

**ENVIRONMENTAL ASSESSMENT
LIVESTOCK GRAZING AUTHORIZATION
CA-680-06-81
Allotment Name: Pahrump Valley**



**BARSTOW FIELD OFFICE
MARCH 2007**

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CHAPTER 1: INTRODUCTION

A. Summary

The Bureau of Land Management (BLM) proposes to issue a 10-year lease to authorize livestock grazing on the Pahrump Valley Allotment in accordance with laws and policy described in the Purpose and Need section below. This allotment is located in southeastern California immediately southwest of the city of Pahrump, Nevada, between the Old Traction Road non-motorized trail and the California/Nevada State boundary. The following is a summary of the current authorization:

Public land acres in allotment: 26,244
Kind of livestock: cattle
Ephemeral or perennial: perennial/ephemeral
Plan Area: Northern and Eastern Mojave
Current authorized use: 353 AUMs
Acres Critical Habitat: 0
Wilderness: 15,198 acres
Identified for Voluntary Relinquishment: No
Request for Grazing Lease Renewal Received: Yes

B. Background

The grazing lease for the allotment (a cow-calf operation) expired at the end of the 2002 grazing year (February 28, 2003). The grazing lease was renewed under the authority of Public Law 106-113. The duration of the new grazing lease renewal is 10 years and contained the same terms and conditions as the expired grazing lease. Public Law 106-113 requires compliance with all applicable laws and regulations, which include the National Environmental Policy Act of 1969 (NEPA) and the Endangered Species Act of 1973, as amended (ESA).

On January 19, 2001, BLM and a consortium of environmental groups entered into a stipulated agreement effective on that date (Settlement Agreement) for the management of livestock grazing. The Settlement Agreement prescribed “interim measures.” As amended April 25, 2002, the Settlement Agreement stipulations remained in effect until the Record of Decision (ROD) for the Northern and Eastern Mojave Plan Amendment (NEMO Plan) to the CDCA Plan was signed (December 20, 2002).

C. Tiering to Existing Land Use Plan/EIS

This environmental assessment (EA) is tiered to the NEMO Plan final environmental impact statement (FEIS) of July 2002, and provides site-specific analysis at the allotment level. Tiering helps focus the EA more sharply on the important issues related to grazing on the allotment while relying on NEMO Plan analysis for background. Analysis of environmental issues previously considered and addressed in NEMO Plan is incorporated by reference. The site-specific issues analyzed for this allotment, as well as the issues that are incorporated by reference but will not be analyzed in detail, are identified in Chapter 3 of the EA.

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

1. The NEMO Plan is an amendment to the California Desert Conservation Area (CDCA) Plan of 1980; the NEMO Plan was developed expressly to address special status plant and animal species and to establish conservation strategies for those species within the multiple use context required for the CDCA by section 601 of the Federal Land Management and Policy Act of 1976 (FLPMA).

As part of the NEMO conservation strategy, BLM determined which public lands will be available (or unavailable) for livestock grazing. In addition to designating lands available for grazing, the NEMO Plan established programmatic management prescriptions including regional land health standards and guidelines for grazing management; utilization prescriptions for perennial species; restrictions on cattle grazing within habitat of the federally threatened desert tortoise (*Gopherus agassizii*); monitoring requirements; and specific management prescriptions for DWMAAs such as the elimination of ephemeral authorizations and the implementation of an ephemeral forage production threshold of 230 pounds per acres (section 2.2.3, pages 2-27 and 2-28). The EA analyzes the specific application of the programmatic management prescriptions of the NEMO Plan and considers alternative means (described in Chapter 2) to achieve the purpose and need on this allotment.

2. The NEMO Plan considered a range of alternatives to the public land livestock grazing program at a regional level for the approximately 3.8 million acres of public lands in the NEMO planning area. The EA analyzes the range of alternatives for grazing consistent with the NEMO Plan, including a proposed action and continuation of current management (“no action” alternative). A no grazing alternative is considered to address voluntary relinquishment and subsequent designation of the allotment as unavailable for grazing.

3. Impacts of livestock grazing are addressed at a regional level in the NEMO Plan. Analysis addressed the impacts of livestock grazing on a wide range of resource topics, including impacts to air quality, soil, vegetation, wildlife, cultural resources, wilderness, and socio-economic impacts. This regional analysis is incorporated by reference (from the NEMO FEIS, Chapter 4); general discussion of these impacts is repeated. This EA analysis focuses on the specific environmental issues associated with areas where livestock are having or may have substantive site-specific effects, including areas where livestock congregate on the allotment. Discussion of the specific topics analyzed in the EA, as well as other resource topics addressed regionally (but be excluded from further analysis in the EA) is contained in Chapter 3.

4. The NEMO Plan balances conservation with public use, occupancy, and development on a regional level. For example, Areas of Critical Environmental Concern (ACECs) and DWMAs are established; routes of travel on public lands designated in DWMAs, and other management prescriptions are provided to guide multiple use management. Routes of travel were subsequently designated outside of DWMA in the NEMO Routes of Travel Plan Amendment (2004). BLM proposes specific lease terms and conditions to ensure that an appropriate multiple use balance is maintained on this allotment, while providing for resource conservation within the context of the CDCA Plan as amended by the NEMO Plan and the scope of the Biological Opinion (BO) for the California Desert Conservation Area (1-8-04-F-43R, March 31, 2005, desert tortoise).

In addition, BLM may use its authority to close areas of the allotment to grazing use or take other measures to protect resources as needed. Some terms and conditions may be proposed herein that are supplemental to those identified in the NEMO FEIS and associated BO, based on this site-specific analysis.

D. Purpose and Need

The purpose of the proposed action is to complete a site-specific evaluation of proposed grazing on the Pahrump Valley Allotment which provides information as required by the Bureau of Land Management implementing regulations for the National Environmental Policy Act, Taylor Grazing Act, Public Rangelands Improvement Act, Federal Land Policy and Management Act, and Public Law 106-113 section 325 to determine whether to authorize grazing within this allotment and whether changes are necessary to current management of the allotment.

The need for the proposed action is to evaluate a proposal for grazing in compliance with the actions prescribed in the Northern and Eastern Mojave Desert Management Plan (NEMO), dated December 20, 2002, the Biological Opinion of the California Desert Conservation Area Plan (Desert Tortoise), dated March 31, 2005, and the proposed Regional Rangeland Health Standards. Action is needed to maintain or improve resource conditions including rangeland health.

E. Plan Conformance

The proposed action is subject to the following plans:

The California Desert Conservation Area Plan of 1980, as amended (CDCA Plan). The decisions of the CDCA plan that specifically pertain to this proposed action include the CDCA Plan Grazing Element as amended by the NEMO Plan amendment. The decisions of the NEMO Plan that specifically pertain to this proposed action include:

- 1) Manage all activities under regional standards of Public Land Health for Soils, Native Species, Riparian/Wetland and Stream Function, and Water Quality, as outlined below. This includes current management practices and specific strategies under the NEMO plan that address water quality directly and through soil water vegetation relationships (e.g., Amargosa ACEC actions, grazing management, and Wild and Scenic River actions), as well as future management practices. Rangeland Health Fall Back Standards and Guidelines for Livestock Grazing remain in effect until CDD standards and regional guidelines are approved by the Secretary of the Interior.
- 2) Grazing within desert tortoise habitat is to be conducted under the livestock grazing prescriptions presented in Appendix C of the final NEMO Plan and the regional standards and guidelines.
- 3) The terms and conditions in the 1994 biological opinions (Appendix C) are added to the CDCA Plan Grazing Element as permanent requirements for NEMO cattle and sheep grazing in desert tortoise critical habitat and other tortoise habitat.
- 4) The following NEMO Plan Biological Opinion Terms and Conditions:
 - a. If an allotment fails to meet the public land health standards based on current livestock use in habitat of the desert tortoise, the Bureau shall remove grazing from the affected areas until the public land health standards are met. This grazing decision shall be reviewed by the Service through, at a minimum, informal consultation.
 - b. The Bureau shall determine the level of desert tortoise mortality associated with wildlife guzzlers and other managed waters and take measure to minimize this mortality.

F. Voluntary Relinquishment

The NEMO Plan does not identify the Pahrump Valley allotment for voluntarily relinquishment. However, the lessee may request voluntary relinquishment of his lease at any time. Because this allotment was not identified for voluntary relinquishment, a plan amendment would be required for subsequent designation of the allotment as unavailable for livestock grazing. If BLM determines that an amendment is not warranted, the

allotment would remain available for livestock grazing and BLM would consider new applications for lease by qualified applicants.

G. Consultation, Cooperation, and Coordination

Consultation, Cooperation and Coordination on grazing within the Northern and Eastern Mojave, including the Pahrump Valley allotment has been extensive, as it has been conducted in the context of an extensive EIS process over several years. Workshops and scoping began in 1995, and supplemental scoping meetings were conducted in 1997. In April 2001, a draft of the NEMO Plan was made available for review and comment to all lessees and interested publics, including Native American tribal governments. Included in the Plan were alternatives for grazing of the Pahrump Valley allotment and associated analysis, including an alternative consistent with the proposed action as evaluated herein. Comments on that Draft EIS and recommendations from a Desert Advisory Council Technical Review Team on grazing within the NEMO Planning Area were incorporated into the Final EIS alternatives and analysis.

For scoping of this environmental assessment (EA), on or about July 19, 2004 Barstow Field Office (BFO) mailed Chapters 1 and 2 of an earlier iteration of this EA to the lessees and all interested publics, including pertinent Native American tribes. BFO requested feedback on the proposed action and alternatives and asked if any additional alternatives should be considered.

To solicit additional public comment, BFO issued a subsequent iteration of this EA on April 6, 2006. The EA analyzed the proposed grazing lease renewal for this and other allotments to the lessees and all interested publics, including pertinent Native American tribes.

On July 12, 2006 BFO issued a letter to the lessee informing him of the status of the EA and anticipated timeline for completion of the EA decision record, and issuance of the proposed and final decision and 10-year grazing lease.

On September 22, 2006 BFO staff contacted the lessee by phone to discuss current management; and the proposed action, which would implement the NEMO plan.

H. Relationship to Statutes, Regulations, and Plans

A site-specific evaluation of the proposed grazing lease renewal is required by BLM implementing regulations for NEPA, FLPMA, grazing regulations found at 43 CFR 4100 et seq. and the NEMO Plan record of decision (ROD). Various other environmental laws are pertinent to analysis of critical elements of the human environment as defined in Council on Environmental Quality and Department of the Interior policy, and are addressed within this EA in the context of the analysis of specific elements.

1. State Historic Preservation Office Protocol Amendment for Renewal of Grazing Leases

In August 2004, the State Director, California Bureau of Land Management, and the California State Historic Preservation Officer (SHPO) addressed the issue of the National Historic Preservation Act of 1966, as amended (NHPA) Section 106 compliance procedures for processing grazing permit lease renewals for livestock as defined in 43 CFR 4100.0-5. The State Director and the SHPO amended the 2004 State Protocol Agreement between California Bureau of Land Management and the California SHPO with the 2004 Grazing Amendment, Supplemental Procedures for Livestock Grazing Permit/Lease Renewal. This amendment allows for the renewal of existing grazing permits prior to completing all NHPA compliance needs as long as the 2004 State Protocol direction, the BLM 8100 Series Manual Guidelines, and specific amendment direction for planning, inventory methodology, tribal and interested party consultation, evaluation, effect, treatment, and monitoring stipulations are followed (see Appendix 1). The lessee would comply with any future standard protective measures that may be developed for the protection of cultural resources upon further allotment inventory, based on site evaluation and the determination of significance.

2. USFWS Biological Opinion on the California Desert Conservation Plan

BLM would ensure compliance with the incidental take statement of the 2005 biological opinion on the NEMO Plan (1-8-04-F-43R). BLM would immediately report to USFWS any injuries or mortality to desert tortoises as a result of grazing. BLM and USFWS would review the circumstances to determine if any additional protective measures are required. BLM would compile any instances of take of the desert tortoise due to grazing activities, and report these annually to USFWS. If the annual level of take reaches five desert tortoises for all the allotments in the West Mojave and NEMO Plan areas, BLM would meet with USFWS to determine if re-initiation of consultation is necessary on the grazing aspect of the plan.

3. Grazing Prescriptions Contained in the NEMO Plan Addressed to BLM

The NEMO Plan implements a set of regional guidelines in the NEMO planning area for grazing management. These regional guidelines would replace the current fallback guidelines, identify grazing management practices to achieve the regional standards and address the principles of grazing management practices as identified in 43 CFR 4180.2.

