a grazing lease or permit, and in perpetuity if renewal of such leases/permits is unresponsive to the alteration. This prevents plant communities from sustaining themselves in an untrammelled (i.e., unhampered, unfettered) manner, and prevents them from evolving in that manner, particularly in heavily used areas (i.e., in the vicinity of ephemeral waters).

*Solitude:* If “solitude” is construed to mean seclusion from other human beings, then the current effect of grazing on this “value” is limited to those occasions when the lessee and/or their agents are actively pursuing grazing operations in the wilderness, and when BLM officials, in the performance of their administrative duties, are actively pursuing such duties in the wilderness.

*Primitive & Unconfined Recreation:* The current effect of grazing on this “value” appears to be ‘no substantive effect’. There is no developed facility within the allotment/ wilderness overlap, and mechanical transport supporting the big game guzzler in the Newberry Mountains Wilderness does not require use of wilderness surfaces within that overlap.

However, the current effect of grazing on ‘primitive and unconfined recreation’ may not be “no effect”. A spring development (Kane Springs) currently exists just outside the allotment/wilderness overlap. Supporting year-‘round grazing allotment operations, this ‘developed facility’ incidentally serves outdoor recreation activities, providing year-‘round water – not necessarily potable -- to wilderness visitors and their animals, horses included. Grazing, then, could be viewed as currently impacting “primitive and unconfined recreation” in wilderness because the year-‘round water provided, water that would otherwise be accessible only seasonally, supports outdoor recreation activities in wilderness at times when those activities ordinarily would not be supported by water. Per the “primitive and unconfined recreation” definition above, outdoor recreation activities appropriate for wilderness are not to require developed facilities. Though possible, it is not clear that one purpose of this definition is to allow natural water shortages to regulate levels of human activity in wilderness.

*Special Features:* The current effect(s) of grazing on cultural resources, Native American concerns, raptors, and bighorn sheep habitat are addressed under other Elements of this Environmental Assessment. The bighorn sheep guzzler is not located within the Allotment/Wilderness overlap.

## **Pahrump Valley Allotment**

Grazing currently affects wilderness as follows:

*Natural Conditions:* Accessible, palatable plants are consumed while unpalatable and/or inaccessible plants are not. This causes vegetation communities to be altered repetitively in the same fashion over the term of a grazing lease or permit, and in perpetuity if renewal of such leases/permits is unresponsive to the alteration. This prevents plant communities from sustaining themselves in an untrammled (i.e., unhampered, unfettered) manner, and prevents them from evolving in that manner, particularly in heavily used areas (i.e., in the vicinity of range improvements and ephemeral waters).

*Solitude:* If “solitude” is construed to mean seclusion from other human beings, then the current effect of grazing on this “value” is limited to those occasions when the lessee and/or their agents are actively pursuing grazing operations in the wilderness, and when BLM officials, in the performance of their administrative duties, are actively pursuing such duties in the wilderness.

*Primitive & Unconfined Recreation:* The current effect of grazing on primitive and unconfined recreation should be “no substantive effect”. In the form of bulldozed water basins, range improvements now exist within the Allotment/WSA overlap. Though “developed facilities”, these are not dependable sources of water, potable or otherwise, and should be regarded as serving no recreation activity purposes, authorized or otherwise.

*Special Features:* BLM is aware of no such features within the allotment/Wilderness overlap.

## **Rattlesnake Canyon Allotment**

Grazing currently affects wilderness as follows:

*Natural Conditions:* Accessible, palatable plants are consumed while unpalatable and/or inaccessible plants are not. This causes vegetation communities to be altered repetitively in the same fashion over the term of a grazing lease or permit, and in perpetuity if renewal of such leases/permits is unresponsive to the alteration. This prevents plant communities from sustaining themselves in an untrammled (i.e., unhampered, unfettered) manner, and prevents them from evolving in that manner, particularly in heavily used areas (i.e., in the vicinity of ephemeral waters).

*Solitude:* If “solitude” is construed to mean seclusion from other human beings, then the current effect of grazing on this “value” is limited to those occasions when the lessee and/or their agents are actively pursuing grazing operations in the wilderness, and when BLM officials, in the performance of their administrative duties, are actively pursuing such duties in the wilderness.

*Primitive & Unconfined Recreation:* The current effect of grazing on ‘primitive and unconfined recreation’ may or may not be “no effect”. Spring developments currently exist not far outside

the allotment/wilderness overlap. Supporting year-‘round grazing allotment operations, these “developed facilities” incidentally serve outdoor recreation activities, providing year-‘round water – not necessarily potable -- to wilderness visitors and their animals, horses included. Grazing, then, could be viewed as currently impacting “primitive and unconfined recreation” in wilderness because the year-‘round water provided, water that would otherwise be accessible only seasonally, supports outdoor recreation activities in wilderness at times when those activities ordinarily would not be supported by water. Per the “primitive and unconfined recreation” definition above, outdoor recreation activities appropriate for wilderness are not to require developed facilities. Though possible, it is not clear that one purpose of this definition is to allow natural water shortages to regulate levels of human activity in wilderness.

*Special Features:* BLM is aware of no recent sightings of bighorn sheep within the allotment/wilderness overlap. Current effect(s) of grazing on desert tortoise are addressed under another Element(s) of this Environmental Assessment. The “Willie Boy” manhunt memorial is located outside of the overlap.

### **Summary of Effects**

Grazing uses enabled by authorizing this proposal would affect four wilderness areas established by Section 102 of the California Desert Protection Act (CDPA, 1994), i.e., the Bighorn Mountain Wilderness, Black Mountain Wilderness, Newberry Mountain Wilderness, and Rodman Mountain Wilderness.

*Physical Consequences:* In wilderness, grazing uses enabled by the authorization proposed would result in livestock consumption of accessible plants found to be palatable, leaving undisturbed the unpalatable or inaccessible plants. In essence, cattle/horses would cause plant communities to be grazed selectively, doing so regardless of any “best management practice” in effect. Favoring some plant species over others – and, within species, some genotypes over others - selective grazing would impact wilderness plant communities’ abilities to sustain themselves and evolve in the primeval ways that are at the essence of the statutory definitions of wilderness. [Wilderness Act, Sec. 2.(c), lines 1-6]. Of particular concern are the direct effect(s) of selective grazing on the genetic forms of wilderness plant species and the repetitive effects of such grazing on wilderness plant community dynamics.

An effect of this would be the continuing digression of the plant communities from their primeval course of progressive biological events, a course that produced the rangeland values recognized by the first settlers of these lands. Before those settlers, millennia had passed during which no prehistoric animals grazed these plant communities to the extent they are grazed now and would be grazed in the future under this proposal.

A second effect would be that for at least ten years on these wilderness lands, the grazing uses enabled by this proposal would preclude plant community reversion toward the statutory essentials of wilderness, that is, a dynamic course of “primeval character and influence” and a community of life “untrammelled” (i.e., unhampered, unfettered, unimpeded) by human action.

Thirdly, if the authorization proposed enables grazing uses changed from those now in effect, or from those in effect in recent years, such changes would introduce, or reintroduce, impacts into wilderness plant communities consistent with those changes.

For the Harper Lake, Ord Mountain and Rattlesnake Allotments, the 10-year term enabled by the authorization proposed would continue as year-‘round selective grazing, relieved only by seasonal shortages of forage. For the Pahrump Valley Allotment, such grazing would continue to occur in the spring.

#### “Area of Use” Impacts

BLM is awaiting project specific information as to range improvement circumstances regarding any future developments in the following allotments where they have been identified:

- Harper Lake Allotment
- Ord Mountain Allotment
- Pahrump Valley Allotment
- Rattlesnake Allotment

#### “Animal Unit Months” Impacts (AUMs)

Wilderness impacts would be proportionate to the changes proposed.

Harper Lake Allotment: This proposal would authorize a grazing use level of 600 AUMs, a change from the 406 AUMs authorized by the CDCA Plan (1980, as amended), but in affect since 1984. BLM expects that impacts on the wilderness plant communities affected would not change.

Ord Mountain Allotment: This proposal would authorize a grazing use level of 3,632 AUMs, a substantial change from the 773 AUMs authorized by the CDCA Plan (1980, as amended), however 3,632 AUM levels have been in affect since 1989. BLM expects that impacts on the wilderness plant communities affected would not change.

Pahrump Valley Allotment: This proposal would authorize a grazing use level of 353 AUMs, no change from the 353 AUMs authorized by the CDCA Plan (1980, as amended). BLM expects that impacts on the wilderness plant communities affected would not change.

Rattlesnake Canyon Allotment: This proposal would authorize a grazing use level of 1,044 AUMs, a minor change from the 1,000 AUMs authorized by the CDCA Plan (1980, as amended). BLM expects that impacts on the wilderness plant communities affected would not change.

Harper Lake, Ord Mountain, and Rattlesnake Allotments: This proposal would authorize and continue year-‘round grazing, i.e., a season of use from March 1 through the end of February.

Pahrump Valley Allotment: This proposal would authorize a season of use from February 15 through April 15, no apparent change from the ephemeral/perennial use authorized by the CDCA Plan (1980, as amended). If no change, BLM expects impacts on the wilderness plant communities affected would not change.

Range Improvements Impacts (New Improvements): Approval of the authorization proposed could, without disclosing project specifics until after such approval but alluding to subsequent site-specific EAs enabling installation of six (6) new range improvement projects. If such projects were limited to lands outside wilderness, they would be subject to California Desert Protection Act Section 103.(d) provisions as to “buffer zones”.

According to this proposal, the exact locations and designs of such projects would be determined in a future, site-specific NEPA document, and subsequent EAs would be tiered to the EA offered here.

#### Range Improvement Impacts (Removals)

This proposal does not indicate the removal of any existing range improvements. It does refer to a complete list of existing improvements in EA Appendix 2.

“Minimum Administrative Requirement” Impacts [Wilderness Act Sec.4.(c)] This proposal is silent as to BLM’s need to use temporary road(s), motorized equipment, aircraft, any other form of mechanical transport, or grazing-related structure(s) or installation(s) in wilderness. Given the proposed ‘measures to maintain or achieve standards’ and ‘monitor’ the allotments, use of motorized vehicles and/or mechanical transport seems plausible and appropriate. Although the proposal does identify future maintenance needs in the Pahrump Valley Allotment.

Proper Establishment of Grazing Uses: Wilderness Act Section 4.(d)(4)(2) “permits” continued grazing of livestock in wilderness where such grazing use was “established” before an effective date. In the case of these allotments, that date is October 31, 1994, when the California Desert Protection Act was signed.

Conclusive Finding of No Adverse Impacts to Wilderness: In the applicable Appendix A – Grazing Guidelines, Congress anticipates that, when an area becomes formal wilderness, grazing uses of those lands would remain “approximately” unchanged. Expecting proposals for some increase of those uses, Congress makes increase permissible if “land management plans reveal conclusively” that the increase “could be made available with no adverse impacts on wilderness values such as plant communities, primitive recreation, and wildlife populations or habitat.” However, Congress makes it clear that this is not to imply that wilderness lends itself to grazing use increases and construction of substantial new facilities appropriate for intensive grazing outside wilderness.

Sec.2.(c): Grazing uses qualifying as “commercial enterprise” may not fall within the scope of Wilderness Act Sec. 4.(d)(6)’s vision of “commercial services”. If not, they may not be proper for realizing the recreational or other wilderness purposes of wilderness.