- a. Facilities would be located away from riparian-wetland areas wherever they conflict with achieving or maintaining riparian-wetland functions. (This allotment has no riparian or wetland areas.)
- b. The development of springs and seeps or other projects affecting water and associated resources would be designed to protect the ecological functions and processes of those sites. (This allotment has no identified springs or seeps.)
- c. Grazing activities at an existing range improvement that conflict with achieving proper functioning condition (PFC) and resource objectives for wetland systems (lentic, lotic,

springs, adits, and seeps) would be modified so PFC and resource objectives can be met. Incompatible projects would be modified to bring them into compliance. The BLM would consult, cooperate, and coordinate with interested publics and the lessee prior to authorizing modification of existing range improvement projects and initiation of new projects.

b. In the California Desert Conservation Area, all wildfires in grazing allotments would be suppressed. However, to restore degraded habitats infested with invasive weeds (e.g., tamarisk), prescribed burning may be utilized as a tool for restoration. Prescribed burns may be used as a management tool where fire is a natural part of the regime.

c. Grazing on designated ephemeral rangeland would be allowed only if reliable estimates of production have been made, an identified level of annual growth or residue to remain on site at the end of the grazing season has been established, and adverse effects on perennial species can be avoided.

d. Through the assessment process or monitoring efforts, the extent of invasive and/or exotic plants and animals would be recorded and evaluated for future control measures. Methods and prescriptions would be implemented, and an evaluation will be completed to ascertain future control measures for undesirable species.

e. Monitoring of grazing allotment conditions would be routinely assessed to determine if Public Land Health Standards are being met. In those areas not meeting one or more standards, monitoring processes would be established (if they do not presently exist) to monitor indicators of health until the standard or resource objective has been attained. Livestock trail networks, grazed plants, livestock facilities, and animal waste are expected impacts in all grazing allotments, and would be considered during analysis of the assessment and monitoring process.

e. Cooperative funding and assistance from other agencies, individuals, and groups would be sought to collect monitoring data for indicators of each standard.

f. Allotments rated in good or excellent range condition would not exceed 40 percent utilization and allotments rated in poor or fair range condition would not exceed 30 percent utilization. The CDCA plan designated range condition for all allotments. Utilization of key perennial forage species shall not exceed 30 percent from February 15 to October 14 in Pahrump Allotment. No averaging of utilization data among perennial key forage species or key areas shall occur. Monitoring of perennial vegetation such as utilization and trend would occur with methods detailed and prescribed in BLM manuals, handbooks, and plans. Galleta grass shall be a key forage species where it is found.

g. The authorization to use temporary, non-renewable perennial forage above permitted grazing use shall be authorized for no longer than three-month increments in non-DWMA desert tortoise habitat.

h. Authorization for ephemeral forage (annual grasses and forbs) in non-DWMA desert tortoise habitat shall only occur when 230 pounds or more by air-dry weight per acre of ephemeral forage is available. Ephemeral production data shall be collected when

necessary if requests are made for ephemeral grazing use.

CHAPTER 2: PROPOSED ACTION AND ALTERNATIVES

A. Proposed Action – NEMO Plan

1. Livestock Numbers and Season of Use

The grazing lease for the Pahrump Valley Allotment expired in 2003 and was renewed under PL-106-113 until 2013. The proposed action is to renew the grazing lease for a period of 10 years under the terms and conditions of the NEMO Plan. The proposed action would balance environmental protection with continued use of the allotment for livestock grazing. The perennial authorization for this allotment is described in Table 1.

Table 1.

Allotment	# of Animals	Kind	Class	From	To	AUMs
Pahrump Valley	118	Cattle	Cow-calf	February 1	April 30	353

The season of use can be extended if conditions are conducive to additional grazing or if the lessee has run less than an authorized number of cattle during the normal grazing season. Ephemeral use is subject to specific application, appropriate conditions, and the terms and conditions identified to maintain and achieve standards identified as terms and conditions of this lease. Ephemeral use has not been requested on this allotment in the past 15 years.

2. Livestock Management

Under the proposed action BLM proposes to authorize a seasonal (winter/early spring), cow-calf grazing operation with a maximum permitted use of 353 AUMs (approximately 118 cows). This permitted use level represents the permitted use authorized by the CDCA Plan and the maximum stocking rate allowed prior to the implementation of the Settlement Agreement.

The allotment contains 26,244 acres of public land. Although there is suitable habitat of the federally threatened desert tortoise (*Gopherus agassizii*) within the allotment, none of this habitat was designated as critical habitat by USFWS or is within a Desert Wildlife Management Area (DWMA). The Nopah Range Wilderness overlaps the allotment; 15,198 acres (58% of the public lands within the allotment) are within the wilderness, including all five developed waters. In addition, there are 5,375 acres of private land, and 676 acres of State land. The interim measures, which exclude 7,903 acres (30% of the public lands) from cattle use during portions of the spring and fall would terminate under the proposed action. Since the allotment is not grazed in the fall, these measures limited grazing in a portion of the allotment during spring months only (see Map 1).

Initially, upon being placed in the allotment, the lessee's cattle generally drift to the west further into the wilderness (this can mean outside of the allotment boundaries) or to the

north end of the allotment where forage generally experiences earlier growth. Later as the remainder of the allotment's forage develops, the cattle may drift south as well. The cattle are generally well dispersed throughout the allotment by the lessee but eventually congregate near waters.

3. Range Improvements

Existing range improvements on the allotment are listed in Table 2: one cattleguard, one fence, and five water improvements including four dug-out (man-made) waterholes (also see Map 1). All four waterholes and the currently non-functioning Stewart Valley Well are within what is now the Nopah Range Wilderness Area.

Table 2. Existing Range Improvements

Name, Range Improvement #	Location	Comments	Maintenance Actions
Cow Pond, #8275	T23N, R9E, Section 32, NW ¼, NE ¼	Built 1947, maintained under a 1980 cooperative agreement	Needs to be periodically dug out when it silts in, which would require approval of Field Manager and NOPA
Reservoir #1, #8276	T22N, R9E, Section 10, NE ¼, NW ¼	Built 1947; last maintained in 1987, maintained under a 1986 cooperative agreement	Needs to be periodically dug out (same constraints as Cow Pond)
Reservoir #2, #8277	T22N, R9E, Section 9, SW ¼, SE ¼	Built 1947, maintained under a 1986 cooperative agreement	Needs to be periodically dug out and sealed (same constraints as Cow Pond)
Reservoir #3, #8278	T22N, R9E, Section 27, NE ¼, NE ¼	Built 1947, maintained under a 1986 cooperative agreement	Needs to be periodically dug out (same constraints as Cow Pond)
North boundary fence, #8452	T24N, R8E, Section 28, NW ¼, NW ¼	Installed in 1986, maintained under a cooperative agreement of the same year	Requires periodic routine maintenance, and is occasionally cut because of OHV intrusions
North boundary cattleguard, #8647	Same as fence	Same as fence	Requires routine maintenance;
Stewart Valley Well, #8201	T23N, R8E, Section 2, NE 1/4 , NW ¼	In disrepair	Currently nonfunctional and covered. Will

			eventually be capped by the lessee
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Six of the range improvements are in working order. Four of the five developed waters are stock reservoirs (man-made waterholes) on the Pahrump dry lake bed within the Nopah Range Wilderness (see Map 2) but not in suitable desert tortoise habitat. These waters would continue to be maintained under the proposed action. Maintenance of the four waterholes on Pahrump dry lake consists of periodically (once or twice during the 10-year lease) removing accumulated silted material in the waterhole using a backhoe. Therefore, the use of a vehicle in wilderness for “normal” maintenance of the four-lakebed reservoirs is discussed under the proposed action, however a site specific EA would be prepared and authorization from the Authorized Officer would be obtained prior to such maintenance.

Upon completion of activities, removed silt would be hauled to a pre-identified, approved, off-site location outside of wilderness, and the lakebed and closed access routes (including any off-route use within wilderness) would be rehabilitated to pre-work conditions. Use of public lands for removed silt would require a land-use permit and supplemental analysis.

The North boundary fence and cattleguard are also located within designated wilderness at the northern end of suitable desert tortoise habitat. Routine maintenance of the fence and cattleguard can be accomplished without use of motorized vehicles. Therefore, use of motor vehicles for maintenance of the fence and cattleguard in the wilderness is not anticipated at this time. Use of motorized vehicles for maintenance of these improvements or removal of the cattleguard would require a supplemental environmental assessment and minimum tool analysis.

The non-functioning Stewart Valley well is also located in designated wilderness. Currently the well is covered, but is accessible. Formal capping of the well or otherwise preventing public access to the waters would eventually be necessary, however a site-specific EA may have to be prepared because of the potential for vehicle access. Upon receipt of a written proposal for range maintenance, a notification of proposed action (NOPA) would be published for any activity within wilderness, and appropriate additional site-specific NEPA compliance would be prepared based on the scope of maintenance activities prior to their authorization.

4. Monitoring

Rangeland monitoring on the Pahrump Valley Allotment under this alternative would continue to be conducted on an annual and/or periodic basis and as it is currently conducted, in two categories. These categories would be: 1) short term monitoring, and 2) long term monitoring.

The use of short term monitoring is a tool to gauge the cause and effect of the current grazing management. This type of monitoring consists of actual use, current climatic

conditions and the collection of utilization data (including stubble height in meadows if appropriate). This type of data would be collected on a yearly basis at minimum, and would be collected at, but not limited to the existing four key areas. The collection of utilization data would be triggered by the growing season of key species, which includes big galleta grass, desert needle grass, ephedra, winterfat, and spiny hopsgae. This time period would correlate with important phenological events (such as budding or flowering) of key species.

The collection of long term monitoring data occurs on a periodic basis, typically every three to five years. The collection of trend data measures the selected vegetative attributes over time to make inferences on the effectness 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 analysis of rangeland monitoring data, including the Determination of Rangeland Health generated from the rangeland health assessment would be used to determine if adjustments in stocking rates are warranted, or if additional management action are necessary to protect riparian habitat or reduce soil erosion.

5. Measures to Maintain or Achieve Standards (Terms and Conditions of Lease) Cattle Grazing Stipulations in Northern and Eastern Mojave Desert Tortoise Habitat

The scheduled rangeland health assessment for this allotment has not yet been conducted; therefore no measures have been developed to maintain or achieve standards. The rangeland health assessment of the allotment is currently scheduled for 2008.

The grazing lease would conform to the terms and conditions stated in the NEMO Plan amendment, and the 2005 biological opinion (BO) for the CDCA Plan (desert tortoise). The 2005 BO contains no additional terms and conditions beyond the implementation of the grazing provisions contained in the Record of Decision (ROD) for the NEMO Plan. The NEMO Plan Amendment to the CDCA Plan contains one change for the Pahrump Valley Allotment. The plan requires the use of Regional Standards and Guidelines in assessing rangeland health. However, the terms and conditions for this grazing lease will not include the Regional Standards and Guideline adopted in the NEMO Plan unless and until they are approved by the Secretary (see Map 2).

6. Proposed Grazing Stipulations

a. NEMO

1. Allotments rated in good or excellent range condition would not exceed 40 percent utilization and allotments rated in poor or fair range condition would not exceed 30 percent utilization. The CDCA plan designated range condition for all allotments. Utilization of key perennial forage species would not exceed 30percent from February 15

to October 14 in the Pahrump Valley allotment. No averaging of utilization data among perennial key forage species or key areas would occur. When utilization approaches authorized limits in any key area, steps would be taken to redistribute or reduce cattle use for that key area. Monitoring of perennial vegetation such as utilization and trend would occur with methods detailed and prescribed in BLM manuals, handbooks, and plans. Grazing use would be managed to improve trends for native perennial and annual plants where site potential permits. Galleta grass (*Hilaria rigida*) is a key forage species where it is found.

2. Cattle would be evenly dispersed throughout their area of use, and herding would be limited to shipping and animal husbandry practices. Grazing use would be managed according to grazing regulations, allotment management plans, CDCA plan, and the current NEMO desert tortoise biological opinion. Feeding of roughage, such as hay, hay cubes, or grains to supplement forage quantity, would be prohibited. Grazing use would be curtailed to protect perennial plants during severe or prolonged drought. The steps may include removal of cattle or, where feasible, turning off water at troughs (especially when livestock are not present) to reduce adjacent grazing use.

3. All cattle carcasses found within 300 feet of any road would be removed and disposed of in an appropriate manner; no prior notification to the BLM is necessary if off-road vehicle use is required, but permission from the BFO Manager would be required to remove animals within wilderness.

4. The authorization to use temporary, non-renewable perennial forage above permitted grazing use would be authorized for no longer than three-month increments in non-DWMA desert tortoise habitat.

5. Authorization for ephemeral forage (annual grasses and forbs) in non-DWMA desert tortoise habitat would occur when 230 pounds or more by air-dry weight per acre of ephemeral forage is available. Ephemeral production would be collected when necessary if requests are made for ephemeral grazing use. Any cattle authorized to use ephemeral forage would be removed whenever the threshold for curtailing ephemeral grazing is reached.