Grazing uses enabled by authorization of this proposal are grounded not in “existing private rights”, but in a form of legal “privilege.” Nonetheless, these uses may continue so long as applicable regulations are reasonable in light of pertinent Congressional intent. [See Grazing

Guidelines, Appendix A of the Report of the Committee on Interior and Insular Affairs to accompany H.R. 2570 of the One Hundred First Congress (H. Rept. 101-405). By the referencing provisions of Section 103.(c) of the California Desert Protection Act (1994), Appendix A guidelines apply to the grazing uses that would be enabled by this proposal].

#### “Planned Motorized Vehicle Access” Impacts

##### Law Enforcement Actions (Motorized Vehicle)

Wilderness grazing uses enabled by this proposal would have no impacts on law enforcement actions different from those implicitly allowed by provision of California Desert Protection Act, 1994, Sec. 103.(g): “Law Enforcement Access”.

##### Other Authorized Access (Motorized Vehicle)

This proposal does identify the need to use motorized/mechanized access to perform needed maintenance on stock ponds in the Nopah Wilderness. BLM foresees that such access could be a substantive aspect of appropriate grazing activities in the Pahump Valley Allotment, and that appropriate terms and conditions for access should be included in the leases enabled by the authorization proposed. [43 CFR 6305.30 (16 Jan 2001); BLM Manual 8560.37A.3.; Appendix A – Grazing Guidelines, H. Rept. 101-405]. However, the proposal indicates that would be a future action.

#### WSA (Wilderness Study Area)

WSA: “a roadless area or island that has been inventoried and found to have wilderness characteristics as described in Section 603 of FLPMA and Section 2(c) of the Wilderness Act of 1964 (78 Stat. 891).” [BLM’s “Interim Management Policy for Lands under Wilderness Review”, or “IMP”, BLM Manual H-8550-1, Rel. 8-67, 7/5/95, Glossary, p.5].

Grazing uses enabled by this proposed authorization would affect two WSAs established by Section 104 of the California Desert Protection Act (CDPA, 1994), i.e., the Cady Mountains WSA and the Soda Mountains WSA. For management circumstances not covered by Sec.104, see BLM’s “Interim Management Policy for Lands under Wilderness Review” (the “IMP”, BLM Manual H-8550-1, Rel. 8-67, 7/5/95).

#### “Animal Unit Months” (AUMs) Impacts

Cady Mountain Allotment: WSA grazing uses enabled by authorizing this proposal would result in maintaining AUMs at the current authorization of 2,059 AUMs (temporary, non-renewable, no grant of preference until Congress’ wilderness decision, 1982 Amendment #9, CDCA Plan, 1980, as amended).

Cronese Lake Allotment: WSA grazing uses enabled by authorizing this proposal would result in an AUM reduction from the current authorization of 1,508 AUMs (temporary, non-renewable, no grant of preference until Congress’ wilderness decision, 1982 Amendment #11, CDCA Plan, 1980, as amended) to 500 AUMs as per 1994 Grazing Decision.

#### Administrative Consequences:

Assessment of proposals is to include evaluation of their effect(s) on a) the natural ecologic condition of the vegetation, b) visual condition of the lands and waters affected, c) erosion, d) changes in the numbers or natural diversity of fish and wildlife, and e) all wilderness values (with reference to definitions at IMP Chapters II.B.1. and II.B.6.c.).

BLM is to quantify wilderness values, as well as the existing vegetation and associated resources, and then consider the potential for impacts to those resources. The standard for establishing and quantifying WSA wilderness values is the condition of the lands at the time the area was designated as a WSA or the current conditions, whichever is determined to be in better condition. IMP Appendix D identifies the minimum information needed to determine the impact of an increase on wilderness characteristics and other values. IMP Chapter III.D. sets forth guidelines for analysis, prevention of unnecessary or undue degradation, and grazing systems. At this time, the authorization proposed does not appear to involve livestock developments in either of the WSAs concerned.

Impacts of Current Management (if different from Proposed Action) None. Per Chapter 2, line 2 of this EA, there should be no difference between current management and the proposed action.

## 2. Rangeland health

Under this alternative there may be an additional presence of livestock within the wilderness boundaries. The seasonal closure or deferment of grazing from one portion of an allotment may cause the placement of livestock in another portion of the allotment that contains designated wilderness. This potential “new” grazing pressure, for example, in the Surprise Tank area of the Ord Mountain Allotment may be a result of the “shift” in livestock presence due to the seasonal closures.

## 3. No Grazing

In theory, plant communities, including those in wilderness and WSAs, would attempt a return to their primeval reproduction and evolution dynamics. In reality, that attempt would be subject to other dynamics of a historic and prehistoric nature (e.g., invasive species; fire management efforts; long-term weather trends).

## 4. Cumulative Impacts

### **C. Consultation**

Notice of Proposed Action issued 7/29/04 to wilderness mailing list.

### **D. Maps**

N/A

**E. References –**

Wilderness “Values” [*California Statewide Wilderness Study Area Report, BLM, 1990, Part 4, Volume 5, CDCA-251, p.6*].

Appendix A (Grazing Guidelines) of the Report of the Committee on Interior and Insular Affairs to accompany H.R. 2570 of the One Hundred First Congress (H. Rept. 101-405).

Arizona Desert Protection Act (P. L. 101-628, 28 November 1990)

BLM/CDD Estimates of Allotment Acreages (need date)

California Desert Conservation Area Plan (BLM, 1980, as amended)

California Desert Protection Act (P. L. 104-433, 31 October 1994)

California Statewide Wilderness Study Area Report (BLM, 1990, Part 4, Volumes 4 & 5).

Federal Land Policy & Management Act (P. L. 94-579, 21 October 1976)

Norton, Secretary of the Interior, et al., v. Southern Utah Wilderness Alliance et al., No. 03-101,542 U. S. \_\_\_ (2004), decided June 14, 2004)

Wilderness Act (P. L. 88-577, 3 September 1964)

## **WILD HORSES AND BURROS**

### **A. Affected Environment**

The proposed action, or any alternative would have no affect on wild horse and burros because no wild horse and burros are present in the allotments being analyzed.

### **B. Environmental Consequences**

1. Impacts of Current Management
2. Rangeland Health
3. No Grazing
4. Cumulative Impacts

### **C. Consultation**

Other agency consultations were not involved in the Wild Horse & Burro analysis.

### **D. Maps**

N/A

### **E. References – N/A**

## WILDLIFE

### A. Affected Environment

#### Common Animals

Common species of animals found in most vegetation communities within the allotments (see Vegetation, Affected Environment) include: woodrats (*Neotoma* spp.), kangaroo rats (*Dipodomys* spp.), white-tailed antelope ground squirrels (*Ammospermophilus leucurus*), black tailed hares (*Lepus californicus*), kit foxes (*Vulpes macrotis*), and coyotes (*Canis latrans*). Common bird species include mourning doves (*Zenaida macroura*), black-throated sparrows (*Amphispiza bilineata*), common ravens (*Corvus corax*), and horned larks (*Eremophila alpestris*). Some common reptiles include the side-blotched lizard (*Uta stansburiana*), western whiptail (*Cnemidophorus tigris*), gopher snake (*Pituophis melanoleucus*), and the Mojave rattlesnake (*Crotalus scutulatus*).

#### BLM Sensitive Wildlife Species

Several sensitive wildlife species occur on lands proposed for grazing. Their regulatory status and habitat preference are indicated in Table 9. There are several avian species, one large mammal and one reptile. Three of these species - golden eagle, prairie falcon and bighorn sheep are associated with mountainous terrain and can be found in the Cady Mountain, and Ord Mountain allotments. The rattlesnake allotment contains a historic bighorn sheep range. No evidence exists of their presence today. Gray vireos are known to occur on the arid slopes of the Round Mountain allotment. The wind-blown sand hummocks of the Cady Mountain allotment are known to support Mojave fringe-toed lizards.

**Table 9. Sensitive Wildlife Species Within Cattle Allotments**

Species Name	Regulatory Status	Preferred Habitat
Bighorn Sheep ( <i>Ovis Canadensis nelsoni</i> )	BLM Sensitive	Steep Mountainous Terrain
Mojave Fringed-toed Lizard ( <i>Uma scoparia</i> )	California Species of Special Concern	Wind-blown Sand
Golden Eagle ( <i>Aquila chrysaetos</i> )	BLM Sensitive; California Fully Protected	Mountainous Terrain, Cliffs
Priarie Falcon ( <i>Falco mexicanus</i> )	California Species of Special Concern	Mountainous Terrain, Cliffs
LeConte's Thrasher ( <i>Toxostoma lecontei</i> )	California Species of Special Concern	Creosote Bush Scrub, stands of cholla, Joshua trees, and thorny shrubs
Burrowing Owl ( <i>Athene cunicularia</i> )	California Species of Special Concern	Creosote bush scrub
Gray Vireo ( <i>Vireo vicinior</i> )	BLM Sensitive; California Species of Special Concern	arid slopes dominated by short, densely branched, stiff-twigged shrubs

## **Threatened or Endangered Wildlife Species:**

### **Desert Tortoise**

The tortoise was listed as threatened in 1990 by the Fish and Wildlife Service and has been listed as threatened by the California Department of Fish and Game since 1989. The USFWS designated four critical habitat units (CHU) within the planning area in 1994. Three allotments occur within a CHU. The Bureau has also categorized desert tortoise habitat into three categories named I, II, and III (BLM and CDFG 1992). These categories would be reduced by the proposed West Mojave Plan to only two categories in the planning area: habitat inside a DWMA and habitat outside a DWMA.

The desert tortoise (*Gopherus agassizii*) is widely distributed across the California desert and is known to occur on all but one allotment. Field surveys have been conducted throughout the California Desert since the tortoise was listed. Tortoise presence/absence and tortoise densities have been reported in the West Mojave planning area. Tortoise concentration areas have been identified within the following allotments: Harper Lake, Ord Mountain, and Cronese Lake.

### **Mohave Ground Squirrel**

A discussion of current range, status and potential impacts to the Mojave ground squirrel (*Xerpermophilus mojavensis*) has been discussed in detail in Chapter 3 of the Draft West Mojave Plan. Only a brief summary of that discussion is provided below.

The Mojave ground squirrel (MGS) is a relatively small squirrel with few close relatives. Almost the entire range of the MGS is included within the West Mojave planning area, and the Harper Lake allotment is the only allotment that is located within the known range of the Mojave ground squirrel. The squirrel is listed under the California Endangered Species Act (ESA) as Threatened throughout its range but is not afforded protection under the Federal ESA. The MGS is closely associated with perennial shrubs such as winterfat (*Krascheninnikovia lanata*), spiny hopsage (*Grayia spinosa*), and saltbush (*Atriplex* sp.).

## **B. Environmental Consequences**

### **1. Impacts Current Management**

The impact associated with current management has been previously analyzed in EA CA-610-01-02.

### **Common Animals**

Most wildlife species are mobile and can avoid being trampled by cattle. Impacts to wildlife are typically indirect. Cattle may impact wildlife indirectly by modifying habitat on which wildlife depend. Cattle can modify habitat by disrupting soils and damaging vegetation. Soils are impacted through hoof shearing and by soil compaction. Vegetation can be removed if trampled or overgrazed. Impacts identified above typically occur near salt licks and watering holes where cattle congregate. Minor soil compaction also occurs along cattle trails.