6. Construction and maintenance of range improvements in desert tortoise habitat would be limited to existing and proposed facilities listed in the NEMO Plan and as detailed in biological opinions 1-6-92-F-17 and 1-8-94-F-17. All proposed new range improvements would undergo appropriate NEPA compliance, and section 7 consultation as needed. For all construction, operation, and maintenance of range improvements involving land disturbance in desert tortoise habitat the following requirements apply:

a. Surface disturbance during construction of range improvements would occur on previously disturbed sites and disturbing soil in habitat would be minimized whenever possible. Routine vehicle use would be limited to existing roads and disturbed areas, and off-road vehicle activity would be held to a minimum. Construction of new roads would be minimized. Construction of new or replacement facilities would be carried out only from October 15 to March 15, unless specifically authorized due to safety or emergency considerations. After completion of the project, the disturbed soil would be blended and contoured into the surrounding soil surface.

b. To reduce attraction of desert tortoise predators, debris and trash created during construction or maintenance of a facility will be removed immediately.

c. Range improvement construction, operation, and maintenance would be modified as necessary to avoid direct impacts to desert tortoises and their burrows e.g., construction of fences or pipelines near tortoise burrows would be avoided. All proposed range improvement projects would be designed and flagged to avoid impacts to tortoises and their burrows. A qualified biologist would conduct pre-construction desert tortoise surveys of proposed project sites. Existing access and areas of disturbance would be utilized when trenching a section of new pipe or during performance of maintenance. Hazards to desert tortoises created by construction, such as auger holes and trenches, would be monitored by biological monitor at least twice daily for desert tortoises that become trapped. These hazards would be eliminated before workers leave the site.

d. Prior to land-disturbing activities, a field contact representative (FCR) would be designated to ensure compliance with protective measures stipulations for the desert tortoise and will be responsible for coordinating with the U.S. Fish and Wildlife Service. The FCR would have the authority and responsibility to halt activities in violation of FWS stipulations.

e. Only authorized personnel would be permitted to handle desert tortoises. If construction or maintenance of range improvements endangers the life of a desert tortoise then authorized persons could move the animal a short distance away or hold the animal overnight to release it in the same area the next day.

7. All construction and maintenance workers would strictly limit their activities and vehicles to areas flagged or cleared by persons authorized by the Service. When off-road use with equipment is required, the lessee would be required to notify the BLM two working days prior to construction or maintenance of a facility.

b. Other Proposed Stipulations

1. The lessee shall comply with any future standard protective measures that may be developed for the protection of cultural resources after an allotment inventory and determination of significant cultural resources has been completed.

2. The lessee is required to perform normal maintenance on all range improvements located on public land within the Pahrump Valley Allotment.

3. The lessee's certified actual use report is due no later than 15 days after the end of authorized grazing.

4. The terms and conditions of this lease may be modified if additional information derived from Rangeland Health Assessments indicates that revision is necessary to conform to 43 CFR 4180.2.

5. The payment of grazing fees shall be received within 15 days of the due date or the lessee will be charged a late fee assessment of \$25 or 10% of the grazing bill, whichever

is greater, not to exceed \$250. Failure to make payment within 30 days of the due date may result in trespass action.

c. Fallback Guidelines based on the Guidelines contained in 43 CFR 4180:

1. The lessee would place supplements (salt/and or mineral blocks) a minimum of ¼ mile from natural water sources (such as wetlands, riparian areas, and springs), cultural sites, and known desert tortoise burrows. The lessee would notify the BLM of the proposed location prior to placement.
2. In years when weather results in extraordinary conditions the BLM may require the lessee to modify grazing to allow seed germination, seedling establishment, and reproduction of native plant species.
3. During prolong drought the BLM will require the lessee to reduce stocking rates.

B. No Action Alternative

1. Livestock Numbers and Season of Use

Since the allotment is not within a DWMA the seasons of use would continue as previously authorized—which is from February 15 to April 15, with the exception of the portion of desert tortoise habitat identified in interim measures. Interim measures of the settlement agreement for the Pahrump Valley allotment would include a seasonal exclusion period of March 1 to June 15 and September 7 to November 7 on 7,903 acres on the north end of the allotment. Cattle do not graze the allotment during the fall, so essentially this measure restricts most spring use. A summary of livestock use under the No Action alternative is shown in Table 3.

Table 3.

Allotment	# of Animals	Kind	Class	From	To	Acres
Pahrump Valley (Southern portion)	176	Cattle	Cow-calf	February 15	April 15	18,350
Pahrump Valley (Northern Portion)	176	Cattle	Cow -calf	February 15	March 1	7,903

As with the proposed action, the allotment would continue as an ephemeral/perennial use allotment. Depending on stockwater and forage conditions, cattle are turned out as early as February 15, and stay as late as April 30. The lessee does not run cattle on the allotment every year, but if conditions were sufficient, he could conceivably graze the allotment every year.

2. Livestock Management

Under this alternative BLM proposes to authorize a seasonal (winter/early spring), cow-calf grazing operation with a maximum permitted use of 353 AUMs (approximately 176 cows). This permitted use level represents the permitted use authorized by the CDCA Plan, and the grazing stipulation contained in the Settlement Agreement.

The acreage within the allotment is unchanged under this alternative, including acreage of wilderness and desert tortoise habitat within the allotment. However, the interim measures that exclude 7,903 acres (30% of the public lands) from cattle use during portions of the spring and fall would continue under this alternative. This excluded area does not correspond to desert tortoise habitat or wilderness boundaries, but all of the 7,903 acres is within wilderness and is considered suitable desert tortoise habitat. Therefore, this alternative would decrease on-the-ground use by cattle of wilderness acreage in the allotment by almost 50% and desert tortoise habitat by over 30% as compared to the proposed action. Since the allotment is not grazed in the fall, these measures would limit grazing on the 7,903 acres during spring months only (see Map 1).

As under the proposed action, cattle are trucked into the south-central portion of the allotment via Homestead Road. They are then allowed to drift between the 4 established stock tanks in the southern portion of the allotment; the use is continual for the duration of the two-month grazing period. Fences, corrals, and traps to confine cattle to a particular area or to segregate use to a particular stock tank do not exist. There are no cross fences. The only perimeter fence per se is at the extreme north end of the allotment, south of and roughly paralleling State Highway 178; the Nevada-California state boundary is only partially fenced. At the end of the grazing period, cattle are gathered and removed to the lessee's private property in nearby Pahrump, Nevada.

3. Range Improvements

Range improvements on the allotment: one cattleguard, one fence, and five water improvements including four dug-out (man-made) waterholes (also see Map 1), would be managed as under the proposed action. Maintenance of the boundary fence and the cattleguard in the northern part of the allotment would be less important under this alternative, since these are located well within the cattle exclusion area.

4. Monitoring

As with the proposed action, rangeland monitoring on the Pahrump Valley Allotment would continue to be conducted on an annual and/or periodic basis and as it is currently conducted, in two categories. These categories would be: 1) short term monitoring, and 2) long term monitoring.

The use of short term monitoring is a tool to gauge the cause and effect of the current grazing management. This type of monitoring consists of actual use, current climatic

conditions and the collection of utilization data (including stubble height in meadows if appropriate). This type of data would be collected on a yearly basis at minimum, and would be collected at, but not limited to the existing four key areas. The collection of utilization data would be triggered by the growing season of key species, which includes big galleta grass, desert needle grass, ephedra, winterfat, and spiny hopsgae. This time period would correlate with important phenological events (such as budding or flowering) of key species.

The collection of long term monitoring data occurs on a periodic basis, typically every three to five years. The collection of trend data measures the selected vegetative attributes over time to make inferences on the effectness 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 analysis of rangeland monitoring data, including the Determination of Rangeland Health generated from the rangeland health assessment would be used to determine if adjustments in stocking rates are warranted, or if additional management action are necessary to protect riparian habitat or reduce soil erosion.

5. Measures to Maintain or Achieve Standards (Terms and Conditions of Lease) Cattle Grazing Stipulations in Northern and Eastern Mojave Desert Tortoise Habitat

The rangeland health assessment for this allotment under this alternative would be scheduled for 2008, the same as the proposed action. Stipulations directed by existing decisions or through existing agreements would also be included in this grazing lease, to the extent they do not conflict with the exclusion area incorporated into this alternative. Conformance with the achievement of fallback standards and guidelines stated in the grazing regulations (43 CFR 4180.2) would also be required.

6. Existing Grazing Stipulations

- a. The lessee shall exclude livestock from the designated exclusion area (see Map1) from March 1 through June 15 and September 7 through November 7 as per the Settlement Agreement.
- b. The lessee shall comply with the grazing stipulations derived from the 1993 biological opinion (1-6-92-F-19) contained in Attachment 3.

(The grazing stipulations listed in Attachment 3 contain restrictions on utilization levels, stipulations related to the construction and maintenance of range improvements and disposition of livestock carcasses).

- c. The lessee is required to perform normal maintenance on all range improvements located on public land within the Ord Mountain Allotment.
- d. The terms and conditions of this lease may be modified if additional information indicates that revision is necessary to conform to 43 CFR 4180.2.
- e. The payment of grazing fees shall be received within 15 days of the due date or the lessee will be charged a late fee assessment of \$25 or 10% of the grazing bill, whichever is greater, not to exceed \$250. Failure to make payment within 30 days of the due date may result in trespass action.

C. Allotment Perimeter Fence Alternative

This alternative consists of the proposed action as modified to include installation of a perimeter fence. The purpose of the fence would be to prevent drift of cattle out of the allotment (see Map 4). Some drifting of cattle off of the allotment currently occurs due to the lack of boundary fencing. Because there is no western allotment perimeter fence, cattle are drawn to the substantial perennial range vegetation in the foothills of the Nopah Range, the mountains immediately west of the allotment. This area is within the Nopah Range Wilderness. Grazing in the wilderness is allowed within the allotment boundaries, but is not authorized outside of the allotment. Cattle can also drift east into Nevada because there is no eastern boundary fence. Since the eastern allotment boundary is at the State line, grazing in Nevada is not authorized.

Starting at the cattleguard at the northwest corner of the allotment, the fence would generally extend south along the west boundary following the Old Traction Road to the south end of the allotment, then follow the public lands boundary east and north until it reaches the Nevada state line, then north along the California-Nevada state line to the north allotment boundary fence (see Map 4). BLM cadastral surveys would be needed to guide placement of the fence(s) on public lands along the boundary between public and private lands, and along the California-Nevada state line. Cattleguards and/or gates would be needed at points where open routes enter public lands along the boundary fence. Appropriate entry points that are not open routes would be designed to allow foot traffic (hikers) and horse riders to enter, but not OHVs. General maintenance of the fence and associated gates and cattleguards would also be required under this alternative.

This EA does not analyze specific on-the-ground siting and ground-disturbance, including installation and maintenance of the perimeter fences (and appurtenances) because separate cadastral survey, NEPA, ESA, and NHPA compliance would be needed for BLM to appropriately site the fence. The lessee would be responsible for maintenance of the fence once it is installed. This improvement was not identified in the CDCA Plan, as amended by NEMO. Based on the adopted Grazing Stipulations in the NEMO amendment (App. E, VI, p E-2) for protection of desert tortoise habitat limiting the allotment to existing and proposed range improvements, selection of this alternative would require the BLM to modify this stipulation in accordance with 43 CFR 1610.5.5.

Season of use, class of livestock, and other protective measures for the desert tortoise required under the NEMO plan would otherwise be the same as the proposed action.

D. No Grazing Alternative

This alternative would not authorize grazing and would initiate a process in accordance with the 43 CFR 4100 regulations to eliminate grazing and make the allotment unavailable for grazing, irregardless of the lessees desire to continue grazing. If the lessee submits a request for voluntary relinquishment of the lease at any time during the life of the lease, BLM would review the analysis contained in this EA to determine whether to accept the request (without further NEPA analysis). If conditions and circumstances remain substantially the same, no additional NEPA analysis would be needed to proceed with voluntary relinquishment under this alternative. As mentioned in Chapter 1, selection of this alternative would not relieve the BLM of its responsibility to modify its Land Use Plan in accordance with 43 CFR 1610.5.5.

CHAPTER 3: ENVIRONMENTAL ANALYSIS

This chapter addresses, by affected resource, the affected environment, environmental consequences, and consultation sections of the EA for 20 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 is included in the pertinent Affected Environment section, and the resource element will not be further addressed in this environmental assessment.

Elements:

- A. Livestock Grazing
- B. Air Quality*
- C. Areas of Critical Environmental Concern (ACEC)*
- D. Cultural Resources / Native American Concerns*
- E. Environmental Justice*
- F. Farmlands, Prime or Unique*
- G. Floodplains*
- H. Vegetation/Invasive, Non-native Species*
 - Threatened or Endangered Species*
- I. Recreation
- J. Social and Economic
- K. Soils/BSC
- L. Waste, Hazardous or Solid*
- M. Water Quality, Surface and Ground*
- N. Wetlands/Riparian Zones*
- O. Wild and Scenic Rivers*
- P. Wilderness*
- Q. Wildlife
 - Threatened or Endangered Species*
- R. Wild Horses and Burros

* indicates Critical Elements of the Human Environment

A. LIVESTOCK GRAZING

1. Affected Environment

The Pahrump Valley allotment, #08000, is an ephemeral/perennial allotment with potential forage production to enable BLM to authorize ephemeral forage in some years and an established perennial forage allocation. The existing lease, #046800, authorizes perennial grazing use of up to 176 cattle from February 15th through April 15th, or 353 animal unit months (AUMs). The allotment encompasses 32,295 acres, of which 26,244 acres are public lands, 676 acres are State land, and 5,375 acres are private lands. Although most of the non-dry lake portions of the allotment are suitable desert tortoise

habitat, none of the allotment is either within a Desert Wildlife Management Area or identified as critical habitat by USFWS.