### **Desert Tortoise**

Literature regarding direct and indirect impacts of livestock grazing to rangeland and desert tortoise habitat has been critically reviewed in an unpublished document by the U. S. Geological Survey (USGS) (Boarman 2002). A brief summary of that review follows below. The critical review analysis reported a paucity of information available on the effects of grazing on the Mojave ecosystem.

Indirect impacts to tortoise habitat were evaluated by reviewing studies on livestock grazing effects on plant communities in other arid and semi-arid regions. Direct impacts were evaluated by reviewing reported observations and anecdotes. Potential indirect impacts mentioned in the text include: an altered plant community structure, soil compaction, disturbed cryptogamic soils, increased fugitive dust and erosion. Little information was found describing direct impacts to tortoises except that some accounts reported that livestock have crushed juvenile tortoises by stepping on them. Also, it has been reported that livestock have crushed tortoise burrows resulting in injured tortoises or a damaged burrow. In-depth research on the direct impacts of livestock grazing on tortoise appears to be lacking.

Under current management cattle grazing is deferred during the critical growing period (March 1 to June 15) for both perennial and annual native species. This deferment is in critical habitat for the Ord Mountain, Harper Lake, and Cronese Lake Allotments. This management action would tend to benefit habitat quality for the desert tortoise over time. However, in the Ord Mountain Allotment degraded tortoise habitat has been identified for the western portion of the allotment. Under the Settlement Agreement the western portion of the allotment is grazed and the eastern portion is rested during the spring and fall exclusion periods. This is contrary to improving already identified degraded habitat for the desert tortoise. Deferment of grazing use in areas with degraded habitat quality, limiting utilization levels allotment wide and reducing stocking rates are positive actions for improving habitat quality. Under this alternative, deferment of grazing use would not occur outside of interim management. The WMP also contains no prescriptions for grazing deferment during the growing season for areas in critical habitat, or areas within allotments with identified degraded habitat. The 35 terms and conditions contained in the 1994 BO collectively minimize impacts to desert tortoise habitat, but do little to improve habitat quality for the desert tortoise.

### **Mojave Ground Squirrel**

Potential impacts of grazing to MGS habitat is discussed in the proposed West Mojave Plan/Final EIS. Impacts identified include direct competition for food, trampling of burrows, and changes to vegetative structure. The food preferences of MGS overlap with those plants preferred by livestock. Also, drought is thought to exacerbate competition for food.

### **Sensitive Wildlife Species**

Direct impacts are not anticipated to occur to sensitive wildlife. All the species listed above are mobile and can avoid being injured. Although cattle can degrade habitat, most impacts are localized. Therefore, grazing is not anticipated to indirectly impact either of the sensitive wildlife species listed above.

There are no known federally listed wildlife species within the Round Mountain Allotment,

therefore the proposed action would have no affect on federally listed wildlife species.

## 2. Rangeland Health

Under this alternative, deferment of grazing during the critical growing period for native perennial and annual plants would be implemented for portions of the Ord Mountain, Harper Lake, Cady Mountain, and Rattlesnake Canyon Allotments that have been identified as containing degraded habitat for the desert tortoise. This type of management action would most likely improve habitat quality for the desert tortoise and other sensitive species over time.

## 3. No Grazing

Potential impacts described above would not occur.

## 4. Cumulative Impacts

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) use.

Direct and indirect impacts to wildlife may occur from these activities. Slower, less mobile wildlife species such as the desert tortoise may not be able to escape being injured or killed by fast moving recreational vehicles or heavy equipment. Indirectly, these activities have the potential to degrade habitat by modifying soil structure, and removing vegetation. Habitat is impacted by recreational vehicles in localized areas where favorite trails or hill climbs exist. Power lines and natural gas pipelines remove portions of habitat for construction work areas that require many years to restore. Mining actions result in localized areas of intense use (i.e. rock quarries).

The Bureau minimizes these disturbances through the planning process. Linear projects are co-located in designated utility corridors. Routes of travel have been designated for recreational vehicle use. Biological monitors are often employed to avoid tortoise mortalities during ground disturbing projects operating in tortoise habitat.

In comparison to the activities identified above, relatively few impacts occur to wildlife that are attributed to cattle grazing. When rangeland health standards are met, forage is left for herbivorous wildlife. Soil compaction and vegetation degradation are primarily localized near congregation areas.

The cumulative impacts of cattle/horse grazing on the desert tortoise in the West Mojave Bioregion are currently under review in conjunction with analysis of DWMA alternatives for the recovery of the species.

### **C. Consultation**

The BLM has formally consulted with the FWS on five occasions regarding livestock grazing in desert tortoise habitat. The BLM is proposing to issue grazing leases under the biological opinion dated April 20, 1994 (1-8-94-F-107). Conformance with stipulations from the biological opinions (1-8-01-F-16) and (1-8-01-F-68) also applied.

### **D. Maps**

N/A

### **E. References**

Boarman, W. I. 2002. Threats to desert tortoise populations: A critical review of the literature. Unpublished report prepared for the West Mojave Planning Team, Bureau of Land Management. U. S. Geological Survey, Western Ecological Research Center. San Diego, CA.

Fish and Wildlife Service. 1994a. Biological opinion for the Bureau of Land Management's interim livestock grazing program in Mojave desert tortoise critical habitat (1-8-94-F-107). Memorandum from Regional Director, Region 1 to State Director, Bureau of Land Management, Sacramento, California. Dated April 20. Portland, Oregon.

Fish and Wildlife Service. 2002. Biological opinion for the California Desert Conservation Area Plan [Desert Tortoise] (1-8-01-F-16). June 17, 2002. Ventura Fish and Wildlife Office, Ventura, California.

U. S. Bureau of Land Management and California Department of Fish and Game. 1992. California Statewide Desert Tortoise Management Policy. Official policy signed in 1992 by the District manager and State Director of the BLM and Regional Managers (Regions 4 and 5) and the Director of the CDFG.

## VEGETATION

### A. Affected Environment

The vegetative communities within the allotments vary with elevation, available water, soils, slope and annual precipitation. Terrestrial natural communities have been mapped using the classification employed by the California Natural Diversity Database of the Natural Heritage Division in the California Department of Fish and Game (Robert F. Holland, Ph.D., 1986). The primary plant communities occurring within the affected area are Mojave Creosote Bush Scrub, which is the characteristic plant community of the Mojave Desert, and Sonoran Creosote Bush Scrub, which is characteristic of the Lower Colorado Sonoran Desert. Other communities include Mixed Mojave Scrub, Desert Grassland, Alkali Sink, Desert Dry Wash Woodland, Semi-Desert Chaparral, Blackbrush Scrub, Joshua Tree Woodland, and Pinyon Pine/Juniper Woodland. Riparian vegetation is discussed in the Wetland/Riparian Zone Section on page 65. Following is a description of the key plant species or plant communities that may be affected.

The Mojave Creosote Bush Scrub - This community occurs from 75 meters below sea level to 1000 meters above sea level, in well drained soils found on alluvial fans, bajadas and upland slopes. The dominant perennial species in a Creosote Bush Scrub plant community is the creosote bush (*Larrea tridentata*) which is also the most abundant shrub in the California Desert. A Creosote Bush Scrub plant community diversity is characteristically low to medium. Some associated plant species in this community include white bursage (*Ambrosia dumosa*), Ephedra species (*Ephedra* sp.), and desert senna (*Senna armata*). Desert washes that occur within this community support additional species, the most common being the catclaw acacia (*Acacia greggii*) and desert willow (*Chilopsis linearis*).

The Sonoran Creosote Bush Scrub - This community occurs below 910 meters and integrates broadly with Mojave Creosote Bush Scrub in southeastern San Bernardino County and eastern Riverside County. The community dominates well drained secondary slopes, bajadas, and valleys in the lower Colorado Desert. Diversity is low, yet higher than its Mojave counterpart. Creosote bush dominates this community with many species of ephemeral herbs flowering in late February and March if winter rains are sufficient. Other common species include white bursage, brittlebrush (*Encelia farinosa*), and ocotillo (*Fouquieria splendens*). The community is laced with washes exhibiting wash woodland species such as ironwood (*Olneya tesota*) and palo verde (*Cercidium floridum*).

The Mixed Mojave Scrub - This community occurs between 300-1500 meters elevation on all slopes in shallow and deep soils that are occasionally rocky. The Mixed Mojave Scrub community is comprised primarily of the dominant Yucca species (*Yucca schidigera*, *Yucca bacata*) and associated species like winter fat (*Kraschenninnokovia lanata*), boxthorn species (*Lycium* sp.), spiny menodora (*Menodora spinescens*), spiny hopsage (*Grayia spinosa*) and cacti species (*Opuntia* sp., *Mammillaria* sp., *Echinocactus* sp., *Ferocactus* sp., *Echinocerus* sp.).

The Desert Grassland - (Big Galleta series) - This community occurs from 75 meters below sea level to 1400 meters above sea level on flat ridges, lower slopes and stabilized sand dunes. The

Desert Grassland community is dominated by big galleta (*Pleuraphus rigida*) with associated native and non-native grasses including black grama (*Bouteloua eriopoda*), needle grama (*Bouteloua aristidoides* var. *aristidoides*), Indian rice grass (*Achnatherum hymenoides*), desert needle grass (*Achnatherum speciosum*), fluff grass (*Erioneruon pulchellum*), red brome (*Bromus madritensis* ssp. *rubens*), Mediterranean grass (*Schismus* sp.) and cheat grass (*Bromus tectorum*).

The Desert Dry Wash Woodland - This community is composed of dense, drought-deciduous, microphyllous species occurring in dry washes of the lower Mojave and Colorado deserts, though mostly in frost-free areas of the Colorado desert. These washes typically have braided channels that are substantially rearranged with every surface flow event. Typical plant species present are ironwood, palo verde, desert broom (*Baccharis sarothroides*), and burrobrush (*Hymenoclea monogyra*).

The Semi-Desert Chaparral - This community is common in the San Bernardino mountains between 600 and 1500 meters. It is normally seen at the upper edges of Sonoran and Mojave communities. It is similar to other chaparral communities but occurs in areas that are a bit warmer and drier in the summer and colder in the winter with upper extent often integrating with Pinyon Pine/Juniper Woodlands. This community is also less fire-prone than other chaparrals due to lower fuel loadings. Common species are chemise (*Adenostoma fasciculatum*), manzanita (*Arctostaphylos glauca*), California buckwheat (*Eriogonum fasciculatum*), and sugar sumac (*Rhus ovata*).

The Alkali Sink - (Bush Seepweed series) - This community occurs from sea level to 1600 meters above sea level in habitat that are intermittently flooded or saturated. The soils have a high salt concentration and are usually found on dry lake beds, plains and old lake beds above current drainages. The dominant species in the Alkali Sink community within the affected area is bush seepweed (*Sueada moquinii*) with associated species including four-wing saltbush (*Atriplex canescens*), all-scale saltbush (*Atriplex polycarpa*), alkali heath (*Frankenia salina*), alkali sacaton (*Sporobolus airoides*) and honey mesquite (*Prosopis glandulosa*).