The allotment is located in rural Inyo County. Elevations range from 2,400 to 2,600 feet. The eastern boundary is the California/Nevada State boundary, immediately southwest of the city of Pahrump, Nevada. The western boundary is the Old Traction Road, which is unfenced. The road is closed to motorized use because it is located within designated wilderness. Approximately 15,198 acres (58% of the public lands within the allotment) is within the Nopah Range Wilderness.

Table 3 in Chapter 2 lists the existing range improvements on the allotment and their status or condition. No new range improvements have been proposed for this allotment.

2. Environmental Consequences

a. Impacts of the Proposed Action

Under the proposed action, the grazing lease for the allotment would be renewed for 10 years. The season of use would be modified from February 15 to April 15 to February 1 to April 30. This modification to the season of use would reduce the maximum number of animals from 176 cows to 118 cows. The terms and conditions contained in the new lease would include the grazing prescriptions listed in the NEMO Plan, as well as other terms and conditions deemed necessary by the BFO Manager. These grazing prescriptions would not substantially change current grazing operations on the allotment. They would terminate the exclusion area and include key terms and conditions contained in previous grazing decisions related to cattle grazing in desert tortoise habitat. The NEMO Plan requires site specific NEPA analysis, and project-specific ESA section 7 consultations as needed for proposed changes in grazing management that would be considered more than a minor change. In addition, new range improvements would have to be reviewed in accordance with 43 CFR 1610.5.5.

The implementation of the 30% utilization limit, as opposed to the 40% allowed now, would have a negligible effect on the cattle operation as cattle are very widely distributed throughout the allotment and are not present for more than about two months per year, and not every year at that.

In the southern end of the 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 waterholes located on the dry lake bed, so that cattle are drawn to this lakebed on an intermittent basis. On the weekend the density of OHV use on the dry lake bed can be heavy. According to sector BLM Ranger Pat Shields who regularly patrols this area, some visitors do disturb the livestock (pers. comm.).

b. Impacts of the No Action Alternative

Grazing would continue as it exists now—essentially the same as the proposed action except for an exclusion area covering just under a third of the public land and the higher utilization limit. The permitted use and terms and conditions would not substantially differ from the proposed action.

The exclusion period for the northern portion of the allotment has had little impact on cattle distribution throughout the allotment. Because this area is wilderness and there are no physical boundaries preventing cattle movement between the exclusion area and the non-exclusion area, it is difficult for either the BLM or the lessee to enforce. However, there is no developed water located within the exclusion area and cattle would periodically have to travel south for water. This could be addressed by additional cross-fencing through the wilderness. Such fencing would need to provide for desert tortoise movement while preventing cattle movement. This range improvement is not part of the interim measures, but should be considered as a potential mitigation measure if this alternative is selected. As with other alternatives, a new range improvement would have to be reviewed in accordance with 43 CFR 1610.5.5, and would require NEPA and ESA compliance, including additional consultation with USFWS. The slightly higher average utilization limit of 40% (versus 30% under the proposed action) would not be discernible as the cattle are not present for long and are very widely distributed on the allotment.

c. Impacts of the Allotment Perimeter Fence Alternative

The lessee's cattle would be prevented from wandering off of the allotment, which would prevent them from grazing further into the Nopah Mountain Wilderness or from drifting into Nevada.

The cost of constructing the perimeter fence would be substantial and the lessee would be responsible for contributing a portion of the initial costs. The lessee would be required to maintain portions of the fence designed to control his cattle which would be an additional workload for him, as the fence may be subject to vandalism from OHVers who, similarly to the cattle, access the Nopah Range foothills from the allotment. Also, since the cattle would be forced to stay within the allotment, they might initially do damage to the fence as they attempt to find ways to get through to the fence to drift west. This workload may be partially offset by decreased herding requirements at the end of each spring grazing period. The fence would also result in an increased enforcement responsibility for the BLM.

d. Impacts of the No Grazing Alternative

Under this alternative, the grazing operation on the allotment would cease. This should not be confused with voluntary relinquishment; this allotment is not identified by the NEMO Plan as being available for voluntary relinquishment. The no grazing alternative on this allotment, if selected, would be imposed upon the lessee; it would not be voluntary.

This alternative would have a substantial negative impact on the lessee's grazing operation, which could be significant if he can not identify sufficient amounts of alternative owned or leased private land for grazing use. The lessee would in all likelihood terminate his grazing operation, which would represent the loss of a substantial personal financial asset.

e. Consultation

Consultation would continue to occur with the lessee, interested publics, county governments, and Native American tribes with traditional ties to allotment lands.

f. Maps

See Map 1.

g. References

U.S. Bureau of Land Management. 1980. California Desert Conservation Area Plan. Riverside, CA

U.S. Bureau of Land Management. 2002. Northern and Eastern Mojave Desert Management Plan. Riverside, CA

B. AIR QUALITY

1. Affected Environment

The project area for the purpose of this analysis is the Inyo County portion of Great Basin Valleys Air Basin, created by the California Air Resources Board (CARB) from 3 adjacent federal air basins in rural eastern Alpine, Mono and Inyo Counties. The Pahrump Valley Allotment is in the eastern portion of the Great Basin Valleys Air Basin and therefore generally has the best air quality in this air basin. Most of the pollution in the air basin is generated and deposited further west of the allotment. Pollution generally blows eastward through the basin and primarily occurs during high wind events that bring the particulates from further west in this air basin and from the adjacent San Joaquin air basin. Windblown air pollutants from Owens and Searles Valleys and in particular Owens dry lake to the west are the primary source of Great Basin Valleys Air Basin pollutants.

The Federal Clean Air Act required that the Air District produce a State Implementation Plan (SIP) in 1997 that detailed how pollution from Owens Lake would be controlled. According to the California Air Resources Board (CARB), Owens Lake is the largest single source of PM-10 in the United States. CARB has reached an agreement with the City of Los Angeles (LADWP) and is working with LADWP to implement dust control measures on the Owens dry lake in the Owens Valley. To date, dust controls have been installed by the LADWP on about 19.25 square miles, or two-thirds of the target of 30

square miles to be controlled, as per the 2003 State Implementation Plan revision approved by USEPA. As pollutant emissions continue to be addressed in the Owens Valley, the overall air quality in the Great Basin Valleys Air Basin is anticipated to benefit.

Pollutant emissions from sources, climatic conditions, and atmospheric interactions determine the quality of air. Other sources for emissions of PM¹⁰ in the project area are wind erosion on unpaved surfaces including other dry lakebeds, disturbed areas from other small to moderately-sized mines to the west of the allotment, and occasional fires that occur in the Sierra Nevadas. Climatic conditions that contribute to elevated air pollution in the area include the overall lack of rainfall and periodic high winds. Air quality in a given location is described by the concentration of various pollutants in the atmosphere over a given period of time. An area is designated by the EPA as being in non-attainment for a pollutant if ambient concentrations of that pollutant are above the National Ambient Air Quality Standards (NAAQS). No federal non-attainment areas for the 10 federal criteria pollutants have been identified in the Great Basin Valleys air basin. The EPA and CARB have identified Owens Valley as a separate planning area in the air basin and regulates it separately.

In addition, the California Clean Air Act of 1988 requires that areas of California be designated attainment, non-attainment, and unclassified for state ambient air quality standards. These standards are at least as strict, and generally are stricter than the federal standards. Currently, the Inyo County portion of the Great Basin Valleys Air Basin is in non-attainment for one criteria pollutant under State Standards—particulate matter under 10 microns in size (PM¹⁰). Based on recent data, the State is currently proposing to downgrade one additional pollutant—ozone—from unclassified to non-attainment in Inyo County. Status of the area for six additional pollutants is attainment, and for the other two is unclassified.

Generally, locally generated PM¹⁰ pollution is limited by the large extent of wilderness and associated limited route density and limited amount of disturbed areas within and to the west of the Pahrump Valley Allotment. This is reflected in the measurements from the closest air monitoring station in the basin in Death Valley, CA, which generally has better air quality than the western part of the air basin. However, on windy days the Pahrump dry lake is a local source of particulate matter.

Cattle that use of the Pahrump dry lakebed to access waters are a contributing factor to PM¹⁰ pollution. However, factors that are more important include the generally windy conditions and continual disturbance of the lakebed by unauthorized OHV use both outside of and within the wilderness boundary. Compared to the rest of the air basin, these PM¹⁰ levels are low, but can occasionally adversely affect the growing Pahrump, Nevada metro area downwind of the lakebed, along with factors on the Nevada side of the border that create wind-blown particulates from disturbed areas such as construction, development and unpaved route use. In addition, this development activity in Pahrump can be a source of PM¹⁰ pollution in the allotment during Santa Ana (westerly) wind conditions.

Sources for ozone emissions include exhaust from primary transportation vehicles (particularly diesel trucks), industrial sources, including secondary sources, and climatic sources. Owens Valley and other area mining activities to the west of the allotment are the primary source of ozone emissions in this area. Grazing management activities do not contribute measurably to ozone emissions.

The Great Basin Air Pollution Control District (APCD) has State air quality jurisdiction over the Great Basin Valleys, and has been delegated authority to implement the Clean Air Act from the EPA. State Implementation Plans have been developed and adopted for the Air Basin (1982, as amended) and two planning areas within this air basin—Owens Valley (1998) and Mammoth Lakes (1991).

Agricultural activity (growing crops or raising animals) is a small contributor to emissions and do not generally require a conformity analysis. No measures were identified in the SIP specific to existing livestock grazing activities except as noted in this paragraph, and renewals of leases were exempted from conformity determinations consistent with the SIP, due to their nominal (less than 15 tons/year) contributions to air pollution. CARB has developed Statewide rules for large confined animal facilities (for cattle, 2,500 to 5,000 head, depending on type of cattle) in confined facilities. The Pahrump Valley Allotment runs significantly fewer head (50 to 150) over a much larger area than the CARB criteria for regulation, and does not include stock yards.

In addition, none of the alternatives would result in substantial increased grazing activities over historic levels, and the project area is within an attainment area. Therefore, there would be no effect to air quality beyond historic levels under any of the grazing alternatives.

2. References

California Air Resources Board. November 16, 2006. Rulemaking to Consider Proposed Amendments to the Area Designations for State Ambient Air Quality Standards, and supporting documentation.

California Air Resources Board. 2005. Staff Report: Initial Statement of Reasons for Rulemaking, Public Hearing to Consider Definition of Large Confined Animal Facilities

U.S. Environmental Protection Agency. 2003. National Air Quality and Emissions Trend

C. AREAS OF CRITICAL ENVIRONMENTAL CONCERN (ACEC)

There are no ACEC, including DWMAs, located within, adjacent, or within the zone of influence of the Pahrump Valley allotment. Therefore grazing alternatives would not impact the relevance or importance of any ACEC.

D. CULTURAL RESOURCES / NATIVE AMERICAN CONCERNS

1. Affected Environment

The BLM conducted a Class II archaeological survey of the Pahrump Valley Allotment in July 2006, pursuant to the Supplemental Programmatic Agreement (see Appendix 1). A record search revealed no previous surveys but two isolated artifacts were recovered from the area, dates unknown. No natural water sources were identified; waterholes have been excavated in the dry lake bed for range use.

A field survey was conducted along the entire existing north boundary fence line, cattle congregation areas, and desert pavements along the shoreline. There were no cultural resources observed. A Determination of Finding was authored which states: "A Class II Inventory did not reveal potentially eligible Historic Properties within the area of potential effect."

Two Native American tribes have interests in the Pahrump Valley allotment.

2.. Consultation

Consultation was initiated in April 2006 with Native Americans on the proposed lease renewal for this allotment. Neither tribe expressed any concerns about the grazing operation.

Consultation was conducted with the California State Historic Preservation Office November 17, 2004 and a schedule was submitted for implementation of the *Supplemental Procedures for Livestock Grazing Permits/Lease Renewals, A Cultural Resource Amendment to The State Protocol Agreement California Bureau of Land Management and the California State Historic Preservation Officer* as it pertains to this and other allotments under review for renewal.

3. References

Supplemental Procedures for Livestock Grazing Permits/Lease Renewals, A Cultural Resource Amendment to The State Protocol Agreement California Bureau of Land Management and the California State Historic Preservation Officer (see Section 5).

Letter to the California State Historic Preservation Office Dated November 17, 2004. The letter outlined strategy and schedule for implementation of the Supplemental Procedures for Livestock Grazing Permits/Lease Renewals.

E. ENVIRONMENTAL JUSTICE

1. Affected Environment

The project area for the purpose of this analysis is rural Inyo County. Individual incomes vary widely in the cattle industry, depending on size of farm and whether activities are pursued on a full-time or part-time basis. Generally, farm incomes are above average as compared with other incomes in rural Inyo County. Overall, seasonal laborers hired by farm industries, including livestock ranchers, come from low-income households. This is typical of rural areas in general as compared with the overall population average income. Minority population participation in the cattle industry is somewhat lower in rural Inyo County than other Counties and farm industries in general in California. Therefore, the proposed action or any alternative would have no affect on environmental justice issues.

2. References

U.S. Department of Agriculture, National Agriculture Statistics Service. 2002. Census of Agriculture, Inyo County, California.

F. FARMLANDS, PRIME OR UNIQUE

None of the alternatives would have an affect on farmlands, prime or unique because no prime or unique farmlands are present in or adjacent to the allotment.

G. FLOOD PLAINS

1. Affected Environment

Although little development potential exists in most of the allotment due to the wilderness designation, approximately the northern two-thirds of the allotment is within the Federal Emergency Management Agency's FIRM 100-year floodplain, based on its potential for wide-area shallow flooding. California DWR Floodplain mapping has not yet been completed for this area. The proposed action or other grazing lease alternatives would have no impacts on floodplains, because they would not result in the advance or infringement of uses, plan growth, fill excavation, buildings, permanent structures, or development into the floodplain which may impede or alter the flow capacity of the area floodplain.

2. References

State of California. 2005. California General Plan, as amended, Appendix C, Floodplain Management. Governors Office of Planning and Research.

H. VEGETATION

1. Affected Environment

Approximately 1/3 of the allotment is a dry lake bed; the lake bed is inundated by steady winter rains during El Nino years and during some summers by occasional heavy showers of short-to-moderate duration. The lakebed perimeter supports nutritious perennial shrubs such as fourwing saltbush (*Atriplex canescens*), white bursage (*Ambrosia dumosa*) and winterfat (*Krascheninnikovia lanata*).

Since the operational waterholes are located within or adjacent to the lake bed, cattle have to move out into the surrounding rangeland to obtain feed. Within the allotment boundaries there is sufficient forage and browse that exists to support the cattle operation for the relatively brief time cattle use the allotment.

Vegetation communities found on the allotment include (see Map 3):

- a series identified in the NEMO Plan as a “saltbush” community. BFO monitoring records indicate that although the vegetation on the allotment identified as “saltbush” does support saltbushes (*Atriplex* spp.), it is not dominated by *Atriplex* species; rather, these areas support a mixture of shrubs that includes a prominent component of winterfat, horsebrush (*Tetradymia* spp.), spiny hopsage (*Grayia spinosa*), and other shrubs common to the creosote bush (*Larrea tridentata*) or creosote bush / white bursage (*Ambrosia dumosa*) communities.
- mesquite bosque, which is found in a few relatively small low and poorly drained areas, dominated by nearly monotypic stands of low growing mesquites (*Prosopis glandulosa* and *P. pubescens*).
- creosote bush mixed scrub, which unlike the “saltbush” community described above, is more typical of “creosote bush scrub” series found throughout the Mojave Desert. This community supports creosote bushes, and varying amounts of white bursage, mormon tea (*Ephedra* spp.), wolfberries (*Lycium* spp.), spiny menodora (*Menodora spinescens*), and grasses such as indian ricegrass (*Achnatherum hymenoides*), and desert needlegrass (*Achnatherum speciosum*).
- desert washes, which bisect the extreme southern end of the allotment. These washes drain into the dry lake. Desert wash vegetation is not unlike that found along the edges of the dry lake; various saltbushes (*Atriplex* spp.) are the most prominent species.

Invasive, Non-Native Species

A few athels (*Tamarix aphylla*) have become established at the waterholes. Although athels are a non-native, athels are not invasive like other trees in the saltcedar family. Throughout the allotment, most prominent non-native annual weeds can be found. These include: red brome (*Bromus madritensis* ssp. *rubens*), downy brome (*Bromus tectorum*), schismus (*Schismus arabicus*), filaree (*Erodium cicutarium*), and several mustard species, including Sahara mustard (*Brassica tournefortii*). The densities of these species is considered light to moderate, however densities of these non-native annuals is a function of both precipitation and the number of weed seeds present in the seed bank. The invasive and non-native species compete with native herbaceous species, especially annual species, for available moisture, nutrients, and spatial occupation of available habitat.

2. Environmental Consequences

a. Impacts of the Proposed Action

The proposed action would extend the season of use currently in place (see Chapter 2). Due to the historically low stocking rates and good cattle distribution the extended season of use is anticipated to nominally increase the overall grazing pressure on perennial forage species. The slight increase in grazing pressure resulting from the minor extension to the season of use is anticipated to conform with the lower utilization threshold (30% v. 40%).

The proposed action is not anticipated to substantially affect invasive species in the allotment due to their low densities and the overall light and intermittent grazing use that occurs in this allotment.

b. Impacts of the No Action Alternative

Grazing would continue under the existing grazing scheme, i.e. cattle released onto the allotment for a few weeks in years when rainfall is sufficient to fill the waterholes. A higher utilization threshold (40% v. 30%) is allowed under the current grazing system, but the cattle do not generally exceed the lower amount of use. As with the proposed action, cattle have been known to drift west to graze the more abundant range forage west of the allotment in the foothills of the Nopah Range. Invasive species densities and spread is relatively unaffected by existing grazing use.

c. Impacts of the Allotment Perimeter Fence Alternative

Under this alternative, the proposed action would be modified so that a western, southern, and eastern allotment boundary perimeter fence would be installed to prevent cattle from drifting off the allotment. Consequently, vegetation within the allotment would be exposed to a slightly higher grazing pressure than under the proposed action or the no action alternative (current management). Because the allotment is not grazed every year, and because the stocking rate is quite low and grazing use typically occurs only 2 months per year if there is sufficient rainfall, vegetation within the allotment would be readily able to absorb the additional grazing pressure.

No loss of vegetation would occur to install the fence as the majority of it would parallel the Old Traction Road or cross dry lake areas nearly devoid of vegetation. Density and spread of invasive, non-native species is not anticipated to substantially change from the elimination of grazing outside this allotment or relatively small increases in utilization within the allotment. A separate, site-specific NEPA analysis of the proposed parameter fence would occur prior to construction. This EA does not analyze the specific on-the-ground fence location.

d. Impacts of the No Grazing Alternative

Cattle would not impact allotment vegetation in the future under the no grazing alternative. Density and spread of invasive, non-native species is not anticipated to substantially change from the elimination of grazing in this allotment.

I. RECREATION

1. Affected Environment

The Pahrump Valley allotment does not lie within a Special Recreation Management Area (SRMA). The surrounding area (especially across the state line at Pahrump, Nevada) of the allotment has seen increased recreational use as the town continues to grow. The northern half of the allotment lies within the Nopah Range Wilderness Area and is therefore closed to vehicle and mechanized use. Some non-motorized use and illicit OHV use occurs in this area, but use levels are generally low except for in the lakebed area. Primary attractions in this part of the allotment include some old abandoned mines in the area that attract members of the public interested in Old West and mining history.

Within or adjacent to the allotment, a number of routes designated as open in the NEMO Routes of Travel Plan (2004) pass through the general area east and south of wilderness. Most recreation activity takes place on or around the Pahrump dry lake (the eastern half of the lake is not wilderness) with moderate levels on the approximately fifteen sections of public land to the south and east of the dry lake. Casual use by individuals and family groups is heavy, especially on the weekends (Shields 2006). The most common recreation activities are equestrian use, shooting, motorcycle and off-highway vehicle (OHV) use, and general motor vehicle touring.

In the Pahrump Valley Allotment, recreational use of the dry lakebed by OHV and wind sailing has increased substantially over the last 20 years, including substantial, unauthorized OHV and wind sailing use within the wilderness portion of the lakebed. The increased use is consistent with substantial population growth in the adjacent City of Pahrump, Nevada.

2. Environmental Consequences

a. Impacts of Proposed Action

The result of recent increased use on the lakebed and surrounding area is that on the weekend the density of OHV on the dry lake bed can be heavy and livestock have the potential to disturb some visitors or create a safety hazard. To date, no complaints have been documented from recreational users. These potential conflicts are only pertinent in the two spring months that livestock graze the allotment, but may increase if recreational use of the lakebed continues its current upward trend. To some extent, the recent

increased conflicts on this part of the allotment are the result of unauthorized motorized recreational use within the Nopah Range Wilderness Area. Approximately half the dry lake bed is located within the wilderness, including all of the livestock waters. They also reflect growing recreational use outside of the wilderness.

The implementation of the proposed action would not change potential conflicts between these uses, but future action may be proposed separately to reduce increasing illicit OHV incursions into the wilderness that would also address the potential conflict between recreational and grazing uses. In addition, if recreational use continues to increase in this part of the allotment, increased herding on the weekends could be required of the lessee.

b. Impacts of the No Action Alternative

The impacts from the no action alternative (current management) on recreation would be similar to those of the proposed action. The elimination of grazing in the northern portion of the allotment for most of the spring would not appreciably change potential grazing-OHV conflicts on the lakebed and other higher use OHV areas south and east of the lakebed.

c. Impacts of the Allotment Perimeter Fence Alternative

The perimeter fence alternative could substantially decrease conflicts between cattle and recreational uses. The allotment boundary fence on the east (state line) would serve as notice to the public heading west from the Pahrump area that the State line is the start of designated wilderness *and* the allotment boundary.

Horse riders accustomed to riding across (from east or west) the allotment through wilderness (or to get to wilderness) would not have to find a different or substantially longer route since standard fence design includes periodic gates with barriers to stop OHVs but still provide access by foot or horses.

There would be access to designated open routes outside of wilderness via cattleguards along the fenceline on the eastern, western and southern portion of the allotment perimeter fence.

d. Impacts of the No Grazing Alternative

Under this alternative, cattle grazing would cease, including in high recreational use areas on the lakebed and further south and east. Potential conflicts between the two uses would be eliminated.

J. SOCIAL AND ECONOMIC VALUES

1. Affected Environment

The project area for the purpose of this analysis is rural Inyo County, California. The Pahrump Valley Allotment is located in eastern Inyo County adjacent to the California/Nevada state line. Under the proposed action, grazing would continue at a stocking rate prior to interim measures (see Table 1 in Chapter 2). The allotment is 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 this allotment to the goods and services of the area is nominal due to the small size of the herd grazing the allotment, the limited area grazed, and the limited time that grazing on the allotment occurs. The use of the allotment benefits the financial needs of the lessee by providing forage for beef cattle during the spring growing season, and contributes to generating income for the lessee through the sale of calves for him to purchase goods and services for his grazing operation and personal household.

2. Environmental Consequences

a. Impacts of the Proposed Action

The increased grazing area (the entire allotment) proposed under this alternative may nominally benefit the lessee by providing increased forage for beef cattle during the spring growing season. Overall this will have no measurable effect on the cattle industry in the region.

b. Impacts of the No Action Alternative

Under this alternative, impacts to regional social and economic values would not appreciably change from the proposed action. The loss of the northern grazing area under the no action alternative is not anticipated to adversely affect the lessee's operation as adequate forage exists in the southern portion of the allotment, the grazing period is limited, and the allotment is not used every year.

c. Impacts of the Perimeter Fence Alternative

Impacts to the economy and the lessee would be similar to the proposed action. For the lessee, the increased cost of fencing and its maintenance would replace the higher herding costs that currently are required to minimize cattle drift off the allotment.

d. Impacts of the No Grazing Alternative

Under the no grazing alternative, impacts to regional social and economic values would be the same as the proposed action. Moderate loss of income by the lessee can be anticipated from the loss of relatively inexpensive and abundant public land forage for beef cattle during the spring growing season. These losses could be offset by gains from the sale of ranching privileges.

K. SOILS

1. Affected Environment

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 Wechsch-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.

Cattle can disrupt soils through hoof shearing and soil compaction, particularly in heavily used congregation areas. In addition, at least two species of biological soils crusts (BSC), cyanobacteria and gelatinous lichen, have been identified on the allotment. In general, BSC, including cyanobacteria and cyanolichen, weave through the top few millimeters of soil and aid in holding loose soil particles together forming a biological crust which stabilizes and protects soil surfaces. The biological crusts aid moisture retention, “fix” nitrogen, and may discourage the growth of annual weeds. Below the surface, the soil flora grows various rhizomes, hyphae, and filaments that further bind the soil together. Most biological crust organisms make their growth during cool moist conditions.

Within grazing allotments, grazing by cattle can affect biological crusts (Brotherson *et al.* 1983, Memott *et al.* 1998). West (1990) reviewed the literature on tolerance of biological soil crusts to impacts, including grazing. The crust’s responses to disturbances varied, depending on crust composition, local geomorphology, soil moisture, season of grazing, and amount of compaction and soil movement from grazing animals hooves.

Most potentially affected soils and BSC in the Pahrump Valley Allotment would be in the northern two thirds of the allotment rather than the lakebed, due to the level of OHV disturbance on and immediately adjacent to the lakebed. However, rangeland health analyses using current assessment tools have not yet been conducted on the allotment. An element of the future scheduled rangeland health assessment would be to determine erosion risk at congregation areas and the relative abundance and locations of BSC.