The Pinyon Pine/Juniper Woodland - This community occurs between 1000 to 2800 meters above sea level on alluvial fans, pediments, slopes and ridges in rocky, gravelly well-drained soils. The dominant species is either single-leaf pinyon pine (*Pinus monophylla*) or Utah juniper (*Juniperus osteosperma*). Associated species may include bitterbrush (*Purshia tridentata*), cliffrose (*Purshia glandulosa*), blackbrush, rabbitbrush species (*Chrysothamnus* spp.), Ephedra species, spiny hopsage and sage species (*Artemisia* spp.).

The Joshua Tree Woodland - This community occurs between 700 meters and 1800 meters above sea level on gentle alluvial fans in colluvial soils. The Joshua tree (*Yucca brevifolia*) is a main component of this community. However, compared to the frequency in which other shrubs and grasses occur in the community, it is almost never a dominant species. Some common associated species within the community are black bush, rabbitbrush, cheese-bush, goldenbush species (*Ericameria* spp.), ephedra species, winterfat, bladderpod (*Isomeris arborescens*), creosote bush and various cacti species.

The Blackbrush Plant Community (blackbrush series) - This community occurs between 1200 and 1800 meters on alluvial slopes and bajadas in shallow soils that are often derived from a dolomitic, limestone substrate. The blackbrush plant community is dominated almost completely by blackbrush (*Coleogyne ramosissima*) with some associates including Mojave yucca (*Yucca schidigera*), Ephedra species, spiny hopsage and buckwheat species (*Eriogonum sp.*).

**BLM Sensitive Plant Species:**

Several sensitive plant species (see Table 10) occur on the lands proposed for grazing: little San Bernardino Mountains Gilia (*Gilia maculata*), white-margined beardtongue (*Penstemon albomarginatus*), Mojave monkeyflower (*Mimulus mohavensis*), crucifixion thorn (*Castela emoryi*), Charlotte’s phacelia (*Phacelia nashiana*), and desert cymopterus (*Cymopterus deserticola*). These species occur where suitable habitat is available.

**Table 10. Sensitive Plant Species Within Cattle Allotments**

Species Name	Regulatory Status	Habitat
Charlotte’s Phacelia	BLM Sensitive	Loose sand, talus, and washes
Crucifixion Thorn	N/A	Non-saline dry lakes
Little San Bernardino Mountains Gilia	BLM Sensitive	Sandy well-aerated soil on flat ground
White-margined Beardtongue	BLM Sensitive	Sand fields and washes
Mojave Monkeyflower	BLM Sensitive	Granitic soils, gravelly banks and desert washes
Desert Cymopterus	BLM Sensitive	Blowsand

**Threatened or Endangered Plant Species**

Within the allotments several sensitive plant species occur (see Table 11) with varying degrees of sensitivity. The current status given to each plant is from the June 1999 Special Plants List (California Department of Fish and Game; Natural Diversity Database). Presently, some of these populations occur in conjunction with areas of cattle use. Rare, threatened, or endangered plant species within the CDD are listed and shown on page 45 and Map 5 of the CDCA Plan.

One federally threatened plant species, the Parish’s daisy, can be found within the Rattlesnake Canyon Allotment boundary. The Bureau has erected a fence to exclude grazing from parish’s daisy habitat.

<i>Table 11. Federally or State Listed Plants</i>				
Common Name	Scientific Name	Location	Status	Allotment
Parish’s daisy	<i>Erigeron parishii</i>	Low elevation desert pasture along Parten Mine road, and two small populations in the mountain pasture	Threatened	Rattlesnake Canyon
Cushenberry milkvetch	<i>Astragalus albens</i>	Arrastre Canyon drainage	Endangered	Rattlesnake Canyon

Cushenberry buckwheat	Eriogonum ovalifolium	Arrastre Canyon drainage	Endangered	Rattlesnake Canyon
Cushenberry buckwheat	Eriogonum ovalifolium	Arrastre Canyon drainage	Endangered	Rattlesnake Canyon

## B. Environmental Consequences

### 1. Impacts of Proposed Action

The utilization of vegetation by cattle and horses for forage is affected in a number of ways. Key forage plant species for livestock consumption are palatable species that may be utilized frequently, when available, as forage for livestock. Common key forage species that occur in one or more of the plant communities within the allotments are listed below. These include: Ephedra species (*Ephedra* spp.), winter fat (*Kraschenninnokovia lanata*), spiny menodora (*Menodora spinescens*), big galleta (*Pleuraphus rigida*), Indian rice grass (*Achnatherum hymenoides*), desert needle grass (*Achnatherum speciosum*), saltbush (*Atriplex* spp.), spiny hopsage (*Grayia spinosa*), and cliffrose (*Purshia glandulosa*). These key species can be found in the Mojave Creosote Scrub, Mixed Mojave Scrub, Desert Grassland, Alkali Sink, Joshua Tree Woodland, and Pinyon Pine/Juniper Woodland, and Riparian community types.

Observations of grazing intensity (utilization) on key species can provide an indication of the trend in range condition, which is the state of vegetative cover and soils in relation to a standard or predicted condition for a particular ecological site. Forage utilization and the vigor and abundance of key species are generally more intensely impacted around water sources or high-use facilities due to constant soil compaction from trampling and continual cropping of vegetation from cattle and horses. Impacts to resource conditions next to these facilities are expected, and the area impacted will vary in size due to the type of plant community, soil type, weather conditions, nearest like improvement, and lessee's livestock needs. The trend of the adjacent vegetation constantly changes and downward or upward trends are dependent upon past and current use of forage species. In general, trends for vegetative conditions adjacent to facilities tend to be downward with heavy use and grade upward or static as you move farther away from the facility. In allotments that have not been grazed for several years, the trend in vegetation condition surrounding range improvements and areas of past heavy grazing use may have already had a chance to attain an upward or static trend. Under the proposed action trend is anticipated to remain static overall, with an upward trend anticipated in areas currently in poor range condition.