2. Environmental Consequences

a. Impacts of the Proposed Action

The Pahrump Valley Allotment has been seasonally grazed for decades. Continued light grazing and associated hoof action to soils and BSC is not anticipated to produce additional changes in soil texture or the abundance or species diversity of the biological crusts in the allotment.

b. Impacts of the No Action Alternative

The changes in grazing management based on the interim measures (i.e., restriction of grazing to the northern portion of the allotment) would have had a moderate, beneficial effects to soils and nominal beneficial effect to BSC, if present. Continued elimination of grazing would discontinue soil compaction near the Cow Pond and on cattle trails in this part of the allotment. These soils would return to pre-grazing conditions, and depending on type, could reduce localized erosion potential.

This alternative could also produce moderate increases in the abundance and diversity of biological crusts, over the long-term in the northern two-thirds of the allotment. Increased use of the southern portion of the allotment could result in moderate decreases in the abundance and diversity of biological crusts in areas that are not already substantially disturbed by OHV, over the long-term. The relative changes in BSC within the grazing allotment would only be discovered by monitoring, but is not anticipated to be substantial given current light grazing levels.

c. Impacts of the Perimeter Fence Alternative

The changes in grazing management based on the fencing of the allotment (i.e., elimination of cattle drift off of the allotment) could have beneficial effects to wilderness soils west of the allotment boundary. Elimination of grazing in this area could also produce increased abundance and diversity of biological crusts, over the long-term. The relative changes in BSC outside of the grazing allotment would only be discovered by monitoring, but is not anticipated to be substantial given current light grazing levels.

d. Impacts of the No Grazing Alternative

The elimination of cattle grazing in this allotment could have beneficial effects to soils and BSC within and adjacent to the allotment due to decreased compaction and erosion potential of soils and increased abundance and diversity of biological crusts, over the long-term. The relative changes in soils and BSC from elimination of grazing would only be discovered by monitoring, but are not anticipated to be substantial given current light grazing levels.

3. References

Belnap, J and O. L. Lange. 2003. *Biological Soil Crusts: Structure, Function and Management*. Springer, New York

Chavez, Remijio. 2006. Personal communication. Rangeland Management Specialist. U.S. Bureau of Land Management. Barstow Field Office. Barstow, California.

Northern and Eastern Mojave Plan/Final Environmental Impact Statement. 2002. U.S. Bureau of Land Management. Barstow Field Office. Barstow, California.

L. WASTE, HAZARDOUS OR SOLID

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

Use of agricultural solid wastes, including manure, is managed pursuant to State and local law under the Resource Conservation and Rehabilitation Act of 1976, as amended (RCRA), implementing regulations (RCRA Subtitle D). California has issued joint California Integrated Waste Management Board/State Water Resources Control Board regulations (Division 2, Title 27). Use of non-hazardous decomposable waste is generally exempt from these regulations. The Regional WQCB may issue waste discharge requirements or reclamation requirements to cover such materials, and has done so for confined animal facilities such as feed lots and poultry farms. Since agricultural solid wastes from free-roaming cattle are not managed by federal or State law, any site-specific impacts associated with free-roaming cattle are addressed in the context of water quality in this analysis.

M. WATER QUALITY, SURFACE OR GROUND WATER

1. Affected Environment

No springs or natural surface water sources for livestock are located within this allotment; therefore there would be no adverse effects to surface water quality. Depth to groundwater is 38-40 feet at the nearest well with historic groundwater data, located at the northern end of Pahrump Valley and the allotment. No wells have been identified in the central portion of the allotment.

Unidentified levels of fecal coliform contamination in and adjacent to the four man-made water holes on the lakebed and the Cow Pond are anticipated from cattle grazing which may percolates through the soils towards the groundwater aquifer. These reservoirs are approximately 1 to 3 feet in depth. Near and beneath dry lakes, water quality is generally not suitable for drinking without treatment because of elevated levels of naturally occurring sodium chloride and sodium sulfate-chloride. In addition, groundwater near the edges of valleys generally contains lower total dissolved solids content than water beneath the central part of the valleys or near dry lakes.

Therefore, the potential impacts to groundwater quality from grazing would be minimal due to light levels of grazing and existing naturally-occurring impairment of water quality beneath the lakebed and along the edge of the valley. Groundwater depth would be unaffected because the ephemeral waterholes are surface collectors and do not draw water from the aquifer.

2. References

California Department of Water Resources. 2003 Update. *California's Groundwater*. Bulletin 118.

California Department of Water Resources, Dept. of Planning and Local Assistance. 2006. Groundwater Data by Township.

N. WETLANDS / RIPARIAN ZONES

There are no wetland/riparian zones on or adjacent to the allotment so there would be no impacts to wetlands or riparian zones..

O. WILD AND SCENIC RIVERS

There are no designated Wild and Scenic Rivers (WSR) at or near the allotment. The Amargosa River within the Amargosa River ACEC has been nominated to receive designation as a Wild and Scenic River. The Amargosa WSR is located within the same groundwater basin as this allotment. However, the distance between the river and the allotment water sources on the Pahrump lakebed is such that cattle grazing on the allotment has no effect on the river or its wild and scenic eligibility. Surface waters from the portion of the allotment that cattle congregate in drains towards the lakebed and Pahrump Valley, away from the Amargosa River.

P. WILDERNESS

1. Affected Environment

Approximately 15,198 acres of the central and northern portions of the allotment are within the Nopah Range Wilderness. The entire wilderness is 72,468 acres, and extends from the Nevada state line on the east, through Pahrump Valley and the Pahrump Valley allotment, to its western boundary west of the Nopah Mountains. The wilderness was established in 1994 by the California Desert Protection Act, and is managed under the provisions of that Act. Prior to 1994, the Wilderness Study Area (WSA) did not extend to the state line but rather stopped at the Old Traction Road.

There is no fence to denote the west grazing allotment boundary within the wilderness, but the Old Traction Road is a readily recognizable boundary for the lessee. The allotment and wilderness boundary on the east is also mostly un-fencing, but periodic monuments or other markers denoting the California/Nevada State boundary identify these boundaries for the lessee. No fences or barriers currently exist to prevent movement of cattle off the allotment. Some open route markers have been installed to guide visitors to and through non-wilderness portions of the dry lakebed and other non-wilderness parts of the allotment on public lands.

In 1990, the California Wilderness Study Area Report documented prohibited uses off of existing routes: “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 allotment/wilderness overlap *has been troublesome for the lessee* (emphasis added).”

2. Environmental Consequences

a. Impacts of the Proposed Action

The proposed action would maintain existing wilderness values, including historic levels of grazing use that were existing when the 1994 California Desert Protection Act was passed. The vegetation within wilderness could benefit by the decreased limit on allowable forage utilization (from 40% to 30%), but historic utilization has not normally exceeded this lower threshold, so any benefits would be nominal.

The cattle use off the allotment has been occurring since before the designation of the Nopah Range Wilderness, is short-term, and does not occur every year. Therefore, no adverse effects have been documented to natural resources within the wilderness. However, it does result in adverse effects to the scenic and related aesthetic values within the allotment portions of the wilderness, during times when cattle are there.

b. Impacts of the No Action Alternative

Impacts are similar to those for the proposed action. The higher utilization level and elimination of grazing from the northern portion of the allotment would not appreciable change impacts to wilderness values, including impacts from drift off the allotment. This alternative would not change the impacts of other uses, including OHV use, on wilderness values.

c. Impacts of the Allotment Perimeter Fence Alternative

The allotment perimeter fencing that would be installed under this alternative would restrict wilderness grazing to the allotment (a legal activity), and prevent wilderness grazing outside the allotment (an unauthorized activity). If the fence were maintained, use of wilderness vegetation outside the allotment would cease. This is considered a nominal benefit to wilderness natural resources due to the intermittent use and low levels of utilization that occurs. However, the presence of a man made fence may distract from the wilderness experience.

d. Impacts of the No Grazing Alternative

The no grazing alternative would eliminate grazing impacts to wilderness and non-wilderness portions of the allotment, and related impacts from grazing off of the allotment in wilderness and in Nevada. The benefits to natural resources are not substantial, but the benefits to scenic and aesthetic values of the Nopah Range wilderness would be.

3. References

Bureau of Land Management. 1990. California Statewide Wilderness Study Report: Part 4, Volume 4, Nopah Range (CDCA-150).

Shields, P. 2006. Personal communication. Law Enforcement Ranger; Barstow Field Office, Shoshone Ranger Station; Shoshone, California.

Q. WILD HORSES AND BURROS

1. Affected Environment

The Pahrump Valley grazing allotment overlaps a small portion of the easternmost extent of the Chicago Valley Herd Management Area (HMA), which generally extends south to north through the Amargosa Valley near Shoshone up into the Amargosa Valley in Nevada, and through the Chicago Valley east of Shoshone up into Stewart Valley in Nevada.

The most recent census was conducted on 26 April 2006, and indicated there were six animals in the Chicago Valley HMA. The maximum management level for this herd is 12 horses. In 1980, there were approximately 24 burros; subsequently none had been found for several years and it was believed they had drifted into the adjoining Nevada Mt. Sterling – Wallace Canyon herd area and been subsequently removed in burro gathers. In recent years several burros have reappeared on the allotment, possibly drifting over from Death Valley National Park. Census estimates have ranged from 0-7 burros in the last five years. Recent burro gathers in the National Park are reducing this number. The most recent census was conducted on 26 April 2006, and indicated there were no burros in the Chicago Valley HMA. The current maximum management level is 0 burros (NEMO, 2002) and any burros found in the future on the allotment would be gathered for adoption by the public.

The Chicago Valley horse herd generally does not travel through the Pahrump Valley allotment portion of the HMA, and has not been spotted in the allotment in recent years. The herd generally travels in Amargosa Valley, between Death Valley Junction where they are regularly fed by a local resident, past an artesian spring in the center of Franklin Playa, below Eagle Mountain, and then south of Old Meadows Road or into the eastern Nevada portion of Amargosa Valley for forage.

Therefore, there are no impacts from cattle grazing or any alternative to the wild horse herd because they do not feed in the Pahrump Valley allotment.

R. WILDLIFE

Wildlife habitat varies greatly in quality on this allotment. Although the man-made waterholes on the lakebed provide water when they are full, this benefit is ephemeral at best. Otherwise, the dry lake and the areas immediately adjacent to the waterholes is nearly devoid of useful wildlife habitat. Upland habitat away from the lakebed and valley areas is more typical of that found throughout the Mojave Desert.

Common Animals

Common species of animals found in most vegetation communities within the allotment (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*).

Threatened and Endangered Species

The desert tortoise (*Gopherus agassizii*) is widely distributed across the California desert and is known to occur on the allotment. Most of the upland (non-dry lake) portions of the allotment are suitable habitat for the desert tortoise. Field surveys have been conducted throughout the California Desert since the desert tortoise was listed. NEMO Plan maps indicate that the desert tortoise is present on the allotment at relatively low densities. There is also suitable habitat for and it is likely that the BLM-sensitive burrowing owl (*Athene cunicularia hypugea*) is also present. The man-made ephemeral water holes lack the riparian habitat necessary to provide good forage and cover for many sensitive wildlife and no other threatened, endangered, or BLM-sensitive wildlife species are known or suspected to occur on the portions of the allotment utilized by cattle.

The desert 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 Bureau categorized desert tortoise habitat into three categories named I, II, and III (BLM and CDFG 1992). The U.S. Fish and Wildlife Service designated critical habitat for the desert tortoise in 1994. The categories are placed in only two categories by NEMO Plan; habitat inside a DWMA and habitat outside a DWMA. The allotment lies entirely within non-DWMA habitat.

The Bureau entered into a Settlement Agreement with several environmental organizations in 2002 pending the adoption of additional CDCA Plan strategies for desert tortoise. This agreement set aside approximately the northern two-thirds of the allotment as a cattle exclusion area for the desert tortoise. Cattle have not been authorized to graze

in this exclusion area from March 1 through June 7 each year. The agreement was to be terminated upon adoption of all of the bioregional plans for the CDCA. The last plan was adopted in March, 2006.

2. Environmental Consequences

a. Impacts of the Proposed Action

Common Animals

Most wildlife species are mobile and can avoid being trampled by cattle. Therefore, impacts to wildlife on the allotment would be indirect, by modifying habitat. Cattle modify habitat by disrupting soils and damaging vegetation. Soils are impacted through hoof shearing and by soil compaction. Vegetation can be damaged or destroyed by cattle if trampled, overgrazed, or pulled out of the ground outright. These impacts would be concentrated at cattle congregation areas, such as near the waterholes on Pahrump dry lake, at Cow Pond, and to a lesser extent along regularly used cattle trails. As such, any noticeable impacts, if any to common animals would be localized.

The Pahrump lakebed already receives substantial disturbance from other uses, so localized grazing effects would be more likely at Cow Pond and any established cattle trails to Cow Pond or the Nopah foothills. Overall impacts to wildlife habitat are negligible in the allotment due to light and intermittent grazing use.

Threatened and Endangered Species

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 (Boarman 2002).

Under the proposed action livestock grazing on this allotment would be confined to a two-month period (February-April) in the late winter and early spring. Desert tortoises emerge from winter senescence during at this time of year. Livestock grazing on this allotment is entirely dependent on whether the waterholes contain water at the time of the February turnout. Therefore, desert tortoises are only exposed to cattle impacts during the (infrequent) years when cattle are present. In years when cattle are present sufficient precipitation has filled the reservoirs and plant growth is abundant. Duration of exposure depends on the amount of time desert tortoises are above ground during the February-April grazing period, which, in turn, is dependent on how warm the weather is when cattle are present.

Potential effects of cattle grazing on the desert tortoise under the proposed action are trampling of desert tortoises above-ground or in their burrows, removal of or competition for forage, and the eventual replacement of native forage with species that are less palatable and nutritious and which have the capability of carrying wildfires. These impacts are unlikely due to the season of use, infrequent allotment use, good cattle

distribution, and light stocking rates. Burrowing owls can readily avoid cattle when foraging, but would also be at risk in their burrows, particularly if located along cattle trails. Direct impacts to adult desert tortoise from trampling are unlikely as cattle generally avoid objects of their size. The same cannot be said for sub-adult or neonate desert tortoises because they are so small and may be concealed by vegetation. The greatest hazard would be along cattle trails to and from the Nopah Range foothills.

b. Impacts of the No Action Alternative

Common Animals

The slightly higher forage utilization rate and exclusion of cattle from the northern two-thirds of the allotment would result in similar nominal impacts to common wildlife as the proposed action.

Threatened and Endangered Species

Under this alternative, desert tortoise and burrowing owl exposure to potential impacts from cattle grazing would not occur in the exclusion area and would be nominal in the rest of the allotment similar to the proposed action

c. Impacts of the Allotment Perimeter Fence Alternative

Common Animals

The fencing of the allotment would result in similar nominal impacts to common wildlife as the proposed action within and off the allotment.

Threatened and Endangered Species

The impacts to desert tortoise and burrowing owls would be similar to the proposed action and no action alternative.

d. Impacts of the No Grazing Alternative

There would be no direct impacts to common animals, burrowing owl, or the desert tortoises from grazing if cattle no longer graze the allotment, and indirect impacts from the loss of the ephemeral ponds, if there is any, would be nominal and would occur over a long period of time as the ponds gradually silt in.

CHAPTER 4: CUMULATIVE EFFECTS

Bureau of Land Management regulations implementing NEPA require that the cumulative impacts of a proposed action be assessed. CEQ regulations implementing the procedural provisions of NEPA define cumulative effects as: "The impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions." (40 CFR 1507)

This cumulative analysis tiers off of the Cumulative Analysis found in the Northern and Eastern Mojave (NEMO) Proposed Plan/Final Environmental Impact Statement (March 2002) for Eastern San Bernardino, Inyo, and southeastern Mono Counties and adjacent areas. The cumulative analysis in this document therefore does the following:

- Briefly summarizes the NEMO cumulative analysis as it relates to grazing issues and impacts;
- Discusses resource-specific cumulative effects within the Pahrump Valley grazing allotment, considering activities other than grazing specifically affecting the Pahrump Valley grazing allotment along with grazing impacts in the allotment; and
- Focuses on regional cumulative effects based on impacts from grazing specifically occurring within the Pahrump Valley grazing allotment that may contribute to regional cumulative effects on affected resources.

If there has been no change in the previous analysis the conclusions of the previous document are briefly summarized and the reader is referred to the Northern and Eastern Mojave Proposed Plan/FEIS for more detail.

a. Summary of Northern and Eastern Mojave Plan Cumulative Analysis

The Northern and Eastern Mojave Plan/FEIS described the current environment of the planning area as having been broadly influenced by past activities occurring prior to and including the passage of FLPMA in 1976. The primary of these past activities affected overall resource protection, use, development, and growth in the region. These included historic development and maintenance of major linear rights-of-way for freeways and highways, railroads, and linear utilities connecting Southern California metropolitan areas to cities in the adjacent States of Nevada and Arizona, and the development, adoption, and implementation of the California Desert Conservation Area Plan in 1980. In addition, historic and continuing growth of communities in the region, particularly Las Vegas and Pahrump, Nevada, and historic land tenure activities associated with building of the railroads and early mining have also broadly influenced development and land uses in the area.

The current situation is also largely the result of passage or implementation of several laws since the CDCA Plan in 1980. These include implementation activities under the California and Federal Endangered Species Acts for listed species in the region, designation of BLM wilderness areas as a result of the California Desert Protection Act of 1994, and the transfer of lands from BLM management as a result of the California Desert Protection Act of 1994, the Timbisha Shoshone Homeland Act (P.L. 106-423), and the Fort Irwin National Training Center expansion legislation (P.L. 106-554). All of

these activities are broad enough in scope that they include cumulative impacts relevant to grazing, either directly or indirectly.

In addition, six CDCA regional plan amendments that were approved or under preparation, including the NEMO Plan, are key determinants of environmental conditions to address cumulative effects. For example, the Northern and Eastern Mojave Plan FEIS specifically recognized the cumulative conservation benefits of past actions by Congress in setting aside large areas within the CDCA for parkland, non-surface disturbing military use, and wilderness. The FEIS also recognized the benefits derived from designation by US Fish and Wildlife Service of millions of acres of critical habitat in the CDCA and identified benefits resulting from the implementation by BLM of regional land-tenure adjustment strategies for conservation of wilderness and desert tortoise habitat.

The most significant overall regional cumulative impact within the NEMO planning area is the limit on development that results from two sources. The CDPA resulted in 50% of the original NEMO planning area being designated as wilderness, wilderness study area, or upgraded to parkland. In addition, the NEMO Plan limits surface disturbance to one percent over another approximately 10% of the planning area for protection of desert tortoise and its habitat in DWMA. These changes affect cumulative impacts of all resources, values, and uses in the planning area and the region to some extent. In addition, cumulative effects for the following resources and activities/uses are identified in the Northern and Eastern Mojave Plan FEIS that affect or are affected by grazing in the Pahrump Valley grazing allotment: vegetation and wildlife, soils, recreational use, wilderness, vehicle access, socioeconomic resources, and rangeland health and grazing management.

In addition to the significant benefits to wildlife and its habitat from the elimination of loss of habitat and species from development within wilderness and parklands, wildlife and vegetation resources have cumulatively benefited from the adoption of areas and associated management strategies and actions for protection of common, listed, and sensitive species and their habitat, including sensitive riparian communities. These were approved in six BLM or Interagency bioregional plans in the CDCA, in the adjacent Las Vegas RMP and HCP, and in National Park Plans in the CDCA. In the NEMO planning area, the cumulative benefits to wildlife and vegetation from actions approved in these planning efforts include:

- the elimination of loss of habitat and species, including listed and sensitive species, from development limits in DWMA, as identified above,
- the elimination of loss of species and habitat from a deleted competitive OHV corridor, including through critical desert tortoise habitat,
- the elimination of potential plant and wildlife habitat loss from a mineral withdrawal approved for critical habitat of listed plants,
- the elimination of loss of habitat and species, as well as potential forage competition with desert tortoise from approval of voluntary relinquishment for most NEMO planning area grazing allotments and deletion of the only Wild Burro Herd Management Area in the planning area,

- elimination of the ephemeral grazing allotments and potential ephemeral grazing authorizations from desert tortoise habitat within and adjacent to DWMA,
- reduction in potential habitat and small mammal loss from vehicles by adoption of public route networks, with approximately 10 percent fewer miles of vehicular routes overall and 20 percent fewer in sensitive wildlife and plant habitat in the planning area,
- multiple actions that promote listed and special status species and their habitat, and sensitive vegetative communities, in adopted or expanded ACEC management plans, including 5 in the NEMO planning area, and
- wild and scenic river eligibility findings for sensitive riverine and riparian systems, including one in the NEMO planning area.

Most of the actions identified above also benefit soils, biological soil crusts (BSC), and wilderness values. Reduced loss of topsoil, reduced erosion potential, and preservation of sensitive BSC are direct results of less development and mineral withdrawal. The same soil benefits would result from elimination of the competitive OHV corridor, relinquishment of allotments, deletion of the wild burro herd management area, rehabilitation of closed routes, elimination of ephemeral grazing in some areas and limits on it in others, and some ACEC management actions. BSC benefits from these actions would also occur to the extent these areas are not currently substantially disturbed.

Benefits to wilderness naturalness would occur from the elimination of potential impacts from use and straying from the adjacent competitive OHV corridor, natural resource and scenic improvements from elimination of cattle and burros in wilderness or where animals can drift into wilderness, and reducing vehicular access to and associated straying within wilderness.

Most cumulative benefits to recreational activities and socioeconomics from the bioregional plan actions identified above are indirect and long-term, probably beyond the reasonably foreseeable future. Substantial benefits to non-motorized recreationists occur from increased opportunities for backcountry hiking and camping, although some of these areas are less accessible. In addition, some benefits accrue from a clearly defined and mapped recreational regional route network, from enhancement of parklands and special management areas (ACEC) including hiking-trail networks, and the associated economic growth that accompanies these areas when they are focal points for tourism.

The FEIS for the NEMO Plan also acknowledged cumulative adverse impacts to plants and vegetation communities, to wildlife and their habitats, to soils, erosion potential, and BSC, to wilderness values, and to recreational activities. Wildlife and vegetation resources have been cumulatively impacted from past and current desert tortoise and other listed species loss in incidental take areas on public and private lands due to urban-growth. Urban-interface conflicts and associated growth of recreational use have resulted in surface disturbances and loss of associated vegetation, wildlife and habitat in these areas, including for listed and sensitive species.

Loss of wildlife and vegetation of all types has also occurred due to heavy OHV use within Open Areas and to a lesser extent, on almost all existing vehicular routes. Some freeways and very busy highways are now fenced to reduce this impact. In addition, common wildlife and habitat of all types, in addition to substantial listed plant areas and critical desert tortoise habitat were lost due to the Fort Irwin National Training Center expansion legislation. Except for urban expansion in Nevada, and urban-interface issues in Nevada communities near the State line, these impacts are primarily occurring and affecting areas outside the NEMO planning area.

The impacts identified above for wildlife and vegetation also adversely affect soils, biological soil crusts (BSC), and wilderness values. Urban growth, urban-interface issues, and heavy OHV use within OHV areas have resulted in loss of topsoil, increased erosion potential, loss of sensitive BSC, and have created increased vehicular use and associated straying within nearby wilderness areas. Continued use of unpaved routes within the vehicle route network has also resulted in soil compaction and increased erosion potential. A program to improve more heavily used roads, such as access roads to OHV areas and to new housing developments is being implemented to reduce this problem somewhat. In addition, current and future substantial topsoil losses, increased erosion potential, and loss of BSC is anticipated within Fort Irwin National Training Center expansion area. The Fort Irwin expansion also eliminated potentially eligible wilderness study areas from further consideration for wilderness designation.

Cumulative adverse effects to recreation activities are significant, and are from some of the same actions that benefit natural resources. The primary impact is from the reduction in the vehicular route network from wilderness designations, the Fort Irwin expansion, and route designation in the NEMO and other bioregional planning areas. The majority of recreational activities, including vehicle touring, hunting, camping, hiking, rock-hounding, horse riding, and visiting destinations on public lands, are either directly or indirectly dependent on vehicular access. Deletion of the competitive OHV corridor was not considered a substantial adverse effect, because no event had been permitted within the corridor since the listing of the desert tortoise as threatened in 1990, and none was likely to be permitted in the reasonably foreseeable future for the same reason.

Cumulative adverse effects to socioeconomics are also the result of some of the same actions that benefited natural resources. The primary economic impact is from the loss of development potential, including mineral development and within parklands, wilderness areas and mineral withdrawal areas, and the limitation on development within DWMA. Small economic losses to rural communities could occur from the elimination of competitive OHV events and the loss of some recreation opportunities, but these are being offset by urban growth and development in the region, as well as some increased use and tourism to other rural recreational destinations. Economic losses from voluntary relinquishments have been offset by substantial financial gain from the sale of grazing privileges. The social and cultural losses, on the other hand, have been substantial in the region from the elimination of rural areas and rural lifestyles, including ranching.

The cumulative analysis will now focus on whether and how the adoption of the Proposed Action would modify the regional cumulative effects of the NEMO Plan with

respect to the resources and uses discussed above that the proposed action may affect, or further clarify cumulative effects within the Pahrump Valley allotment for any resources affected by grazing and associated rangeland management.

b. Past, Present, and Reasonably Foreseeable Actions affecting the Pahrump Allotment Grazing Allotment

One of the CDCA Plan (1980) decisions included designations of allotments and associated levels of AUM (numbers of animals). The Pahrump Valley Cattle Allotment was one of the allotments designated in the CDCA Plan, and a subsequent allotment management plan was written for the allotment to manage livestock and use of resources associated with grazing.