Rangeland health assessments completed by interdisciplinary teams and other monitoring studies completed on the allotments, including condition and trend have identified the extent livestock grazing is currently affecting vegetation. The assessment teams compared indicators of resource conditions to the National Fallback Standards and after a review of indicators and conditions the team recommended continuation or modification to current grazing management or other practices. These recommendations were finalized with the signing of a determination by the Barstow Field Manager. In 1999 and 2000, rangeland health assessments were conducted on Ord Mountain, Rattlesnake Canyon, Cady Mountain, Harper Lake, and Cronese Lake Allotments (see Table 5).

All Standards were met on the Cronese Lake Allotment, but the team needs to return to the allotments during a productive ephemeral year to ascertain the relative amount of non-native species, and re-asses impacts, if any to mesquite woodlands located on the allotment.

On the Ord Mountain, Cady Mountain, Harper Lake, Rattlesnake Canyon Allotments, the native species Standard was not met on portions of these allotments, and it was determined that cattle grazing was the primary cause. Recommendations from the determinations varied, most recommended periodic rest, or deferred grazing in areas of the allotments where the native plant communities have been degraded and recruitment of key species is not occurring. Current management mandates grazing stipulations resulting from the Settlement Agreement between BLM and CBD et al. In the case of the Ord Mountain and Harper Lake Allotments these stipulations are inconsistent with the recommendations contained in the determination for that allotment and have perpetuated the improper grazing practices that resulted in non-achievement of the native species standard.

Under the proposed action, current management would continue to implement the grazing stipulations contained in the Settlement Agreement. This has previously been analyzed in EA CA-610-01-02. Overall, these stipulations are beneficial to native plant communities on the selected allotments where they are mandated. They allow for rest from livestock grazing during the critical growing period for native perennial and annual vegetation. Limitation on utilization levels and stocking rates also benefit native plant communities. These stipulations are only interim. Under the proposed action these stipulations would eventually be replaced by pre-Settlement Agreement grazing management which relies on the CDCA Plan and the terms and conditions contained in the 1994 BO. The CDCA Plan and the 35 terms and conditions contained in the 1994 BO collectively minimize impacts to native plant communities from livestock grazing, but do little to improve the health of already degraded native plant communities.

Cattle have been excluded from Parish's daisy habitat in the Rattlesnake Canyon Allotment by fencing. Future grazing would not impact this species.

There are no known sensitive or federally listed plants species within the Round Mountain Allotment, therefore the proposed action would have no affect on sensitive or listed plant species.

## 2. Rangeland Health

Under this alternative the recommendations contained in the Determination of Rangeland Health for the Ord Mountain, Cady Mountain, Harper Lake, and Rattlesnake Canyon Allotments would be implemented. These recommendations contain management actions that involve a combination of total rest and deferment from grazing use in areas of these allotments where native plant communities are in a degraded state. Although these areas only represent relatively small portions of these allotments, the areas are important in maintaining key plant communities that benefit both livestock and desert tortoises. For example, often these areas contain perennial bunch grass populations not found in other plant communities.

### 3. No Grazing

This alternative would not result in further impacts to sensitive, threatened or endangered plant species. The trend in areas with current impacts to vegetation condition surrounding range improvements and areas of past heavy grazing use would attain an upward or static trend.

### 4. Cumulative Impacts

Federally listed plant species occur only in the Rattlesnake allotment. The terrain of the allotment is generally steep and vehicle travel is restricted to designated routes. The Parish's daisy is the only listed plant species considered at risk from BLM authorized activities. This species has subsequently been excluded from cattle grazing and other activities by fencing. Therefore current populations are protected from substantial cumulative effects to the species.

Past and present grazing practices have negatively impacted native plant communities on portions of the allotments being analyzed in this document. There are other activities that occur on public land that also contribute to the degradation of native plant communities in heavily used areas of these allotments. These fragile, slow to recover desert plant communities need periodic rest from anthropogenic pressures if there is to be any long-term expectation for stability.

### **C. Consultation**

The Bureau consulted with the Fish and Wildlife Service on January 31, 2001 on the impacts of the CDCA Plan on four federally listed carbonate endemic plants. The Service issued a biological opinion to the Bureau regarding the effects of the CDCA Plan on September 25, 2003 (1-8-01-F-68). It was determined in the biological opinion that grazing would not adversely affect either of the listed plants.

### **D. Maps**

N/A

### **E. References -**

Fish and Wildlife Service. 2003. Biological opinion for the California Desert Conservation Area Plan [Parish's Daisy, Cushenbury Buckwheat, Cushenbury Milk-vetch, and Cushenbury Oxytheca]. No. 1-8-01-F-68. September 25, 2003. Ventura Fish and Wildlife Office, Ventura, Nevada

## FINDING OF NO SIGNIFICANT IMPACTS

**Finding of No Significant Impact:** Environmental impacts associated with the proposed action (current management) and alternatives have been assessed. Based upon the analysis provided in the attached EA (CA-680-04-29), I conclude that the proposed action of the Current Management Alternative will have no significant impacts on the environment under the criteria in Title 40 of Federal Regulations Subpart 1508 and is not a major federal action. Preparation of an Environmental Impact Statement pursuant to Section 102(2)(c) of the National Environmental Policy Act of 1969 is not required.

This action is in conformance with existing applicable state implementation plans for the maintenance and improvement of air quality and will not cause or contribute to any new or increased violations of any air quality standards in the area. It does not exceed de minimus levels, is not regionally significant; and is exempt from conformity determination (40 CFR Part 93.153 (iii)).

Approved:

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Field Manager

Date