All allotments and associated animal numbers were reviewed in the Northern and Eastern Mojave Plan (2002) and other bioregional plans in Southern California and Nevada, and in some cases, boundaries or uses were modified or eliminated, or AUM were adjusted. With respect to the Pahrump Valley Allotment, boundaries and perennial AUM were not changed, and remained as identified in the CDCA Plan of 1980.

The NEMO Proposed Plan FEIS addressed other resource values, activities and uses that established the baseline condition of the planning area and are relevant to cumulative impacts to grazing use and rangelands in the Pahrump allotment:

- designation and management of wilderness areas, including the Nopah Range wilderness covering almost two-thirds of the allotment;
- adoption of a regional vehicle access network on public lands was approved in the NEMO FEIS and completed for routes in the allotment in a subsequent plan amendment;
- urban-interface issues from nearby Pahrump, Nevada, and
- temporary closures of allotments due to lawsuit settlement, including the northern half of the Pahrump Valley allotment; and
- livestock management and associated grazing stipulations for the allotment.

Activities not specifically discussed in the cumulative effects analysis in the Northern and Eastern Mojave Plan also have the potential to add to cumulative impacts for one or more resources being affected by grazing or range management in the Pahrump Valley Grazing Allotment. These include:

- Termination of Closures or Exclusions pursuant to Lawsuit--These terminated with the signing of the last bioregional plan, the West Mojave Plan in March, 2006.
- Historic and Current Recreational Use of the Pahrump lakebed, and associated wilderness boundary management issues.

Within the Pahrump Valley allotment, several of these actions benefit natural resource values that are potentially affected by rangeland management or grazing activities as identified in the NEMO cumulative analysis of the previous section (4.a). The amount of wilderness is actually greater than in the planning area overall. All of the benefits to rangeland condition (i.e., wildlife, vegetation, soils, BSC) from elimination of

development and routes within wilderness would apply to the majority of the Nopah Range wilderness portions of the Pahrump Valley allotment. Therefore, the designation of the Nopah Range wilderness has prevented further deterioration of rangeland condition from other activities, and, over the long-term, will improve rangeland condition.

There are portions of the wilderness adjacent to the lakebed, that have a substantial level of illicit OHV use, and therefore rangeland condition is not likely to substantially benefit from wilderness designation in the reasonably foreseeable future unless additional effective strategies can be identified. Since chemical composition and natural wind erosion also prevent substantial rangeland condition change on the lakebed, the adverse effects to rangelands from illicit OHV use in wilderness portions of the lakebed are limited. Increased soil compaction on the lakebed may adversely affect rangelands indirectly through decreased natural water percolation rates into the aquifer. Off of the lakebed, rangeland conditions, particularly in washes, may be adversely affected. Developing effective strategies to stop illicit OHV use is more difficult because of where the wilderness boundary is—through the middle of the lakebed instead of at a defined landmark adjacent to it, and within 2 miles of the Stateline and the outskirts of fast-growing Pahrump, Nevada. Frequent patrols of the area limit but do not eliminate illicit use in the wilderness both on and off the lakebed.

The benefits from management actions in special areas designated for protection of listed and sensitive species and sensitive vegetation communities, the elimination of various competitive OHV corridors, and wild and scenic river eligibility determinations in the bioregional planning areas do not provide beneficial effects to rangelands or grazing within the Pahrump Valley allotment. Nor are there adverse effects from any of these areas in this allotment, since there are none of these areas nearby.

However, the general stipulations for management of desert tortoise habitat, and subsequently developed stipulations for route management in desert tortoise habitat outside of allotments may benefit rangeland conditions in the Pahrump Valley allotment somewhat. Authorization for ephemeral forage (annual grasses and forbs) in non-DWMA desert tortoise habitat shall occur when 230 pounds or more by air-dry weight per acre of ephemeral forage is available. Construction and maintenance of range improvements in desert tortoise habitat are limited to existing and proposed facilities listed in this plan and as detailed in biological opinions 1-6-92-F-17 and 1-8-94-f-17.

Although the Chicago Valley Herd Management Area overlaps a portion of this allotment, the elimination of burros and reduction in maximum number of horses in that HMA to 12 would not substantially benefit rangeland condition in the allotment. Animals from the Chicago Valley herd have not been seen in the allotment in recent years and there are major geographical barriers preventing them from using the eastern part of the HMA.

There would also be no substantial cumulative effect to grazing use and management in the Pahrump Valley Allotment. Restrictions on use of motor vehicles, equipment and development of new range improvements in wilderness have not had substantial effects

on this lessee's operations. Changes in standards and guidelines would not affect grazing in this allotment because no natural water sources have been identified, and therefore cattle use is not affecting them. Limits on ephemeral forage based on amount of forage present also are not anticipated to affect this allotment or lessee, as he has historically turned cattle out in the Pahrump Valley allotment only when forage levels are very high.

c. Cumulative Effects of Rangeland Management and Grazing in a Regional Context

Approximately 3 million acres of public lands were approved for perennial grazing in the California Desert Conservation Area (CDCA) Plan of 1980, primarily for cattle, with a cumulative approved stocking rate of almost 100,000 AUM. Another 2 million acres of public lands were approved for ephemeral use, based on forage availability each year, primarily for cattle or sheep. In addition, approximately 27,000 AUM were approved for foraging of wild horses and burros over some areas of existing wild horse and burro range. Substantial portions of wild horse and burro range overlapped domestic livestock allotments. Many wildlife and domestic species are drawn to similar areas for foraging—mid-elevation lands with adequate water sources nearby. Often the most productive of these lands have very localized weather patterns due to nearby topographic features.

As a result of this overlapping use, the overall amounts of rangeland and AUM for both domestic livestock and wild horses and burros have been sharply reduced because of the listing of the desert tortoise as threatened, the passage of the California Desert Protection Act, and other factors resulting in loss of forage lands. These reductions continued a trend established in the CDCA Plan which redistributed and reduced overall available forage use in the CDCA by approximately 15 percent, based on competing forage needs for wildlife, providing for other multiple uses or development, and reducing potential for overgrazing in fragile desert ecosystems, particularly during periodic drought cycles.

Since the CDCA Plan was adopted in 1980, the amount of available acreage and forage for domestic grazing in the CDCA has been reduced by approximately one-third, with associated reduction in AUM, primarily through relinquishment or abandonment of allotments in critical desert tortoise habitat or DWMA. Several ephemeral allotments have been eliminated based on similar criteria, including all ephemeral cattle and domestic sheep allotments in DWMA. Additionally, wild burro numbers have been reduced, due to aggressive gathers to eliminate them in parklands and within or immediately adjacent to critical habitat for desert tortoise or plants.

In the reasonably foreseeable future, voluntary relinquishments could eliminate over half of the remaining domestic grazing allotments due to their potential effects on forage availability to the federally listed desert tortoise.

Remaining domestic grazing allotments have standards they must meet and additional forage thresholds prior to turnout. Failure to meet those standards may result in reduced capacity and associated further reductions in approved grazing levels. Long-term, this

mechanism is anticipated to result in improvement of range condition on remaining rangelands. Therefore, overall regional trend in rangeland health from past, present and reasonably foreseeable actions related to grazing use and rangeland management are upward in the CDCA.

The changes in management of the Pahrump Valley allotment are not anticipated to contribute to the regional trends in grazing use or rangelands in a substantial way. This allotment is not located in critical habitat so is not affected by regional downward trends in use and does not substantially offset those trends. The AUM of the allotment is limited due to the allotment's seasonal use during intermittent years, making its contribution to overall potential to affect rangeland health relatively small.

d. Summary of Cumulative Effects

This environmental assessment concludes that no significant impact would result from the proposed grazing permit renewal or renewal alternatives. Impacts to the following critical resources and other resource uses and values of the human environment are minimal, as described below:

- 1) No Areas of Critical Environmental Concern (ACEC) are located within or affected by the proposed action or alternatives, and therefore no alternative is anticipated to affect cumulative impacts to ACEC.
- 2) Specific Native American values within this allotment have not been identified by tribes as an issue during consultation, and therefore no alternative would affect cumulative impacts to Native American values.
- 3) Minority or low-income populations are not disproportionately found in the cattle grazing industry in Southern California and Nevada. Therefore, Environmental Justice issues are not affected by the proposed action or alternatives, and no cumulative impacts to Environmental Justice are anticipated.
- 4) Prime or unique farmlands are not present within the allotment and groundwater use is not proposed under any alternative; therefore, no alternative is anticipated to affect cumulative impacts to prime or unique farmlands.
- 5) According to USGS, the entire Pahrump Valley is a 100-year floodplain; however, it is not anticipated to be affected by the intermittent, light grazing use in this allotment, which does not include permanent structures or changes in the regional drainage patterns. Therefore, no alternative is anticipated to affect cumulative impacts to floodplains.
- 6) Hazardous or solid wastes are not present, based on federal and State regulations that define those wastes. Therefore, cumulative impacts to hazardous and solid wastes are not anticipated.
- 7) Wild and scenic rivers are not located within or affected by the proposed action or alternatives, and therefore no alternative is anticipated to affect cumulative impacts to wild and scenic rivers.
- 8) Threatened and endangered species are located within the allotment. The federally threatened desert tortoise is known to be present in low densities throughout most of the allotment. Grazing in the Pahrump Valley allotment has modest impacts to the desert tortoise, based on low stocking rates, limited season

- of use, and intermittent use that occurs during higher forage years. In addition, cumulative contributions from grazing are insubstantial as compared to other effects that contribute to cumulative benefits to desert tortoise, including positive strategies identified in the Northern and Eastern Mojave Plan and other bioregional plans for rangeland management within DWMA and overall regional trends towards reduced use of rangelands for domestic livestock and wild burros.
- 9) Wild horses and burros are not known to be located within and are not affected by the proposed action or alternatives; therefore, no alternative is anticipated to affect cumulative impacts to wild horses and burros.
 - 10) Air quality impacts are not contributing to air quality exceedances under any alternatives and are consistent with the State Implementation Plan (that is, do not exceed de minimus levels identified for criteria pollutants). Grazing contributions to surface disturbances and other air quality factors continue to decrease as wild and domestic grazing animals decrease in numbers and seasons of use in the allotment and throughout the west. Therefore, no alternative is anticipated to affect cumulative impacts to regional air quality.
 - 11) Wilderness values are not substantially adversely affected by any alternative. No waters or other range improvements are located within wilderness and Congress found wilderness management consistent with cattle management at the time that it designated the wilderness areas that overlap the Pahrump Valley Allotment. Some loss of scenic and aesthetic wilderness values occurs in areas adjacent to the allotment; however, cumulative impacts from grazing are not anticipated to be substantial to wilderness values given the historic nature of use. Under some alternatives there would be a modest decrease in impacts, but these would not be substantial on a cumulative basis given the relatively small contribution of grazing to wilderness impacts.
 - 12) Recreational use would not be substantially adversely affected by grazing activities because grazing activities have not affected overall recreational opportunities, impacts from viewing cattle or horses, and associated structures are subjective, and any past, present and reasonably foreseeable cumulative effects from the proposed action on recreation would be nominal.
 - 13) Grazing use and rangeland management would be only nominally affected by changes proposed in the Pahrump Valley allotment under the proposed action and other action alternatives. The no grazing alternative, while resulting in only a modest decrease in rangeland use for domestic wildlife, does contribute to already significant regional decreases in available federal forage lands for domestic wildlife use in Southern California.
 - 14) Past and present grazing practices are one of several activities that have negatively impacted native plant communities within grazing allotments in southern California, including within the Pahrump Valley allotment. Other activities, such as fires, casual use and development and construction activities that occur adjacent on or adjacent to public land also contribute to the degradation of native plant communities. These impacts have been partially offset by limits on surface disturbances within DWMA and an aggressive invasive species management and native community reestablishment program that has been pursued throughout southern California over the last 20 years. Overall,

cumulative impacts from grazing use in the Pahrump allotment is not considered substantial, based on its limited extent and these mitigating factors that have moderated overall cumulative effects of invasive species spread.

- 15) Most known cultural sites that have been adversely affected are as a result of either natural weathering or vandalism. Due to the overall inaccessibility of much of the Pahrump Valley allotment, effects to cultural resources from these activities have been limited. Where livestock are dispersed or in rock areas without sufficient feed, impacts would be restricted to surface displacement and impacts from grazing are anticipated to be minimal. Therefore, no alternative is anticipated to affect cumulative impacts to regional cultural resource impacts.
- 16) No perennial water sources or springs are known to occur in the Pahrump Valley allotment and therefore no natural sources have been identified for use by grazing cattle. Man-made water sources are concentrated on the Pahrump lakebed, where ground water quality is poor due to naturally occurring conditions. Therefore, impacts to water quality from grazing on this allotment are nominal, and would therefore not contribute to regional cumulative effects to water quality.
- 17) Wetlands or riparian areas have not been identified in or adjacent to the Pahrump Valley allotment; therefore, no alternative is anticipated to affect cumulative impacts to wetlands or riparian resources.

CHAPTER 5: CONSULTATION AND COORDINATION

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B. Consultation

Affected grazing lessees and interested publics.